816 244B

File: 660.22A
S.E.

ADMINISTRATIVE RECORD COVER SHEET

AR File Number 816

Part II of II

APPENDIX A2

SAMPLE COLLECTION LOGS

APPENDIX A2

OPERABLE UNIT 6
SAMPLE COLLECTION LOGS

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/12/05 TIME 0900
SAMPLING POINT: TB-071205
DEPTH NA

SAMPLE INFORMATION SAMPLE I.D. NO.: TB-071205

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	2	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
VOA VIAL	40 ml	2	Cool to 4°C	CO_2 by RSK-175

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Sunny AIR TEMPERATURE 78F

SAMPLES SHIPPED TO: Columbia Analytical Services - California
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Daniel Howard SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/12/05 TIME 1155
SAMPLING POINT: AEHA-18A
DEPTH 10.5'

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-18A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Humid / Cloudy AIR TEMPERATURE ~75°

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: BAV SAMPLING OBSERVED BY: DK
DISCREPANCIES: N/A

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/12/05 TIME 12:00
SAMPLING POINT: AEHA-18B
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-18B-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~4.5 gal purged.

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
water clear & colorless no odor

GENERAL INFORMATION WEATHER hot & humid mostly sunny AIR TEMPERATURE ~80-85°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Darrell Knaul SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7-12-05 TIME 1500
SAMPLING POINT: AEHA-25B
DEPTH DEDICATED PUMP

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-25B-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 mL	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 and Anions (NO_3, SO_4, Cl) by E300.0
Poly	500 mL	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A, 6020
VOA VIAL	20 ml	1	None ***Do Not Cool***	Hydrogen by AM 20
Amber Glass	250 ml	1	H_3PO_4 to pH <2;Cool to 4°C	Volatile Fatty Acids by D1552

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL VOLUME PURGED ≈ 7.5 GALLONS, COLORLESS, ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL VOLUME PURGED ≈ 7.5 GALLONS, COLORLESS, ODORLESS

GENERAL INFORMATION WEATHER HOT, HUMID, LIGHT RAIN AIR TEMPERATURE 95-100°F

SAMPLES SHIPPED TO: Columbia Analytical Services - California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA

SAMPLE COLLECTED BY: TED WITTEMANN SAMPLING OBSERVED BY: TERRELL PARKER
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7-12-05 TIME ~~1200~~ 1200 (EA)
SAMPLING POINT: AEHA-25B
DEPTH DEDICATED PUMP

SAMPLE INFORMATION SAMPLE I.D. NO.: OU6DUP-4-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL VOLUME PURGED ≈ 7.5 GALLONS, COLORLESS, ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
NO DUP FOR VFA, TOTAL VOLUME PURGED ≈ 7.5 GALLONS COLORLESS ODORLESS

GENERAL INFORMATION WEATHER HOT, HUMID, LIGHT RAIN AIR TEMPERATURE 95-100°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: TED WITTEMANN SAMPLING OBSERVED BY: TERRELL PARKER
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016.
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7-12-05 TIME 15:10 to 17:00
SAMPLING POINT: AEHA-25A
DEPTH Dedicated bladder pump.

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-25A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3 ✓	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3 ✓	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1 ✓	H_2SO_4 to pH<2, Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3 ✓	unpreserved Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1 ✓	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1 ✓	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1 ✓	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1 ✓	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
Sample is very clear, no odor or color.

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Overcast, 30°C AIR TEMPERATURE 30°C

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: T. Parker QSP SAMPLING OBSERVED BY: Ted Wiseman
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/12/05 TIME 1555
SAMPLING POINT: QEHA-5
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: QEHA-5-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
Purged 5.5 gallons

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Cloudy AIR TEMPERATURE 880

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Amy Colley SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/12/05 TIME 1200
SAMPLING POINT: AEHA-5
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: OU6DUP-1-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
5.5 gallons

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Cloudy AIR TEMPERATURE 88°

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Amy Collins SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/12/05 TIME 1630
SAMPLING POINT: AEHA-24A
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-24A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
#6 TOTAL PURGE 4.0 GALLON

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE CLEAR, NO ODOR

GENERAL INFORMATION WEATHER HOT, HUMID AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: [signature] SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 1-12-2005 TIME 1700
SAMPLING POINT: AEHA-24B
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-24B-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
Approx. 5 Gallons total purge Volume

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
Relatively Clear, No odor

GENERAL INFORMATION WEATHER Hot, humid, 90's p.m. Shower AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Luke Clark SAMPLING OBSERVED BY: P.V.
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/13/05 TIME 0830
SAMPLING POINT:
DEPTH NA

SAMPLE INFORMATION SAMPLE I.D. NO.: TB - 071305

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Hot, Sunny AIR TEMPERATURE 80°F

SAMPLES SHIPPED TO: Columbia Analytical Services - California
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: David Howard SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/13/05 TIME 945
SAMPLING POINT: MWA50-37
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MWA50-37-0705 MS/MSD

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	9	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
VOA VIAL	40 ml	3	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
~~Amber~~ Poly	~~1L~~ 500 ml	3	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	3	Cool to 4°C	Alkalinity by E310.1NO_3, SO_4, Cl by E300.0
Poly	~~1L~~ 500ml	3	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
Amber ~~VOA Vial~~	~~40 ml~~ 250 ml	3	H_2SO_4 Cool to 4°C	Volatile Fatty Acids by D1552
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE GALLONS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE CLEAR, SLIGHT ODOR

GENERAL INFORMATION WEATHER HOT & HUMID AIR TEMPERATURE 85-90

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: [signature] SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7-13-05 TIME 10:15
SAMPLING POINT: MWA5D-38
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MWA5D-38-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3 ✓	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3 ✓	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1 ✓	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3 ✓	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1 ✓	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1 ✓	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1 ✓	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
CLEAR (2.8 NTU), NO ODOR OR COLOR.

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Partly cloudy, light breeze AIR TEMPERATURE 33°C

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

7-13-05
SAMPLE COLLECTED BY: Terrell Parker SAMPLING OBSERVED BY:
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/13/05 TIME 1020
SAMPLING POINT: AEHA-15A
DEPTH Dedicated pump

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-15A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Overcast / Humid AIR TEMPERATURE ~70°

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: BAL SAMPLING OBSERVED BY: DC
DISCREPANCIES: N/A

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/13/05 TIME 1040
SAMPLING POINT: ~~AEHA~~-21B
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-21B-0705 MS/MSD

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	9	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	3	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	3	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	3	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	3	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~5 gal ~~removed~~ purged.

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
water clear & colorless

GENERAL INFORMATION WEATHER ~~hot & humid ~85°F~~ AIR TEMPERATURE ~80-85°F → 90°F by end of sampling

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QC

SAMPLE COLLECTED BY: D. Knaul SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7-13-05 TIME 1200
SAMPLING POINT: MW450-36
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MW450-36-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~2 Gallons

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
No odor, Relatively clear.

GENERAL INFORMATION WEATHER Sunny, warm 90°F p.m. storms AIR TEMPERATURE

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Luke Clark SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7-13-05 TIME 1205
SAMPLING POINT: AEHA-26B
DEPTH DEPTH TO WATER IN WELL

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-26B-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			
4.5 gals / clear / No odor			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER P.C. 88°F AIR TEMPERATURE 88°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: BRAD MCDANIEL SAMPLING OBSERVED BY: AMY CALLAWAY
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/13/05 TIME 1250
SAMPLING POINT: AEHA-26A
DEPTH —

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-26A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 mL	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 and Anions (NO_3, SO_4, Cl) by E300.0
Poly	500 mL	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A, 6020
VOA VIAL	20 ml	1	None ***Do Not Cool***	Hydrogen by AM 20
Amber Glass	250 ml	1	H_3PO_4 to pH <2;Cool to 4°C	Volatile Fatty Acids by D1552

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
5.25 gallons purged

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER partly cloudy / humid AIR TEMPERATURE high 80's

SAMPLES SHIPPED TO: Columbia Analytical Services - California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QC

SAMPLE COLLECTED BY: _____ SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7-13-05 TIME 1300
SAMPLING POINT: DMW-7A
DEPTH DEDICATED

SAMPLE INFORMATION SAMPLE I.D. NO.: DMW-7A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈ 9.5 GALLONS PURGED, COLORLESS, ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~9.5 GALLONS PURGED, COLORLESS, ODORLESS

GENERAL INFORMATION WEATHER ~~HOT, HUMID, THUNDERSTORMS~~ IN AFTERNOON AIR TEMPERATURE 95-100°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: TED WITTEMANN SAMPLING OBSERVED BY: TERREL PARKER
DISCREPANCIES: NONE.

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/14/05 TIME 0830
SAMPLING POINT:
DEPTH NA

SAMPLE INFORMATION SAMPLE I.D. NO.: TB - 071405

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Sunny AIR TEMPERATURE 80 °F

SAMPLES SHIPPED TO: Columbia Analytical Services - California
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Daniel Howard SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/14/05 TIME 0940
SAMPLING POINT: AEHA-28B
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-28B-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Overcast Hot, Humid AIR TEMPERATURE 80-85°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Terrell Parker SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7-14-05 TIME 0950
SAMPLING POINT: OMW-28E
DEPTH 7100'.

SAMPLE INFORMATION SAMPLE I.D. NO.: OMW-28E-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
[redacted]				
[redacted]				

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
CLEAR / NO ODOR

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER PC AIR TEMPERATURE 83°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: BRAD McKINNEY SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 1-14-05 TIME 1000
SAMPLING POINT: AEHA-33B
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-33B-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~3 Gallons total

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
No odor, relatively clear

GENERAL INFORMATION WEATHER AIR TEMPERATURE

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Luke C. SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/14/05 TIME 1010
SAMPLING POINT: AEHA-33A
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-33A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 2.5 GALLON

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE CLEAR, NO ODOR

GENERAL INFORMATION WEATHER HAZY, HOT & HUMID AIR TEMPERATURE 80's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: [signature] SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7-14-05 TIME 1115
SAMPLING POINT: AEHA-28A
DEPTH DEDICATED TOP OF PUMP @ 12.4'

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-28A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 mL	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 and Anions (NO_3, SO_4, Cl) by E300.0
Poly	500 mL	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A, 6020
VOA VIAL	20 ml	1	None ***Do Not Cool***	Hydrogen by AM 20
Amber Glass	250 ml	1	H_3PO_4 to pH <2;Cool to 4°C	Volatile Fatty Acids by D1552

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
4.0 GALLONS, COLORLESS, ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
4.0 GALLONS, COLORLESS, ODORLESS

GENERAL INFORMATION WEATHER HOT, HUMID, OVERCAST AIR TEMPERATURE 90-95°F

SAMPLES SHIPPED TO: Columbia Analytical Services - California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QC

SAMPLE COLLECTED BY: T. WITTEMANN SAMPLING OBSERVED BY: T. PARKER
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7-14-05 TIME [redacted] 1200
SAMPLING POINT: AEHA-28A
DEPTH DEDICATED TOP OF PUMP @ 12.17

SAMPLE INFORMATION SAMPLE I.D. NO.: OU6DUP-3-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
4.0 GALLONS, COLORLESS, ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
NO duplicate VFA 4.0 GALLONS, COLORLESS, ODORLESS

GENERAL INFORMATION WEATHER OVERCAST HOT, HUMID AIR TEMPERATURE 90-95°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: T. WETTEMANN SAMPLING OBSERVED BY: T. PARKER
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/14/05 TIME 1245
SAMPLING POINT: AEHA-23A
DEPTH Dedicated Pump

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-23A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 mL	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 and Anions (NO_3, SO_4, Cl) by E300.0
Poly	500 mL	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A, 6020
VOA VIAL	20 ml	1	None ***Do Not Cool***	Hydrogen by AM 20
Amber Glass	250 ml	1	H_3PO_4 to pH <2;Cool to 4°C	Volatile Fatty Acids by D1552

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Overcast / Humid AIR TEMPERATURE ~70°

SAMPLES SHIPPED TO: Columbia Analytical Services - California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QC

SAMPLE COLLECTED BY: BAK SAMPLING OBSERVED BY: DK
DISCREPANCIES: n/a

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/14/05 TIME 1245
SAMPLING POINT: AEHA-23A
DEPTH DEDICATED PUMP

SAMPLE INFORMATION SAMPLE I.D. NO.: OU6DUP-2-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 mL	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 and Anions (NO_3, SO_4, Cl) by E300.0
Poly	500 mL	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A, 6020
VOA VIAL	20 ml	1	None ***Do Not Cool***	Hydrogen by AM 20
Amber Glass	250 ml	1	H_3PO_4 to pH <2;Cool to 4°C	Volatile Fatty Acids by D1552

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER OVERCAST/HUMID AIR TEMPERATURE ~70°

SAMPLES SHIPPED TO: Columbia Analytical Services - California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QC

SAMPLE COLLECTED BY: BAC SAMPLING OBSERVED BY: JAC
DISCREPANCIES: nil

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/14/05 TIME 1350
SAMPLING POINT: AEHA - 30B
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA - 30B - 0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 mL	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 and Anions (NO_3, SO_4, Cl) by E300.0
Poly	500 mL	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A, 6020
VOA VIAL	20 ml	1	None ***Do Not Cool***	Hydrogen by AM 20
Amber Glass	250 ml	1	H_3PO_4 to pH <2;Cool to 4°C	Volatile Fatty Acids by D1552

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Cloudy, humid AIR TEMPERATURE low 90's

SAMPLES SHIPPED TO: Columbia Analytical Services - California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

Q[redacted]

SAMPLE COLLECTED BY: [signature] SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/14/05 TIME 1200
SAMPLING POINT: AEHA-30B
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: OU6DUP-5-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
VOA DUP for VFA

GENERAL INFORMATION WEATHER Cloudy, humid AIR TEMPERATURE low 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/14/05 TIME 1300
SAMPLING POINT: AEHA-30A
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-30A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 mL	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 and Anions (NO_3, SO_4, Cl) by E300.0
Poly	500 mL	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A, 6020
VOA VIAL	20 ml	1	None ***Do Not Cool***	Hydrogen by AM 20
Amber Glass	250 ml	1	H_3PO_4 to pH <2;Cool to 4°C	Volatile Fatty Acids by D1552

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Partly cloudy AIR TEMPERATURE 85-90F

SAMPLES SHIPPED TO: Columbia Analytical Services - California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QC

SAMPLE COLLECTED BY: Brad McKnight SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/14/05 TIME 1615
SAMPLING POINT: USGS-P4
DEPTH 13.5

SAMPLE INFORMATION SAMPLE I.D. NO.: USGS-P4-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 2 GAL

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE CLEAR, SLIGHT ODOR

GENERAL INFORMATION WEATHER HAZY, HOT, & HUMID AIR TEMPERATURE 80'S

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: _____ SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7-14-05 TIME 1630
SAMPLING POINT: USGS-P2
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: USGS-P2-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~2 Gallons

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
No odor detected, Relatively Clear

GENERAL INFORMATION WEATHER AIR TEMPERATURE

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Luke Clark SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/14/05 TIME 09:30
SAMPLING POINT: AEHA-23B
DEPTH 24.45 ft (DTW)

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-23B-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~3 gal Purged

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
water clear + colorless no odor

GENERAL INFORMATION WEATHER overcast + breezy, humid AIR TEMPERATURE ~75°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: D. Knaus SAMPLING OBSERVED BY: B. Keener
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/15/05 TIME 0830
SAMPLING POINT:
DEPTH NA

SAMPLE INFORMATION SAMPLE I.D. NO.: TB - 071505

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Sunny AIR TEMPERATURE 82°F

SAMPLES SHIPPED TO: Columbia Analytical Services - California
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Daniel Howard SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/15/05 TIME 1000
SAMPLING POINT: AEHA-16A
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-16A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Overcast AIR TEMPERATURE 850

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7-15-05 TIME 10:10 Hz 11:20
SAMPLING POINT: USGS-04
DEPTH Pump at 5' intake

SAMPLE INFORMATION SAMPLE I.D. NO.: USGS-04-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3 ✓	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3 ✓	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1 ✓	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3 ✓	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1 ✓	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1 ✓	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1 ✓	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1 ✓	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
Sample of groundwater is clear, colorless + odorless

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER overcast early cleared to partly cloudy, 28°C AIR TEMPERATURE 28°C

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: TERRELL PARKER SAMPLING OBSERVED BY: _____
DISCREPANCIES: NONE GTP

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7.15.05 TIME 1100
SAMPLING POINT: USGS-H2
DEPTH DEDICATED

SAMPLE INFORMATION SAMPLE I.D. NO.: USGS-H2-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 mL	1	H2SO4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 and Anions (NO_3, SO_4, Cl) by E300.0
Poly	500 mL	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A, 6020
VOA VIAL	20 ml	1	None ***Do Not Cool***	Hydrogen by AM 20
Amber Glass	250 ml	1	H_3PO_4 to pH <2;Cool to 4°C	Volatile Fatty Acids by D1552

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈3.75 GALLONS PURGED, LIGHT BROWN TINT, ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈3.75 GALLONS PURGED, LIGHT BROWN TINT, ODORLESS

GENERAL INFORMATION WEATHER HOT, HUMID, OVERCAST AIR TEMPERATURE 90°F ±

SAMPLES SHIPPED TO: Columbia Analytical Services - California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA

SAMPLE COLLECTED BY: T. WITTEMANN SAMPLING OBSERVED BY: T. PARKER
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/15/05 TIME 1250
SAMPLING POINT: DMW-18A
DEPTH 17'

SAMPLE INFORMATION SAMPLE I.D. NO.: DMW-18A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME; SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
water starts slightly cloudy w/ slight brownish color becomes clear & colorless. ~5 gal purged

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER OVERCAST HOT/HUMID AIR TEMPERATURE ~85°

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: DX SAMPLING OBSERVED BY: BAC
DISCREPANCIES: nk

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/15/05 TIME 1315
SAMPLING POINT: GEHA-12A
DEPTH DEDICATED PUMP

SAMPLE INFORMATION SAMPLE I.D. NO.: GEHA-12A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
CLEAR / NONE

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER OVERCAST AIR TEMPERATURE 92°

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: BRAD MCKNIGHT SAMPLING OBSERVED BY: A.C.
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7-15-05 TIME 1500
SAMPLING POINT: USGS-C2
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: USGS-C2-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~4 gallons

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
No odor detected, relatively clear

GENERAL INFORMATION WEATHER Partly Sunny, humid AIR TEMPERATURE 88° F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Luke Clark SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/15/05 TIME 1520
SAMPLING POINT: USGS-BR2
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: USGS-BR2-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
[redacted]				
[redacted]				

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 2.5 GALLON

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE CLEAR, NO ODOR

GENERAL INFORMATION WEATHER HAZY, HOT & HUMID AIR TEMPERATURE 85°-90° F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: [signature] SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/15/05 TIME 1520
SAMPLING POINT: USGS-BR2
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: OU6DUP-6-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
[redacted]				
[redacted]				

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 2.5 GALLON

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE CLEAR, NO ODOR

GENERAL INFORMATION WEATHER HAZY, HOT, AND HUMID AIR TEMPERATURE 85-90°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: [signature] SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7-15-05 TIME 15:43
SAMPLING POINT: USGS-N1
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: USGS-N1-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
Groundwater samples are clear, colorless + odorless

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Partly sunny, but cloudy and Thunder AT 16:45 AIR TEMPERATURE 1v27°C (in the shade)

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Terrell Parker SAMPLING OBSERVED BY:
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7.15.05 TIME 1550
SAMPLING POINT: LAWMW-Q
DEPTH DEDICATED

SAMPLE INFORMATION SAMPLE I.D. NO.: LAWMW-Q-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈ 6.0 GALLONS PURGED (≈2.75 GALLONS OF HIGHLY BIOTURBATED H_2O) SAMPLE REL COLORLESS ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈6.0 GALLONS PURGED (≈2.75 GALLONS OF HIGHLY BIOTURBATED H_2O) SAMPLE REL. COLORLESS AND ODORLESS

GENERAL INFORMATION WEATHER OVERCAST, HOT, HUMID AIR TEMPERATURE 90°F±

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: T. WITTEMANN SAMPLING OBSERVED BY: T. PARKER
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/15/05 TIME 1655
SAMPLING POINT: MWA 50-35
DEPTH Decanted pump

SAMPLE INFORMATION SAMPLE I.D. NO.: MWA 50-35 - 0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 mL	1	H2SO4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 and Anions (NO_3, SO_4, Cl) by E300.0
Poly	500 mL	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A, 6020
VOA VIAL	20 ml	1	None ***Do Not Cool***	Hydrogen by AM 20
Amber Glass	250 ml	1	H_3PO_4 to pH <2;Cool to 4°C	Volatile Fatty Acids by D1552

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Hot / Humid AIR TEMPERATURE ~ 85°

SAMPLES SHIPPED TO: Columbia Analytical Services - California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA

SAMPLE COLLECTED BY: BAK SAMPLING OBSERVED BY: DL
DISCREPANCIES: N/A

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/15/05 TIME 1700
SAMPLING POINT: AEHA-27B
DEPTH N/A

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-27B-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER overcast, afternoon thunderstorms AIR TEMPERATURE high 80's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: _____ SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/16/05 TIME 0800
SAMPLING POINT:
DEPTH N/A

SAMPLE INFORMATION SAMPLE I.D. NO.: TB - 071605

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER		NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
TYPE	VOLUME			
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Sunny AIR TEMPERATURE 78°F

SAMPLES SHIPPED TO: Columbia Analytical Services - California
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Daniel Howard SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/16/05 TIME 1015
SAMPLING POINT:
DEPTH NA

SAMPLE INFORMATION SAMPLE I.D. NO.: OU6 BLAD-EQB-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Sunny AIR TEMPERATURE 85°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: David L Howard SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/16/05 TIME 850
SAMPLING POINT: AEHA-22A
DEPTH —

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-22A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Clear, Sunny AIR TEMPERATURE high 80's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Amy Collings SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/16/05 TIME 0930
SAMPLING POINT: AEHA-34A
DEPTH DEDICATED PUMP

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-34A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
CLEAR / NO ODOR

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER CLEAR AIR TEMPERATURE 94°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: BRAD MCKNIGHT SAMPLING OBSERVED BY: A. CALLAWAY
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/16/05 TIME 1000
SAMPLING POINT: USGS-F4
DEPTH 3.6

SAMPLE INFORMATION SAMPLE I.D. NO.: USGS-F4-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 2.0 GALLON

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE SLIGHTLY CLOUDY, NO ODOR

GENERAL INFORMATION WEATHER HAZY, HOT + HUMID AIR TEMPERATURE 80's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: _____ SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7-16-05 TIME 1015
SAMPLING POINT: USGS-K2
DEPTH DEDICATED

SAMPLE INFORMATION SAMPLE I.D. NO.: USGS-K2-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈ 7.5 GALLONS PURGED, COLORLESS, ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈ 7.5 GALLONS PURGED, COLORLESS, ODORLESS

GENERAL INFORMATION WEATHER ~~Hot~~, Humid, SUNNY AIR TEMPERATURE 90-95°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: T. WITTEMANN SAMPLING OBSERVED BY: T. PARKER
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/10/05 TIME 1015
SAMPLING POINT: DMW-9B
DEPTH ~46.5'

SAMPLE INFORMATION SAMPLE I.D. NO.: DMW-9B-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
WATER IS CLEAR, NO ODOR / 0.0 ppm (PID #449)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER CLEAR HOT/HUMID AIR TEMPERATURE ~80°

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: DAC SAMPLING OBSERVED BY: DC
DISCREPANCIES: N/A

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7-16-05 TIME 1100
SAMPLING POINT: USGS-F2
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: USGS-F2-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 mL	1	H2SO4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 and Anions (NO_3, SO_4, Cl) by E300.0
Poly	500 mL	1	HNO_3 to pH<2, Cool to 4°C	Tot Metals by 6010B,7470A, 6020
VOA VIAL	20 ml	1	None ***Do Not Cool***	Hydrogen by AM 20
Amber Glass	250 ml	1	H_3PO_4 to pH <2;Cool to 4°C	Volatile Fatty Acids by D1552

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~3 Gallons

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
No odor detected, Relatively clear

GENERAL INFORMATION WEATHER AIR TEMPERATURE

SAMPLES SHIPPED TO: Columbia Analytical Services - California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA

SAMPLE COLLECTED BY: Luke Clark SAMPLING OBSERVED BY:

DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/16/05 TIME 1116
SAMPLING POINT: DMW-9A
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: DMW-9A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~6.5 gal Purged

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
water has slight brown color, became clear & colorless

GENERAL INFORMATION WEATHER mostly sunny + humid AIR TEMPERATURE ~80-90°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: D. Knaul SAMPLING OBSERVED BY: B. Kane
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/17/05 TIME 0800
SAMPLING POINT:
DEPTH NA

SAMPLE INFORMATION SAMPLE I.D. NO.: TB - 071705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Sunny & Hot AIR TEMPERATURE 80°F

SAMPLES SHIPPED TO: Columbia Analytical Services - California
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Daniel Howard SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/17/05 TIME 0803
SAMPLING POINT: USGS-K4
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: USGS-K4-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
~~VOA VIAL~~	~~20 ml~~	1	~~None~~	~~Hydrogen by AM 20~~
			Hydrogen was not collected due to	
			insufficient recharge	

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
H_2 was not collect due to insufficient recharge, sample collect with bailer

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Partly sunny AIR TEMPERATURE 75°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC Daniel Howard

SAMPLE COLLECTED BY: Terrell Parker SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/17/05 TIME 0900
SAMPLING POINT: USGS-64
DEPTH 6.3

SAMPLE INFORMATION SAMPLE I.D. NO.: USGS-G4-0705 MS/MSD

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	9	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	3	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	3	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	3	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	3	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 30 GAL

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE CLEAR, NO ODOR

GENERAL INFORMATION WEATHER Hot - Humid AIR TEMPERATURE 85-90°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QC

SAMPLE COLLECTED BY: _____ SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/7/05 TIME 0925
SAMPLING POINT: USGS-L2
DEPTH DEDICATED PMP

SAMPLE INFORMATION SAMPLE I.D. NO.: USGS-L2-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
CLEAR/NONE

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER SUNNY 84°F AIR TEMPERATURE 84°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: BRAD MCKNIGHT SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR -- OU6- Semi-Annual Monitoring
DATE 7-17-05 TIME 0930
SAMPLING POINT: USGS-G3
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: USGS-G3-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 mL	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310 1 and Anions (NO_3, SO_4, Cl) by E300.0
Poly	500 mL	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A, 6020
VOA VIAL	20 ml	1	None ***Do Not Cool***	Hydrogen by AM 20
Amber Glass	250 ml	1	H_3PO_4 to pH <2;Cool to 4°C	Volatile Fatty Acids by D1552

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~2.5 gallons

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
No odor detected, relatively clear.

GENERAL INFORMATION WEATHER Sunny, hot, light breeze AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services - California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA

SAMPLE COLLECTED BY: Luke Clerk SAMPLING OBSERVED BY:

DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/17/05 TIME 0930
SAMPLING POINT: USGS-B2
DEPTH 17.0 ft

SAMPLE INFORMATION SAMPLE I.D. NO.: USGS-B2-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300 0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
water clear + colorless, no odor

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~3.5 gal purged

GENERAL INFORMATION WEATHER hot + humid sunny AIR TEMPERATURE ~85-90F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: D. Knaul SAMPLING OBSERVED BY: —
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/07/05 TIME 0950
SAMPLING POINT: USGS-A4
DEPTH ~5.5'

SAMPLE INFORMATION SAMPLE I.D. NO.: USGS-A4-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
WATER IS CLEAR; NO ODOR 0.0 ppm PID (ppm # 5519)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER warm/humid AIR TEMPERATURE ~80°

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: BAH SAMPLING OBSERVED BY: DK
DISCREPANCIES: n/a

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7-17-05 TIME 1015
SAMPLING POINT: USGS-M2
DEPTH DEDICATED DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: USGS-M2-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈ 6.0 GALLONS PURGED, SAMPLE COLORLESS AND ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈60 GALLONS PURGED, SAMPLE COLORLESS AND ODORLESS

GENERAL INFORMATION WEATHER SUNNY, HOT AIR TEMPERATURE 90-95°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: T. WITTEMANN SAMPLING OBSERVED BY: T. PARKER
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/17/05 TIME 1050
SAMPLING POINT: USGS-J4
DEPTH 16 feet

SAMPLE INFORMATION SAMPLE I.D. NO.: USGS-J4-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310 1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER clear, humid AIR TEMPERATURE mid 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: _____ SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/7-05 TIME 10:23
SAMPLING POINT: USGS-M4
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: USGS-M4-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
Groundwater samples are clear, colorless and odorless.

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Hot, Sunny, humid AIR TEMPERATURE 89°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Terrell Parker SAMPLING OBSERVED BY: Ted Wittemann
DISCREPANCIES: None

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/18/05 TIME 0800
SAMPLING POINT:
DEPTH NA

SAMPLE INFORMATION SAMPLE I.D. NO.: 071805

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Sunny AIR TEMPERATURE 78°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Daniel Howard SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/12/05 TIME 910
SAMPLING POINT: AEHA-32B
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-32B-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE CLEAR, NO ODOR (TRACE OF BROWN PARTICULATES)

GENERAL INFORMATION WEATHER HAZY, HOT & HUMID AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Dan Vu SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/18/05 TIME 0935
SAMPLING POINT: AEHA-31A
DEPTH Dedicated pump

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-31A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
WATER IS CLEAR; NO ODOR (0.0 ppm on PID)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER _____ AIR TEMPERATURE _____

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: BAC SAMPLING OBSERVED BY: DK
DISCREPANCIES: N/A

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7/18/05 TIME 1200
SAMPLING POINT: AEHA-31B
DEPTH to water 22.43

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-31B-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
water clear + colorless no odor

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~25 gal purged

GENERAL INFORMATION WEATHER mostly sunny ~~hazy~~ humid AIR TEMPERATURE ~85°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: D. Knaul SAMPLING OBSERVED BY: B. Kearns
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU6- Semi-Annual Monitoring
DATE 7-18-05 TIME 1000
SAMPLING POINT: AEHA-32A
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-32A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 mL	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 and Anions (NO_3, SO_4, Cl) by E300.0
Poly	500 mL	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A, 6020
VOA VIAL	20 ml	1	None ***Do Not Cool***	Hydrogen by AM 20
Amber Glass	250 ml	1	H_3PO_4 to pH <2;Cool to 4°C	Volatile Fatty Acids by D1552

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~2 gallons

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
No odor detected, relatively clear

GENERAL INFORMATION WEATHER Sunny, hot, p.m. Storms AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services - California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

SAMPLE COLLECTED BY: Luke Clark SAMPLING OBSERVED BY:

DISCREPANCIES:

APPENDIX A2

OPERABLE UNIT 7
SAMPLE COLLECTION LOGS

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/18/05 TIME 0815
SAMPLING POINT:
DEPTH NA

SAMPLE INFORMATION SAMPLE I.D. NO.: TB- 071805-02

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Sunny AIR TEMPERATURE 78°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Daniel Howard SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/18/05 TIME 1000
SAMPLING POINT: MWFOS-3
DEPTH 14.5

SAMPLE INFORMATION SAMPLE I.D. NO.: MWFOS-3-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20
Amber Glass	250 ml	1	H_3PO_4 to pH<2, Cool to 4°C	Volatile Fatty Acids by D1552

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
CLEAR / SLIGHT ODOR

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
3 GALS.

GENERAL INFORMATION WEATHER HAZY / CLEAR AIR TEMPERATURE 90°

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

A/QC

SAMPLE COLLECTED BY: BRAD MCKNIGHT SAMPLING OBSERVED BY: A Cummings
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7-18-05 TIME 10:10
SAMPLING POINT: MW FOS-1
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MW FOS-1-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3 ✓	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3 ✓	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1 ✓	H_2SO_4 to pH<2, Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3 ✓	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1 ✓	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1 ✓	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1 ✓	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1 ✓	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
Groundwater is colorless, odorless and clear

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Hot, humid, clear, sunny AIR TEMPERATURE 95°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

A/QC

SAMPLE COLLECTED BY: Terrell Parker SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/18/05 TIME 1020
SAMPLING POINT: DMW-27A
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: DMW-27A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20
Amber Glass	250 ml	*3	H_3PO_4 to pH<2, Cool to 4°C	Volatile Fatty Acids by D1552

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
Collect MS/MSD on VFA only

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Sunny, clear, humid AIR TEMPERATURE high 80's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

A/QC

SAMPLE COLLECTED BY: [signature] SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/14/05 TIME 1450
SAMPLING POINT: MWFTA-23
DEPTH Peristaltic pump in well

SAMPLE INFORMATION SAMPLE I.D. NO.: MWFTA-23-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
water clear, no odor (0.0 ppm on PID)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Hot / Humid AIR TEMPERATURE ~95°

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: BAL SAMPLING OBSERVED BY: DK
DISCREPANCIES: N/A

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7-18-05 TIME 1020
SAMPLING POINT: MW112-2
DEPTH 23.0'

SAMPLE INFORMATION SAMPLE I.D. NO.: MW112-2-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈ 4.0 GALLONS PURGED TOTAL, SAMPLE COLORLESS AND ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈ 4.0 GALLONS PURGED TOTAL, SAMPLE COLORLESS AND ODORLESS

GENERAL INFORMATION WEATHER SUNNY/ VERY HOT AIR TEMPERATURE 100-105

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: T. WITTEMANN SAMPLING OBSERVED BY: T. PARKER
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/18/05 TIME 1510
SAMPLING POINT: DMW-25A
DEPTH Grundfos pump

SAMPLE INFORMATION SAMPLE I.D. NO.: DMW-25A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
CLEAR / NONE

GENERAL INFORMATION WEATHER Warm & clear/ Pc. AIR TEMPERATURE 95°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: B. McKnight SAMPLING OBSERVED BY: A. Callahan
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7-18-05 TIME 1510
SAMPLING POINT: DMW-22A
DEPTH DEDICATED DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: DMW-22A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈ 5.0 GALLONS PURGED, SAMPLE COLORLESS AND ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈ 5.0 GALLONS PURGED, SAMPLE COLORLESS AND ODORLESS

GENERAL INFORMATION WEATHER SUNNY, HOT AIR TEMPERATURE 100-105 °F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: T. WITTEMANN SAMPLING OBSERVED BY: T. PARKER
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/18/05 TIME 1515
SAMPLING POINT: MW FTA-29B
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MW FTA-29B-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 2.5 GALLON

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE CLEAR, NO ODOR

GENERAL INFORMATION WEATHER HAZY, HOT + HUMID AIR TEMPERATURE 90 S

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

A/QC

SAMPLE COLLECTED BY: Dan Yan SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7-18-05 TIME 1530
SAMPLING POINT: MWFTA-7
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MWFTA-7-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~3 Gallons

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
Relatively clear, No odor detected.

GENERAL INFORMATION WEATHER Hot, humid, Mostly Sunny AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

A/QC

SAMPLE COLLECTED BY: Luke Clark SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/18/05 TIME 1630
SAMPLING POINT: MWFTA-18
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MWFTA-18-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Partly cloudy AIR TEMPERATURE high 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

A/QC

SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/18/05 TIME 16:30
SAMPLING POINT: MWFTA-16
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MWFTA-16-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20
Amber Glass	250 ml	1	H_3PO_4 to pH<2, Cool to 4°C	Volatile Fatty Acids by D1552

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
Water clear colorless

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~3 gal Purged

GENERAL INFORMATION WEATHER Hot humid Sunny AIR TEMPERATURE 98°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QC

SAMPLE COLLECTED BY: D. Knaul SAMPLING OBSERVED BY: B. Keener
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7-18-05 TIME 16:45
SAMPLING POINT: MWFTA-20
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MWFTA-20-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml ✓	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml ✓	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml ✓	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml ✓	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml ✓	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml ✓	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml ✓	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml ✓	1	None	Hydrogen by AM 20
Amber Glass	250 ml ✓	1	H_3PO_4 to pH<2, Cool to 4°C	Volatile Fatty Acids by D1552
	2360 ml water = 118 min. /60 = 2 hours for one set of bottles			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
WATER IS CLEAR + COLORLESS, NO ODOR.

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Sunny, Hot, Humid AIR TEMPERATURE 95°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QC

SAMPLE COLLECTED BY: Terrell Parker SAMPLING OBSERVED BY: Ted WITTEMANN
DISCREPANCIES: NONE

FIELD SAMPLING REPORT (Dup of MWFTA-20)

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7-13-05 TIME 12:00
SAMPLING POINT: MWFTA-20
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: OU7DUP-3-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
WATER is clear + colorless, No ODOR

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Sunny, Hot, Humid AIR TEMPERATURE 95°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

A/QC

SAMPLE COLLECTED BY: Terrell Parker SAMPLING OBSERVED BY: Ted WITTEMANN
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/19/05 TIME 0800
SAMPLING POINT:
DEPTH NA

SAMPLE INFORMATION SAMPLE I.D. NO.: TB - 071905

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Sunny AIR TEMPERATURE 75°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: David Howard SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/19/05 TIME 1100
SAMPLING POINT:
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: OU7-BLAD-EQB-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
[redacted]				

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Sunny AIR TEMPERATURE 85°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QC

SAMPLE COLLECTED BY: Daniel Howard SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/19/05 TIME 1020
SAMPLING POINT: OU7 PZ-2
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: OU7PZ-2-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Hot + Humid AIR TEMPERATURE 80-85°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

A/QC

SAMPLE COLLECTED BY: Ted Wittemann SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/6/05 TIME 1030
SAMPLING POINT: MWFTA-5
DEPTH Dedicated Pump

SAMPLE INFORMATION SAMPLE I.D. NO.: MWFTA-5-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
CLEAR | NONE

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			
CLEAR NONE		1.65 gals	

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER _____ AIR TEMPERATURE _____

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: B. McKnight SAMPLING OBSERVED BY: NoBody
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/19/05 TIME 1030
SAMPLING POINT: MW FTA-28B
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MWFTA-28B-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER humid, hot, partly cloudy AIR TEMPERATURE high 80's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

A/QC

SAMPLE COLLECTED BY: [signature] SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/19/05 TIME 1032
SAMPLING POINT: MWFTA-19
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MWFTA-19-0705 [redacted]

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	9	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	3	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	3	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	3	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	3	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
[redacted]

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Hot + Humid AIR TEMPERATURE 85°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Terrell Parker SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/19/05 TIME 1055
SAMPLING POINT: OU7PZ-4
DEPTH ~11.5'

SAMPLE INFORMATION SAMPLE I.D. NO.: OU7PZ-4-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
PID = 0.0 ppm (PID ID 4448) WATER IS CLEAR/NO ODOR

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Hot/Humid AIR TEMPERATURE ~90°

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

A/QC

SAMPLE COLLECTED BY: BAC SAMPLING OBSERVED BY: DK
DISCREPANCIES: NA

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/19/05 TIME 1100
SAMPLING POINT: OU7PZ-8
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: OU7PZ-8-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS).	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Hot & Humid AIR TEMPERATURE 85-90°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

A/QC

SAMPLE COLLECTED BY: D. Knaub SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/13/05 TIME 11:10
SAMPLING POINT: MWFTA-14
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MWFTA-14-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 1.5 GALLON

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE CLEAR WITH NO ODOR

GENERAL INFORMATION WEATHER HAZY, HOT & HUMID AIR TEMPERATURE 90'S

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Dan Vrana SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7-19-05 TIME 1130
SAMPLING POINT: DMW-33A
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: DMW-33A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20
Amber Glass	250 ml	1	H_3PO_4 to pH<2, Cool to 4°C	Volatile Fatty Acids by D1552

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~2 gallons

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
No odor detected, relatively clear

GENERAL INFORMATION WEATHER Sunny, hot, humid AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

A/QC

SAMPLE COLLECTED BY: Luke Clark SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7-19-05 TIME 15:16 16:25 Hz
SAMPLING POINT: DMW-26A
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: DMW-26A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Hot & Humid AIR TEMPERATURE 90°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

A/QC

SAMPLE COLLECTED BY: Terrell Parker SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/19/05 TIME 1600
SAMPLING POINT: MWFTA-9
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MWFTA-9-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER hot, heat advisory in effect AIR TEMPERATURE high 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

A/QC

SAMPLE COLLECTED BY: Amy Calloway SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/19/05 TIME 1430
SAMPLING POINT: MW FTA-10
DEPTH Dedicated Pump

SAMPLE INFORMATION SAMPLE I.D. NO.: MW FTA-10-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
CLEAR / NONE

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
CLEAR / NONE 3 gal

GENERAL INFORMATION WEATHER _____ AIR TEMPERATURE _____

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

A/QC

SAMPLE COLLECTED BY: BRAD McGuire SAMPLING OBSERVED BY: A. Callahan
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7.19.05 TIME 1710
SAMPLING POINT: MWFTA-17
DEPTH DEDICATED DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MWFTA-17-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈3.0 GALLONS TOTAL PURGE, SAMPLE COLORLESS, ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈3.0 GALLONS TOTAL PURGE, SAMPLE COLORLESS, ODORLESS

GENERAL INFORMATION WEATHER SUNNY, HOT AIR TEMPERATURE 95-100°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

A/QC

SAMPLE COLLECTED BY: T. LOHTEMANN SAMPLING OBSERVED BY: T. PARKER
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/20/05 TIME 0800
SAMPLING POINT:
DEPTH NA

SAMPLE INFORMATION SAMPLE I.D. NO.: TB - 072005

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Clear AIR TEMPERATURE 75°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Daniel Howard SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/20/05 TIME 1050
SAMPLING POINT: MWFTA-3
DEPTH Peristaltic Pump

SAMPLE INFORMATION SAMPLE I.D. NO.: MWFTA-3-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
WATER HAS A YELLOW TINT; NO ODOR 0 ppm on PID

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Hot/Humid AIR TEMPERATURE ~85°

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: BAK SAMPLING OBSERVED BY: DK
DISCREPANCIES: n/a

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/26/05 TIME 1200
SAMPLING POINT: MW FTA-3
DEPTH Dedicated pump

SAMPLE INFORMATION SAMPLE I.D. NO.: OU7 DUP-2 -0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
WATER HAS A YELLOW TINT ; NO ODOR 0.0 ppm on PID

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Hot/Humid AIR TEMPERATURE ~85°

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

A/QC

SAMPLE COLLECTED BY: BAC SAMPLING OBSERVED BY: DC
DISCREPANCIES: N/A

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/20/05 TIME 1110
SAMPLING POINT: MW FTA-1
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MW FTA-1-0705 ~~MS/MSD~~

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	9	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	3	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	3	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	3	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	3	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
Collected MS/MSD Water slightly yellow and "frothy" Strong sulfur smell

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~6 gal purged

GENERAL INFORMATION WEATHER hot, sunny, humid AIR TEMPERATURE ~93°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

A/QC

SAMPLE COLLECTED BY: D. Kinard SAMPLING OBSERVED BY: —
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/20/05 TIME 1145
SAMPLING POINT: DMW-35A
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: DMW-35A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Sunny AIR TEMPERATURE Mid 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

A/QC

SAMPLE COLLECTED BY: [signature] SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7/20/05 TIME 1150
SAMPLING POINT: DMW-13A
DEPTH Dedicated Pump

SAMPLE INFORMATION SAMPLE I.D. NO.: DMW-13A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
CLEAR / NONE

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
3 GALS. CLEAR / NONE

GENERAL INFORMATION WEATHER PC / HAZY / HOT-HUMID AIR TEMPERATURE 90°

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

A/QC

SAMPLE COLLECTED BY: Brad McClintock SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7-20-05 TIME 12100
SAMPLING POINT: AEHADG-10
DEPTH

SAMPLE INFORMATION SAMPLE I.D NO.: OU7DUP-1-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3 ✓	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3 ✓	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1 ✓	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3 ✓	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1 ✓	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1 ✓	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1 ✓	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1 ✓	None	Hydrogen by AM 20
Amber Glass	250 ml	1 ✓	H_3PO_4 to pH<2, Cool to 4°C	Volatile Fatty Acids by D1552

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
Samples are clear, colorless, but have heavy Sulfur odor

GENERAL INFORMATION WEATHER Hot Sunny, Humid AIR TEMPERATURE 96°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Terrell Parker SAMPLING OBSERVED BY: Ted Wittemann
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7-20-05 TIME 1240
SAMPLING POINT: DMW-20A
DEPTH DEDICATED DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: DMW-20A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈ 3.5 GALLONS PURGED, SAMPLE COLORLESS AND ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈ 3.5 GALLONS PURGED, SAMPLE COLORLESS AND ODORLESS

GENERAL INFORMATION WEATHER SUNNY, HOT AIR TEMPERATURE 95-100°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

A/QC

SAMPLE COLLECTED BY: T. WITTEMANN SAMPLING OBSERVED BY: T. PARKER
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU7- Semi-Annual Monitoring
DATE 7-20-05 TIME 12:56 14:08 Hz
SAMPLING POINT: AEHADG-10
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: AEHADG-10-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3 ✓	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3 ✓	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1 ✓	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3 ✓	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1 ✓	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1 ✓	Cool to 4°C	Alkalinity by E310.1 NO_3, SO_4, Cl by E300.0
Poly	500 ml	1 ✓	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1 ✓	None	Hydrogen by AM 20
Amber Glass	250 ml	1 ✓	H_3PO_4 to pH<2, Cool to 4°C	Volatile Fatty Acids by D1552

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
Clear, colorless, heavy Sulfur odor.

GENERAL INFORMATION WEATHER Hot, Sunny AIR TEMPERATURE 96°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

A/QC

SAMPLE COLLECTED BY: Terrell PARKER SAMPLING OBSERVED BY: Ted WITTELMANN
DISCREPANCIES: NONE

APPENDIX A2

OPERABLE UNIT 8
SAMPLE COLLECTION LOGS

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/20/05 TIME 0830
SAMPLING POINT:
DEPTH NA

SAMPLE INFORMATION SAMPLE I.D. NO.: TB - 072005-02

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	2	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
VOA VIAL	40 ml	2	Cool to 4°C	CO_2 by RSK-175

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Sunny AIR TEMPERATURE 75°F

SAMPLES SHIPPED TO: Columbia Analytical Services - California
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Daniel Howard SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/20/05 TIME 0900
SAMPLING POINT:
DEPTH NA

SAMPLE INFORMATION SAMPLE I.D. NO.: OU8-BLAD-EQB-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
[redacted]				

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Sunny AIR TEMPERATURE 75°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Daniel Howard SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7-20-05 TIME 1130
SAMPLING POINT: DMW-23A
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: DMW-23A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	9	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	3	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	3	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	3	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1,300.0
Poly	500 ml	3	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~3 gallons

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
Collect MS/MSD No odor, relatively clear

GENERAL INFORMATION WEATHER Sunny, Hot, Humid AIR TEMPERATURE 95°

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Luke Clark SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/20/05 TIME 1615
SAMPLING POINT: MWANP-40
DEPTH Designated pump

SAMPLE INFORMATION SAMPLE I.D. NO.: MWANP-40-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	~~2~~ 1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1,E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
Amber	250 ml	1	H_3PO_4 to pH<2, Cool to 4°C	Volatile Fatty Acids by D1552
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
clear / no odor

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
2 gal. clear / no odor

GENERAL INFORMATION WEATHER Hazy Hot Humid AIR TEMPERATURE 92°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: BRAD McKNIGHT SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/20/05 TIME 1615
SAMPLING POINT: MW ANP-4D
DEPTH DEDICATED PUMP

SAMPLE INFORMATION SAMPLE I.D. NO.: OU8 DUP-4-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
NO DUP VFA CLEAR | NO ODOR

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
2 GAL. CLEAR | NO ODOR

GENERAL INFORMATION WEATHER HAZY HOT HUMID AIR TEMPERATURE 92°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: BRAD MCKEE SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/20/05 TIME 1100
SAMPLING POINT: MWANP-22
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MWANP-22-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	#1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	ToL Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 2.5 GALLON

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLES CLEAR, NO ODOR

GENERAL INFORMATION WEATHER HAZY, HOT, & HUMID AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: [signature] SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/20/05 TIME 1210
SAMPLING POINT: DMW-31A
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: OU8 DUP-2-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	~~3~~ 1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
No Dup for VFA

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Partly cloudy AIR TEMPERATURE 95°

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/20/05 TIME 1515
SAMPLING POINT: DMW-31A
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: DMW-31A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	~~3~~ 1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1,E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
Amber	250 ml	1	H_3PO_4 to pH<2, Cool to 4°C	Volatile Fatty Acids by D1552
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Partly cloudy AIR TEMPERATURE 95°

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/20/05 TIME 1530
SAMPLING POINT: DMW-30A
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: DMW-30A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	2 1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1,E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
Amber	250 ml	1	H_3PO_4 to pH<2, Cool to 4°C	Volatile Fatty Acids by D1552
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 45 GALLON

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLES CLEAR, NO ODOR

GENERAL INFORMATION WEATHER HAZY, HOT & HUMID AIR TEMPERATURE 90'S

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: [signature] SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7-20-05 TIME 1545
SAMPLING POINT: DMW-24A
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: DMW-24A-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~2 Gallons

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
No odor detected, relatively clear

GENERAL INFORMATION WEATHER Sunny, hot, hazy, humid AIR TEMPERATURE Mid-90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Lupe Clark SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/21/05 TIME 0800
SAMPLING POINT:
DEPTH NA

SAMPLE INFORMATION SAMPLE I.D. NO.: TB - 072105

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER		NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
TYPE	VOLUME			
VOA VIAL	40 ml	2	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
VOA VIAL	40 ml	2	Cool to 4°C	CO_2 by RSK-175

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Sunny AIR TEMPERATURE 75°F

SAMPLES SHIPPED TO: Columbia Analytical Services - California
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Daniel Howard SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/21/05 TIME 910
SAMPLING POINT: 0572MW-1
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: 0572MW-1-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1,E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
Amber	250 ml	1	H_3PO_4 to pH<2, Cool to 4°C	Volatile Fatty Acids by D1552
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Sunny, Clear AIR TEMPERATURE low 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7-21-05 TIME 0930
SAMPLING POINT: MWANP-7
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MWANP-7-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	~~2~~ 1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1,E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
Amber	250 ml	1	H_3PO_4 to pH<2, Cool to 4°C	Volatile Fatty Acids by D1552
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~3 gallons total

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
No odor detected, relatively clear

GENERAL INFORMATION WEATHER Sunny, hot, hazy AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Luke Clark SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/21/05 TIME 0945
SAMPLING POINT: MW ANP-15
DEPTH Dedicated pump

SAMPLE INFORMATION SAMPLE I.D. NO.: MW ANP-15-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	9	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	2500 ml	3	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	x 3	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	x 3	Cool to 4°C	Alkalinity,NO_3, SO_4, C by E310.1, E300.0
Poly	500 ml	x 3	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
Amber	250 ml	x 3	Cool to 4°C	Volatile Fatty Acids by D1552
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
Collect MS/MSD ✓ CLEAR / NONE

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
3 GAL CLEAR / NONE

GENERAL INFORMATION WEATHER HAZY HOT HUMID AIR TEMPERATURE 92°

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: B. McKNIGHT SAMPLING OBSERVED BY: A. CALLAWAY
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7.21.05 TIME 0950
SAMPLING POINT: MWANP-21
DEPTH DEDICATED DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MWANP-21-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	~~2~~ 1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈ 4.0 GALLONS PURGED, SAMPLE COLORLESS AND ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈ 4.0 GALLONS PURGED, SAMPLE COLORLESS AND ODORLESS

GENERAL INFORMATION WEATHER SUNNY TO HAZY/ HOT AIR TEMPERATURE 95-100°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: T. WITTEMANN SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/21/05 TIME 0945
SAMPLING POINT: MWANP-14
DEPTH Dedicated pump in well

SAMPLE INFORMATION SAMPLE I.D. NO.: MWANP-14-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
WATER IS CLEAR / NO ODOR.

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Hot/Humid AIR TEMPERATURE ~90°

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Bell SAMPLING OBSERVED BY: DK
DISCREPANCIES: N/A

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/21/05 TIME 16:15
SAMPLING POINT: MWANP-12D
DEPTH 43'

SAMPLE INFORMATION SAMPLE I.D. NO.: MWANP-12D-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 4.0 GALLONS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLES CLEAR WITH NO ODOR

GENERAL INFORMATION WEATHER HAZY, HOT & HUMID AIR TEMPERATURE 90'S

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Dan Van SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/21/05 TIME 1045
SAMPLING POINT: MWANP-13
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MWANP-13-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	~~8~~ 1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~5 gal Purged Water clear & colorless no odor

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER hot sunny humid AIR TEMPERATURE ~92°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: D. Knaul SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7.21.05 TIME 1440
SAMPLING POINT: MWANP-10
DEPTH DEDICATED DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MWANP-10-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	~~8~~ 1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈ 7.0 GALLONS PURGED TOTAL, COLORLESS AND ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈ 7.0 GALLONS PURGED TOTAL, COLORLESS AND ODORLESS

GENERAL INFORMATION WEATHER SUNNY, HOT AIR TEMPERATURE 95-100°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: TED WITTEMANN SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7-21-05 TIME 1500
SAMPLING POINT: MWANP-17
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MWANP-17-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1,E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
Amber	250 ml	1	H_3PO_4 to pH<2, Cool to 4°C	Volatile Fatty Acids by D1552
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~3 Gallons total

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
No odor detected, relatively clear.

GENERAL INFORMATION WEATHER Sunny, hot, hazy, humid AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Luke Clark SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/21/05 TIME 1520
SAMPLING POINT: MWANP-23
DEPTH Dedicated Pump

SAMPLE INFORMATION SAMPLE I.D. NO.: MWANP-23-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	2 1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
CLEAR/ NONE

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			
N 3 gal	CLEAR	NONE	

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER _____ AIR TEMPERATURE _____

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: BRAD MCKNIGHT SAMPLING OBSERVED BY: —
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/21/05 TIME 1535
SAMPLING POINT: MWANP-18
DEPTH 22'

SAMPLE INFORMATION SAMPLE I.D. NO.: MWANP-18-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 5.5 GALLON

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLES CLEAR WITH NO ODOR

GENERAL INFORMATION WEATHER HAZY, HOT + HUMID AIR TEMPERATURE 90'S

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: _____ SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7-26-05 TIME 1535
SAMPLING POINT: mwANP-3
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: mwANP-3-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	2 1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1,E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
Amber	250 ml	1	H_3PO_4 to pH<2, Cool to 4°C	Volatile Fatty Acids by D1552
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER sunny, hot AIR TEMPERATURE high 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: [signature] SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7.21.05 TIME 1200
SAMPLING POINT: mwANP-3
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: OU8 DUP-1-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1,E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
Amber	250 ml	1	H_3PO_4 to pH<2, Cool to 4°C	Volatile Fatty Acids by D1552
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER hot, sunny AIR TEMPERATURE high 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/21/05 TIME 1615
SAMPLING POINT: USGS-5
DEPTH 450'

SAMPLE INFORMATION SAMPLE I.D. NO.: USGS-5-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER HOT/HUMID AIR TEMPERATURE ~100°

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: BAC SAMPLING OBSERVED BY: DK
DISCREPANCIES: N/A

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/21/05 TIME 16:20
SAMPLING POINT: USGS-2
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: USGS-2-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
water clear w/ slight yellowish color no odor

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~5 gal purged

GENERAL INFORMATION WEATHER HOT humid Sunny AIR TEMPERATURE ~95°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: D. Knaub SAMPLING OBSERVED BY: –
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/22/05 TIME 0800
SAMPLING POINT:
DEPTH NA

SAMPLE INFORMATION SAMPLE I.D. NO.: TB - 072205

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	2	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
VOA VIAL	40 ml	2	Cool to 4°C	CO_2 by RSK-175

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Sunny AIR TEMPERATURE 75°F

SAMPLES SHIPPED TO: Columbia Analytical Services - California
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Daniel Howard SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7.22.05 TIME 1040
SAMPLING POINT: MWANP-27
DEPTH 22' BTOC

SAMPLE INFORMATION SAMPLE I.D. NO.: MWANP-27-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈ 6.5 GALLONS PURGED TOTAL, SAMPLE SLIGHTLY TURBID, ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈6.5 GALLONS PURGED TOTAL, SAMPLE SLIGHTLY TURBID, ODORLESS

GENERAL INFORMATION WEATHER SUNNY, HOT AIR TEMPERATURE 90-95°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: T. WITTEMANN SAMPLING OBSERVED BY: L. DONALD
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/22/05 TIME 1030
SAMPLING POINT: MWANP-25
DEPTH 14.82

SAMPLE INFORMATION SAMPLE I.D. NO.: MWANP-25-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
WATER STARTED DARK BROWN CLEARED UP IN 20 MIN / NO ODOR FROM WELL

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
3.75 GALS. CLEAR / NONE

GENERAL INFORMATION WEATHER P.C HAZY HUMID AIR TEMPERATURE 90°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: BRAD McKNIGHT SAMPLING OBSERVED BY: A. CALLAWAY
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7.22.05 TIME 1030
SAMPLING POINT: MWA NP-24
DEPTH 19.5

SAMPLE INFORMATION SAMPLE I.D. NO.: MWA NP-24-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	✗1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Sunny, hazy AIR TEMPERATURE high 80's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: [signature] SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/22/05 TIME 1645
SAMPLING POINT: MWANP-20
DEPTH DEDICATED PUMP IN WELL

SAMPLE INFORMATION SAMPLE I.D. NO.: MWANP-20-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	2	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
CLEAR WATER W/ NO ODOR (PUMP ID # 4049)

GENERAL INFORMATION WEATHER HOT/HUMID AIR TEMPERATURE ~85°

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: DAVE SAMPLING OBSERVED BY: DC
DISCREPANCIES: N/A

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7-22-05 TIME 1100
SAMPLING POINT: MWANP-26
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MWANP-26-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
~4 gallons total

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
No odor detected, relatively clear

GENERAL INFORMATION WEATHER Sunny, hot, humid AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Luke Clark SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/22/05 TIME 1125
SAMPLING POINT: MWANP-19
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MWANP-19-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	2 1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
water clear & mostly odorless ~5.5 gal purged

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
slight sulfide odor

GENERAL INFORMATION WEATHER hot sunny humid AIR TEMPERATURE ~ 90°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: D. Knaub SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/22/05 TIME 1445
SAMPLING POINT: MWSANP-16
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MWSANP-16-07705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER Sunny, hot AIR TEMPERATURE Mid-90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: [signature] SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/22/05 TIME 1000
SAMPLING POINT: DP1
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: DP-1-07-05

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 46 GALLONS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE CLEAR, NO ODOR

GENERAL INFORMATION WEATHER Hot - Humid AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: [signature] SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/22/05 TIME 1060
SAMPLING POINT: DP-2
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: DP-2-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 60. GALLONS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE CLEAR, NO ODOR

GENERAL INFORMATION WEATHER Hot & Humid AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Dan Van SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/22/05 TIME 1020
SAMPLING POINT: OP-3
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: OP-3-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 65. GALLON

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE CLEAR, NO ODOR

GENERAL INFORMATION WEATHER Hot + Humid AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Dan Wm SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/22/05 TIME 1030
SAMPLING POINT: DP-4
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: DP-4-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 75. GALLONS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE CLEAR, NO ODOR

GENERAL INFORMATION WEATHER HOT + HUMID AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Dave Van SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/12/05 TIME 1045
SAMPLING POINT: DP-5
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: DP-5-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 80 GALLONS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLES CLEAR, NO ODOR

GENERAL INFORMATION WEATHER HOT & HUMID AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Dan Vu SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/22/05 TIME 1050
SAMPLING POINT: DP-6
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: DP-6-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 100.0 GALLONS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE CLEAR, NO ODOR

GENERAL INFORMATION WEATHER HOT & HUMID AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: [signature] SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/22/05 TIME 12:30
SAMPLING POINT: DP7
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: DP-7-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 65. GALLONS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE CLEAR, NO ODOR

GENERAL INFORMATION WEATHER Hot + Humid AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY:
SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/22/05 TIME 1245
SAMPLING POINT: DP-8
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: DP-8-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 60. GALLONS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)

GENERAL INFORMATION WEATHER HOT & HUMID AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: [signature] SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/22/05 TIME 1105
SAMPLING POINT: DP-9
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: DP-9-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 50. GALLONS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLES CLEAR, NO ODOR

GENERAL INFORMATION WEATHER HOT+ HUMID AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: [signature] SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/22/05 TIME 1115
SAMPLING POINT: OP-10
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: OP-10-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 40 GALLONS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE CLEAR, NO ODOR

GENERAL INFORMATION WEATHER HOT + HUMID AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: DW Van SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/22/05 TIME 1130
SAMPLING POINT: DP-11
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: DP-11-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 60 GALLONS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE CLEAR, NO ODOR

GENERAL INFORMATION WEATHER HOT + HUMID AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: [signature] SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/22/05 TIME 1130
SAMPLING POINT: DP-11
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: OU8DUP-3-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
Total purge 60 gal

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
Sample Clear, No odor

GENERAL INFORMATION WEATHER Hot + Humid AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: Dan Vass SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring
DATE 7/22/05 TIME 1145
SAMPLING POINT: DP-12
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: DP-12-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 50. GALLONS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE CLEAR, NO ODOR

GENERAL INFORMATION WEATHER HOT + HUMID AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: [signature] SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring Resample
DATE 8/2/05 TIME 945
SAMPLING POINT: MWANP-16
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MWANP-16-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE CLEAR, NO ODOR

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 2.5 GALLON

GENERAL INFORMATION WEATHER HOT, CLEAR AIR TEMPERATURE 80'S

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ [redacted]
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: (DAN VASS) SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring Resample
DATE 8-2-05 TIME 1005
SAMPLING POINT: MWANP-19
DEPTH 18.99' TOP OF PUMP

SAMPLE INFORMATION SAMPLE I.D. NO.: MWANP-19-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈30 GALLONS PURGED TOTAL SAMPLE COLORLESS W/SLIGHT SULPHUR ODOR

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈3.0 GALLONS PURGED TOTAL SAMPLE COLORLESS W/SLIGHT SULPHUR ODOR

GENERAL INFORMATION WEATHER HIGH OVERCAST MOSTLY SUNNY AIR TEMPERATURE 80-90°F

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ [redacted]
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: TED WITTENMANN SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring Resample
DATE 8.2.05 TIME 1215
SAMPLING POINT: MW4NP-20
DEPTH 19.47' @ TOP OF Pump

SAMPLE INFORMATION SAMPLE I.D. NO.: MW4NP-20-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈ 5.0 GALLONS PURGED TOTAL. SAMPLE COLORLESS, ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
≈ 5.0 GALLONS PURGED TOTAL SAMPLE COLORLESS, ODORLESS

GENERAL INFORMATION WEATHER HIGH OVERCAST MOSTLY SUNNY AIR TEMPERATURE 80-90°F ±

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ [redacted]
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: TED WITTEMANN SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring Resample
DATE 8/2/05 TIME 1610
SAMPLING POINT: MWANP-29
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MWANP-29-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE CLEAR, NO ODOR, TRACE ORANGE PARTICULATES

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 2.5 GALLONS

GENERAL INFORMATION WEATHER HOT & CLEAR AIR TEMPERATURE 90'S

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ [redacted]
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: [signature] / TOM VAS SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring Resample
DATE 8/2/05 TIME 1200
SAMPLING POINT: MWANP-25
DEPTH 18

SAMPLE INFORMATION SAMPLE I.D. NO.: MWANP-25-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE CLEAR, NO ODOR, TRACE OF ORANGE PARTICULATES

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE ~5.0 GALLON

GENERAL INFORMATION WEATHER HOT & CLEAR AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Mi[redacted]A
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: _____ SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring Resample
DATE 8-3-05 TIME 1440
SAMPLING POINT: MWANP-26
DEPTH 23'

SAMPLE INFORMATION SAMPLE I.D. NO.: MWANP-26-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
5.0 GALLON PURGED, COLORLESS, ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
5.0 GALLONS PURGED, COLORLESS, ODORLESS

GENERAL INFORMATION WEATHER SUNNY, HOT AIR TEMPERATURE 90-100°F±

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ [redacted]
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: JED WITTEMANN SAMPLING OBSERVED BY: _____
DISCREPANCIES: _____

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring Resample
DATE 8/3/05 TIME 1440
SAMPLING POINT: MWANP-27
DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: MWANP-27-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST)
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST)
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
SAMPLE CLEAR, NO ODOR, ORANGE PARTICULATES

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
TOTAL PURGE 5.0 GAL

GENERAL INFORMATION WEATHER HOT + CLEAR AIR TEMPERATURE 90's

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California [redacted]
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: [signature] SAMPLING OBSERVED BY:
DISCREPANCIES:

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring Resample
DATE 8-3-05 TIME 920
SAMPLING POINT: DP1
DEPTH N/A

SAMPLE INFORMATION SAMPLE I.D. NO.: DP-1-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
46 GALLONS PURGED, COLORLESS, ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
46 GALLONS PURGED, COLORLESS, ODORLESS

GENERAL INFORMATION WEATHER SUNNY, V. HOT AIR TEMPERATURE 90-100°F±

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ [redacted]A
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: TED WITTEMANN SAMPLING OBSERVED BY: DAN VASS
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring Resample
DATE 8-3-05 TIME 935
SAMPLING POINT DP-2
DEPTH N/A

SAMPLE INFORMATION SAMPLE I.D. NO.: DP-2-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 60108,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
60 GALLONS PURGED, COLORLESS, ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
60 GALLONS PURGED, COLORLESS, ODORLESS

GENERAL INFORMATION WEATHER SUNNY, V. HOT AIR TEMPERATURE 90-100°F±

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: DAN VASS SAMPLING OBSERVED BY: TED WITTEMANN
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring Resample
DATE 8.3.05 TIME 940
SAMPLING POINT: DP-3
DEPTH N/A

SAMPLE INFORMATION SAMPLE I.D. NO.: DP-3-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
65 GALLONS PURGED, COLORLESS, ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
65 GALLONS PURGED, COLORLESS, ODORLESS

GENERAL INFORMATION WEATHER SUNNY, HOT AIR TEMPERATURE 90-100°F±

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ [redacted]
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: DAN VASS SAMPLING OBSERVED BY: TED WITTEMANN
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring Resample
DATE 8-23-05 TIME 945
SAMPLING POINT: DP-4
DEPTH N/A

SAMPLE INFORMATION SAMPLE I.D. NO.: DP-4-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
75 GALLONS PURGED, COLORLESS, ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
75 GALLONS PURGED, COLORLESS, ODORLESS

GENERAL INFORMATION WEATHER SUNNY, HOT AIR TEMPERATURE 90-100°F±

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ M[redacted] Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: DAN VASS SAMPLING OBSERVED BY: TED WITTEMANN
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring Resample
DATE 8·3·05 TIME 955
SAMPLING POINT: DP-5
DEPTH N/A

SAMPLE INFORMATION SAMPLE I.D. NO.: DP-5 -0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2. Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
80 GALLONS PURGED, COLORLESS, ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
80 GALLONS PURGED, COLORLESS, ODORLESS

GENERAL INFORMATION WEATHER SUNNY, HOT AIR TEMPERATURE 90-100°F±

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ M[redacted] Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: DAN VAGS SAMPLING OBSERVED BY: TED WITTEMANN
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring Resample
DATE 8-3-05 TIME 1000
SAMPLING POINT: DP-6
DEPTH N/A

SAMPLE INFORMATION SAMPLE I.D. NO.: DP-6-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
100 GALLONS PURGED, COLORLESS, ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
100 GALLONS PURGED, COLORLESS, ODORLESS

GENERAL INFORMATION WEATHER SUNNY, HOT AIR TEMPERATURE 90-100°F±

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ [redacted]
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: DAN VASS SAMPLING OBSERVED BY: TED WITTEMANN
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring Resample
DATE 8-3-05 TIME 1105
SAMPLING POINT: DP-7
DEPTH N/A

SAMPLE INFORMATION SAMPLE I.D. NO.: DP-7-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
65 GALLONS PURGED, COLORLESS, ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
65 GALLONS PURGED, COLORLESS, ODORLESS

GENERAL INFORMATION WEATHER SUNNY; HOT AIR TEMPERATURE 90-100°F±

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ [redacted]
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: DAN VASS SAMPLING OBSERVED BY: TED WITTEMANN
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring Resample
DATE 8-3-05 TIME 1115
SAMPLING POINT: DP-8
DEPTH N/A

SAMPLE INFORMATION SAMPLE I.D. NO.: DP-8-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
60 GALLONS PURGED, COLORLESS, ODORLESS.

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
60 GALLONS PURGED, COLORLESS, ODORLESS

GENERAL INFORMATION WEATHER SUNNY, HOT AIR TEMPERATURE 90-100°F±

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburgh, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: DAN VASS SAMPLING OBSERVED BY: TED WITTEMANN
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring Resample
DATE 8.3.05 TIME 1010
SAMPLING POINT: DP-9
DEPTH N/A

SAMPLE INFORMATION SAMPLE I.D. NO.: DP-9-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2. Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
50 GALLONS PURGED, COLORLESS, ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
50 GALLONS PURGED, COLORLESS, ODORLESS

GENERAL INFORMATION WEATHER SUNNY, HOT AIR TEMPERATURE 90-100°F±

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseep[redacted] PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: DAN VASS SAMPLING OBSERVED BY: TED WITTEMANN
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring Resample
DATE 8·3·05 TIME 1020
SAMPLING POINT: DP-10
DEPTH N/A

SAMPLE INFORMATION SAMPLE I.D. NO.: DP-10-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 60108,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
40 GALLONS PURGED, COLORLESS, ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
40 GALLONS PURGED, COLORLESS, ODORLESS

GENERAL INFORMATION WEATHER SUNNY, HOT AIR TEMPERATURE 90-100°F ±

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microscope [redacted]
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: TED WITTEMANN SAMPLING OBSERVED BY: DAN VASS
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring Resample
DATE 8.3.05 TIME 1030
SAMPLING POINT: DP-11
DEPTH N/A

SAMPLE INFORMATION SAMPLE I.D. NO.: DP-11-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
60 GALLONS PURGED, COLORLESS, ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
60 GALLONS PURGED, COLORLESS, ODORLESS

GENERAL INFORMATION WEATHER SUNNY, HOT AIR TEMPERATURE 90-100°F±

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps [redacted] PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: TED WITTEMANN SAMPLING OBSERVED BY: DAN VASS
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring Resample
DATE 8-3-05 TIME 1200
SAMPLING POINT: DP-11 (1036)
DEPTH N/A

SAMPLE INFORMATION SAMPLE I.D. NO.: OU8DUP-3-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
60 GALLONS PURGED, COLORLESS, ODORLESS (DUPLICATE OU8 DP-11-0705)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
60 GALLONS PURGED, COLORLESS, ODORLESS (DUPLICATE OU8 DP-11-0705)

GENERAL INFORMATION WEATHER SUNNY, HOT AIR TEMPERATURE 90-100°F±

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ [redacted]
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: TED WITTEMANN SAMPLING OBSERVED BY: DANVASS
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring Resample
DATE ~~8-3-05~~ 8·3·05 TIME 1045
SAMPLING POINT DP-12
DEPTH N/A

SAMPLE INFORMATION SAMPLE I.D. NO.: DP-12-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
50 GALLONS PURGED, COLORLESS, ODORLESS

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
50 GALLONS PURGED, COLORLESS, ODORLESS

GENERAL INFORMATION WEATHER SUNNY, HOT AIR TEMPERATURE 90–100°F ±

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/[redacted] Pittsburg, PA
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: TED WITTEMANN SAMPLING OBSERVED BY: DAN VASS
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring Resample
DATE 8-2-05 TIME 17:20
SAMPLING POINT: TRIP BLANK
DEPTH N/A

SAMPLE INFORMATION SAMPLE I.D. NO.: TB - 080205-01

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	2 3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
VOA VIAL	40 ml	2 3	Cool to 4°C	CO_2 by RSK-175

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
N/A LAB PROVIDED

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			
LAB PROVIDED. UNOPENED VOA VIALS W/ COC TAPE ACROSS LIDS			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
N/A LAB PROVIDED

GENERAL INFORMATION WEATHER N/A AIR TEMPERATURE N/A

SAMPLES SHIPPED TO: Columbia Analytical Services - California
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: TED WITTEMANN SAMPLING OBSERVED BY: _____
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring Resample
DATE 08/03/05 TIME 17:15
SAMPLING POINT: LAB PROVIDED
DEPTH N/A

SAMPLE INFORMATION SAMPLE I.D. NO.: TB-080305-01

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	x3 (TB)	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
VOA VIAL	40 ml	x3 (TB)	Cool to 4°C	CO_2 by RSK-175

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
N/A LAB PROVIDED

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail LAB PROVIDED · UNOPENED VOA VIALS W/COC TAPE ACROSS LIDS			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
N/A LAB PROVIDED

GENERAL INFORMATION WEATHER N/A AIR TEMPERATURE N/A

SAMPLES SHIPPED TO: Columbia Analytical Services - California
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: TED WITTEMANN SAMPLING OBSERVED BY: _____
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR -- OU8- Semi-Annual Monitoring Resample
DATE 8.3.05 TIME 1850
SAMPLING POINT: LAB PROVIDED
DEPTH N/A

SAMPLE INFORMATION SAMPLE I.D. NO.: TB - 080305-02

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	(2) 3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
VOA VIAL	40 ml	(2) 3	Cool to 4°C	CO_2 by RSK-175

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
N/A LAB PROVIDED

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
LAB PROVIDED	See associated purge form for sampling detail	UNOPENED VOA VIALS W/COC	TAPE ACROSS LIDS

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
N/A LAB PROVIDED

GENERAL INFORMATION WEATHER N/A AIR TEMPERATURE N/A

SAMPLES SHIPPED TO: Columbia Analytical Services - California
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: TED WITTEMANN SAMPLING OBSERVED BY: _____
DISCREPANCIES: NON

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – OU8- Semi-Annual Monitoring Resample
DATE 8-2-05 TIME 16:10
SAMPLING POINT: EQUIP BLANK
DEPTH N/A

OU8-BLAD-EQB-0705

SAMPLE INFORMATION SAMPLE I.D. NO.: ~~OU8-BLAD-EQB2-0705~~

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H_2SO_4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO_2 by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO_3, SO_4, Cl by E310.1, E300.0
Poly	500 ml	1	HNO_3 to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
N/A DI H_2O LOT #9104040 FISHER SCIENTIFIC (LOW ORGANIC CONTENT H_2O)

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail H_2O PUMPED THROUGH PUMP, BLADDER, AND TUBING.			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
N/A D.I H_2O LOT #9104040 FISHER SCIENTIFIC (LOW ORGANIC CONTENT H_2O)

GENERAL INFORMATION WEATHER N/A AIR TEMPERATURE N/A

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: TED WITTEMANN SAMPLING OBSERVED BY: DAN VASS
DISCREPANCIES: NONE

FIELD SAMPLING REPORT

JOB No. 6301-05-0016
JOB NAME DSCR – IDW
DATE 8.3.05 TIME 15:50
SAMPLING POINT: IDW
DEPTH N/A

SAMPLE INFORMATION SAMPLE I.D. NO.: IDW-2-0705

MATERIAL: ☒ WATER ☐ SOIL ☐ SLUDGE ☐ OTHER (LIST) _____
TYPE: ☒ GRAB ☐ COMPOSITE ☐ OTHER (LIST) _____
HAZARDOUS?: ☐ YES ☒ NO ☐ UNKNOWN

CONTAINER TYPE	CONTAINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
Amber Glass	1 L	2	Cool to 4°C	SVOCs by SW8270C
Amber Glass	1 L	2	Cool to 4°C	Pesticides by SW8081A
Amber Glass	1 L	2	Cool to 4°C	Herbicides by SW8151A
Poly	500 ml	1	HNO_3 to pH<2; Cool to 4°C	Total RCRA Metals (+ Cu, Ni, Zn, and Hg) by 6010B, 7470A
Poly	1 L	1	Cool to 4°C	TSS by EPA 160.2 BOD by SM5210

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
COMPOSITE OF 3 DRUMS ≈ 130 GALLONS, LIGHT BROWN, STRONG SWEET SULPHUR ODOR

FIELD MEASUREMENTS

PARAMETER	EQUIPMENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail			

COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)
COMPOSITE OF 3 DRUMS ≈ 130 GALLONS, LIGHT BROWN, STRONG SWEET SULPHUR ODOR

GENERAL INFORMATION WEATHER SUNNY, HOT AIR TEMPERATURE 90-100°F±

SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California
SPECIAL HANDLING: FedEx
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE

QA/QC

SAMPLE COLLECTED BY: TED WITTEMANN SAMPLING OBSERVED BY: DAN VASS
DISCREPANCIES: NONE

APPENDIX A3

OPERABLE UNIT 6
CHAIN OF CUSTODY DOCUMENTATION

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

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COC# 14[illegible]2

SR #

CAS Contact

Project Name: DSCR Bi-Annual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC 3200 Town Point Dr Ste 100 Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: Daniel Howard	Sampler's Printed Name: Daniel Howard

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE

TOTAL NUMBER OF CONTAINERS

METALS - CIRCLE ON LIST BELOW

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	REMARKS/ ALTERNATE DESCRIPTION
TB-071205		7/12/05	0900	W	9	See RFA
AEHA-18B-0705			1200	W	13	Remaining samples
AEHA-18A-0705			1155	W	13	are in FedEx JD
AEHA-25A-0705			1510	W	9	cooler #
AEHA-25B-0705			1500	W	9	851031587757
OU6DUP-4-0705			1200	W	9	
AEHA-24B-0705			1700	W	9	
AEHA-5-0705			1555	W	9	
OU6DUP-1-0705			1200	W	9	
AEHA-24A-0705			1630	W	9	

* Circle the method and each appropriate metal.

Total Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Ti Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS FedEx # 851103158746

REPORT REQUIREMENTS
___ I. Results Only
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
___ IV. Data Validation Report with Raw Data
___ V. Specialized Forms / Custom Report
Edata ___ Yes ___ No

INVOICE INFORMATION
PO# _____
BILL TO: Above address

TURNAROUND REQUIREMENTS
___ 5 Day
X Standard (10-15 working days)
___ Provide FAX Results
Other _____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/12/05/1915	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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COC# 14303

SR #

CAS Contact

Project Name: DSCR Bi-Annual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC 3200 Town Point Dr Ste 100 Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: Daniel Howard	Sampler's Printed Name: Daniel Howard

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE

TOTAL NUMBER OF CONTAINERS

METALS: CIRCLE ON LIST BELOW

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	REMARKS/ ALTERNATE DESCRIPTION
AEHA-25A-0705		7/12/05	1510	W	4	RFA are in FedEx cooler ID#
AEHA-25B-0705			1500	W	5	
OU6DUP-4-0705			1200	W	4	
~~AEHA~~AEHA-24B-0705			1700	W	4	
AEHA-5-0705			1555	W	4	851103158746
OU6DUP-1-0705			1200	W	4	
AEHA-24A-0705		↓	1630	W	4	

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: FedEx # 851103158757

REPORT REQUIREMENTS

____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION

PO#
BILL TO: Above address

TURNAROUND REQUIREMENTS

____ 5 Day
X Standard (10-15 working days)
____ Provide FAX Results
Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/12/05 1915	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

816 431

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COC# 14987

SR #

CAB Contact

Project Name: DSCR Bi Annual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC 3200 Town Point Dr Ste 100 Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: Daniel Howard	Sampler's Printed Name: Daniel Howard

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE

TOTAL NUMBER OF CONTAINERS

METALS: CIRCLE ON LIST BELOW

Preservative Key:
0. NONE
1. HCl
2. HNO3
3. H2SO4
4. NaOH
5. Zn. Acetate
6. MeOH
7. NaHSO4
8. Other H3PO4

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	REMARKS/ ALTERNATE DESCRIPTION
TB-071305		7/13/05	0830	W	9	Cooler # 0713A
AEHA-15A-0705			1020		10	All VOA vials + TOC, VFA in cooler
AEHA-21B-0705			1040		10	
AEHA-21B-0705MS/MSD			1040		8	See RFA For Analyses
MWA50-36-0705			1200		10	
MWA50-37-0705			0945		10	
MWA50-37-0705 MS/MSD			0945		8* 10	
DMW-7A-0705			1300		10	
MWA50-38-0705			1015		10	
AEHA-26A-0705		↓	1250	↓	10* 115	

* Circle the method and each appropriate metal.

Total Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: FedEx ID # 851031587779

REPORT REQUIREMENTS

____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION

PO#
BILL TO:

TURNAROUND REQUIREMENTS

____ 5 Day
____ Standard (10-15 working days)
____ Provide FAX Results
Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: Daniel Howard	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: MACTEC	Firm:	Firm:	Firm:	Firm:	Firm:
Date/Time: 7/13/05 1830	Date/Time:	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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PAGE 2 OF 2

COC# 14[illegible]5

SR #

CAS Contact

Project Name: DSCR Bi-Annual GW Sampling	Project Number: 6301-05-0016,0709,0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC 3200 Town Point Dr Ste 100 Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: Daniel Howard	Sampler's Printed Name: Daniel Howard

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE

TOTAL NUMBER OF CONTAINERS

METALS* CIRCLE ON LIST BELOW

Preservative Key
0. NONE
1. HCl
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other Hex

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	#	REMARKS/ ALTERNATE DESCRIPTION
AEHA-26B-0705		7/13/05	1205	W	10	Cooler # 0713A

All VOA vials - TOC in Cooler

See RFA for Analyses

* Circle the method and each appropriate metal.

Total Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Be Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: FedEx ID# 851103158779

REPORT REQUIREMENTS
- ___ I. Results Only
- ___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
- ___ III. Results + QC and Calibration Summaries
- ___ IV. Data Validation Report with Raw Data
- ___ V. Specialized Forms / Custom Report

Edata ___ Yes ___ No

INVOICE INFORMATION
PO#
BILL TO.

TURNAROUND REQUIREMENTS
- ___ 5 Day
- ___ Standard (10-15 working days)
- ___ Provide FAX Results

Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/13/05 1830	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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PAGE 1 OF 1

COC# 14[illegible]8

SR #

CAS Contact

Project Name: DSCRB-Annual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name:

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE

TOTAL NUMBER OF CONTAINERS

METALS: CIRCLE ON LIST BELOW

Preservative Key
0. NONE
1. HCL
2. ~~HNO3~~
3. ~~H2SO4~~
4. ~~NaOH~~
5. Zn. Acetate
6. ~~MeOH~~
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	REMARKS/ ALTERNATE DESCRIPTION
MWA50-36-0705		7/13/05	1200	W	3	Cooler # 0713B
MWA50-37-0705			0945		3	RFA sent in FedEx
MWA50-37-0705MS/MSD			0945		6	Cooler #
DMW-7A-0705			1300		3	851103158779
AEHA-26A-0705			1015		3	
AEHA-26B-0705			1250		3	

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: FedEx ID# 851103158768

REPORT REQUIREMENTS

____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION

PO# _____
BILL TO: _____

TURNAROUND REQUIREMENTS

____ 5 Day
____ Standard (10-15 working days)
____ Provide FAX Results
Other _____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: Daniel Howard	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: MACTEC	Firm:	Firm:	Firm:	Firm:	Firm:
Date/Time: 7/13/05 / 1830	Date/Time:	Date/Time:	Date/Time:	Date/Time:	Date/Time:

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PAGE 1 OF 1

COC# 14[illegible]6

SR #

CAS Contact

Project Name: DSCR Bi-Annual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC 3200 Town Point Dr Ste Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE

TOTAL NUMBER OF CONTAINERS

METALS: CIRCLE ON LIST BELOW

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn Acetate
6. MeOH
7. $NaHSO_4$
8. Other 1

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	REMARKS/ ALTERNATE DESCRIPTION
AEHA-15A-0705		7/13/05	1020	W	3	Cooler # 0713C
AEHA-21B-0705			1040	W	3	RFAs are in FedEx Cooler # 851103158779
AEHA-21B-0705MS/MSD			1040	W	6	
MWA50-38-0715			1015	W	3	

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: FedEx Cooler # 851103158780

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO: Above Address

TURNAROUND REQUIREMENTS
____ 5 Day
X Standard (10-15 working days)
____ Provide FAX Results
Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/13/05 1830	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

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COC# 14995

SR #

CAS Contact

Project Name: DSCR Bi-Annual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: Daniel Howard	Sampler's Printed Name: MACTEC

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1 | 1 | 0

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS - CIRCLE ON LIST BELOW	VOA 8260B	pH	BTEX	CO2	REMARKS/ ALTERNATE DESCRIPTION
TB-071405		7/14/05	0830	W	9		X	X	X		
AEHA-33A-0705			1010	W	9		X	X	X		
AEHA-23A-0705			1245	W	9		X	X	X		
AEHA-28B-0705			0940	W	9		X	X	X		
AEHA-28A-0705			1115	W	9		X	X	X		
AEHA-30B-0705			1145	W	9		X	X	X		
AEHA-30A-0705			1300	W	9		X	X	X		
DMW-28E-0705			0950	W	3		X				
OU6DUP-5-0705			1200	W	9		X	X	X		
OU6DUP-3-0705		↓	1200	W	9		X	X	X		

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: Fed Ex # 851103158816

REPORT REQUIREMENTS
- ____ I. Results Only
- ____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
- ____ III. Results + QC and Calibration Summaries
- ____ IV. Data Validation Report with Raw Data
- ____ V. Specialized Forms / Custom Report

Edata ____ Yes ____ No

INVOICE INFORMATION
PO# _____
BILL TO: _____

TURNAROUND REQUIREMENTS
- ____ 5 Day
- ____ Standard (10-15 working days)
- ____ Provide FAX Results

Other _____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/14/05 1900	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

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PAGE 2 OF 2

COC# 14[illegible]6

SR #

CAS Contact

Project Name: DSCR Bi-Annual GW Sampling
Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs
Report QC: Judy Hartness
Company/Address: MACTEC
3200 Town Point Dr Ste 100
Kennesaw, GA 30144
Phone #: 770-421-3400
FAX#: 770-421-3486
Sampler's Signature: MACTEC
Sampler's Printed Name:

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 1 0

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS: CIRCLE ON LIST BELOW	VOA 8260B	M,E,E	CO2	REMARKS/ ALTERNATE DESCRIPTION
AEHA-23B-0705		7/14/05	0930	W	9		X	X	X	
OU6DUP-2-0705			1200	W	9		X	X	X	
AEHA-33B-0705			1000	W	9		X	X	X	
USGS-P2-0705			1630	W	9		X	X	X	
USGS-PH-0705			1615	W	9		X	X	X	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

* Circle the method and each appropriate metal.

Total Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: Fed Ex # 851103158816

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

TURNAROUND REQUIREMENTS
____ 5 Day
X Standard (10-15 working days)
____ Provide FAX Results
Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/14/05 1400	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

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COC# 14[illegible]0

SR #

CAS Contact

Project Name: DSCR Bi Annual GW Sampling	Project Number: 6301-05-0016,0709,0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	Alk, NO_3, Cl, SO_4	Sulfide	TOC	VFA	REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE					2	0	4/5	3	8		
OU6DUP-5-0705		7/14/05	1200	W	4	X	X	X	X		RFAs are in Fed Ex cooler # 851103158816
OU6DUP-3-0705			1200	W	4	X	X	X	X		
AEHA-23B-0705			0930	W	4	X	X	X	X		
OU6DUP-2-0705			1200	W	5	X	X	X	X	X	
AEHA-33B-0705			1000	W	4	X	X	X	X		
USGS-P2-0705			1630	W	4	X	X	X	X		
USGS-P4-0705		↓	1615	W	4	X	X	X	X		

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other H_3PO_4

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: Fed Ex # 851103158805

REPORT REQUIREMENTS
___ I. Results Only
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
___ IV. Data Validation Report with Raw Data
___ V. Specialized Forms / Custom Report
Edata ___ Yes ___ No

INVOICE INFORMATION
PO#
BILL TO:

TURNAROUND REQUIREMENTS
___ 5 Day
X Standard (10-15 working days)
___ Provide FAX Results
Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: David Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/14/05 1900	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

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COC# 14989

SR #

CAS Contact

Project Name: DSCR Bi Annual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kennesaw, GA 30144	
Phone #: 770-42-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	Alk	NO_3	Cl	SO_4	Sulfide	TOC	VFA	REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE					2	0	4/5	3	8					
AEHA-33A-0705		7/14/05	1010	W	4	X	X	X	X					RFAs are in FedEx Cooler # 851103158816
AEHA-23A-0705			1245	W	5	X	X	X	X	X				
AEHA-28B-0705			0940	W	4	X	X	X	X					
AEHA-28A-0705			1115	W	5	X	X	X	X	X				
AEHA-30B-0705			1145	W	5	X	X	X	X	X				
AEHA-30A-0705			1300	W	5	X	X	X	X	X				

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other H_3PO_4

* Circle the method and each appropriate metal.

Total Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: FedEx # 851103158790

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO# ____
BILL TO: ____

TURNAROUND REQUIREMENTS
____ 5 Day
X Standard (10-15 working days)
____ Provide FAX Results
Other ____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel L Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/14/05/1900	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

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PAGE 1 OF 2

COC# 14907

SR #

CAS Contact

Project Name: DSCRB: Annual GW Sampling	Project Number: 6301-05-0016:D709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1 1 0

TOTAL NUMBER OF CONTAINERS

METALS: CIRCLE ON LIST BELOW

VOA 8260B

M, E, E

CO_2

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS: CIRCLE ON LIST BELOW	VOA 8260B	M, E, E	CO_2	REMARKS/ ALTERNATE DESCRIPTION
TB-071505		7/15/05	0830	W	9		3	3	3	
AEHA-12A-0705			1315	W	9		X	X	X	
AEHA-16A-0705			1000	W	9		X	X	X	
DMW-18A-0705			1250	W	9		X	X	X	
AEHA-27B-0705			1700	W	9		X	X	X	
USGS-D4-0705			1010	W	9		X	X	X	
LAWMW-9-0705			1580	W	9		X	X	X	
USGS-N1-0705			1543	W	9		X	X	X	
MWA50-35-0705			1655	W	9		X	X	X	
USGS-C2-0705		↓	1500	W	9		X	X	X	

* Circle the method and each appropriate metal.

Total Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: Fed Ex # 851103158849

REPORT REQUIREMENTS

____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION

PO# _____
BILL TO: _____

TURNAROUND REQUIREMENTS

____ 5 Day
X Standard (10-15 working days)
____ Provide FAX Results
Other _____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/15/05 / 1920	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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PAGE 2 OF 2

COC# 14[illegible]8

SR #

CAS Contact

Project Name: DSCR Bi-Annual GWSampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 1 0

DH	CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS: CIRCLE ON LIST BELOW	VOA 8260B	MEE	CO2	REMARKS/ ALTERNATE DESCRIPTION
X	USGS-H2-0705		7/15/05	1100	W	9		3	3	3	
	USGS-BR2-0705		↓	1520	W	3		X			
	DUP-6-0705		↓	1520	W	3		X			

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: Fed Ex # 851103158849

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO# _____
BILL TO: _____

TURNAROUND REQUIREMENTS
____ 5 Day
X Standard (10-15 working days)
____ Provide FAX Results
Other _____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/15/05 1920	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

816 441

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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PAGE 1 OF 1

COC# 14[illegible]9

SR #

CAS Contact

Project Name: DSCR Bi Annual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC 3200 Town Point Dr Ste 100 Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature:	Sampler's Printed Name:

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 2 | 0 | 4b | 3 | 8

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	Alk, NO_3, Cl, SO_4	Sulfide	TOC	VFA	REMARKS/ ALTERNATE DESCRIPTION
AEHA-12A-0705		7/15/05	1315	W	4	X	X	X	X		RFAs are in cooler Fed Ex # 851103158849
AEHA-16A-0705			1000	W	4	X	X	X	X		
DMW-18A-0705			1250	W	4	X	X	X	X		
AEHA-27R-0705			1700	W	4	X	X	X	X		
USGS-DH-0705			1010	W	4	X	X	X	X		

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other H_3PO_4

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: Fed Ex # 851103158838

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

TURNAROUND REQUIREMENTS
____ 5 Day
__X__ Standard (10-15 working days)
____ Provide FAX Results
Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/15/05 1920	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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PAGE 1 OF 1

COC# 14[illegible]0

SR #

CAS Contact

Project Name: DSCR Bi-Annual GW Sampling	Project Number: 6301-05-0016, 0709, 0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature:	Sampler's Printed Name:

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	Alk, NO_3, Cl, SO_4	Sulfide	TOC	VFA	REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE						2	0	4/5	3	8	
LAWMW-Q-0705		7/15/05	1550	W	4	X	X	X	X		RFAs are
USGS-N1-0705			1543	W	4	X	X	X	X		in cooler
MWA50-35-0705			1655	W	5	X	X	X	X	X	Fed Ex #
USGS-C2-0705			1500	W	4	X	X	X	X		851103158849
USGS-H2-0705		↓	1100	W	5	X	X	X	X	X	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other H_3PO_4

* Circle the method and each appropriate metal.

Total Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: Fed Ex # 851103158827

REPORT REQUIREMENTS
- ___ I. Results Only
- ___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
- ___ III. Results + QC and Calibration Summaries
- ___ IV. Data Validation Report with Raw Data
- ___ V. Specialized Forms / Custom Report

Edata ___ Yes ___ No

INVOICE INFORMATION
PO#
BILL TO:

TURNAROUND REQUIREMENTS
- ___ 5 Day
- X Standard (10-15 working days)
- ___ Provide FAX Results

Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/15/05 / 1920	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

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PAGE 1 OF 1

COC# 14[illegible]1

SR #

CAS Contact

Project Name: DSCR BiAnnual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC 3200 Town Point Dr Ste 100 Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 1 0

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS: CIRCLE ON LIST BELOW	VOA 8260B	M, E, E	CO_2	Alk, NO_3, Cl, SO_4	Sulfide	TOC	REMARKS/ ALTERNATE DESCRIPTION
TB-071605		7/16/05	0800	W	9		X	X	X				
046-BLAD-EQB-0705			1015	W	13	X	X	X	X	X	X	X	
USGS-K2-0705			1015	W	9		X	X	X				
AEHA-34A-0705			0930	W	9		X	X	X				
AEHA-22A-0705			0850	W	13	X	X	X	X	X	X	X	
DMW-9A-0705			1110	W	9		X	X	X				
DMW-9B-0705			1015	W	9		X	X	X				
USGS-F2-0705			1100	W	9		X	X	X				
USGS-F4-0705			1000	W	9		X	X	X				

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

* Circle the method and each appropriate metal.

Total Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: ~~FedEx on #~~ Delta Dash# 006 3093 3571

REPORT REQUIREMENTS
- ____ I. Results Only
- ____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
- ____ III. Results + QC and Calibration Summaries
- ____ IV. Data Validation Report with Raw Data
- ____ V. Specialized Forms / Custom Report

Edata ____ Yes ____ No

INVOICE INFORMATION
PO# _____
BILL TO: _____

TURNAROUND REQUIREMENTS
- ____ 5 Day
- X Standard (10-15 working days)
- ____ Provide FAX Results

Other _____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: Daniel Howard	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: MACTEC	Firm:	Firm:	Firm:	Firm:	Firm:
Date/Time: 7/16/05 1430	Date/Time:	Date/Time:	Date/Time:	Date/Time:	Date/Time:

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PAGE _____ OF _____

COC# 14937

SR #

CAS Contact

Project Name: DSCR Bi-Annual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC 3200 Town Point Dr Ste 100 Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 2 | 0 | 4/5 | 3 | 8

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS - CIRCLE ON LIST BELOW	Alk, NO_3, Cl, SO_4	Sulfide	TOC	VFA	REMARKS/ ALTERNATE DESCRIPTION
USGS-K2-0705		7/6/05	1015	W	4	X	X	X	X		RFAs are in cooler with Delta Dash ID #
AEHA-34A-0705			0930	W	4	X	X	X	X		
DMW-9A-0705			1110	W	4	X	X	X	X		
DMW-9B-0705			1015	W	4	X	X	X	X		
USGS-F2-0705			1100	W	5	X	X	X	X	X	
USGS-F4-0705			1000	W	4	X	X	X	X		

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other H_3PO_4

* Circle the method and each appropriate metal.

Total Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: Delta Dash # 006 3093 3571

REPORT REQUIREMENTS

____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report

Edata ____ Yes ____ No

INVOICE INFORMATION

PO# _____
BILL TO: _____

TURNAROUND REQUIREMENTS

____ 5 Day
____ Standard (10-15 working days)
____ Provide FAX Results
Other _____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/16/05/1430	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

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PAGE 1 OF 2

COC# 14[illegible]6

SR #

CAS Contact

Project Name: DSCR Bi-Annual GW Sampling	Project Number: 6301-05-0016,0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC 3200 Town Point Dr Ste 100 Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name:

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 | 1 | 0

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS: CIRCLE ON LIST BELOW	VOA 8260B	MEE	CO2	REMARKS/ ALTERNATE DESCRIPTION
TB-071705		7/17/05	0800	W	9		X	X	X	
USGS-K4-0705			0803	W	9		X	X	X	
USGS-G3-0705			0930	W	9		X	X	X	
USGS-G4-0705			0900	W	9		X	X	X	
USGS-G4-0705MS/MSD			0900	W	6		X			
USGS-M2-0705			1015	W	9		X	X	X	
USGS-J4-0705			1050	W	9		X	X	X	
USGS-M4-0705			1023	W	9		X	X	X	
USGS-L2-0705			0925	W	9		X	X	X	
USGS-A4-0705			0950	W	9		X	X	X	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: Delta Dash #006 3093 3840

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO# _____
BILL TO: _____

TURNAROUND REQUIREMENTS
____ 5 Day
X Standard (10-15 working days)
____ Provide FAX Results
Other _____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/17/05/ 1430	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

816 446

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

BCOC-1204-11

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COC# 14[illegible]8

PAGE 2 OF 2

SR #

CAS Contact

Project Name: DSCRB: Annual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 1 0

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	VOA 8260B	MEE	CO_2	REMARKS/ ALTERNATE DESCRIPTION
USGS-B2-0705		7/17/05	0930	W	9		X	X	X	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: Delta Dash ~~#~~ 006 3093 3840

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

TURNAROUND REQUIREMENTS
____ 5 Day
__X__ Standard (10-15 working days)
____ Provide FAX Results
Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/17/05/1430	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

8164 47

0705 KB
17

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COC# 1479

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PAGE _____ OF _____

SR #

CAS Contact

Project Name: DSCR BiAnnual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 2 | 0 | 4/5 | 3 | 8

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	Alk, NO3, Cl, SO4	Sulfide	TOC	VFA	REMARKS/ ALTERNATE DESCRIPTION
USGS-K4-0705		7/17/05	0803	W	4	X	X	X	X		
USGS-G3-0705			0930		5	X	X	X	X	X	
USGS-G4-0705			0900		4	X	X	X	X		
USGS-G4-0705 MS/MSD			0900		8	X	X	X	X		
USGS-M2-0705			1015		4	X	X	X	X		

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other H_3PO_4

* Circle the method and each appropriate metal.

Total Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: Delta Dash # 006 3093 3840
006 3093 3836

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO# _____
BILL TO: _____

TURNAROUND REQUIREMENTS
____ 5 Day
____ Standard (10-15 working days)
____ Provide FAX Results
Other _____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Mactec	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/17/05/1430	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

816 448

0705BC 17

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COC# 14[illegible]5

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CAS Contact

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PAGE _____ OF _____

Project Name: DSCR Bi-Annual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC 3200 Town Point Dr Ste 100 Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 2 | 0 | 4/5 | 3 | 8

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	Alk, NO_3, Cl, SO_4	Sulfide	TOC	VFA	REMARKS/ ALTERNATE DESCRIPTION
USGS-I4-0705		7/17/05	1050	W	4	X	X	X	X		
USGS-M4-0705			1023		4	X	X	X	X		
USGS-L2-0705			0925		4	X	X	X	X		
USGS-A4-0705			0950		4	X	X	X	X		
USGS-R2-0705			0930		4	X	X	X	X		

Preservative Key:
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other H_3PO_4

* Circle the method and each appropriate metal.

Total Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: ~~FedEx D#~~ Delta Dash # 006 3093 3840

REPORT REQUIREMENTS
- ____ I. Results Only
- ____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
- ____ III. Results + QC and Calibration Summaries
- ____ IV. Data Validation Report with Raw Data
- ____ V. Specialized Forms / Custom Report

Edata: ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

TURNAROUND REQUIREMENTS
- ____ 5 Day
- X Standard (10-15 working days)
- ____ Provide FAX Results

Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Mactec	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/17/05/1430	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

SCOC-1204-11

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PAGE 1 OF 1

COC# 14939

SR #

CAS Contact

Project Name: DSCR Bi Annual GW Sampling	Project Number: 6301-05-0016 10709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC 3200 Town Point Dr Ste 100 Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	VOA	MEE	CO_2	Alk, NO_3, Cl, SO_4	Sulfide	TOC	VFA	REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE					2	1	1	0	0	4½	3	8		
TB-071805		7/18/05	0800	W	9		X	X	X					
AEHA-31A-0705			0935		13	X	X	X	X	X	X	X		
AEHA-31B-0705			1000		13	X	X	X	X	X	X	X		
AEHA-32A-0705			1000		14	X	X	X	X	X	X	X	X	
AEHA-32B-0705		↓	0910	↓	13	X	X	X	X	X	X	X		

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other H_3PO_4

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: FedEx # 851103158850

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO# ____
BILL TO: ____

TURNAROUND REQUIREMENTS
____ 5 Day
X Standard (10-15 working days)
____ Provide FAX Results
Other ____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/18/05 2000	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

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0016 1233 A

CHAIN - OF - CUSTODY RECORD

Phone: (412) 826-5245 — **Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238** — Fax No.: (412) 826-5433

Company: MACTEC
Co. Address: 3200 Town Point Dr Ste 100 Kennesaw GA 30144
Proj. Manager: Steve Youngs
Proj. Location: DSCR, Richmond VA
Proj. Number: 6301-05-0016.0709.0200
Phone #: 770-421-3400 **Fax #:** 770-421-3486

Sampler's signature: MACTEC/Daniel Howard

Results to: Judy Hartness

Invoice to: Judy Hartness

Parameters Requested

Sample ID	Sample Description	Date	Time	Comp.	Grab	# Cont.	I								Remarks
~~AEHA-18B-0705~~ OH	AEHA-18B-0705	7/12/05	1200		X	1	X								Fed Ex #
	AEHA-18A-0705		1155		X	1	X								851103161477
	AEHA-25A-0705		1510		X	1	X								
	AEHA-25B-0705		1500		X	1	X								
	OU6DUP-4-0705		1200		X	1	X								
	AEHA-24B-0705		1700		X	1	X								
	AEHA-5-0705		1555		X	1	X								
	OU6DUP-1-0705		1200		X	1	X								
	AEHA-24A-0705		1630		X	1	X								
	AEHA-15A-0705	7/13/05	1020		X	1	X								
	AEHA-21B-0705		1040		X	1	X								
	MWA50-36-0705		1200		X	1	X								

Cooler ID | Cooler Temp.

Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Daniel Howard	MACTEC	7/12/05	1400				
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :

WHITE COPY : Accompany Samples YELLOW COPY : Laboratory File PINK COPY : Submitter

816 451

46 1233 B

CHAIN - OF - CUSTODY RECORD

Phone: (412) 826-5245 — Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238 — Fax No.: (412) 826-3433

Company: MACTEC
Co. Address: 3200 Town Point Dr, Ste 100, Kennesaw GA 30144
Proj. Manager: Steve Youngs
Proj. Location: DSCR, Richmond VA
Proj. Number: 6301-05-0016.0709.0200
Phone #: 770-421-3400 Fax #: 770-421-3486

Sampler's signature: MACTEC/Daniel Howard

Results to: Judy Hartness
Invoice to: Judy Hartness

Sample ID	Sample Description	Date	Time	Comp.	Grab	# Cont.	H2	Parameters Requested							Remarks
	MWA50-37-0705	7/13/05	0945		X	1	X								Fed Ex #
	DMW-7A-0705		1300		X	1	X								851103161477
	MWA50-38-0705		1015		X	1	X								
	AEHA-26A-0705		1250		X	1	X								
	AEHA-26B-0705	↓	1205		X	1	X								
	AEHA-33A-0705	7/14/05	1010		X	1	X								
	AEHA-23A-0705		1245		X	1	X								
	AEHA-28B-0705		0940		X	1	X								
	AEHA-28A-0705		1115		X	1	X								
	AEHA-30B-0705		1145		X	1	X								
	AEHA-30A-0705		1300		X	1	X								
	OU6DUP-5-0705	↓	1200		X	1	X								

Cooler ID | Cooler Temp.

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Daniel Howard	MECTEC	7/21/05	1901				
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

WHITE COPY : Accompany Samples YELLOW COPY : Laboratory File PINK COPY : Submitter

816 452

1233 C

CHAIN - OF - CUSTODY RECORD

Phone: (412) 826-5245 — **Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238** — Fax No.: (412) 826-3433

Company: MACTEC
Co. Address: 3200 Town Point Dr, Ste 100, Kennesaw, GA 30144
Proj. Manager: Steve Youngs
Proj. Location: DSCR, Richmond VA
Proj. Number: 6301-05-0016.0709.0200
Phone #: 770-421-3400 **Fax #:** 770-421-3486

Sampler's signature: MACTEC/Daniel Howard

Results to: Judy Hartness
Invoice to: Judy Hartness

Sample ID	Sample Description	Date	Time	Comp.	Grab	# Cont.	Parameters Requested: H2								Remarks
	OU6DUP-3-0705	7/14/05	1200		X	1	X								Fed Ex #
	AEHA-23B-0705		0930		X	1	X								851103161477
	OU6DUP-2-0705		1200		X	1	X								
	AEHA-33B-0705		1000		X	1	X								
	USGS-P2-0705		1630		X	1	X								
	USGS-P4-0705	↓	1615		X	1	X								
	AEHA-12A-0705	7/15/05	1315		X	1	X								
	AEHA-16A-0705		1000		X	1	X								
	DMW-18A-0705		1250		X	1	X								
	AEHA-27B-0705		1700		X	1	X								
	USGS-D4-0705		1010		X	1	X								
	LAWMW-Q-0705	↓	1550		X	1	X								

Cooler ID: | **Cooler Temp.:**

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Daniel Howard	MACTEC	7/21/05	1400				
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

WHITE COPY: Accompany Samples — YELLOW COPY: Laboratory File — PINK COPY: Submitter

816 453

6 1233 D

CHAIN - OF - CUSTODY RECORD

Phone: (412) 826-5245 — Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238 — Fax No.: (412) 826-3433

Company: MACTEC
Co. Address: 3200 Town Point Dr, Ste 100, Kennesaw, GA 30144
Proj. Manager: ~~DSCR~~ DH. Steve Youngs
Proj. Location: DSCR, Richmond VA
Proj. Number: 6301-05-0016.0709.0200
Phone #: 770-421-3400 Fax #: 770-421-3486

Sampler's signature: MACTEC / Daniel Howard

Sample ID 71505

Parameters Requested: H_2

Results to: Judy Hartness

Invoice to: Judy Hartness

Cooler ID	Cooler Temp.

Sample ID	Sample Description	Date	Time	Comp.	Grab	# Cont.	H_2	Remarks
	USGS-N1-0705	~~7/21/05~~	1543		X	1	X	FedEx #
	MWA50-35-0705	7/15/05	1655		X	1	X	851103161477
	USGS-C2-0705	↓	1500		X	1	X	
	USGS-H_2-0705		1100		X	1	X	
	~~DH USGS-AR2-0705~~	↓	~~1520~~		~~X~~	~~1~~	~~X~~	
	~~DH BHE DUP-6-0705~~		~~1520~~		~~X~~	~~1~~	~~X~~	
	~~DH USGS-K2-0705~~							
	USGS-K2-0705	7/16/05	1015		X	1	X	
	AEHA-34A-0705	↓	0930		X	1	X	
	AEHA-22A-0705		0850		X	1	X	
	DMW-9A-0705		1110		X	1	X	
	DMW-9B-0705	↓	1015		X	1	X	

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Daniel Howard	MACTEC	7/21/05	1900				
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

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816 454

006

1233 F

CHAIN - OF - CUSTODY RECORD

Phone: (412) 826-5745 — **Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238** — Fax No.: (412) 826-3433

Company : MACTEC
Co. Address : 3200 Town Point Dr
Proj. Manager: Steve Youngs
Proj. Location: DSCR, Richmond VA
Proj. Number: 6301-05-0016.0709.0200
Phone # : 770-421-3400 **Fax # :** 770-421-3486

Sampler's signature : MACTEC / Daniel Howard

Results to : Judy Hartness

Invoice to : Judy Hartness

Cooler ID	Cooler Temp.

Sample ID	Sample Description	Date	Time	Comp.	Grab	# Cont.	Hydrogen								Remarks
	USGS-F2-0705	7/14/05	1100		X	1	X								FedEx #
	USGS-F4-0705	↓	1000		X	1	X								851103161477
	USGS-G3-0705	7/17/05	0930		X	1	X								
	USGS-G4-0705		0900		X	1	X								
	USGS-M2-0705		1015		X	1	Y								
	USGS-J4-0705		1050		X	1	X								
	USGS-M4-0705		1023		X	1	X								
	USGS-L2-0705		0925		X	1	X								
	USGS-A4-0705		0950		X	1	Y								
	USGS-B2-0705	↓	0930		X	1	X								
	AEHA-31A-0705	7/18/05	0935		X	1	Y								
	AEHA-31B-0705	↓	1000		X	1	Y								

Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Daniel Howard	MACTEC	7/21/05	1900				
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :

WHITE COPY : Accompany Samples YELLOW COPY : Laboratory File PINK COPY : Submitter

816 455

16 340

CHAIN - OF - CUSTODY RECORD

Phone: (412) 826-5245 — **Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238** — Fax No. : (412) 826-3433

Company : MACTEC
Co. Address : 3200 Town Point Dr
Proj. Manager: Steve Youngs
Proj. Location: DSCR, Richmond VA
Proj. Number: 6301-05-0016.0709.0200
Phone # : 770-421-3400 **Fax # :** 770-421-3486

Sampler's signature : MACTEC / Daniel Howard

Results to : Judy Hartness

Invoice to : Judy Hartness

Sample ID

Sample ID	Sample Description	Date	Time	Comp.	Grab	# Cont.	Parameters Requested: H2	Remarks
	AEHA-32A-0705	7/18/05	1000		X	1	X	Fed Ex
	AEHA-32B-0705	7/18/05	0910		X	1	X	851103161477
	TB-071205	7/12/05	0800		X	1	X	

Cooler ID	Cooler Temp.

Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Daniel Howard	MACTEC	7/21/05	1400				
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :

WHITE COPY : Accompany Samples YELLOW COPY : Laboratory File PINK COPY : Submitter

816 456

APPENDIX A3

OPERABLE UNIT 7
CHAIN OF CUSTODY DOCUMENTATION

718A

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COC# 14551

SR #

CAS Contact

Project Name: DSCR Bi Annual GW Sampling	Project Number: 6301-05-0016 0709, 0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC 3200 Town Point Dr Ste 100 Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 1 0

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	VOA 8260B	MEE	CO_2	REMARKS/ ALTERNATE DESCRIPTION
TB-071805-02		7/18/05	0815	W	9		X	X	X	
MW-112-2-0705			1020		9		X	X	X	
MWF05-1-0705			1010		9		X	X	X	
DMW-27A-0705			1020		9		X	X	X	
MWF05-3-0705			1000		9		X	X	X	
OU7DUP-3-0705			1200		9		X	X	X	
MWFTA-20-0705			1645		9		X	X	X	
MWFTA-18-0705			1630		9		X	X	X	
DMW-25A-0705			1510		9		X	X	X	
DMW-22A-0705		↓	1510	↓	9		X	X	X	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other ____

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: FedEx # 851031555909

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO# ____
BILL TO: ____

TURNAROUND REQUIREMENTS
____ 5 Day
X Standard (10-15 working days)
____ Provide FAX Results
Other ____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/18/05 2000	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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7 18A

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

COC# 14[illegible]2

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PAGE 2 OF 2

SR #

CAS Contact

Project Name: DSCRB; Annual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 1 0

TOTAL NUMBER OF CONTAINERS

METALS: CIRCLE ON LIST BELOW

VOA 8260B

M, E, F

CO_2

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS		VOA 8260B	M	E	CO_2	REMARKS/ ALTERNATE DESCRIPTION
MWFTA-29B-0705		7/18/05	1515	W	9		X	X	X		
MWFTA-7-0705			1530	W	9		X	X	X		
MWFTA-23-0705			1450	W	9		X	X	X		
MWFTA-16-0705		↓	1630	W	9		X	X	X		

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Nl K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Nl Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Ll Mg Mn Mo Nl K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: Fed Ex # 851103155909

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP; MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO# _____
BILL TO: _____

TURNAROUND REQUIREMENTS
____ 5 Day
X Standard (10-15 working days)
____ Provide FAX Results
Other _____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: David Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/18/05 2000	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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COC# 14[redacted]3
SR #
CAS Contact

Project Name: DSCR B: Annual GW Sampling	Project Number: 6301-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC, 3200 Town Point Dr Ste 100, Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name:

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	Alk, NO_3, Cl, SO_4	Sulfide	TOC	VFA	REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE						2	0	4/5	3	8	
MW-112-2-0705		7/18/05	1020	W	4	X	X	X	X		
MWF05-1-0705		↓	1010	↓	4	X	X	X	X		
DMW-27A-0705		↓	1020	↓	5	X	X	X	X	X	
MWF05-3-0705		↓	1000	↓	5	X	X	X	X	X	
OUTDUP-3-0705		↓	1200	↓	4	X	X	X	X		
MWFTA-20-0705		↓	1645	↓	4	X	X	X	X		
DMW-27A-0705 MS/MSD		↓	1020	↓	2					X	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other H_3PO_4

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Ti Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Ti Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: Fed Ex# 851103155920

REPORT REQUIREMENTS
___ I. Results Only
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
___ IV. Data Validation Report with Raw Data
___ V. Specialized Forms / Custom Report
Edata ___ Yes ___ No

INVOICE INFORMATION
PO#
BILL TO:

TURNAROUND REQUIREMENTS
___ 5 Day
X Standard (10-15 working days)
___ Provide FAX Results
Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/18/05 / 2000	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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PAGE 1 OF 1

SR #

CAS Contact

Project Name: DSCR Bi Annual GW Sampling	Project Number: 6301-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC 3200 Town Point Dr Ste 100 Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 2 | 0 | 4/5 | 3 | 8

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	Alk, NO_3, Cl, SO_4	Sulfide	TOC	VFA										REMARKS/ ALTERNATE DESCRIPTION
MWFTA-18-0705		7/18/05	1630	W	4	X	X	X	X											
DMW-25A-0705			1510		4	X	X	X	X											
DMW-22A-0705			1510		4	X	X	X	X											
MWFTA-29B-0705			1515		4	X	X	X	X											
MWFTA-7-0705			1530		4	X	X	X	X											
MWFTA-23-0705			1450		4	X	X	X	X											
MWFTA-16-0705			1630		5	X	X	X	X	X										

Preservative Key:
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other H_3PO_4

* Circle the method and each appropriate metal.

Total Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: FedEx # 851103155910

REPORT REQUIREMENTS
___ I. Results Only
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
___ IV. Data Validation Report with Raw Data
___ V. Specialized Forms / Custom Report
Edata ___ Yes ___ No

INVOICE INFORMATION
PO# ___
BILL TO: ___

TURNAROUND REQUIREMENTS
___ 5 Day
X Standard (10-15 working days)
___ Provide FAX Results
Other ___

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/18/05 2000	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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COC# 14317

SR #

CAS Contact

Project Name: DSCR BiAnnual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report QC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 08 | 1 | 1 | 0

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	VOA 8260B	MEE	CO2	REMARKS/ ALTERNATE DESCRIPTION
TB-071905		7/19/05	0800	W	9		X	X	X	
047-BLAD-EQB-0705			1100		9		X	X	X	
DMW-33A-0705			1130		9		X	X	X	
MWFTA-14-0705			1110		9		X	X	X	
MWFTA-19-0705			1032		9		X	X	X	
MWFTA-19-0705 MS/MSD			1032		6		X			
047PZ-8-0705			1100		9		X	X	X	
047PZ-4-0705			1055		9		X	X	X	
MWFTA-28B-0705			1045		9		X	X	X	
MWFTA-5-0705		↓	1030	↓	9		X	X	X	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

* Circle the method and each appropriate metal.

Total Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: Aa Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: FedEx # 851103154589

REPORT REQUIREMENTS

___ I. Results Only
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
___ IV. Data Validation Report with Raw Data
___ V. Specialized Forms / Custom Report
Edata ___ Yes ___ No

INVOICE INFORMATION

PO# _____
BILL TO: _____

TURNAROUND REQUIREMENTS

___ 5 Day
X Standard (10-15 working days)
___ Provide FAX Results
Other _____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/19/05 1900	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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PAGE 2 OF 2

COC# 14[illegible]0

SR #

CAS Contact

Project Name: DSCR-Bi Annual GW Sampling	Project Number: 6301-05-0016, 0709, 0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr ste 100	
Kennesaw, GA 30140	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	VOA 8260B	MEE	CO_2	REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE							1	1	0	
OU7PZ-2-0705		7/19/05	1020	W	9		X	X	X	
MWFTA-10-0705			1630		9		X	X	X	
MWFTA-9-0705			1600		9		X	X	X	
DMW-26A-0705			1516		9		X	X	X	
MWFTA-17-0705			1705		9		X	X	X	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: FedEx # 8511 03154589

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

TURNAROUND REQUIREMENTS
____ 5 Day
X Standard (10-15 working days)
____ Provide FAX Results
Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/19/05 1900	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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COC# 14[illegible]1

SR #

CAS Contact

Project Name: DSCR Bi-Annual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS: CIRCLE ON LIST BELOW	Alk, NO_3, Cl, SO_4	Sulfide	TOC	VFA	REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE					2	0	4/5	3	8		
OU7-BLAD-EQB-0705		7/19/05	1100	W	4	X	X	X	X		
DMW-33A-0705			1130		5	X	X	X	X	X	
MWFTA-14-0705			1110		4	X	X	X	X		
MWFTA-19-0705			1032		4	X	X	X	X		
MWFTA-19-0705 MS/MSD			1032		8	X	X	X	X		
OU7PZ-8-0705			1100		4	X	X	X	X		

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other H_3PO_4

* Circle the method and each appropriate metal.

Total Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: FedEx# 851103154578

REPORT REQUIREMENTS
- ___ I. Results Only
- ___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
- ___ III. Results + QC and Calibration Summaries
- ___ IV. Data Validation Report with Raw Data
- ___ V. Specialized Forms / Custom Report

Edata ___ Yes ___ No

INVOICE INFORMATION
PO#
BILL TO:

TURNAROUND REQUIREMENTS
- ___ 5 Day
- X Standard (10-15 working days)
- ___ Provide FAX Results

Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/19/05/1900	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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COC# 1402

SR #

CAS Contact

Project Name: DSCR Bi-Annual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 2 | 0 | 4/5 | 3 | 8

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS: CIRCLE ON LIST BELOW	Alk, NO3, Cl, SO4	Sulfide	TOC	VFA	REMARKS/ ALTERNATE DESCRIPTION
OU7PZ-4-0705		7/19/05	1055	W	4	X	X	X	X		
MWFTA-28B-0705			1045		4	X	X	X	X		
MWFTA-5-0705			1030		4	X	X	X	X		
OU7PZ-2-0705			1020		4	X	X	X	X		
MWFTA-10-0705			1630		4	X	X	X	X		
MWFTA-9-0705			1600		4	X	X	X	X		
DMW-26A-0705			1516		4	X	X	X	X		
MWFTA-17-0705			1705		4	X	X	X	X		

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other H_3PO_4

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: Fed Ex # 851103155931

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

TURNAROUND REQUIREMENTS
____ 5 Day
X Standard (10-15 working days)
____ Provide FAX Results
Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/19/05 1900	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

SCOC-1204-11

916 495

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PAGE 1 OF 1 DH

COC# 14[illegible]7

SR #

CAS Contact

Project Name: DSCRB Annual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC 3200 Town Point Dr Ste 100 Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1 1 0

TOTAL NUMBER OF CONTAINERS

METALS: CIRCLE ON LIST BELOW — VOA 8260B; M,E,F; CO_2

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	VOA 8260B	M,E,F	CO_2	REMARKS/ ALTERNATE DESCRIPTION
TB-072005		7/20/05	0800	W	9	X	X	X	
DMW-35A-0705			1145	W	9	X	X	X	
DMW-13A-0705			1150	W	9	X	X	X	
MWFTA-3-0705			1050	W	9	X	X	X	
DU7DUP-2-0705			1200	W	9	X	X	X	
MWFTA-1-0705			1110	W	9	X	X	X	
MWFTA-1-0705 MS/MSD			1110	W	6	X	~~X~~	~~X~~ DH	
DMW-20A-0705			1240	W	9	X	X	X	
DU7DUP-1-0705			1200	W	9	X	X	X	
AEHADG-10-0705		↓	1256	W	9	X	X	X	

* Circle the method and each appropriate metal.

Total Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: FedEx # 851103161466

REPORT REQUIREMENTS

____ I. Results Only.
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION

PO# _____
BILL TO: _____

TURNAROUND REQUIREMENTS

____ 5 Day
X Standard (10-15 working days)
____ Provide FAX Results
Other _____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/20/05 1845	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

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COC# 14[redacted]9

SR #

CAS Contact

Project Name: DSCR Bi-Annual GW Sampling	Project Number: 6301-05-0016.0709,0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS - CIRCLE ON LIST BELOW	Alk, NO_3, Cl, SO_4	Sulfide	TOC	VFA										REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE					2	0	4/5	3	8											
DMW-35A-0705		7/21/05	1145	W	4	X	X	X	X											
DMW-13A-0705			1150		4	X	X	X	X	~~X~~	DH									
MWFTA-3-0705			1050		4	X	X	X	X											
DUPDUP-2-0705			1200		4	X	X	X	X											
AEHADG-10-0705			1256		5	X	X	X	X	X										

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other H_3PO_4

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: Fed Ex # 851103161455

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

TURNAROUND REQUIREMENTS
____ 5 Day
X Standard (10-15 working days)
____ Provide FAX Results
Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/20/05 1945	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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COC# 1406

SR #

CAS Contact

Project Name: DSCR Bi Annual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: Mactec	
3200 Town Point Dr Ste 100	
Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 2 0 4/5 3 8

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	Alk, NO3, Cl, SO4	Sulfide	TOC	VFA								REMARKS/ ALTERNATE DESCRIPTION
MWFTA-1-0705		7/20/05	1110	W	4	X	X	X	X									
MWFTA-1-0705MS/MSD			1110		8	X	X	X	X									
DMW-20A-0705			1240		4	X	X	X	X									
DU7DUP-1-0705		↓	1200	↓	5	X	X	X	X	X								

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other ~~H_3PO_4~~

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: FedEx # 851103161422

REPORT REQUIREMENTS
- ___ I. Results Only
- ___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
- ___ III. Results + QC and Calibration Summaries
- ___ IV. Data Validation Report with Raw Data
- ___ V. Specialized Forms / Custom Report

Edata ___ Yes ___ No

INVOICE INFORMATION
PO#
BILL TO:

TURNAROUND REQUIREMENTS
- ___ 5 Day
- ___ Standard (10-15 working days)
- ___ Provide FAX Results

Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/20/05/ 1945	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

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0815 458

OU7 1273 A

CHAIN - OF - CUSTODY RECORD

Phone: (412) 826-5245 — Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238 — Fax No.: (412) 826-3433

Company: MACTEC
Co. Address: 3200 Town Point Dr Ste 100 Kennesaw, GA 30144
Proj. Manager: Steve Youngs
Proj. Location: DSCR, Richmond VA
Proj. Number: 6301-05-0016.0709.0200
Phone #: 770-421-3400 Fax #: 770-421-3486

Sampler's signature: MACTEC/Daniel Howard

Parameters Requested: H2

Results to: Judy Hartness
Invoice to: Judy Hartness

Cooler ID	Cooler Temp.

Sample ID	Sample Description	Date	Time	Comp.	Grab	# Cont.	Remarks
	MW-112-2-0705	7/18/05	0815		X	1	FedEx #
	MWFOS-1-0705		1010		X	1	851103161488
	DMW-27A-0705		1020		X	1	
	MWFOS-3-0705		1000		X	1	
	OU7 DUP-3-0705		1200		X	1	
	MWFTA-20-0705		1645		X	1	
	MWFTA-18-0705		1630		X	1	
	DMW-25A-0705		1510		X	1	
	DMW-22A-0705		1510		X	1	
	MWFTA-29B-0705		1515		X	1	
	MWFTA-7-0705		1530		X	1	
	MWFTA-23-0705	↓	1450		X	1	

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Daniel Howard	MACTEC	7/21/05	1900				
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

WHITE COPY : Accompany Samples — YELLOW COPY : Laboratory File — PINK COPY : Submitter

OU7 1273 B

CHAIN - OF - CUSTODY RECORD

Phone: (412) 826-5245 — **Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238** — Fax No.: (412) 826-3433

Company: MACTEC
Co. Address: 3200 Town Point Dr Ste 100, Kennesaw, GA 30144
Proj. Manager: Steve Youngs
Proj. Location: DSCR, Richmond VA
Proj. Number: 6301-05-0016.0709.0200
Phone #: 770-421-3400 **Fax #:** 770-421-3486

Sampler's signature: MACTEC David Howard

Results to: Judy Hartness

Invoice to: Judy Hartness

Sample ID	Sample Description	Date	Time	Comp.	Grab	# Cont.	H2	Parameters Requested							
	MWETA-16-0705	7/18/05	1630		X	1	X								
	DMW-33A-0705	7/19/05	~~1130~~ DH 1130												
	MWETA-1H-0705		~~1130~~ DH 1110												
	MWETA-19-0705		~~1110~~ DH 1032												
	OU7PZ-8-0705		~~1032~~ DH 1100												
	OU7PZ-4-0705		~~1032~~ DH 1055												
	MWETA-29B-0705		1045												
	MWETA-5-0705		1030												
	OU7PZ-7-0705		1020												
	MWETA-10-0705		1630												
	MWETA-9-0705		1600												
	DMW-26A-0705	↓	1516												

Cooler ID	Cooler Temp.

Remarks: FedEx # 851103161488

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Daniel Howard	MACTEC	7/21/05	1900				
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

WHITE COPY : Accompany Samples YELLOW COPY : Laboratory File PINK COPY : Submitter

816 470

OU7 73 C

CHAIN - OF - CUSTODY RECORD

Phone: (412) 826-5245 — Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238 — Fax No.: (412) 826-3433

Company: MACTEC
Co. Address: 3200 Town Point Dr Ste 100, Kennesaw, GA 30144
Proj. Manager: Steve Youngs
Proj. Location: DSCR, Richmond VA
Proj. Number: 6301-05-0016.0709.0200
Phone #: 770-421-3400 Fax #: 770-421-3486

Sampler's signature: MACTEC / Daniel Howard

Results to: Judy Hartness
Invoice to: Judy Hartness

Cooler ID	Cooler Temp.

Sample ID	Sample Description	Date	Time	Comp.	Grab	# Cont.	Parameters Requested: H2	Remarks
	MWFTA-17-0705	7/19/05	1705		X	1	X	FedEx #
	DMW-35A-0705		1145		X	1	X	851103161458
	DMW-13A-0705		1150		X	1	X	
	MWFTA-3-0705		1050		X	1	X	
	OU7DUP-2-0705		1200		X	1	X	
	MWFTA-1-0705		1110		X	1	X	
	DMW-20A-0705		1240		X	1	X	
	OU7DUP-1-0705		1200		X	1	X	
	AEHADG-16-0705		1256		X	1	X	
	TB071805	↓	0800		X	1	X	

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Daniel Howard	MACTEC	7/21/05	1900				
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

WHITE COPY : Accompany Samples — YELLOW COPY : Laboratory File — PINK COPY : Submitter

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APPENDIX A3

OPERABLE UNIT 8
CHAIN OF CUSTODY DOCUMENTATION

8A

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PAGE 1 OF 2

COC# 144[illegible]4

SR #

CAS Contact

Project Name: DSCR Annual GW Sampling	Project Number: 6301-05-0016.0709,0200
Project Manager: Steve Youngs	Report CC: Judy Hartnes
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 1 0

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	VOA 8260B	MEE CO_2											REMARKS/ ALTERNATE DESCRIPTION
TB-072005-02		7/20/05	0830	W	9		X	X	X										
OU8-BLAD-EQB-0705			0900	W	9		X	X	X										
MWANP-22-0705			1100	W	9		X	X	X										
DMW-23A-0705			1130	W	9		X	X	X										
DMW-23A-0705MS/MSD			1130	W	6		X												
DMW-30A-0705			1530	W	9		X	X	X										
MWANP-4D-0705			1615	W	9		X	X	X										
OU8DUP-4-0705			1200	W	9		X	X	X										
DMW-24A-0705			1545	W	9		X	X	X										
DMW-31A-0705			1515	W	9		X	X	X										

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series; As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Nl Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Nl K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Nl Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: FedEx # 851103161433

REPORT REQUIREMENTS
___ I. Results Only
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
___ IV. Data Validation Report with Raw Data
___ V Specialized Forms / Custom Report
Edata ___ Yes ___ No

INVOICE INFORMATION
PO#
BILL TO:

TURNAROUND REQUIREMENTS
___ 5 Day
X Standard (10-15 working days)
___ Provide FAX Results
Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/20/05 1945	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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COC# 14400

SR #

CAS Contact

Project Name: DSCR BiAnnual GW Sampling	Project Number: 6301-05-0016.0709.0208
Project Manager: Steve Youngs	Report CC: Indy Hartness
Company/Address: MACTEC 3200 Town Point Dr Ste 100 Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 2 | 0 | 4/5 | 3 | 8

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS: CIRCLE ON LIST BELOW	Alk, NO_3, Cl, SO_4	Sulfide	TOC	VFA	REMARKS/ ALTERNATE DESCRIPTION
OU8-BLAD-EQB-0705		7/20/05	0900	W	4	X	X	X	X		
MWANP-22-0705			1100		4	X	X	X	X		
DMW-23A-0705			1130		4	X	X	X	X		
DMW-23A-0705MS/MSD			1130		8	X	X	X	X		
DMW-30A-0705			1530		5	X	X	X	X	X	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other H_3PO_4

* Circle the method and each appropriate metal.

Total Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: Fed Ex # 851103161444

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

TURNAROUND REQUIREMENTS
____ 5 Day
X Standard (10-15 working days)
____ Provide FAX Results
Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/20/05/1945	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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PAGE 2 OF 2

COC# 1441

SR #

CAS Contact

Project Name: DSCR Bi Annual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Young	Report CC: Judy Hartness
Company/Address: ~~3200 Town Point Dr~~ MACTEC 3200 Town Point Dr Ste 100 Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1 1 0

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS: CIRCLE ON LIST BELOW	VOA 4260B	MEE	CO2	REMARKS/ ALTERNATE DESCRIPTION
OU8DUP-2-0705		7/20/05	1200	W	9		X	X	X	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

* Circle the method and each appropriate metal.

Total Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: Fed Ex # 851103161433

REPORT REQUIREMENTS
- ___ I. Results Only
- ___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
- ___ III. Results + QC and Calibration Summaries
- ___ IV. Data Validation Report with Raw Data
- ___ V. Specialized Forms / Custom Report

Edata ___ Yes ___ No

INVOICE INFORMATION
PO# _____
BILL TO: _____

TURNAROUND REQUIREMENTS
- ___ 5 Day
- X Standard (10-15 working days)
- ___ Provide FAX Results

Other _____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/20/05 1945	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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PAGE 1 OF 1

COC# 14[illegible]8

SR #

CAS Contact

Project Name: DSCR Bi Annual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name:

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS: CIRCLE ON LIST BELOW	Alk, NO3, Cl, SO4	Sulfide	TOC	VFA			REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE					2	0	4/5	3	8				
MWANP-4D-0705		7/20/05	1615	W	5	X	X	X	X	X			
OU8DUP-4-0705			1200		4	X	X	X	X				
DMW-24A-0705			1545		4	X	X	X	X				
DMW-31A-0705			1515		5	X	X	X	X	X			
OU8DUP-2-0705			1200		4	X	X	X	X	X	DH		

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other H_3PO_4

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: Fed Ex # 851103161411

REPORT REQUIREMENTS

____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION

PO#
BILL TO:

TURNAROUND REQUIREMENTS

____ 5 Day
X Standard (10-15 working days)
____ Provide FAX Results
Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/20/05 1945	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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PAGE 2 of 2

COC# 14492

SR #:

CAS Contact:

Project Name: DSCR Bi Annual Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name:

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1 1 0

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	VOA 8260B	MEE	CO2	REMARKS/ ALTERNATE DESCRIPTION
TB-072105		7/21/05	0800	W	9		X	X	X	
MWANP-13-0705			1045		9		X	X	X	
MWANP-14-0705			0945		9		X	X	X	
MWANP-21-0705			0950		9		X	X	X	
MWANP-23-0705			1520		9		X	X	X	
MWANP-10-0705			1440		9		X	X	X	
MWANP-12D-0705			1015		9		X	X	X	
MWANP-7-0705			0930		9		X	X	X	
OU8DUP-1-0705			1200		9		X	X	X	
MWANP-3-0705			1535		9		X	X	X	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Nl Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: FedEx # 851103155840

REPORT REQUIREMENTS

____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION

PO#:
BILL TO:

TURNAROUND REQUIREMENTS

____ 5 Day
X Standard (10-15 working days)
____ Provide FAX Results
Other:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: Daniel Howard	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: MACTEC/1915	Firm:	Firm:	Firm:	Firm:	Firm:
Date/Time: ~~7/20/05~~ 7/21/05	Date/Time:	Date/Time:	Date/Time:	Date/Time:	Date/Time:

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COC# 14403

SR #

CAS Contact

Project Name: DSCRB: Annual Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC 3200 Town Point Dr Ste 100 Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1 1 0

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	VOA 8260B	M, E, F	CO_2	REMARKS/ ALTERNATE DESCRIPTION
MWANP45-0705		7/21/05	0945	W	9		X	X	X	
MWANP-15-0705 M3T M3D			0945	W	6		X			
0572MW-1-0705			0910	W	9		X	X	X	
MWANP-18-0705			1535	W	9		X	X	X	
MWANP-17-0705			1500	W	9		X	X	X	
USGS-2-0705			1620	W	9		X	X	X	
USGS-5-0705			1610	W	9		X	X	X	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: Fed Ex # 851103155840

REPORT REQUIREMENTS
- ____ I. Results Only
- ____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
- ____ III. Results + QC and Calibration Summaries
- ____ IV. Data Validation Report with Raw Data
- ____ V. Specialized Forms / Custom Report

Edata ____ Yes ____ No

INVOICE INFORMATION
PO# _____
BILL TO: _____

TURNAROUND REQUIREMENTS
- ____ 5 Day
- X Standard (10-15 working days)
- ____ Provide FAX Results

Other _____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/21/05/1945	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

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PAGE 1 OF 1

COC# 14[illegible]6

SR #

CAS Contact

Project Name: D3CRB:AnnualSampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 2 | 0 | 4/5 | 3 | 8

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS: CIRCLE ON LIST BELOW	Alk, NO_3, Cl, SO_4	Sulfide	TOC	VFA	REMARKS/ ALTERNATE DESCRIPTION
MWANP-7-0705		7/21/05	0930	W	5	X	X	X	X	X	
~~AR~~ U8DUP-1-0705			1200		5	X	X	X	X	X	
MWANP-3-0705			1555		5	X	X	X	X	X	
MWANP-15-0705			0945		5	X	X	X	X	X	
USGS-5-0705			1610		4	X	X	X	X		

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other H_3PO_4

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: FedEx# 851103155850

REPORT REQUIREMENTS
___ I. Results Only
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
___ IV. Data Validation Report with Raw Data
___ V. Specialized Forms / Custom Report
Edata ___ Yes ___ No

INVOICE INFORMATION
PO#
BILL TO:

TURNAROUND REQUIREMENTS
___ 5 Day
X Standard (10-15 working days)
___ Provide FAX Results
Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/21/05 1915	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

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PAGE 1 OF 1

COC# 14[illegible]6

SR #

CAS Contact

Project Name: D3CR Bi Annual Sampling	Project Number: 6301-05-0016-0709.0200
Project Manager: Steve Youngs	Report QC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 2 | 0 | 4/5 | 3 | 8

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	Alk, NO3, Cl, SO4	Sulfide	TOC	VFA	REMARKS/ ALTERNATE DESCRIPTION
MWANP-15-0705 MS/MSD		7/21/05	0945	W	10	X	X	X	X	X	
0572MW-1-0705			0910		5	X	X	X	X	X	
MWANP-18-0705			1535		4	X	X	X	X		
MWANP-17-0705			1500		5	X	X	X	X	X	
USGS-2-0705			1620		4	X	X	X	X		

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other H_3PO_4

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: FedEx # 851103155861

REPORT REQUIREMENTS
- ___ I. Results Only
- ___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
- ___ III. Results + QC and Calibration Summaries
- ___ IV. Data Validation Report with Raw Data
- ___ V. Specialized Forms / Custom Report

Edata ___ Yes ___ No

INVOICE INFORMATION
PO#
BILL TO:

TURNAROUND REQUIREMENTS
- ___ 5 Day
- X Standard (10-15 working days)
- ___ Provide FAX Results

Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/21/05 / 1915	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

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COC# 14[illegible]7
SR #
CAS Contact

Project Name: DSCR Bi Annual GW Sampling	Project Number: 6301-05-0016-0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC, 3200 Town Point Dr Ste 100, Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name:

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

Preservative	Total Number of Containers	Metals* Circle on list below	Alk, NO_3, Cl, SO_4	Sulfide	TOC	VFA								
		2	0	4/5	3	8								

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other H_3PO_4

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	Total Number of Containers	Metals	Alk, NO_3, Cl, SO_4	Sulfide	TOC	VFA									REMARKS/ ALTERNATE DESCRIPTION
MWANP-13-0705		7/21/05	1045	W		X	X	X	X										
MWANP-14-0705		↓	0945	↓		X	X	X	X										
MWANP-21-0705		↓	0950	↓		X	X	X	X										
MWANP-23-0705		↓	1520	↓		X	X	X	X										
MWANP-10-0705		↓	1440	↓		X	X	X	X										
MWANP-~~12~~12D-0705		↓	1015	↓		X	X	X	X										

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: FedEx # 851103155872

REPORT REQUIREMENTS
___ I. Results Only
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
___ IV. Data Validation Report with Raw Data
___ V. Specialized Forms / Custom Report
Edata ___ Yes ___ No

INVOICE INFORMATION
PO#
BILL TO:

TURNAROUND REQUIREMENTS
___ 5 Day
___ Standard (10-15 working days)
___ Provide FAX Results
Other ___

	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	Daniel Howard					
Printed Name	Daniel Howard					
Firm	MACTEC					
Date/Time	7/21/05/1915					

816 481

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

SCOC-1204-11

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PAGE 1 OF 3

COC# 14[redacted]4

SR #

CAS Contact

Project Name: DSCRB:Annual Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name:

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 1 0

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	VOA 8260B	MEE	CO_2	REMARKS/ ALTERNATE DESCRIPTION
TB-072205		7/22/05	0800	W	9		X	X	X	
MWANP-19-0705			1125		9		X	X	X	
MWANP-20-0705			1045		9		X	X	X	
MWANP-24-0705			1030		9		X	X	X	
MWANP-25-0705			1030		9		X	X	X	
MWANP-27-0705			1040		9		X	X	X	
MWANP-26-0705			1100		9		X	X	X	
MWANP-16-0705			1445		9		X	X	X	
DP-5-0705			1040		3		X	~~X~~	~~X~~ DH	
DP-2-0705			1010		3		X	~~X~~	~~X~~ DH	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: Fed Ex # 851103160242

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO# _____
BILL TO: _____

TURNAROUND REQUIREMENTS
____ 5 Day
X Standard (10-15 working days)
____ Provide FAX Results
Other _____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: Daniel Howard	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: MACTEC	Firm:	Firm:	Firm:	Firm:	Firm:
Date/Time: 7/22/05 1830	Date/Time:	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

SCOC-1204-11

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PAGE 2 OF 3

COC# 14[illegible]8

SR #

CAS Contact

Project Name: DSCR B; Annual GW Sampling	Project Number: 6301-05-0016.0709, 0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name:

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 1 0

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	VOA 8260B	MEE CO_2	REMARKS/ ALTERNATE DESCRIPTION
DP-12-0705		7/22/05	1145	W	3		X		
DP-1-0705			1000		3		X		
DP-4-0705			1030		3		X		
DP-7-0705			1230		3		X		
DP-9-0705			1105		3		X		
DP-8-0705			1245		3		X		
DP-6-0705			1050		3		X		
QU8DUP-3-0705			1200		3		X		
DP-11-0705			1130		3		X		
DP-10-0705		↓	1110	↓	3		X		

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: Fed Ex # 851103160242

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO# _____
BILL TO: _____

TURNAROUND REQUIREMENTS
____ 5 Day
X Standard (10-15 working days)
____ Provide FAX Results
Other _____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/22/05/1830	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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PAGE 3 OF 3

COC# 14[illegible]5

SR #

CAS Contact

Project Name: DSCRB:Annual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Young	Report CC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kelnesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	VOA 8260B	REMARKS/ ALTERNATE DESCRIPTION
DP-3-0705		7/22/05	1020	W	3		X	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other ____

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo NI K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb. As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo NI Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: FedEx # 851103160242

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO# ____
BILL TO: ____

TURNAROUND REQUIREMENTS
____ 5 Day
X Standard (10-15 working days)
____ Provide FAX Results
Other ____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/22/05 1830	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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COC# 14403

SR #

CAS Contact

Project Name: DSCR Bi Annual GW Sampling	Project Number: 6301-05-0016, 0709, 0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kennesaw GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS: CIRCLE ON LIST BELOW	Alk, NO_3, Cl, SO_4	Sulfide	TOC	VFA	REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE					2	0	4/5	3	8		
MWANP-19-0705		7/22/05	1125	W	4	X	X	X	X		
MWANP-20-0705			1045	W	4	X	X	X	X		
MWANP-24-0705			1030	W	4	X	X	X	X		
MWANP-25-0705			1030	W	4	X	X	X	X		
MWANP-27-0705			1040	W	4	X	X	X	X		
MWANP-26-0705			1100	W	4	X	X	X	X		
MWANP-16-0705			1445	W	4	X	X	X	X		

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other ____

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: Fed Ex # 851103154604

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
Bill To:

TURNAROUND REQUIREMENTS
____ 5 Day
X Standard (10-15 working days)
____ Provide FAX Results
Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/22/05/1830	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

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PAGE 1 OF 2

COC# 14[illegible]6

SR #

CAS Contact

Project Name: DSCR RiAnnual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC	
3200 Town Point Dr Ste 100	
Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 2 0

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	Alk, NO3, Cl, SO4	REMARKS/ ALTERNATE DESCRIPTION
DP-5-0705		7/21/05	1040	W	X	X		
DP-2-0705			1010		X	X		
DP-12-0705			1145		X	X		
DP-1-0705			1000		X	X		
DP-4-0705			1030		X	X		
DP-7-0705			1230		X	X		
DP-9-0705			1105		X	X		
DP-8-0705			1245		X	X		
DP-6-0705			1050		X	X		
OU8DUP-3-0705			1200		X	X		

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: FedEx# 851103155883

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#:
BILL TO:

TURNAROUND REQUIREMENTS
____ 5 Day
X Standard (10-15 working days)
____ Provide FAX Results
Other:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/22/05/1830	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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PAGE 2 OF 2

COC# 14[illegible]4

SR #

CAS Contact

Project Name: DSCR Bi Annual GW Sampling	Project Number: 6301-05-0016, 0709, 6200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC 3200 Town Point Dr Ste 100 Kennesaw, GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 2 0

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW: Al, K, Mg, Cl, SO4		REMARKS/ ALTERNATE DESCRIPTION
DP-11-0705		7/22/05	1130	W	2	X	X	
DP-10-0705		↓	1110	↓	2	X	X	
DP-3-0705		↓	1020	↓	2	X	X	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS: FedEx 851103155883

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO# _____
BILL TO: _____

TURNAROUND REQUIREMENTS
____ 5 Day
__X__ Standard (10-15 working days)
____ Provide FAX Results
Other _____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/22/05/1830	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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COC# 14[illegible]7

SR #

CAS Contact

Project Name: DSCR Bi Annual GW Sampling	Project Number: 6301-05-0016.0709.0200
Project Manager: Steve Youngs	Report CC: Judy Hartness
Company/Address: MACTEC 3200 Town Point Dr Ste 100 Kennesaw GA 30144	
Phone #: 770-421-3400	FAX#: 770-421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	VOA 8260B	SVOC 8270C	Pest 8081A	Herb 8151A	Total PH T35/BOD	REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE					2	1	0	0	0	0		
~~FB-072205-02~~		7/22/05	0830	W		X	X	X	X	X	X	D4
TB-072205-02		7/22/05	0830	W	3		X					
~~DSCRIDW-1-0705~~		↓	1415	W	11	X	X	X	X	X	X	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS FedEx# 851103155894

REPORT REQUIREMENTS
___ I. Results Only
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
___ IV. Data Validation Report with Raw Data
___ V. Specialized Forms / Custom Report
Edata ___ Yes ___ No

INVOICE INFORMATION
PO# _____
BILL TO: _____

TURNAROUND REQUIREMENTS
___ 5 Day
X Standard (10-15 working days)
___ Provide FAX Results
Other _____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Daniel Howard	Signature	Signature	Signature	Signature	Signature
Printed Name: Daniel Howard	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm	Firm	Firm	Firm	Firm
Date/Time: 7/22/05/1830	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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COC# 14011

SR # DF 459

CAS Contact

Project Name: DSCR BIANNUAL GW SAMPLING	Project Number: 6301-05.0016.9000.0709
Project Manager: STEVE YOUNGS	Report CC: JUDY HARTNESS
Company/Address: MACTEC 3200 TOWNPOINT DR SUITE 100 KENNESAW, GA 30144	
Phone #: (770)-421-3400	FAX#: (770) 421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 1 0

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS: CIRCLE ON LIST BELOW	VOC SW8260B	METHANE, ETHANE ETHENE RSK 175	CO2 RSK 175	REMARKS/ ALTERNATE DESCRIPTION
TB-080205-01	1	8.2.05	17:20	W	9		3	3	3	
DUP-BLAD-EQB-0705	2	8.2.05	16:10	W	9		3	3	3	
MWANP-16-0705	3	8.2.05	09:45	W	9		3	3	3	
MWANP-19-0705	4	8.2.05	10:05	W	9		3	3	3	
MWANP-20-0705	5	8.2.05	12:15	W	9		3	3	3	
MWANP-24-0705	6	8.2.05	16:10	W	9		3	3	3	
MWANP-25-0705	7	8.205	12:00	W	9		3	3	3	

8/3/05 TB

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS

FED EX # 851103161812

REPORT REQUIREMENTS

_ I. Results Only
_ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_ III. Results + QC and Calibration Summaries
_ IV. Data Validation Report with Raw Data
_ V. Specialized Forms / Custom Report
Edata ___ Yes ___ No

INVOICE INFORMATION

PO# _____
BILL TO: _____

TURNAROUND REQUIREMENTS

_ 5 Day
X Standard (10-15 working days)
_ Provide FAX Results
Other _____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name: TED A. WITTEMANN	Printed Name: P Chatman	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm: CAS Redding	Firm	Firm	Firm	Firm
Date/Time: 8.2.05 1930	Date/Time: 8/3/05 0945	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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PAGE 2 OF 2

COC# 14006
SR # DF459
CAS Contact

Project Name: DSCR BIANNUAL GW SAMPLING
Project Number: 6301-05-0016.9000.0709
Project Manager: STEVE YOUNGS
Report CC: JUDY HARTNESS
Company/Address: MACTEC, 3200 TOWNPOINT DR SUITE 100, KENNESAW, GA 30144
Phone #: (770) 421-3400
FAX#: (770) 421-3486
Sampler's Signature: MACTEC
Sampler's Printed Name:

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE	2	0	4/5	3
	METALS* CIRCLE ON LIST BELOW	ALKALINITY, NO_3, SO_4, CL - E310.1 E300	SULFIDE - E.376.1	TOC - E415.1

Preservative Key: 0. NONE 1. HCL 2. HNO_3 3. H_2SO_4 4. NaOH 5. Zn. Acetate 6. MeOH 7. $NaHSO_4$ 8. Other ____

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS	ALKALINITY, NO3, SO4, CL	SULFIDE	TOC	REMARKS/ ALTERNATE DESCRIPTION
DUB-BLAD-EQB-0705	2	8.2.05	16:10	W	4	1	1	1	1	
MWANP-16-0705	3	8.2.05	09:45	W	4	1	1	1	1	
MWANP-19-0705	4	8.2.05	10:05	W	4	1	1	1	1	
MWANP-20-0705	5	8.2.05	12:15	W	4	1	1	1	1	
MWANP-24-0705	6	8.2.05	16:10	W	4	1	1	1	1	
MWANP-25-0705	7	8.2.05	12:00	W	4	1	1	1	1	

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

REPORT REQUIREMENTS
___ I. Results Only
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
___ IV. Data Validation Report with Raw Data
___ V. Specialized Forms / Custom Report
Edata ___ Yes ___ No

INVOICE INFORMATION
PO#
BILL TO:

TURNAROUND REQUIREMENTS
___ 5 Day
X Standard (10-15 working days)
___ Provide FAX Results
Other___

SPECIAL INSTRUCTIONS/COMMENTS
FED EX # 851103161812

	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	[signature]	[signature]				
Printed Name	TED A. WITTEMANN	[illegible]				
Firm	MACTEC	8/3/05 0945				
Date/Time	080205/1930					

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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PAGE 1 OF 5

SR # DF468
CAS Contact

Project Name: OU8 RESAMPLE DSLR BIANNUAL GW SAMPLING	Project Number: 6301.05.0016.9000.0709
Project Manager: STEVE YOUNGS	Report CC: JUDY HARTNESS
Company/Address: MACTEC 3200 TOWNPOINT DR. SUITE 100 KENNESAW, GA 30144	
Phone #: (770) 421-3400	FAX#: (770) 421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS - CIRCLE ON LIST BELOW	VOCs SW8260B	METHANE, ETHANE ETHENE RSK 175	CO2 RSK 175	REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE							1	1	0	
TB-080305-01	1	8-3-05	1715	W	9		3	3	3	
DP-1-0705	2	8-3-05	920	W	3		3	—	—	
DP-2-0705	3	8-3-05	935	W	3		3	—	—	
DP-3-0705	4	8-3-05	940	W	3		3	—	—	
DP-4-0705	5	8-3-05	945	W	3		3	—	—	
DP-5-0705	6	8-3-05	955	W	3		3	—	—	
DP-6-0705	7	8-3-05	1000	W	3		3	—	—	
DP-7-0705	8	8-3-05	1105	W	3		3	—	—	
DP-8-0705	9	8-3-05	1115	W	3		3	—	—	
DP-9-0705	10	8-3-05	1010	W	3		3	—	—	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other

* Circle the method and each appropriate metal.

Total Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS

FED EX # 851103161823

REPORT REQUIREMENTS
- ___ I. Results Only
- ___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
- ___ III. Results + QC and Calibration Summaries
- ___ IV. Data Validation Report with Raw Data
- ___ V. Specialized Forms / Custom Report

Edata ___ Yes ___ No

INVOICE INFORMATION
PO#
BILL TO:

TURNAROUND REQUIREMENTS
- ___ 5 Day
- X Standard (10-15 working days)
- ___ Provide FAX Results

Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name: TED A. WITTEMANN	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm: 8/4/05 0920	Firm	Firm	Firm	Firm
Date/Time: 8/3/05 1930	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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PAGE 2 OF 5

SR # DF468
CAS Contact

Project Name: DUB RESAMPLE DSCR BIANNUAL GW SAMPLING	Project Number: 6301.05.0016.9000.0709
Project Manager: STEVE YOUNGS	Report CC: JUDY HARTNESS
Company/Address: MACTEC 3200 TOWNPOINT DR SUITE 100 KENNESAW, GA 30144	
Phone #: (770) 421-3400	FAX#: (770) 421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1 1 0

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	VOCs 8260B	METHANE, ETHANE, ETHENE RSK 175	CO2 RSK MS	REMARKS/ ALTERNATE DESCRIPTION
DP-10-0705	11	8-3-05	1026	W	3		3	-	-	
DP-11-0705	12	8-3-05	1030	W	3		3	-	-	
DP-12-0705	13	8-3-05	1045	W	3		3	-	-	
DUBDUP-3-0705	14	8-3-05	1200	W	3		3	-	-	
MWANP-26-0705	15	8-3-05	1440	W	9		3	3	3	
MWANP-27-0705	16	8-3-05	1440	W	9		3	3	3	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS

FED EX # 851103161823

REPORT REQUIREMENTS

___ I. Results Only
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
___ IV. Data Validation Report with Raw Data
___ V. Specialized Forms / Custom Report
Edata ___ Yes ___ No

INVOICE INFORMATION

PO# _____
BILL TO: _____

TURNAROUND REQUIREMENTS

___ 5 Day
X Standard (10-15 working days)
___ Provide FAX Results
Other _____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name: TED A. LITTEMANN	Printed Name: CAS Redding	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm: 8/4/05 0920	Firm	Firm	Firm	Firm
Date/Time: 8/3/05 1930	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

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PAGE 3 OF 5

SR # DF468
CAS Contact

Project Name: OU8 RESAMPLE DSCR BIANNUAL GW SAMPLING	Project Number: 6301-05-0016.9000.0709
Project Manager: STEVE YOUNGS	Report CC: JUDY HARTNESS
Company/Address: MACTEC, 3200 TOWNPOINT DR SUITE 100, KENNESAW, GA 30144	
Phone #: (770) 421-3400	FAX#: (770) 421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name:

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

Preservative Key: 0. NONE 1. HCL 2. HNO_3 3. H_2SO_4 4. NaOH 5. Zn. Acetate 6. MeOH 7. $NaHSO_4$ 8. Other ____

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS* CIRCLE ON LIST BELOW	ALKALINITY, NO_3 / SO_4, CL BY E310.1 / E300.0 (Preservative 0)	TOTAL METALS 6010 B, 7470 A, 6020 (Preservative 2)	REMARKS/ ALTERNATE DESCRIPTION
DP-1-0705	2	8.3.05	920	W	2		1	1	
DP-2-0705	3	8.3.05	935	W	2		1	1	
DP-3-0705	4	8.3.05	940	W	2		1	1	
DP-4-0705	5	8.3.05	945	W	2		1	1	
DP-5-0705	6	8.3.05	955	W	2		1	1	
DP-6-0705	7	8.3.05	1000	W	2		1	1	
DP-7-0705	8	8.3.05	1105	W	2		1	1	
DP-8-0705	9	8.3.05	1115	W	2		1	1	
DP-9-0705	10	8.3.05	1010	W	2		1	1	
DP-10-0705	11	8.3.05	1020	W	2		1	1	

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS

FED EX # 851103161834

REPORT REQUIREMENTS
___ I. Results Only
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
___ IV. Data Validation Report with Raw Data
___ V. Specialized Forms / Custom Report
Edata ___ Yes ___ No

INVOICE INFORMATION
PO#
BILL TO:

TURNAROUND REQUIREMENTS
___ 5 Day
X Standard (10-15 working days)
___ Provide FAX Results
Other ____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: [signature]	Signature: [signature] Chapman	Signature	Signature	Signature	Signature
Printed Name: TED A. WITTEMANN	Printed Name: CAS Redding	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm: 8/4/05 0920	Firm	Firm	Firm	Firm
Date/Time: 8/3/05 1930	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

SCOC-1204-11

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PAGE 4 OF 5

SR # DF468

CAS Contact

Project Name: OUB RESAMPLE DSCR BI ANNUAL GW SAMPLING
Project Number: 6301-05-0016.9000.0709
Project Manager: STEVE YOUNGS
Report CC: JUDY HARTNESS
Company/Address: MACTEC
3200 TOWNPOINT DR SUITE 100
KENNESAW GA 30144
Phone #: (770) 421 3400
FAX #: (770) 421 3486
Sampler's Signature: MACTEC
Sampler's Printed Name:

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 0 2

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS: CIRCLE ON LIST BELOW	ALKALINITY, Cl, SO4 BY E310.1/E300.0	TOTAL METALS 6010B, 7470A, 6020	REMARKS/ ALTERNATE DESCRIPTION
DP-11-0705	12	8-3-05	1030	W	2		1	1	
DP-12-0705	13	8-3-05	1045	W	2		1	1	
OUBDUP-3-0705	14	8-3-05	1200	W	2		1	1	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other

* Circle the method and each appropriate metal.

Total Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Tl Ti Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

SPECIAL INSTRUCTIONS/COMMENTS

FEDEX # 851103161834

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

TURNAROUND REQUIREMENTS
____ 5 Day
X Standard (10-15 working days)
____ Provide FAX Results
Other

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name: TED A. WITTEMANN	Printed Name: D Chapman / C Chapman	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm: CAS Redding	Firm	Firm	Firm	Firm
Date/Time: 8/3/05 1930	Date/Time: 8/4/5 0920	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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PAGE 5 OF 5

SR # DF468
CAS Contact

Project Name: DUB RESAMPLE DSCR BIANNUAL GW SAMPLING	Project Number: 6301-05-0016.9000.0709
Project Manager: STEVE YOUNGS	Report CC: JUDY HARTNESS
Company/Address: MACTEC 3200 TOWNPOINT DR SUITE 100 KENNESAW, GA 30144	
Phone #: (770) 421-3400	FAX#: (770) 421-3486
Sampler's Signature: MACTEC	Sampler's Printed Name

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	TOTAL NUMBER OF CONTAINERS	METALS, CIRCLE ON LIST BELOW	~~VOCs SW8260B~~ SVOCs SW8270C	Pesticides SW8081A	Herbicides SW8151A	Total RCRA metals (+Cu, Ni, Zn, Hg) 6010B	Total metals 6010B, 7470A	TSS EPA 160.2, BOD SM5210	Alkalinity, NO3, SO4, Cl by E310.1, E300.0	Sulfide E376.1	TOC E415.1	VOC's SW8260B	REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE							0	0	0	2	2	0	0	4/6	3	1	
MWANP-26-0705	15	8.3.05	1440	W	4		–	–	–	–	1	–	1	1	1	–	
MWANP-27-0705	16	8.3.05	1440	W	4		–	–	–	–	1	–	1	1	1	–	
IDW-2-0705	17	8.3.05	1550	W	~~8~~ 11		2	2	2	1	–	1	–	–	–	3	
TB-080305-02	18	8.3.05	1850	W	3		–	–	–	–	–	–	–	–	–	3	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other ______

* Circle the method and each appropriate metal.

Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Ti Tl Sn V Zn
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg
Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl V Zn

REPORT REQUIREMENTS
___ I. Results Only
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
___ IV. Data Validation Report with Raw Data
___ V. Specialized Forms / Custom Report
Edata ___ Yes ___ No

INVOICE INFORMATION
PO#
BILL TO:

TURNAROUND REQUIREMENTS
___ 5 Day
X Standard (10-15 working days)
___ Provide FAX Results
Other ______

SPECIAL INSTRUCTIONS/COMMENTS
FED EX # 851031618 45

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: [signature]	Signature: [signature]	Signature	Signature	Signature	Signature
Printed Name: TED A. WITTEMANN	Printed Name: J. Hartman	Printed Name	Printed Name	Printed Name	Printed Name
Firm: MACTEC	Firm: CAS Redding	Firm	Firm	Firm	Firm
Date/Time: 8/3/05 1930	Date/Time: 8/4/5 0925	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

SCOC-1204-11

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OU8 1273 D

CHAIN - OF - CUSTODY RECORD

Phone: (412) 826-5245 — Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238 — Fax No.: (412) 826-3433

Company: MACTEC
Co. Address: 3200 Town Point Dr Ste 100, Kennesaw GA 30144
Proj. Manager: Steve Youngs
Proj. Location: DSCR Richmond VA
Proj. Number: 6301-05-0016.0709.0200
Phone #: 770-421-3400 Fax #: 770-421-3486

Sampler's signature: MACTEC/Daniel Howard

Results to: Judy Hartness
Invoice to: Judy Hartness

Sample ID	Sample Description	Date	Time	Comp.	Grab	# Cont.	Parameters Requested: H2	Remarks
	TB-072005	7/20/05	0800		X	1	X	FedEx #
	MWANP-22-0705		1100		X	1	X	840824102982
	DMW-23A-0705		1130		X	1	X	
	DMW-30A-0705		1530		X	1	X	
	MWANP-4D-0705		1615		X	1	X	
	OU8 DUP-4-0705		1200		X	1	X	
	DMW-24A-0705		1545		X	1	X	
	DMW-31A-0705		1515		X	1	X	
	OU8 DUP-2-0705	↓	1200		X	1	X	
	MWANP-13-0705	7/21/05	1045		X	1	X	
	MWANP-14-0705		0945		X	1	X	
	MWANP-21-0705	↓	0950		X	9 1	X	

Cooler ID | Cooler Temp.

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Daniel Howard	MACTEC	7/22/05	1830				
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

WHITE COPY : Accompany Samples YELLOW COPY : Laboratory File PINK COPY : Submitter

816 496

018 12 E

CHAIN - OF - CUSTODY RECORD

Phone: (412) 826-5245 — Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238 — Fax No.: (412) 826-3433

Company: MACTEC
Co. Address: 3200 Town Point Dr Ste 100, Kennesaw, GA 30144
Proj. Manager: Steve Youngs
Proj. Location: DSCR, Richmond, VA
Proj. Number: 6301-05-0016.0709.0200
Phone #: 770-421-3400 Fax #: 770-421-3486

Sampler's signature: MACTEC / Daniel Howard

Results to: Judy Hartness
Invoice to: Judy Hartness

Sample ID	Sample Description	Date	Time	Comp.	Grab	# Cont.	Parameters Requested: I	Remarks
	MWANP-23-0705	7/21/05	1520		X	1	X	FedEx #
	MWANP-10-0705		1440		X	1	X	840824102982
	MWANP-12D-0705		1015		X	1	X	
	MWANP-7-0705		0930		X	1	X	
	018DUP-1-0705		1200		X	1	X	
	MWANP-3-0705		1555		X	1	X	
	MWANP-15-0705		0945		X	1	X	
	0572MW-1-0705		0910		X	1	X	
	MWANP-18-0705		1535		X	1	X	
	MWAND-17-0705		1500		X	1	X	
	USGS-2-0705		1620		X	1	X	
	USGS-5-0705	↓	1610		X	1	X	

Cooler ID | Cooler Temp

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
Daniel Howard	MACTEC	7/22/05	1830				

WHITE COPY : Accompany Samples YELLOW COPY : Laboratory File PINK COPY : Submitter

816 497

048 123 F

CHAIN - OF - CUSTODY RECORD

Phone: (412) 826-5245 — **Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238** — Fax No.: (412) 826-3433

Company: MACTEC
Co. Address: 3200 Town Point Dr, Ste 100, Kennesaw, GA 30144
Proj. Manager: Steve Youngs
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Phone #: 770-421-3400 Fax #: 770-421-3486

Sampler's signature: MACTEC / Daniel Howard

Results to: Judy Hartness

Invoice to: Judy Hartness

Sample ID	Sample Description	Date	Time	Comp.	Grab	# Cont.	Parameters Requested: H2								Remarks
	MWANP-19-0705	7/22/05	1125		X	1	X								Fed Ex #
	MWANP-20-0705	↓	1045		X	1	X								840824102982
	MWANP-24-0705		1030		X	1	X								
	MWANP-25-0705		1030		X	1	X								
	MWANP-27-0705		1040		X	1	X								
	MWANP-26-0705		1100		X	1	X								
	MWANP-16-0705	↓	1445		X	1	X								

Cooler ID | Cooler Temp.

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Daniel Howard	MACTEC	7/22/05	18.30				
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

WHITE COPY : Accompany Samples YELLOW COPY : Laboratory File PINK COPY : Submitter

816 498

APPENDIX B

LABORATORY ANALYTICAL DATA RESULTS

TABLE B-1

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type: Location ID: Sample Date:	Reporting (a) Limit	Normal AEHA-5 7/12/2005	Duplicate AEHA-5 7/12/2005	Normal AEHA-12A 7/15/2005	Normal AEHA-15A 7/13/2005	Normal AEHA-16A 7/15/2005	Normal AEHA-18A 7/12/2005	Normal AEHA-22A 7/16/2005	Normal AEHA-23A 7/14/2005	Duplicate AEHA-23A 7/14/2005	Normal AEHA-24A 7/12/2005
FIELD PARAMETER:												
Dissolved Oxygen - EPA 360.1 mg/L												
DISSOLVED OXYGEN		0.1	0.3	0.3	3 4	3 2	0 5	0.3	0 6	1 8	1.8	0.5
Ferrous Iron - A3500D mg/L												
FERROUS IRON		0.1	3 6	3.6	<0.1	0.2	3.2	3.2	0.4	0 3	0.3	0.2
Oxidation Reduction Potential - A2580A mV												
OXIDATION REDUCTION POTENTIAL		–	-113	-113	342	423	176	115	212	334	334	50
pH - EPA 150.1 pH Units												
pH		–	6 73	6.73	4.17	4.44	5.25	5.31	4.75	3 73	3.73	6.28
Specific Conductance - EPA 120.1 mS/cm												
SPECIFIC CONDUCTANCE		0 001	1.106	1 106	0.094	0 077	0.101	0.256	0 086	0.108	0 108	0 171
Temperature - EPA 170.1 deg. C												
TEMPERATURE		–	19	19	25.7	19 7	19 5	20.1	23.2	21 2	21.2	23 9
Turbidity - EPA 180.1 NTU												
TURBIDITY		1	8	8	<1	11	17	3	9	3	3	3
FIXED BASE LABORATORY ANALYSIS:												
Anions - MCAWW 300.0A mg/L												
CHLORIDE		1	30.9	31.9	14.5	11 6	13	14 8	16	24 2	24.1	9 7
NITRATE AS N		0.1	<0.1	<0.1	2.58	2.85	0 04 JQ	<0 1	0.25	0.14	0.11	<0 1
SULFATE AS SO4		1	2	1.9	2	1.2	4 9	37 6	4 8	7.8 J	4.7 J	17.5
Dissolved Gases - RSK SOP-175 µg/L												
CARBON DIOXIDE		1000	76800 J	79000 J	114000	103000	168000	375000 J	133000 J	161000	166000 J	38400 J
ETHANE		0.5	1.2 J	0.51 J	<0.5	<0 5	<0 5	<0.5	<0.5	0.49 JQ	0 56	<0 5
ETHENE		1.5	0.63 JQ	<1.5	<1.5	<1.5	<1 5	<1 5	<1.5	4.5	5	<1.5
METHANE		0.5	3800	4400	<0.5	0 45 JQ	3 5	39	4.8	20	22	0.98 JB
Hydrogen by Microseeps - AM20GAX nM												
HYDROGEN		1	1.3	1.5	1.6	1.3	40	1.1	1.2	1 4 J	2.1 J	43
Metals - SW846 6010 (Total) mg/L												
ALUMINUM		0.06	0.0171 JQ	0.0367 JQ	0.261	0.152	0.136	0 0187 JQ	0.195	0 273	0.264	<0 06
BARIUM		0.025	0.0659	0.0807	0 201	0 0987	0.0552	0 0659	0 0779	0.114	0.114	0.0293
BERYLLIUM		0 005	<0.005	<0.005	<0 005	<0.005	<0 005	<0.005	<0.005	<0.005	0 0012 JQ	<0.005
CADMIUM		0.005	<0.005	<0 005	<0.005	<0.005	<0 005	<0.005	<0 005	<0 005	<0.005	<0.005
CALCIUM		0.5	2.76	3.53	1.82	1.42	7 35	8 66	6.19	7.58	7.58	7.73
CHROMIUM		0.01	<0.01	<0.01	<0.01	<0 01	<0 01	<0 01	<0.01	<0 01	<0.01	<0 01
COBALT		0 015	<0 015	<0 015	<0.015	<0.015	<0.015	0 0397	<0 015	<0 015	<0.015	<0.015
COPPER		0.01	<0.01	<0.01	<0.01	<0.01	<0 01	0.003 JB	<0.01	0 0038 JQ	0.0041 JQ	<0 01
IRON		0.1	5.93	6 59	<0.1	0.0215 JQ	4.25	28.2	0.337	0 294	0.292	0.781
MAGNESIUM		0.2	1.78	2 21	3.35	1.24	1.94	4.22	2.05	2.45	2.47	4.86
MANGANESE		0.005	0.0383	0.0482	0 0454	0.142	0.04	2.86	0.0801	0.0794	0 0794	0.0347
MOLYBDENUM		0.015	0.0137 JB	0.0076 JB	<0.015	<0.015	<0.015	<0 015	<0 015	0 0046 JQ	<0.015	0 0037 JB
NICKEL		0.02	<0.02	<0.02	<0.02	<0 02	<0.02	<0.02	<0 02	<0 02	<0.02	<0.02
POTASSIUM		1	1.3	1.51	2 48	1.65	0 848 JQ	3.62	2.25	2 92	2.89	5.23
SILVER		0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0 01	<0 01	<0.01	<0.01
SODIUM		0.5	310	311	5.28	7 4	5.82	16.9	3.92	6 73	6 73	18 1
VANADIUM		0.01	<0 01	0.0025 JQ	<0.01	<0.01	<0 01	<0.01	<0.01	<0 01	<0.01	<0.01
ZINC		0.02	0.0842 J	0.0045 JB	0 0262	0.0063 JB	0 0029 JB	0.0113 JQ	0.0334	0 0156 JQ	0.0146 JQ	0 0011 JB

TABLE B-1

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type:		Normal	Duplicate	Normal	Normal	Normal	Normal	Normal	Normal	Duplicate	Normal
	Location ID:	Reporting (a)	AEHA-5	AEHA-5	AEHA-12A	AEHA-15A	AEHA-16A	AEHA-18A	AEHA-22A	AEHA-23A	AEHA-23A	AEHA-24A
	Sample Date:	Limit	7/12/2005	7/12/2005	7/15/2005	7/13/2005	7/15/2005	7/12/2005	7/16/2005	7/14/2005	7/14/2005	7/12/2005
Metals - SW846 6020 (Total) mg/L												
ANTIMONY		0 0001	<0 001	<0.001	0.00011 JB	<0 001	0 00004 JB	<0.001	0.00017 JB	0 00011 JB	0.00008 JB	<0.001
ARSENIC		0.0005	0.0038 JQ	0 00361 JQ	<0.0005	<0.005	0 00014 JQ	<0.005	0.00623	0.00115	0.00112	<0.005
LEAD		0.0005	<0.005	<0.005	0.00227	0 00042 JQ	0.00056	0.00134 JQ	0.0037	0.00169	0 00162	<0 005
SELENIUM		0 0005	0.0035 JQ	0.00367 JQ	<0 0005	<0.005	0.00041 JQ	<0.005	0 00022 JQ	0 00025 JQ	0.00029 JQ	<0 005
THALLIUM		0 0001	<0.001	<0.001	<0 0001	<0.001	0 000064 JQ	<0 001	<0.0001	<0.0001	<0.0001	<0 001
Mercury - SW846 7471 (Total) mg/L												
MERCURY		0.0003	<0.0003	<0.0003	<0 0003	0 000128 JQ	<0.0003	<0.0003	<0 0003	0.00017 JQ	0.000152 JQ	<0 0003
Total Alkalinity - MCAWW 310.1 mg/L												
ALKALINITY, TOTAL (AS CACO3)		10	578	580	<10	2 JQ	15	58	8 JQ	2 JQ	2 JQ	43
Total Organic Carbon - SW846 9060 mg/L												
TOTAL ORGANIC CARBON		1	69.4	66 6	0.4 JQ	0 4 JH	1	2 9	2 7	1.3	1.2	0 7 JH
Total Sulfide - MCAWW 376.1 mg/L												
SULFIDE		2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Volatile Fatty Acids - D1552 mg/L												
ACETIC ACID		1	NA	NA	NA	NA	NA	NA	NA	<1	<1	NA
BUTANOIC ACID		2	NA	NA	NA	NA	NA	NA	NA	<2	<2	NA
LACTIC ACID		1	NA	NA	NA	NA	NA	NA	NA	<1	<1	NA
PROPIONIC ACID		1	NA	NA	NA	NA	NA	NA	NA	<1	<1	NA
PYRUVIC ACID		0.5	NA	NA	NA	NA	NA	NA	NA	<0.5	<0.5	NA
Volatile Organic Compounds - SW846 8260 µg/L												
1,1,1,2-TETRACHLOROETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-TRICHLOROETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-TETRACHLOROETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-TRICHLOROETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROETHANE		1	0.31 JQ	0.29 JQ	<1	<1	<1	0.16 JQ	<1	0.13 JQ	<1	<1
1,1-DICHLOROETHYLENE		1	<1	<1	<1	<1	<1	<1	<1	0.36 JQ	0 23 JQ	<1
1,1-DICHLOROPROPENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-TRICHLOROBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-TRICHLOROPROPANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-TRICHLOROBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-TRIMETHYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DIBROMO-3-CHLOROPROPANE		2 5	<2.5	<2.5	<2 5	<2.5	<2.5	<2 5	<2.5	<2 5	<2.5	<2.5
1,2-DIBROMOETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DICHLOROBENZENE		1	6	5.9	<1	<1	<1	0.14 JQ	<1	0.54 JQ	0 37 JQ	<1
1,2-DICHLOROETHANE		1	0.25 JQ	0.26 JQ	<1	<1	<1	<1	<1	0.16 JQ	<1	<1
1,2-DICHLOROPROPANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-TRIMETHYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-DICHLOROBENZENE		1	1.9	1.9	<1	<1	<1	<1	<1	<1	<1	<1
1,3-DICHLOROPROPANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-DICHLOROBENZENE		1	22	23	<1	<1	<1	<1	<1	0 39 JQ	0.29 JQ	<1
2,2-DICHLOROPROPANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-BUTANONE		10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
2-CHLOROTOLUENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-HEXANONE		10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-CHLOROTOLUENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-METHYL-2-PENTANONE		10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
ACETONE		10	7.6 JB	6.2 JB	2 3 JB	4.5 JB	2 5 JB	2.7 JB	3.9 JB	3.1 JB	2.4 JB	2.9 JB
BENZENE		1	1.5	1.6	<1	<1	<1	0.79 JQ	<1	<1	<1	<1
BROMOBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMODICHLOROMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMOFORM		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMOMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARBON DISULFIDE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

TABLE B-1

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

Sample Type / Location ID. / Sample Date:	Reporting (a) Limit	Normal AEHA-5 7/12/2005	Duplicate AEHA-5 7/12/2005	Normal AEHA-12A 7/15/2005	Normal AEHA-15A 7/13/2005	Normal AEHA-16A 7/15/2005	Normal AEHA-18A 7/12/2005	Normal AEHA-22A 7/16/2005	Normal AEHA-23A 7/14/2005	Duplicate AEHA-23A 7/14/2005	Normal AEHA-24A 7/12/2005
CARBON TETRACHLORIDE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROBENZENE	1	87	89	<1	<1	<1	<1	<1	0.36 JQ	0.39 JQ	0.1 JQ
CHLOROBROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLORODIBROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROFORM	1	<1	<1	<1	1	<1	<1	<1	2.1 J	1.5 J	<1
CHLOROMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CIS-1,2-DICHLOROETHENE	0.5	0.28 JQ	0.28 JQ	<0.5	1.4	<0.5	3.3	<0.5	170	160	1.3
CIS-1,3-DICHLOROPROPENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
DIBROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
DICHLORODIFLUOROMETHANE	1	<1	<1	<1	<1	<1	<1	<1	2.6 J	1.8 J	<1
ETHYLBENZENE	1	0.35 JQ	0.37 JQ	<1	<1	<1	<1	<1	<1	<1	<1
HEXACHLOROBUTADIENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ISOPROPYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
M & P-XYLENES	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
METHYL TERT-BUTYL ETHER	1	<1	<1	<1	1.8	<1	<1	<1	<1	<1	<1
METHYLENE CHLORIDE	1	<1	0.12 JQ	<1	<1	<1	<1	<1	0.14 JB	0.094 JB	<1
N-BUTYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-PROPYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NAPHTHALENE	1	4	4.3	<1	<1	<1	<1	0.82 JQ	<1	<1	<1
O-XYLENE	1	0.091 JQ	0.092 JQ	<1	<1	<1	<1	<1	<1	<1	<1
P-ISOPROPYLTOLUENE	1	0.17 JQ	0.18 JQ	<1	<1	<1	<1	<1	<1	<1	<1
SEC-BUTYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
STYRENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TERT-BUTYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TETRACHLOROETHENE	1	<1	<1	<1	0.13 JQ	<1	0.74 JQ	<1	0.78 JQ	0.5 JQ	<1
TOLUENE	1	0.42 JQ	0.42 JQ	<1	<1	<1	0.19 JQ	<1	<1	<1	<1
TRANS-1,2-DICHLOROETHENE	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.16 JQ	<0.5
TRANS-1,3-DICHLOROPROPENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TRICHLOROETHENE	1	0.18 JQ	<1	<1	37	<1	1.5	<1	8.3 J	5.6 J	0.45 JQ
TRICHLOROFLUOROMETHANE	1	<1	<1	<1	0.2 JQ	<1	<1	<1	<1	<1	<1
VINYL CHLORIDE	1	0.12 JQ	0.12 JQ	<1	<1	<1	3.6	<1	30 J	21 J	0.17 JQ
Surrogate - % recovery											
1,2-DICHLOROETHANE-D4	--	105	102	110	106	113	97	96	108	105	109
4-BROMOFLUOROBENZENE	--	96	93	102	104	102	93	108	105	100	106
DIBROMOFLUOROMETHANE	--	101	99	109	104	111	96	94	107	101	105
TOLUENE-D8	--	89	90	99	98	99	89	95	99	96	98

Notes:

J Estimated; based on QC data
JB Estimated; possibly biased high or false positive based on blank contamination
JH Estimated, possibly biased high based upon QC data
JQ Estimated; Value is between reporting limit and detection limit
NA Not Analyzed
R Unusable
UJ Undetected; Reported Detection Limit is imprecise
(a) Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions

TABLE B-1

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type: Location ID: Sample Date:	Reporting (a) Limit	Normal AEHA-25A 7/12/2005	Normal AEHA-26A 7/13/2005	Normal AEHA-28A 7/14/2005	Duplicate AEHA-28A 7/14/2005	Normal AEHA-30A 7/14/2005	Normal AEHA-31A 7/18/2005	Normal AEHA-32A 7/18/2005	Normal AEHA-33A 7/14/2005	Normal AEHA-34A 7/16/2005	Normal DMW-7A 7/13/2005
FIELD PARAMETER:												
Dissolved Oxygen - EPA 360.1 mg/L												
DISSOLVED OXYGEN		0 1	1	2.2	1.1	0 7	0.7	0.4	1.1	0 7	0.7	1.2
Ferrous Iron - A3500D mg/L												
FERROUS IRON		0 1	1.8	3	1.9	3.6	<0.1	5.5	<0.1	3 5	3 6	<0.1
Oxidation Reduction Potential - A2580A mV												
OXIDATION REDUCTION POTENTIAL		–	308	120	307	-33	82	-51	337	140	-33	252
pH - EPA 150.1 pH Units												
pH		–	3.82	6 3	3.76	5.98	5 61	6 48	4.46	5.02	5.98	4.42
Specific Conductance - EPA 120.1 mS/cm												
SPECIFIC CONDUCTANCE		0.001	0.106	0 12	0.65	0.18	0.067	0.318	0.075	0 068	0.18	0.05
Temperature - EPA 170.1 deg. C												
TEMPERATURE		–	27 9	28.5	25.2	26 3	25.6	26.3	23.1	24.8	26 3	20.5
Turbidity - EPA 180.1 NTU												
TURBIDITY		1	2	2	5	<1	3	6	5	12	<1	<1
FIXED BASE LABORATORY ANALYSIS:												
Anions - MCAWW 300.0A mg/L												
CHLORIDE		1	20 5	8.7	170	170	1.7	5.7	8.4	8.1	13.1	10
NITRATE AS N		0.1	<0.1	0 04 JQ	<0.1	<0.1	<0.1	<0.1	1.26	<0.1	0.15	1 33
SULFATE AS SO4		1	4.4	7.7	2.5	2.2	14 6	0.5	2.9	2 2	1.1	1.7
Dissolved Gases - RSK SOP-175 µg/L												
CARBON DIOXIDE		1000	222000 J	63900	463000	466000	36000	104000 J	114000 J	160000	141000 J	139000
ETHANE		0.5	<0.5	<0.5	13	12	<0.5	0.78	<0.5	<0.5	<0 5	<0 5
ETHENE		1.5	<1.5	<1.5	53	51	<1.5	<1.5	<1.5	<1.5	<1.5	<1 5
METHANE		0.5	160	260	390	360	5.2	2600	0 36 JQ	200	320	0 34 JQ
Hydrogen by Microseeps - AM20GAX nM												
HYDROGEN		1	35	1 3	39	37	1 5	1 7	1 5	1.3	1 6	1 3
Metals - SW846 6010 (Total) mg/L												
ALUMINUM		0.06	0.0486 JQ	0 0351 JQ	0 871	0.911	0.0575 JQ	0.0876	0.154	0.123	<0.06	0.0502 JQ
BARIUM		0.025	0.033	0.0335	0.336	0.356	0 0221 JQ	0.332	0 0301	0.0211 JQ	0 0335	0.101
BERYLLIUM		0.005	<0 005	<0.005	0.0014 JQ	0 0021 JQ	<0.005	<0 005	<0 005	<0 005	<0.005	<0 005
CADMIUM		0.005	<0.005	<0 005	<0 005	<0 005	<0 005	<0 005	0.0018 JQ	<0 005	<0.005	<0.005
CALCIUM		0.5	4.37	15 1	20.6	21 6	7 67	49.1	1 99	2.11	2 73	2.11
CHROMIUM		0 01	<0 01	<0 01	<0.01	<0.01	<0.01	<0.01	<0.01	<0 01	<0 01	<0.01
COBALT		0.015	<0.015	0 0092 JQ	0 0847	0 0847	<0.015	<0 015	<0.015	<0 015	<0 015	<0.015
COPPER		0.01	0.0078 JB	<0 01	0 0047 JQ	0.0043 JQ	0.0088 JQ	<0.01	0.043	0.0048 JQ	0.0026 JQ	<0 01
IRON		0 1	1.41	3 99	1.82	1.73	1 07	11 8	0.219 JB	5.65	37 9	<0.1
MAGNESIUM		0.2	1.91	1.54	12	12.5	0.696	3.37	0.673	1.26	1.26	1 31
MANGANESE		0.005	0 0782	0.267	3	3.16	0 0453	0.343	0 0345	0.0564	0.138	0.0294
MOLYBDENUM		0.015	<0.015	<0.015	<0.015	0.0032 JQ	0.0032 JQ	<0 015	0.0043 JB	0.004 JQ	<0 015	<0 015
NICKEL		0 02	<0.02	<0.02	0.011 JQ	0 0096 JQ	<0.02	<0.02	0.0125 JQ	<0.02	<0.02	<0.02
POTASSIUM		1	2.47	2 18	5.65	5.73	2.56	6 88	1 37	1.71	0.365 JQ	2.22
SILVER		0.01	<0.01	<0 01	<0.01	<0.01	<0.01	<0 01	<0.01	<0.01	<0.01	<0.01
SODIUM		0.5	7 8	4.02	67.2	70 6	5.39	6 89	7 08	5.22	7 37	5.52
VANADIUM		0.01	<0.01	<0 01	<0 01	<0 01	0 0023 JQ	<0 01	<0 01	<0.01	0.0021 JQ	<0 01
ZINC		0 02	0.0216	0 0505 J	0 0689	0.0674	1.16 R	0 0048 JB	0.304 R	0.0573	0 0872	0.115 J

TABLE B-1

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type:		Normal	Normal	Normal	Duplicate	Normal	Normal	Normal	Normal	Normal	Normal
	Location ID:	Reporting (a)	AEHA-25A	AEHA-26A	AEHA-28A	AEHA-28A	AEHA-30A	AEHA-31A	AEHA-32A	AEHA-33A	AEHA-34A	DMW-7A
	Sample Date:	Limit	7/12/2005	7/13/2005	7/14/2005	7/14/2005	7/14/2005	7/18/2005	7/18/2005	7/14/2005	7/16/2005	7/13/2005
Metals - SW846 6020 (Total) mg/L												
ANTIMONY		0 0001	<0 001	0 00061 JQ	0.00007 JB	0 00005 JB	0.00075	0.00022	0.00039	0.00006 JB	0 0000301 JB	<0.001
ARSENIC		0.0005	<0.005	0.00408 JQ	0.00314	0.00321	0.00125	0.00667	0.00018 JQ	0.00025 JQ	0.00319	<0.005
LEAD		0.0005	0.00081 JQ	0.0008 JQ	0.0034	0.00341	0 00076	0.00049 JQ	0.00262	0 00087	0.00064	0.00027 JQ
SELENIUM		0 0005	<0 005	<0 005	0.0117	0.0117	0.00042 JQ	0.00026 JQ	0 00051	0.00029 JQ	0.00027 JQ	<0.005
THALLIUM		0.0001	<0.001	<0.001	0.000074 JQ	0.000072 JQ	0.000052 JQ	<0.0001	<0 0001	<0 0001	<0 0001	<0.001
Mercury - SW846 7471 (Total) mg/L												
MERCURY		0.0003	<0 0003	0.000121 JQ	0.000115 JQ	0 000109 JQ	0.00016 JQ	<0 0003	<0 0003	0 000118 JQ	<0 0003	0.000152 JQ
Total Alkalinity - MCAWW 310.1 mg/L												
ALKALINITY, TOTAL (AS CACO3)		10	5 JQ	34	<10	<10	12	134	2 JB	15	35	4 JQ
Total Organic Carbon - SW846 9060 mg/L												
TOTAL ORGANIC CARBON		1	1 6	4.7	1.5	1.5	7.6	4.9	1.5 JH	0.8 JQ	1.7	0.9 JH
Total Sulfide - MCAWW 376.1 mg/L												
SULFIDE		2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Volatile Fatty Acids - D1552 mg/L												
ACETIC ACID		1	NA	<1	<1	NA	<1	NA	<1	NA	NA	NA
BUTANOIC ACID		2	NA	<2	<2	NA	<2	NA	<2	NA	NA	NA
LACTIC ACID		1	NA	<1	<1	NA	<1	NA	<1	NA	NA	NA
PROPIONIC ACID		1	NA	<1	<1	NA	<1	NA	<1	NA	NA	NA
PYRUVIC ACID		0 5	NA	<0.5	<0.5	NA	<0.5	NA	<0 5	NA	NA	NA
Volatile Organic Compounds - SW846 8260 µg/L												
1,1,1,2-TETRACHLOROETHANE		1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
1,1,1-TRICHLOROETHANE		1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
1,1,2,2-TETRACHLOROETHANE		1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
1,1,2-TRICHLOROETHANE		1	<1	<1	6.7 JQ	6 7 JQ	<1	<1	<1	<1	<1	<1
1,1-DICHLOROETHANE		1	0.16 JQ	<1	27	27	<1	<1	<1	<1	<1	<1
1,1-DICHLOROETHYLENE		1	0 61 JQ	<1	28	27	<1	<1	0.29 JQ	<1	<1	<1
1,1-DICHLOROPROPENE		1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
1,2,3-TRICHLOROBENZENE		1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
1,2,3-TRICHLOROPROPANE		1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
1,2,4-TRICHLOROBENZENE		1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
1,2,4-TRIMETHYLBENZENE		1	<1	<1	<10	<10	<1	<1	<1	<1	4.5	<1
1,2-DIBROMO-3-CHLOROPROPANE		2.5	<2.5	<2.5	<25	<25	<2.5	<2.5	<2.5	<2.5	<2.5	<2 5
1,2-DIBROMOETHANE		1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
1,2-DICHLOROBENZENE		1	<1	<1	43	43 J	<1	<1	<1	<1	<1	<1
1,2-DICHLOROETHANE		1	0.61 JQ	<1	22	22	<1	<1	0 26 JQ	<1	<1	<1
1,2-DICHLOROPROPANE		1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
1,3,5-TRIMETHYLBENZENE		1	<1	<1	<10	<10	<1	<1	<1	<1	0.42 JQ	<1
1,3-DICHLOROBENZENE		1	<1	<1	7.4 JQ	7.4 JQ	<1	<1	<1	<1	<1	<1
1,3-DICHLOROPROPANE		1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
1,4-DICHLOROBENZENE		1	0.42 JQ	<1	190	190	<1	<1	0 18 JQ	<1	<1	<1
2,2-DICHLOROPROPANE		1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
2-BUTANONE		10	<10	<10	<100	<100	<10	<10	<10	<10	<10	<10
2-CHLOROTOLUENE		1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
2-HEXANONE		10	<10	<10	<100	<100	<10	<10	<10	<10	<10	<10
4-CHLOROTOLUENE		1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
4-METHYL-2-PENTANONE		10	<10	<10	<100	<100	<10	<10	<10	<10	<10	<10
ACETONE		10	2.8 JQ	<10	<100	<100	2.4 JB	<10	3.1 JB	2 8 JB	2.2 JB	2.2 JB
BENZENE		1	0 57 JQ	<1	<10	<10	<1	<1	<1	<1	<1	<1
BROMOBENZENE		1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
BROMODICHLOROMETHANE		1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
BROMOFORM		1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
BROMOMETHANE		1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
CARBON DISULFIDE		1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1

TABLE B-1

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

Sample Type. Location ID: Sample Date:	Reporting (a) Limit	Normal AEHA-25A 7/12/2005	Normal AEHA-26A 7/13/2005	Normal AEHA-28A 7/14/2005	Duplicate AEHA-28A 7/14/2005	Normal AEHA-30A 7/14/2005	Normal AEHA-31A 7/18/2005	Normal AEHA-32A 7/18/2005	Normal AEHA-33A 7/14/2005	Normal AEHA-34A 7/16/2005	Normal DMW-7A 7/13/2005
CARBON TETRACHLORIDE	1	<1	<1	3.4 JQ	<10	<1	<1	<1	<1	<1	<1
CHLOROBENZENE	1	<1	<1	270	260	<1	<1	<1	<1	<1	<1
CHLOROBROMOMETHANE	1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
CHLORODIBROMOMETHANE	1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
CHLOROETHANE	1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
CHLOROFORM	1	<1	<1	54	53	<1	<1	0 77 JQ	<1	<1	<1
CHLOROMETHANE	1	<1	<1	<10	<10	<1	0.47 JQ	0.21 JQ	<1	<1	<1
CIS-1.2-DICHLOROETHENE	0.5	100	1	2100	2000	1.1	0.39 JQ	9 6	<0.5	<0.5	<0 5
CIS-1.3-DICHLOROPROPENE	1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
DIBROMOMETHANE	1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
DICHLORODIFLUOROMETHANE	1	<1	<1	5 2 JQ	4 9 JQ	<1	<1	<1	<1	<1	<1
ETHYLBENZENE	1	<1	<1	<10	<10	<1	<1	<1	<1	0.55 JQ	<1
HEXACHLOROBUTADIENE	1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
ISOPROPYLBENZENE	1	<1	<1	<10	<10	<1	<1	<1	<1	7 3	<1
M & P-XYLENES	1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
METHYL TERT-BUTYL ETHER	1	2.2	<1	<10	<10	<1	1.1	2 6	0.22 JQ	<1	<1
METHYLENE CHLORIDE	1	<1	<1	2 6 JB	2 7 JB	<1	<1	<1	0 096 JB	<1	<1
N-BUTYLBENZENE	1	<1	<1	<10	<10	<1	<1	<1	<1	7 4	<1
N-PROPYLBENZENE	1	<1	<1	<10	<10	<1	<1	<1	<1	7.8	<1
NAPHTHALENE	1	<1	<1	1.5 JQ	<10	<1	<1	<1	<1	72	<1
O-XYLENE	1	<1	<1	<10	<10	<1	<1	<1	<1	0 081 JQ	<1
P-ISOPROPYLTOLUENE	1	<1	<1	<10	<10	<1	<1	<1	<1	3 5	<1
SEC-BUTYLBENZENE	1	<1	<1	<10	<10	<1	<1	<1	0.26 JQ	12	<1
STYRENE	1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
TERT-BUTYLBENZENE	1	<1	<1	<10	<10	<1	<1	<1	<1	0.32 JQ	<1
TETRACHLOROETHENE	1	12	0 4 JQ	99	95 J	<1	<1	1.3	<1	<1	<1
TOLUENE	1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
TRANS-1,2-DICHLOROETHENE	0.5	0 83	<0.5	2 JQ	2 JQ	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
TRICHLOROETHENE	1	100	0.34 JQ	1200	1200	<1	<1	17	<1	<1	<1
TRICHLOROFLUOROMETHANE	1	<1	<1	<10	<10	<1	<1	<1	<1	<1	<1
VINYL CHLORIDE	1	5.8	0 14 JQ	160	160	0.28 JQ	1.4	0.51 JQ	<1	<1	<1
Surrogate - % recovery											
1,2-DICHLOROETHANE-D4	–	101	107	102	98	104	109	103	102	100	100
4-BROMOFLUOROBENZENE	–	99	101	106	103	102	109	104	98	85	93
DIBROMOFLUOROMETHANE	–	99	106	109	105	100	105	106	99	98	98
TOLUENE-D8	–	92	96	100	98	97	102	101	93	100	87

Notes:

J Estimated; based on QC data
JB Estimated, possibly biased high or false positive based on blank contamination
JH Estimated, possibly biased high based upon QC data
JQ Estimated; Value is between reporting limit and detection limit
NA Not Analyzed
R Unusable
UJ Undetected; Reported Detection Limit is imprecise
(a) Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions.

TABLE B-1

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type. Location ID: Sample Date	Reporting (a) Limit	Normal DMW-9A 7/16/2005	Normal DMW-18A 7/15/2005	Normal MWA50-35 7/15/2005	Normal MWA50-36 7/13/2005	Normal MWA50-37 7/13/2005	Normal MWA50-38 7/13/2005	Normal USGS-A4 7/17/2005	Normal USGS-D4 7/15/2005	Normal USGS-F4 7/16/2005	Normal USGS-G4 7/17/2005
FIELD PARAMETER:												
Dissolved Oxygen - EPA 360.1 mg/L												
DISSOLVED OXYGEN		0.1	2.6	0 3	0.2	0.5	0.3	0.5	0.4	2	6	2 9
Ferrous Iron - A3500D mg/L												
FERROUS IRON		0.1	<0 1	4	5.8	3	<0.1	<0.1	0 2	<0.1	1	<0.1
Oxidation Reduction Potential - A2580A mV												
OXIDATION REDUCTION POTENTIAL		–	498	234	-6	-54	-110	381	356	275	223	266
pH - EPA 150.1 pH Units												
pH		–	4.37	4.82	5.85	6 35	7 44	3 77	4 73	4.83	5.13	4.59
Specific Conductance - EPA 120.1 mS/cm												
SPECIFIC CONDUCTANCE		0 001	0 107	0.091	0 507	1.48	1.539	0.048	0.082	0 039	0.166	0.039
Temperature - EPA 170.1 deg. C												
TEMPERATURE		–	19.1	23.1	19.3	26.4	23.4	19.2	22	20.1	21.5	17.9
Turbidity - EPA 180.1 NTU												
TURBIDITY		1	1	16	2	8	<1	2	3	5	20	7
FIXED BASE LABORATORY ANALYSIS:												
Anions - MCAWW 300.0A mg/L												
CHLORIDE		1	15.7	15.7	11.5	61 4	13.9	4.9	7 9	3.7	20.1	5
NITRATE AS N		0.1	1 56	<0 1	<0.1	<0.1	0.65	0 48	0.1	0.13	0.23	0 16 J
SULFATE AS SO4		1	13.3	1 JQ	34.9	77.3	78 1	2	21	2.7	22	2.3 J
Dissolved Gases - RSK SOP-175 µg/L												
CARBON DIOXIDE		1000	131000 J	261000	327000	278000	59300	190000	164000 J	94000	92500 J	130000 J
ETHANE		0.5	<0.5	<0 5	2.1	0 88	4 3	<0.5	<0.5	<0.5	<0.5	<0.5
ETHENE		1.5	<1.5	<1.5	<1.5	<1.5	6 1	<1 5	<1.5	<1.5	<1.5	<1.5
METHANE		0 5	<0.5	180	620	1500	2600	<0.5	17	<0 5	8 8	<0.5
Hydrogen by Microseeps - AM20GAX nM												
HYDROGEN		1	1.4	1.7	1 1	1.1	1 3	40	3 4	56	1 4	1 5
Metals - SW846 6010 (Total) mg/L												
ALUMINUM		0.06	0.233	0 0152 JQ	0.015 JQ	0 0602	<0 06	0.021 JQ	0.233	0.0342 JQ	0 151	0 0582 JQ
BARIUM		0 025	0.0871	0.0557	0 0832	0 0194 JQ	0.1	0.109	0 0335	0.0267	0.0952	0 0335
BERYLLIUM		0.005	<0.005	<0.005	<0.005	<0 005	0.0029 JQ	<0 005	<0 005	<0.005	<0.005	<0.005
CADMIUM		0 005	<0 005	<0.005	<0 005	<0 005	0.0025 JQ	<0 005	<0 005	<0 005	<0.005	<0.005
CALCIUM		0.5	8.07	3.33	61.7	3 74	106	1 37	4.86	2.36	3.91	0 72
CHROMIUM		0 01	<0 01	<0 01	<0 01	<0 01	0 0066 JQ	<0.01	<0 01	<0 01	<0.01	<0 01
COBALT		0.015	0.0052 JQ	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0 015	0.0066 JQ	<0.015
COPPER		0.01	<0.01	0.0064 JB	<0.01	<0 01	0 0142	<0.01	0.0048 JQ	<0 01	0.0021 JQ	<0 01
IRON		0.1	<0.1	6.76	30.8	7.42	0.071 JQ	0 0741 JQ	0.529	0 0882 JQ	2.81	0.0275 JQ
MAGNESIUM		0.2	2 99	1.72	13.4	0.517	112	1.53	1 54	0.529	2.13	0 477
MANGANESE		0.005	0.0406	0.0635	0.221	0 0212	0.0792	0 0328	0.0294	0 0638	0.101	0 0263
MOLYBDENUM		0 015	<0.015	<0.015	<0.015	<0 015	0 0104 JQ	<0.015	<0.015	<0.015	<0.015	<0.015
NICKEL		0 02	<0 02	<0.02	<0.02	<0 02	<0.02	<0.02	<0.02	<0.02	0 0096 JQ	<0 02
POTASSIUM		1	1.64	2.58	4.13	0 625 JQ	7.28	2 03	1.86	1.7	1 68	0.957 JQ
SILVER		0.01	<0.01	<0 01	<0 01	<0 01	<0 01	<0.01	<0 01	<0.01	<0.01	<0.01
SODIUM		0.5	4.31	5.27	18 5	380	49.8	2.64	6.59	3.06	19.4	4 26
VANADIUM		0 01	<0 01	<0.01	<0.01	<0 01	0.332	<0.01	<0 01	<0 01	<0.01	<0.01
ZINC		0.02	0 0037 JB	0.0173 JQ	0.0096 JB	0.11 J	0 0882 J	0.003 JB	0.0196 JQ	0.225 R	0.161	0.0145 JQ

TABLE B-1

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type:		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
	Location ID.	Reporting (a)	DMW-9A	DMW-18A	MWA50-35	MWA50-36	MWA50-37	MWA50-38	USGS-A4	USGS-D4	USGS-F4	USGS-G4
	Sample Date:	Limit	7/16/2005	7/15/2005	7/15/2005	7/13/2005	7/13/2005	7/13/2005	7/17/2005	7/15/2005	7/16/2005	7/17/2005
Metals - SW846 6020 (Total) mg/L												
ANTIMONY		0 0001	0.00005 JB	0 00004 JB	0.00005 JB	<0.001	0.0104	<0.001	0.00017 JB	0 00006 JB	0.00055	<0.0001
ARSENIC		0.0005	0.00013 JQ	0.00065	0 00392	0 00318 JQ	0.0211	<0.005	0.00039 JQ	<0.0005	0.00241	<0 0005
LEAD		0.0005	0 00112	0.00011 JQ	0.00009 JQ	0.0003 JQ	<0.005	<0.005	0.00181	0 00014 JQ	0.00187	0.00017 JB
SELENIUM		0 0005	0.00023 JQ	0 00073	0.00046 JQ	0.00274 JQ	0.0148	<0.005	0 00053	0 00021 JQ	0 00152	0.00023 JQ
THALLIUM		0.0001	<0 0001	<0.0001	0.000107	<0.001	<0.001	<0.001	0.000063 JQ	<0 0001	<0 0001	<0.0001
Mercury - SW846 7471 (Total) mg/L												
MERCURY		0.0003	<0 0003	<0 0003	<0 0003	0.000124 JQ	0.000136 JQ	0.000117 JQ	<0 0003	<0.0003	<0.0003	<0.0003
Total Alkalinity - MCAWW 310.1 mg/L												
ALKALINITY, TOTAL (AS CACO3)		10	7 JQ	<10	167	606	612	6 JQ	3 JQ	5 JQ	15	3 JQ
Total Organic Carbon - SW846 9060 mg/L												
TOTAL ORGANIC CARBON		1	1 1	1 1	4.3	17 3	12.4	1.2	4.3	1.4 JH	3	1.3
Total Sulfide - MCAWW 376.1 mg/L												
SULFIDE		2	<2	<2	<2	<2	<2 UJ	<2	<2 UJ	<2	<2	<2 UJ
Volatile Fatty Acids - D1552 mg/L												
ACETIC ACID		1	NA	NA	<1	NA	<1	NA	NA	NA	NA	NA
BUTANOIC ACID		2	NA	NA	<2	NA	<2	NA	NA	NA	NA	NA
LACTIC ACID		1	NA	NA	<1	NA	<1	NA	NA	NA	NA	NA
PROPIONIC ACID		1	NA	NA	<1	NA	<1	NA	NA	NA	NA	NA
PYRUVIC ACID		0 5	NA	NA	<0.5	NA	<0 5	NA	NA	NA	NA	NA
Volatile Organic Compounds - SW846 8260 µg/L												
1,1,1,2-TETRACHLOROETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-TRICHLOROETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-TETRACHLOROETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-TRICHLOROETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROETHANE		1	<1	0.45 JQ	0.3 JQ	<1	1	<1	<1	<1	<1	<1
1,1-DICHLOROETHYLENE		1	<1	0 65 JQ	<1	<1	0.16 JQ	<1	<1	<1	<1	<1
1,1-DICHLOROPROPENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-TRICHLOROBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-TRICHLOROPROPANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-TRICHLOROBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-TRIMETHYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DIBROMO-3-CHLOROPROPANE		2 5	<2.5	<2.5	<2.5	<2.5	<2 5	<2 5	<2.5	<2 5	<2 5	<2.5
1,2-DIBROMOETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DICHLOROBENZENE		1	<1	<1	1 6	<1	0.17 JQ	<1	<1	<1	<1	<1
1,2-DICHLOROETHANE		1	<1	<1	<1	<1	0.71 JQ	<1	<1	<1	<1	<1
1,2-DICHLOROPROPANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-TRIMETHYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-DICHLOROBENZENE		1	<1	<1	0.18 JQ	<1	<1	<1	<1	<1	<1	<1
1,3-DICHLOROPROPANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-DICHLOROBENZENE		1	<1	<1	1.4	<1	0.36 JQ	<1	0.25 JQ	<1	<1	<1
2,2-DICHLOROPROPANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-BUTANONE		10	<10	<10	<10	<10	<10	<10	2.3 JQ	<10	<10	<10
2-CHLOROTOLUENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-HEXANONE		10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-CHLOROTOLUENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-METHYL-2-PENTANONE		10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
ACETONE		10	2.4 JB	2 1 JB	2 8 JB	5.9 JB	7.5 JB	3 JB	1.7 JB	2 9 JB	2.4 JB	<10
BENZENE		1	<1	<1	<1	0.53 JQ	0 17 JJQ	<1	<1	<1	<1	<1
BROMOBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMODICHLOROMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMOFORM		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMOMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARBON DISULFIDE		1	<1	<1	<1	<1	0.65 JQ	<1	<1	<1	<1	<1

TABLE B-1

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type. Location ID. Sample Date:	Reporting (a) Limit	Normal DMW-9A 7/16/2005	Normal DMW-18A 7/15/2005	Normal MWA50-35 7/15/2005	Normal MWA50-36 7/13/2005	Normal MWA50-37 7/13/2005	Normal MWA50-38 7/13/2005	Normal USGS-A4 7/17/2005	Normal USGS-D4 7/15/2005	Normal USGS-F4 7/16/2005	Normal USGS-G4 7/17/2005
CARBON TETRACHLORIDE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROBENZENE		1	<1	<1	5.7	<1	2 8	<1	0.31 JQ	<1	0 12 JQ	<1
CHLOROBROMOMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLORODIBROMOMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROFORM		1	<1	<1	<1	<1	<1	<1	0.13 JB	<1	<1	0.16 JB
CHLOROMETHANE		1	<1	<1	<1	<1	<1	<1	0.21 JQ	<1	<1	<1
CIS-1,2-DICHLOROETHENE		0 5	<0.5	46	10	<0.5	8 9	<0.5	5.6	<0.5	3.8	<0 5
CIS-1,3-DICHLOROPROPENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
DIBROMOMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
DICHLORODIFLUOROMETHANE		1	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
ETHYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	0.12 JQ	<1
HEXACHLOROBUTADIENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ISOPROPYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
M & P-XYLENES		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
METHYL TERT-BUTYL ETHER		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
METHYLENE CHLORIDE		1	<1	<1	<1	<1	0.091 JB	<1	<1	<1	0.1 JB	<1
N-BUTYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-PROPYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NAPHTHALENE		1	0 12 JQ	<1	<1	<1	<1	<1	<1	<1	<1	<1 UJ
O-XYLENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
P-ISOPROPYLTOLUENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
SEC-BUTYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
STYRENE		1	<1	<1	<1	<1	<1	<1	<1	<1	0.24 JQ	<1
TERT-BUTYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TETRACHLOROETHENE		1	<1	22	3.1	<1	<1	<1	0.88 JQ	<1	<1	<1
TOLUENE		1	<1	0.37 JQ	<1	<1	<1	<1	<1	<1	0 69 JQ	<1
TRANS-1,2-DICHLOROETHENE		0 5	<0 5	0.25 JQ	0.24 JQ	<0.5	0.42 JQ	<0 5	<0.5	<0.5	0.21 JQ	<0.5
TRANS-1,3-DICHLOROPROPENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TRICHLOROETHENE		1	<1	81	7.3	<1	11	<1	12	<1	0.64 JQ	<1
TRICHLOROFLUOROMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
VINYL CHLORIDE		1	<1	<1	1	<1	7.7	<1	<1	<1	<1	<1
Surrogate - % recovery												
1,2-DICHLOROETHANE-D4		–	98	104	106	105	103	108	105	105	101	103
4-BROMOFLUOROBENZENE		–	105	101	97	95	104	101	105	97	95	103
DIBROMOFLUOROMETHANE		–	98	102	106	103	104	105	108	101	96	107
TOLUENE-D8		–	95	96	96	92	98	95	100	94	89	98

Notes:

J Estimated; based on QC data
JB Estimated, possibly biased high or false positive based on blank contamination
JH Estimated; possibly biased high based upon QC data
JQ Estimated; Value is between reporting limit and detection limit
NA Not Analyzed
R Unusable
UJ Undetected, Reported Detection Limit is imprecise
(a) Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions

TABLE B-1

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type: / Location ID: / Sample Date:	Reporting (a) Limit	Normal USGS-J4 7/17/2005	Normal USGS-K4 7/17/2005	Normal USGS-M4 7/17/2005	Normal USGS-P4 7/14/2005
FIELD PARAMETER:						
Dissolved Oxygen - EPA 360.1 mg/L						
DISSOLVED OXYGEN		0.1	0.9	3.3	4.4	1
Ferrous Iron - A3500D mg/L						
FERROUS IRON		0.1	<0.1	NA	<0.1	1.5
Oxidation Reduction Potential - A2580A mV						
OXIDATION REDUCTION POTENTIAL		--	330	542	628	226
pH - EPA 150.1 pH Units						
pH		--	5.03	4.95	3.71	4 18
Specific Conductance - EPA 120.1 mS/cm						
SPECIFIC CONDUCTANCE		0.001	0 071	0.071	0.043	0 066
Temperature - EPA 170.1 deg. C						
TEMPERATURE		--	22.4	26.9	20	25.7
Turbidity - EPA 180.1 NTU						
TURBIDITY		1	1	<1	<1	1
FIXED BASE LABORATORY ANALYSIS:						
Anions - MCAWW 300.0A mg/L						
CHLORIDE		1	6	5.6	6.1	10 9
NITRATE AS N		0.1	0.11	0.1	0.62	<0.1
SULFATE AS SO4		1	14	13.2	2.3	1 JQ
Dissolved Gases - RSK SOP-175 µg/L						
CARBON DIOXIDE		1000	137000 J	119000 J	153000 J	214000 J
ETHANE		0 5	<0.5	<0.5	<0.5	<0.5
ETHENE		1 5	<1.5	<1.5	<1.5	<1.5
METHANE		0 5	<0.5	<0.5	<0.5	15
Hydrogen by Microseeps - AM20GAX nM						
HYDROGEN		1	1 3	NA	7.1	1.2
Metals - SW846 6010 (Total) mg/L						
ALUMINUM		0.06	0.0271 JQ	0.076	0.0539 JQ	0 131
BARIUM		0.025	0.0251	0.0236 JQ	0.047	0 0658
BERYLLIUM		0.005	<0 005	<0 005	<0 005	<0 005
CADMIUM		0.005	<0 005	<0 005	<0.005	<0.005
CALCIUM		0.5	3.12	1.31	0 571	1.85
CHROMIUM		0 01	<0 01	<0.01	<0.01	<0.01
COBALT		0.015	0.006 JQ	<0 015	0.0064 JQ	<0 015
COPPER		0.01	<0.01	<0.01	<0.01	0 0025 JQ
IRON		0.1	<0.1	0 123	<0.1	0 0244 JQ
MAGNESIUM		0.2	1.29	0.692	0.515	1 49
MANGANESE		0.005	0.0317	0 0234	0.0717	0 101
MOLYBDENUM		0.015	<0.015	<0 015	<0 015	<0 015
NICKEL		0.02	<0.02	<0.02	<0.02	<0 02
POTASSIUM		1	3.33	1.08	0 941 JQ	1 37
SILVER		0.01	<0.01	<0.01	<0.01	<0.01
SODIUM		0 5	8.3	9 48	5.21	4.84
VANADIUM		0.01	<0.01	<0 01	<0.01	<0 01
ZINC		0.02	0 0053 JB	0 0112 JQ	0.0041 JB	0.0182 JQ

TABLE B-1

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type: Location ID. Sample Date:	Reporting (a) Limit	Normal USGS-J4 7/17/2005	Normal USGS-K4 7/17/2005	Normal USGS-M4 7/17/2005	Normal USGS-P4 7/14/2005
Metals - SW846 6020 (Total) mg/L						
ANTIMONY		0 0001	0.00005 JB	0.00004 JB	0.00004 JB	<0 0001
ARSENIC		0.0005	<0 0005	<0 0005	<0.0005	<0 0005
LEAD		0.0005	0.00012 JB	0.00086	0.00025 JQ	0.00026 JQ
SELENIUM		0.0005	0.00034 JQ	0 00024 JQ	0 00032 JQ	<0.0005
THALLIUM		0.0001	<0.0001	<0.0001	<0.0001	<0 0001
Mercury - SW846 7471 (Total) mg/L						
MERCURY		0.0003	<0 0003	<0 0003	<0 0003	0.000141 JQ
Total Alkalinity - MCAWW 310.1 mg/L						
ALKALINITY, TOTAL (AS CACO3)		10	10	5 JQ	3 JQ	3 JQ
Total Organic Carbon - SW846 9060 mg/L						
TOTAL ORGANIC CARBON		1	1.4	1.4	0.9 JQ	0 8 JQ
Total Sulfide - MCAWW 376.1 mg/L						
SULFIDE		2	<2 UJ	<2 UJ	<2 UJ	<2
Volatile Fatty Acids - D1552 mg/L						
ACETIC ACID		1	NA	NA	NA	NA
BUTANOIC ACID		2	NA	NA	NA	NA
LACTIC ACID		1	NA	NA	NA	NA
PROPIONIC ACID		1	NA	NA	NA	NA
PYRUVIC ACID		0.5	NA	NA	NA	NA
Volatile Organic Compounds - SW846 8260 µg/L						
1,1,1,2-TETRACHLOROETHANE		1	<1	<1	<1	<1
1,1,1-TRICHLOROETHANE		1	<1	<1	<1	<1
1,1,2,2-TETRACHLOROETHANE		1	<1	<1	<1	<1
1,1,2-TRICHLOROETHANE		1	<1	<1	<1	<1
1,1-DICHLOROETHANE		1	<1	<1	<1	<1
1,1-DICHLOROETHYLENE		1	<1	<1	<1	<1
1,1-DICHLOROPROPENE		1	<1	<1	<1	<1
1,2,3-TRICHLOROBENZENE		1	<1	<1	<1	<1
1,2,3-TRICHLOROPROPANE		1	<1	<1	<1	<1
1,2,4-TRICHLOROBENZENE		1	<1	<1	<1	<1
1,2,4-TRIMETHYLBENZENE		1	<1	<1	<1	0.1 JQ
1,2-DIBROMO-3-CHLOROPROPANE		2.5	<2.5	<2.5	<2.5	<2 5
1,2-DIBROMOETHANE		1	<1	<1	<1	<1
1,2-DICHLOROBENZENE		1	<1	<1	<1	<1
1,2-DICHLOROETHANE		1	<1	<1	<1	<1
1,2-DICHLOROPROPANE		1	<1	<1	<1	<1
1,3,5-TRIMETHYLBENZENE		1	<1	<1	<1	<1
1,3-DICHLOROBENZENE		1	<1	<1	<1	<1
1,3-DICHLOROPROPANE		1	<1	<1	<1	<1
1,4-DICHLOROBENZENE		1	<1	<1	<1	<1
2,2-DICHLOROPROPANE		1	<1	<1	<1	<1
2-BUTANONE		10	15	<10	<10	<10
2-CHLOROTOLUENE		1	<1	<1	<1	<1
2-HEXANONE		10	<10	<10	<10	<10
4-CHLOROTOLUENE		1	<1	<1	<1	<1
4-METHYL-2-PENTANONE		10	<10	<10	<10	<10
ACETONE		10	4.9 JB	1 8 JB	<10	2.9 JB
BENZENE		1	<1	<1	<1	<1
BROMOBENZENE		1	<1	<1	<1	<1
BROMODICHLOROMETHANE		1	<1	<1	<1	<1
BROMOFORM		1	<1	<1	<1	<1
BROMOMETHANE		1	<1	<1	<1	<1
CARBON DISULFIDE		1	<1	<1	<1	<1

TABLE B-1

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type:		Normal	Normal	Normal	Normal
	Location ID:	Reporting (a)	USGS-J4	USGS-K4	USGS-M4	USGS-P4
	Sample Date:	Limit	7/17/2005	7/17/2005	7/17/2005	7/14/2005
CARBON TETRACHLORIDE		1	<1	<1	<1	<1
CHLOROBENZENE		1	<1	<1	<1	<1
CHLOROBROMOMETHANE		1	<1	<1	<1	<1
CHLORODIBROMOMETHANE		1	<1	<1	<1	<1
CHLOROETHANE		1	<1	<1	<1	<1
CHLOROFORM		1	<1	<1	0.13 JB	<1
CHLOROMETHANE		1	0.22 JQ	<1	<1	<1
CIS-1,2-DICHLOROETHENE		0.5	<0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE		1	<1	<1	<1	<1
DIBROMOMETHANE		1	<1	<1	<1	<1
DICHLORODIFLUOROMETHANE		1	<1	<1	<1	<1
ETHYLBENZENE		1	<1	<1	<1	<1
HEXACHLOROBUTADIENE		1	<1	<1	<1	<1
ISOPROPYLBENZENE		1	<1	<1	<1	<1
M & P-XYLENES		1	<1	<1	<1	0.26 JQ
METHYL TERT-BUTYL ETHER		1	<1	<1	8.7	<1
METHYLENE CHLORIDE		1	<1	<1	<1	0.13 JB
N-BUTYLBENZENE		1	<1	<1	<1	<1
N-PROPYLBENZENE		1	<1	<1	<1	<1
NAPHTHALENE		1	<1	<1	<1	<1
O-XYLENE		1	<1	<1	<1	0.12 JQ
P-ISOPROPYLTOLUENE		1	<1	<1	<1	<1
SEC-BUTYLBENZENE		1	<1	<1	<1	<1
STYRENE		1	<1	<1	<1	<1
TERT-BUTYLBENZENE		1	<1	<1	<1	<1
TETRACHLOROETHENE		1	<1	<1	<1	<1
TOLUENE		1	0.54 JQ	0.25 JQ	<1	2 8
TRANS-1,2-DICHLOROETHENE		0.5	<0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE		1	<1	<1	<1	<1
TRICHLOROETHENE		1	<1	<1	<1	0.19 JQ
TRICHLOROFLUOROMETHANE		1	<1	<1	<1	<1
VINYL CHLORIDE		1	<1	<1	<1	<1
Surrogate - % recovery						
1,2-DICHLOROETHANE-D4		--	101	100	104	111
4-BROMOFLUOROBENZENE		--	101	101	108	100
DIBROMOFLUOROMETHANE		--	102	102	110	109
TOLUENE-D8		--	98	99	104	97

Notes:

J	Estimated; based on QC data
JB	Estimated; possibly biased high or false positive based on blank contamination
JH	Estimated, possibly biased high based upon QC data
JQ	Estimated, Value is between reporting limit and detection limit
NA	Not Analyzed
R	Unusable
UJ	Undetected; Reported Detection Limit is imprecise
(a)	Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions.

PREPARED/DATE RMB 9/15/05
CHECKED/DATE: JAH 9/16/05

TABLE B-2

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - LOWER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type Location ID: Sample Date:	Reporting (a) Limit	Normal AEHA-18B 7/12/2005	Normal AEHA-21B 7/13/2005	Normal AEHA-23B 7/14/2005	Normal AEHA-24B 7/12/2005	Normal AEHA-25B 7/12/2005	Duplicate AEHA-25B 7/12/2005	Normal AEHA-26B 7/13/2005	Normal AEHA-27B 7/15/2005	Normal AEHA-28B 7/14/2005	Normal AEHA-30B 7/14/2005	Duplicate AEHA-30B 7/14/2005
FIELD PARAMETER:													
Dissolved Oxygen - EPA 360.1 mg/L													
DISSOLVED OXYGEN		0.1	0.6	1.4	1.3	0 4	0.4	0.4	0.3	3.2	0.5	0 4	0.4
Ferrous Iron - A3500D mg/L													
FERROUS IRON		0.1	0.2	0 2	0 1	<0.1	0.7	0 7	1	<0 1	<0.1	3.6	3.6
Oxidation Reduction Potential - A2580A mV													
OXIDATION REDUCTION POTENTIAL		–	-34	-36	-39	486	23	23	-134	104	120	104	198
pH - EPA 150.1 pH Units													
pH		–	5 87	5.52	6 03	3.69	5.63	5.63	7.25	7.05	5.48	5.3	5.3
Specific Conductance - EPA 120.1 mS/cm													
SPECIFIC CONDUCTANCE		0.001	0.082	0.078	0.101	0.108	0.114	0.114	0.512	0 224	0.131	0.291	0.114
Temperature - EPA 170.1 deg. C													
TEMPERATURE		–	19.8	21.4	19.9	24 8	22.9	22.9	20 6	23.3	20 4	20.7	20.7
Turbidity - EPA 180.1 NTU													
TURBIDITY		1	5	<1	3	1	<1	<1	2	<1	2	1	1
FIXED BASE LABORATORY ANALYSIS:													
Anions - MCAWW 300.0A mg/L													
CHLORIDE		1	1.6	2 2	2.5	23.8	7.4	7.5	1 JQ	1.9	6.4	66.5	67 9
NITRATE AS N		0.1	1.65	0.05 JQ	0 08 JQ	0.26	<0.1	<0.1	0.27	0.26	0 04 JQ	<0 1	<0.1
SULFATE AS SO4		1	10 4	9.8	7	2 1	12 2	12.1	0.3	11 6	13 8	7 5	7.2
Dissolved Gases - RSK SOP-175 µg/L													
CARBON DIOXIDE		1000	21600 J	47200	55300	196000 J	40100 J	42800 J	8570	14100	59000	191000	182000
ETHANE		0.5	<0.5	<0.5	<0.5	0.79	<0.5	<0 5	<0 5	<0 5	<0.5	<0.5 UJ	1 8 J
ETHENE		1.5	<1.5	<1.5	<1.5	<1.5	<1 5	<1.5	<1.5	<1.5	<1 5	0.96 JQ	0.86 JQ
METHANE		0.5	10	<0.5	<0 5	59	4 4	3.7	1.3	4.2	0 49 JQ	130	120
Hydrogen by Microseeps - AM20GAX nM													
HYDROGEN		1	1.1	1.2	1 JQ	17	1.6	1 5	1.8	1.3	40	1.2	1 2
Metals - SW846 6010 (Total) mg/L													
ALUMINUM		0.06	0 0448 JQ	<0.06	0 0142 JQ	0 0646	<0.06	<0 06	0.0489 JQ	0.0335 JQ	<0.06	0 0402 JQ	0.0405 JQ
BARIUM		0 025	0.0242 JQ	0.0167 JQ	0.0242 JQ	0 033	0 0228 JQ	0.023 JQ	0.0778	0.03	0.0293	0 078	0 0786
BERYLLIUM		0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0 005	0 0012 JQ
CADMIUM		0.005	0.0028 JQ	<0.005	<0 005	<0.005	<0.005	<0 005	<0.005	<0.005	<0.005	<0 005	<0 005
CALCIUM		0.5	10	4.93	8.48	1.55	5 32	5.33	17	39 5	6 18	20.5	20.6
CHROMIUM		0 01	<0.01	<0.01	<0 01	<0.01	<0.01	<0.01	<0 01	<0.01	<0.01	<0 01	<0 01
COBALT		0 015	<0 015	<0.015	<0.015	<0 015	<0.015	<0 015	<0 015	<0 015	<0.015	<0 015	<0 015
COPPER		0 01	0.0092 JB	<0 01	0.0022 JQ	0.0496	0.0022 JB	0.0022 JB	<0.01	0.0029 JB	<0.01	<0.01	<0.01
IRON		0 1	0.301	0.045 JQ	0.651	0 222	0.663	0.672	1.53	0.031 JQ	0.109	7.71	7 82
MAGNESIUM		0.2	1.02	2.69	3.97	1 14	3.23	3.25	11	1.33	3.54	10.7	10.8
MANGANESE		0.005	0.018	0.005 JQ	0 0136	0.133	0.0334	0.0334	0 0635	0.0077	0.033	0.236	0.238
MOLYBDENUM		0 015	0.0093 JB	<0 015	<0.015	<0 015	<0.015	<0.015	<0 015	<0.015	<0 015	0 0039 JQ	<0 015
NICKEL		0 02	<0 02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
POTASSIUM		1	3.98	3 46	4.51	1 88	4.73	4.53	8.31	10.2	3 95	8.08	8.35
SILVER		0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0 01	<0.01	<0 01	<0.01	<0.01
SODIUM		0.5	3.29	4.69	4.47	15.9	12.3	12 4	77 9	4.97	14 7	10 2	10.4
VANADIUM		0 01	0.0022 JB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0 01	<0 01
ZINC		0 02	0.0301	0 0142 JB	0.0112 JQ	0.0748	<0 02	0 0021 JB	0.0661 J	0 0046 JB	0 0032 JB	0 0143 JQ	0.0188 JQ

TABLE B-2

DATA SUMMARY TABLE FOR GROUNDWATER
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BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

Sample Type: / Location ID. / Sample Date:	Reporting (a) Limit	Normal AEHA-18B 7/12/2005	Normal AEHA-21B 7/13/2005	Normal AEHA-23B 7/14/2005	Normal AEHA-24B 7/12/2005	Normal AEHA-25B 7/12/2005	Duplicate AEHA-25B 7/12/2005	Normal AEHA-26B 7/13/2005	Normal AEHA-27B 7/15/2005	Normal AEHA-28B 7/14/2005	Normal AEHA-30B 7/14/2005	Duplicate AEHA-30B 7/14/2005
Metals - SW846 6020 (Total) mg/L												
ANTIMONY	0.0001	0.00104	<0.001	0 00007 JB	<0.001	<0.001	<0.001	<0.001	0.00457	<0 0001	0.00004 JB	0.00004 JB
ARSENIC	0.0005	0 00107 JQ	<0 005	0.0008	<0.005	<0 005	<0.005	<0.005	0.00103	0.00013	0.00085	0.00086
LEAD	0.0005	0 00443 JQ	<0.005	0.00016 JQ	0.00281 JQ	0 00038 JQ	0.00037 JQ	0.00099 JQ	0.00026 JQ	0 00003 JB	0.00015 JQ	0.00017 JQ
SELENIUM	0.0005	<0.005	<0.005	<0.0005	<0.005	<0.005	<0.005	<0.005	0.00062	<0.0005	0.00197	0 00207
THALLIUM	0.0001	<0.001	<0.001	<0.0001	<0.001	<0.001	<0.001	<0 001	<0.0001	<0.0001	<0.0001	<0.0001
Mercury - SW846 7471 (Total) mg/L												
MERCURY	0.0003	<0 0003	0.000106 JQ	0 000134 JQ	0 000133 JQ	<0.0003	<0 0003	0 00012 JQ	<0.0003	0 000162 JQ	0.000121 JQ	<0 0003
Total Alkalinity - MCAWW 310.1 mg/L												
ALKALINITY, TOTAL (AS CACO3)	10	15	21	35	4 JQ	32	31	122	101	34	18 J	14 J
Total Organic Carbon - SW846 9060 mg/L												
TOTAL ORGANIC CARBON	1	5.1	0 3 JH	0.5 JQ	1 JH	0 7 JH	0.7 JH	0 5 JH	1.4	0 2 JQ	2 4 J	0.6
Total Sulfide - MCAWW 376.1 mg/L												
SULFIDE	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Volatile Fatty Acids - D1552 mg/L												
ACETIC ACID	1	NA	NA	NA	NA	<1	NA	NA	NA	NA	<1	NA
BUTANOIC ACID	2	NA	NA	NA	NA	<2	NA	NA	NA	NA	<2	NA
LACTIC ACID	1	NA	NA	NA	NA	<1	NA	NA	NA	NA	<1	NA
PROPIONIC ACID	1	NA	NA	NA	NA	<1	NA	NA	NA	NA	<1	NA
PYRUVIC ACID	0 5	NA	NA	NA	NA	<0 5	NA	NA	NA	NA	<0.5	NA
Volatile Organic Compounds - SW846 8260 µg/L												
1,1,1,2-TETRACHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
1,1,1-TRICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
1,1,2,2-TETRACHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
1,1,2-TRICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	0.8 JQ
1,1-DICHLOROETHANE	1	<1	<1	<1	0.22 JQ	<1	<1	<1	<1	<1	3.1 JQ	3.6
1,1-DICHLOROETHYLENE	1	<1	<1	<1	0.34 JQ	0.33 JQ	0.32 JQ	<1	<1	<1	6.4 JQ	8.7
1,1-DICHLOROPROPENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
1,2,3-TRICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
1,2,3-TRICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
1,2,4-TRICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
1,2,4-TRIMETHYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
1,2-DIBROMO-3-CHLOROPROPANE	2.5	<2 5	<2 5	<2 5	<2 5	<2 5	<2 5	<2 5	<2.5	<2.5	<25	<2.5
1,2-DIBROMOETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
1,2-DICHLOROBENZENE	1	<1	<1	<1	0 11 JQ	<1	<1	<1	<1	<1	2 JQ	3.5 J
1,2-DICHLOROETHANE	1	<1	<1	<1	1	<1	<1	<1	<1	<1	2.5 JQ	2.8
1,2-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
1,3,5-TRIMETHYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
1,3-DICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	0.49 JQ
1,3-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
1,4-DICHLOROBENZENE	1	<1	<1	<1	1.3	<1	<1	<1	<1	<1	8.9 JQ	11
2,2-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
2-BUTANONE	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<100	<10
2-CHLOROTOLUENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
2-HEXANONE	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<100	<10
4-CHLOROTOLUENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
4-METHYL-2-PENTANONE	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<100	<10
ACETONE	10	3 4 JB	3 1 JB	1 6 JB	2.7 JB	2.8 JB	2 8 JB	2.6 JB	2 6 JB	2.6 JB	<100	2 6 JQ
BENZENE	1	<1	<1	<1	0.66 JQ	<1	<1	<1	<1	<1	<10	0.57 JQ
BROMOBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
BROMODICHLOROMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
BROMOFORM	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1

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BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
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Sample Type: / Location ID. / Sample Date:	Reporting (a) Limit	Normal AEHA-18B 7/12/2005	Normal AEHA-21B 7/13/2005	Normal AEHA-23B 7/14/2005	Normal AEHA-24B 7/12/2005	Normal AEHA-25B 7/12/2005	Duplicate AEHA-25B 7/12/2005	Normal AEHA-26B 7/13/2005	Normal AEHA-27B 7/15/2005	Normal AEHA-28B 7/14/2005	Normal AEHA-30B 7/14/2005	Duplicate AEHA-30B 7/14/2005
BROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
CARBON DISULFIDE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
CARBON TETRACHLORIDE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
CHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	0 13 JQ	<1	21	26
CHLOROBROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
CHLORODIBROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
CHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
CHLOROFORM	1	<1	<1	<1	1.6	<1	<1	<1	<1	<1	<10	<1
CHLOROMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
CIS-1,2-DICHLOROETHENE	0 5	<0.5	<0 5	2	160	28	27	<0.5	9.2	<0.5	1100	1100
CIS-1,3-DICHLOROPROPENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
DIBROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
DICHLORODIFLUOROMETHANE	1	<1	<1	<1	0.54 JQ	<1	<1	<1	<1	<1	5.5 JQ	6 7
ETHYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
HEXACHLOROBUTADIENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
ISOPROPYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
M & P-XYLENES	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
METHYL TERT-BUTYL ETHER	1	<1	<1	<1	3.2	<1	<1	<1	<1	<1	<10	<1
METHYLENE CHLORIDE	1	<1	<1	0.094 JB	<1	<1	<1	<1	<1	<1	<10	0 095 JB
N-BUTYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
N-PROPYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
NAPHTHALENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
O-XYLENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	0.18 JQ
P-ISOPROPYLTOLUENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
SEC-BUTYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
STYRENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
TERT-BUTYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
TETRACHLOROETHENE	1	<1	<1	<1	22	0.42 JQ	0.41 JQ	<1	1.3	<1	28 J	40 J
TOLUENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	0.34 JQ
TRANS-1,2-DICHLOROETHENE	0 5	<0 5	<0.5	<0.5	1	0 16 JQ	0.16 JQ	<0.5	<0.5	<0.5	2 JQ	2.4
TRANS-1,3-DICHLOROPROPENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
TRICHLOROETHENE	1	<1	<1	1 2	190	160	140	<1	8.2	<1	1200	1500
TRICHLOROFLUOROMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1
VINYL CHLORIDE	1	<1	<1	<1	8 2	2.3	2.2	<1	0.2 JQ	<1	77	93
Surrogate - % recovery												
1,2-DICHLOROETHANE-D4	–	107	110	100	109	102	104	106	103	108	102	102
4-BROMOFLUOROBENZENE	–	104	103	96	102	96	99	101	101	100	112	101
DIBROMOFLUOROMETHANE	–	103	107	98	104	101	102	104	102	104	109	101
TOLUENE-D8	–	98	98	94	97	92	95	96	93	96	104	92

Notes:

J Estimated; based on QC data
JB Estimated; possibly biased high or false positive based on blank contamination
JH Estimated, possibly biased high based upon QC data
JQ Estimated; Value is between reporting limit and detection limit
NA Not Analyzed
R Unusable
UJ Undetected, Reported Detection Limit is imprecise
(a) Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions.

TABLE B-2

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - LOWER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

Sample Type. Location ID. Sample Date:	Reporting (a) Limit	Normal AEHA-31B 7/18/2005	Normal AEHA-32B 7/18/2005	Normal AEHA-33B 7/14/2005	Normal DMW-9B 7/16/2005	Normal LAWMW-Q 7/15/2005	Normal USGS-B2 7/17/2005	Normal USGS-C2 7/15/2005	Normal USGS-F2 7/16/2005	Normal USGS-G3 7/17/2005	Normal USGS-H2 7/15/2005	Normal USGS-K2 7/16/2005
FIELD PARAMETER:												
Dissolved Oxygen - EPA 360.1 mg/L												
DISSOLVED OXYGEN	0.1	0.4	0.6	0.9	1	0.8	0.5	0 6	0.5	1	2 2	0.6
Ferrous Iron - A3500D mg/L												
FERROUS IRON	0.1	1	1.8	1	0.2	1.8	1 2	1 2	0.5	2	0.7	1 5
Oxidation Reduction Potential - A2580A mV												
OXIDATION REDUCTION POTENTIAL	–	198	7	24	330	26	190	208	208	143	94	-14
pH - EPA 150.1 pH Units												
pH	–	5.31	6.3	6.16	5.1	6 06	5.37	5.41	5.61	5.5	6.09	6 48
Specific Conductance - EPA 120.1 mS/cm												
SPECIFIC CONDUCTANCE	0.001	0.114	0.164	0.246	0.045	0 108	0 092	0.149	0.131	0.1	0 085	0.195
Temperature - EPA 170.1 deg. C												
TEMPERATURE	–	21.5	17.4	22.8	25.5	17.8	18 1	18	19	18.6	18.1	16.3
Turbidity - EPA 180.1 NTU												
TURBIDITY	1	1	8	2	<1	11	2	3	6	4	5	3
FIXED BASE LABORATORY ANALYSIS:												
Anions - MCAWW 300.0A mg/L												
CHLORIDE	1	11	2.9	13.9	4	2.8	10 7	3	11	2 4	2	13.4
NITRATE AS N	0 1	<0.1	<0.1	<0.1	0.08 JQ	<0.1	<0.1	<0 1	<0.1	0.08 JQ	0.05 JQ	<0.1
SULFATE AS SO4	1	17.2	8.3	22.2	2 8	5.9	17 8	7.8	20	9.5	10 1	22.2
Dissolved Gases - RSK SOP-175 µg/L												
CARBON DIOXIDE	1000	88300 J	45600 J	43200 J	98400 J	57900	75600 J	57800	48500 J	67300 J	31600	34300 J
ETHANE	0 5	<0 5	<0.5	<0.5	<0 5	<0.5	<0 5	<0.5	<0.5	<0.5	<0.5	<0.5
ETHENE	1 5	<1.5	<1.5	<1.5	<1 5	<1.5	<1.5	<1 5	<1.5	<1.5	<1.5	<1 5
METHANE	0.5	3 6	16	13	<0 5	5 4	16	1 9 JB	1 4	1.7	5.5	<0.5
Hydrogen by Microseeps - AM20GAX nM												
HYDROGEN	1	1 5	1.5	1.1	4 3	3.4	1.1	1.3	1.4	0.9 JQ	2	0 94 JQ
Metals - SW846 6010 (Total) mg/L												
ALUMINUM	0 06	0.017 JQ	0.122	<0.06	0 0416 JQ	<0.06	<0.06	0 0354 JQ	<0.06	0 0092 JQ	0.243	<0 06
BARIUM	0.025	0 0269	0 0624	0.0658	0 0122 JQ	0.0244 JQ	0 0302	0.0204 JQ	0 0335	0.0092 JQ	0 0251	0.0633
BERYLLIUM	0 005	<0 005	<0 005	0 0014 JQ	<0 005	<0.005	<0.005	<0 005	<0.005	<0 005	<0.005	<0.005
CADMIUM	0.005	<0 005	<0.005	<0 005	<0.005	<0.005	<0 005	<0.005	<0 005	<0.005	<0.005	<0 005
CALCIUM	0.5	7.04	11.9	19.1	2.47	7.92	6.8	5 07	9 85	7.42	10.9	19
CHROMIUM	0 01	<0 01	<0.01	<0.01	<0.01	<0.01	<0 01	<0.01	<0.01	<0.01	<0.01	<0.01
COBALT	0 015	<0.015	<0.015	<0.015	<0.015	<0 015	<0.015	<0.015	<0.015	<0.015	<0.015	<0 015
COPPER	0.01	<0.01	<0.01	<0 01	0 0026 JQ	<0.01	<0 01	<0 01	0.0026 JQ	<0.01	<0.01	<0.01
IRON	0.1	0.955	1.94	1.47	0 0474 JQ	2.9	1.37	1.36	0.408	2.7	0.958	2.19
MAGNESIUM	0.2	3.63	6 06	10.5	1.06	4 24	3.52	2.51	4 4	3.26	1.96	10 1
MANGANESE	0.005	0.0502	0 131	0.123	0.0131	0 121	0.0755	0.0535	0 0737	0.112	0.0886	0.208
MOLYBDENUM	0 015	0.0038 JB	<0.015	0.0041 JQ	<0.015	<0.015	<0 015	<0.015	<0.015	0.0061 JB	<0 015	<0.015
NICKEL	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0 02	<0.02	<0.02	<0.02	<0.02	<0.02
POTASSIUM	1	4.35	4.07	5.02	2.3	8.2	3.74	3.54	3.88	3.27	2.82	3.85
SILVER	0.01	<0 01	<0 01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SODIUM	0 5	6 82	13.3	18.7	2 38	7.42	5 24	4.72	8 47	5.58	3.3	13.1
VANADIUM	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0 01	<0 01	<0.01	<0.01	<0 01
ZINC	0.02	0 073	0 0122 JB	0.0092 JQ	0 0046 JB	0 0232	0 0318	0 085	0.674 R	0.0601	0.71 R	0.0016 JB

TABLE B-2

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BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

Sample Type: Location ID: Sample Date:	Reporting (a) Limit	Normal AEHA-31B 7/18/2005	Normal AEHA-32B 7/18/2005	Normal AEHA-33B 7/14/2005	Normal DMW-9B 7/16/2005	Normal LAWMW-Q 7/15/2005	Normal USGS-B2 7/17/2005	Normal USGS-C2 7/15/2005	Normal USGS-F2 7/16/2005	Normal USGS-G3 7/17/2005	Normal USGS-H2 7/15/2005	Normal USGS-K2 7/16/2005
Metals - SW846 6020 (Total) mg/L												
ANTIMONY	0.0001	0 00004 JQ	0.00011	<0.0001	0.00004 JB	<0.0001	0.00005 JB	0.00005 JB	0.00005 JB	<0.0001	0.00015 JB	<0 0001
ARSENIC	0.0005	0 00018 JQ	0.00028 JQ	<0.0005	0.0001	<0.0005	0 00018 JQ	0.00067	0.00038	0.00065	0.00122	0.00013 JQ
LEAD	0.0005	0 00012 JQ	0.00238	0 00023 JQ	0.00007 JB	0.000025 JQ	0 00026 JQ	0.0005	0.00012 JB	0.00006 JB	0.00051	0.00007 JB
SELENIUM	0.0005	0.00023 JQ	<0.0005	0 00019 JQ	0.00029 JQ	<0.0005	<0 0005	<0.0005	<0.0005	<0 0005	0.00024 JQ	0.000172 JQ
THALLIUM	0.0001	<0.0001	<0.0001	<0.0001	<0 0001	<0 0001	<0.0001	<0.0001	<0.0001	<0.0001	<0 0001	<0 0001
Mercury - SW846 7471 (Total) mg/L												
MERCURY	0.0003	<0 0003	<0.0003	0.000153 JQ	<0 0003	<0 0003	<0.0003	<0.0003	<0.0003	<0.0003	<0 0003	<0 0003
Total Alkalinity - MCAWW 310.1 mg/L												
ALKALINITY, TOTAL (AS CACO3)	10	12	64	75	9 JQ	53	11	27	25	27	22	68
Total Organic Carbon - SW846 9060 mg/L												
TOTAL ORGANIC CARBON	1	0.8 JH	0.7 JH	0.3 JQ	0.3 JH	0.3 JQ	1	0.6 JQ	1.6	0.7 JQ	7 6	1.1
Total Sulfide - MCAWW 376.1 mg/L												
SULFIDE	2	<2	<2	<2	<2	<2	<2 UJ	<2	<2	<2 UJ	<2	<2
Volatile Fatty Acids - D1552 mg/L												
ACETIC ACID	1	NA	NA	NA	NA	NA	NA	NA	<1	<1	<1	NA
BUTANOIC ACID	2	NA	NA	NA	NA	NA	NA	NA	<2	<2	<2	NA
LACTIC ACID	1	NA	NA	NA	NA	NA	NA	NA	<1	<1	<1	NA
PROPIONIC ACID	1	NA	NA	NA	NA	NA	NA	NA	<1	<1	<1	NA
PYRUVIC ACID	0.5	NA	NA	NA	NA	NA	NA	NA	<0 5	<0 5	<0.5	NA
Volatile Organic Compounds - SW846 8260 µg/L												
1,1,1,2-TETRACHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-TRICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-TETRACHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-TRICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	0 3 JQ	<1	<1	0.54 JQ
1,1-DICHLOROETHYLENE	1	<1	<1	<1	11	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROPROPENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-TRICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-TRICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-TRICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-TRIMETHYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DIBROMO-3-CHLOROPROPANE	2.5	<2.5	<2 5	<2.5	<2.5	<2 5	<2.5	<2.5	<2 5	<2.5	<2 5	<2.5
1,2-DIBROMOETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-TRIMETHYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-DICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-DICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,2-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-BUTANONE	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
2-CHLOROTOLUENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-HEXANONE	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-CHLOROTOLUENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-METHYL-2-PENTANONE	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
ACETONE	10	<10	<10	1.3 JB	2.2 JB	3 1 JB	<10	3.9 JB	2 6 JB	3 JB	3.6 JB	2.8 JB
BENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMOBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMODICHLOROMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMOFORM	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

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Sample Type: / Location ID: / Sample Date:	Reporting (a) Limit	Normal AEHA-31B 7/18/2005	Normal AEHA-32B 7/18/2005	Normal AEHA-33B 7/14/2005	Normal DMW-9B 7/16/2005	Normal LAWMW-Q 7/15/2005	Normal USGS-B2 7/17/2005	Normal USGS-C2 7/15/2005	Normal USGS-F2 7/16/2005	Normal USGS-G3 7/17/2005	Normal USGS-H2 7/15/2005	Normal USGS-K2 7/16/2005
BROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARBON DISULFIDE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARBON TETRACHLORIDE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROBROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLORODIBROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROFORM	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROMETHANE	1	<1	<1	<1	<1	0.26 JQ	<1	<1	<1	0.41 JQ	<1	<1
CIS-1,2-DICHLOROETHENE	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.78	<0.5	1.1	2.5	<0.5
CIS-1,3-DICHLOROPROPENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
DIBROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
DICHLORODIFLUOROMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ETHYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
HEXACHLOROBUTADIENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ISOPROPYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
M & P-XYLENES	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
METHYL TERT-BUTYL ETHER	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.4
METHYLENE CHLORIDE	1	<1	<1	0.13 JB	<1	0.097 JB	<1	<1	<1	<1	<1	<1
N-BUTYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-PROPYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NAPHTHALENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
O-XYLENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
P-ISOPROPYLTOLUENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
SEC-BUTYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
STYRENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TERT-BUTYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TETRACHLOROETHENE	1	0.23 JQ	<1	<1	0.68 JQ	<1	<1	0.12 JQ	<1	<1	<1	<1
TOLUENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TRANS-1,2-DICHLOROETHENE	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TRICHLOROETHENE	1	0.27 JQ	<1	<1	0.56 JQ	<1	1.7	14	<1	4.8	0.32 JQ	<1
TRICHLOROFLUOROMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
VINYL CHLORIDE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Surrogate - % recovery												
1,2-DICHLOROETHANE-D4	--	114	105	103	104	104	99	109	103	105	110	109
4-BROMOFLUOROBENZENE	--	109	108	100	104	98	102	101	100	104	99	99
DIBROMOFLUOROMETHANE	--	111	111	102	101	104	105	107	102	110	105	108
TOLUENE-D8	--	104	95	98	98	94	93	96	94	95	96	96

Notes:

J Estimated; based on QC data
JB Estimated; possibly biased high or false positive based on blank contamination
JH Estimated; possibly biased high based upon QC data
JQ Estimated; Value is between reporting limit and detection limit
NA Not Analyzed
R Unusable
UJ Undetected; Reported Detection Limit is imprecise
(a) Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions

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DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - LOWER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type. Location ID: Sample Date:	Reporting (a) Limit	Normal USGS-L2 7/17/2005	Normal USGS-M2 7/17/2005	Normal USGS-N1 7/15/2005	Normal USGS-P2 7/14/2005
FIELD PARAMETER:						
Dissolved Oxygen - EPA 360.1 mg/L						
DISSOLVED OXYGEN		0.1	3.7	0.6	1.2	3.2
Ferrous Iron - A3500D mg/L						
FERROUS IRON		0.1	<0 1	0.2	0 2	<0 1
Oxidation Reduction Potential - A2580A mV						
OXIDATION REDUCTION POTENTIAL		--	126	169	139	356
pH - EPA 150.1 pH Units						
pH		--	6.43	5 86	5 06	5 97
Specific Conductance - EPA 120.1 mS/cm						
SPECIFIC CONDUCTANCE		0.001	0.143	0.088	0.135	0.217
Temperature - EPA 170.1 deg. C						
TEMPERATURE		--	18 6	16.5	17 1	21.3
Turbidity - EPA 180.1 NTU						
TURBIDITY		1	<1	<1	3	2
FIXED BASE LABORATORY ANALYSIS:						
Anions - MCAWW 300.0A mg/L						
CHLORIDE		1	12.5	5.1	4.5	2 3
NITRATE AS N		0.1	0.09 JQ	<0.1	<0.1	0 34
SULFATE AS SO4		1	17.7	11.2	12.1	22.8
Dissolved Gases - RSK SOP-175 µg/L						
CARBON DIOXIDE		1000	33900 J	70500 J	44300	24800 J
ETHANE		0.5	<0.5	<0.5	<0 5	<0.5
ETHENE		1.5	<1 5	<1.5	<1.5	<1.5
METHANE		0.5	<0.5	21	0.42 JB	1 8
Hydrogen by Microseeps - AM20GAX nM						
HYDROGEN		1	1 1	0.97 JQ	1.9	0.95 JQ
Metals - SW846 6010 (Total) mg/L						
ALUMINUM		0.06	<0.06	<0.06	0.015 JQ	<0.06
BARIUM		0.025	0.0335	0.0211 JQ	0.0162 JQ	0.0262
BERYLLIUM		0.005	<0 005	<0.005	<0.005	<0 005
CADMIUM		0.005	<0 005	<0.005	<0.005	<0 005
CALCIUM		0.5	14.1	6.86	6 26	20 3
CHROMIUM		0.01	<0 01	<0.01	<0 01	<0.01
COBALT		0 015	<0.015	<0.015	<0.015	<0 015
COPPER		0.01	<0 01	<0.01	0.0038 JQ	0.0022 JQ
IRON		0.1	0.274	0.664	0.779	0.0517 JQ
MAGNESIUM		0.2	7.87	3 8	3.07	6.89
MANGANESE		0.005	0.0525	0.0545	0 0433	0.0526
MOLYBDENUM		0 015	<0.015	<0.015	<0.015	<0 015
NICKEL		0.02	<0.02	<0.02	<0.02	<0.02
POTASSIUM		1	3.71	3.73	3.45	9 23
SILVER		0.01	0.00201 JQ	<0 01	<0.01	<0.01
SODIUM		0 5	8.6	7.77	13 8	11 9
VANADIUM		0 01	<0 01	<0 01	<0.01	0.0021 JQ
ZINC		0.02	0.044	0 0275	0 0057 JB	0.0211

TABLE B-2

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - LOWER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type Location ID. Sample Date:	Reporting (a) Limit	Normal USGS-L2 7/17/2005	Normal USGS-M2 7/17/2005	Normal USGS-N1 7/15/2005	Normal USGS-P2 7/14/2005
Metals - SW846 6020 (Total) mg/L						
ANTIMONY		0 0001	0.00004 JB	<0 0001	<0.0001	0 00007 JB
ARSENIC		0 0005	<0 0005	<0.0005	0.0002 JQ	0.00011 JQ
LEAD		0.0005	0.00005 JB	0.00005 JB	0.0001 JQ	0 00006 JB
SELENIUM		0.0005	<0.0005	<0.0005	<0.0005	<0.0005
THALLIUM		0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Mercury - SW846 7471 (Total) mg/L						
MERCURY		0 0003	<0.0003	<0.0003	<0.0003	0 000112 JQ
Total Alkalinity - MCAWW 310.1 mg/L						
ALKALINITY, TOTAL (AS CACO3)		10	48	29	35	77
Total Organic Carbon - SW846 9060 mg/L						
TOTAL ORGANIC CARBON		1	1	0.7 JQ	0.2 JQ	0 9 JQ
Total Sulfide - MCAWW 376.1 mg/L						
SULFIDE		2	<2 UJ	<2 UJ	<2	<2
Volatile Fatty Acids - D1552 mg/L						
ACETIC ACID		1	NA	NA	NA	NA
BUTANOIC ACID		2	NA	NA	NA	NA
LACTIC ACID		1	NA	NA	NA	NA
PROPIONIC ACID		1	NA	NA	NA	NA
PYRUVIC ACID		0 5	NA	NA	NA	NA
Volatile Organic Compounds - SW846 8260 µg/L						
1,1,1,2-TETRACHLOROETHANE		1	<1	<1	<1	<1
1,1,1-TRICHLOROETHANE		1	<1	<1	<1	<1
1,1,2,2-TETRACHLOROETHANE		1	<1	<1	<1	<1
1,1,2-TRICHLOROETHANE		1	<1	<1	<1	<1
1,1-DICHLOROETHANE		1	2.6	<1	<1	<1
1,1-DICHLOROETHYLENE		1	<1	<1	<1	<1
1,1-DICHLOROPROPENE		1	<1	<1	<1	<1
1,2,3-TRICHLOROBENZENE		1	<1	<1	<1	<1
1,2,3-TRICHLOROPROPANE		1	<1	<1	<1	<1
1,2,4-TRICHLOROBENZENE		1	<1	<1	<1	<1
1,2,4-TRIMETHYLBENZENE		1	<1	<1	<1	<1
1,2-DIBROMO-3-CHLOROPROPANE		2.5	<2.5	<2.5	<2 5	<2 5
1,2-DIBROMOETHANE		1	<1	<1	<1	<1
1,2-DICHLOROBENZENE		1	<1	<1	<1	<1
1,2-DICHLOROETHANE		1	<1	<1	<1	<1
1,2-DICHLOROPROPANE		1	<1	<1	<1	<1
1,3,5-TRIMETHYLBENZENE		1	<1	<1	<1	<1
1,3-DICHLOROBENZENE		1	<1	<1	<1	<1
1,3-DICHLOROPROPANE		1	<1	<1	<1	<1
1,4-DICHLOROBENZENE		1	<1	<1	<1	<1
2,2-DICHLOROPROPANE		1	<1	<1	<1	<1
2-BUTANONE		10	<10	<10	<10	<10
2-CHLOROTOLUENE		1	<1	<1	<1	<1
2-HEXANONE		10	<10	<10	<10	<10
4-CHLOROTOLUENE		1	<1	<1	<1	<1
4-METHYL-2-PENTANONE		10	<10	<10	<10	<10
ACETONE		10	1 8 JB	2.8 JB	2 4 JB	3.5 JB
BENZENE		1	<1	<1	<1	<1
BROMOBENZENE		1	<1	<1	<1	<1
BROMODICHLOROMETHANE		1	<1	<1	<1	<1
BROMOFORM		1	<1	<1	<1	<1

TABLE B-2

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - LOWER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type Location ID Sample Date:	Reporting (a) Limit	Normal USGS-L2 7/17/2005	Normal USGS-M2 7/17/2005	Normal USGS-N1 7/15/2005	Normal USGS-P2 7/14/2005
BROMOMETHANE		1	<1	<1	<1	<1
CARBON DISULFIDE		1	<1	<1	<1	<1
CARBON TETRACHLORIDE		1	<1	<1	<1	<1
CHLOROBENZENE		1	<1	<1	<1	<1
CHLOROBROMOMETHANE		1	<1	<1	<1	<1
CHLORODIBROMOMETHANE		1	<1	<1	<1	<1
CHLOROETHANE		1	<1	<1	<1	<1
CHLOROFORM		1	<1	<1	<1	<1
CHLOROMETHANE		1	0.28 JQ	0.46 JQ	<1	<1
CIS-1,2-DICHLOROETHENE		0.5	<0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE		1	<1	<1	<1	<1
DIBROMOMETHANE		1	<1	<1	<1	<1
DICHLORODIFLUOROMETHANE		1	<1	<1	<1	<1
ETHYLBENZENE		1	<1	<1	<1	<1
HEXACHLOROBUTADIENE		1	<1	<1	<1	<1
ISOPROPYLBENZENE		1	<1	<1	<1	<1
M & P-XYLENES		1	<1	<1	<1	<1
METHYL TERT-BUTYL ETHER		1	<1	<1	<1	<1
METHYLENE CHLORIDE		1	<1	<1	<1	0.1 JB
N-BUTYLBENZENE		1	<1	<1	<1	<1
N-PROPYLBENZENE		1	<1	<1	<1	<1
NAPHTHALENE		1	<1	<1	<1	<1
O-XYLENE		1	<1	<1	<1	<1
P-ISOPROPYLTOLUENE		1	<1	<1	<1	<1
SEC-BUTYLBENZENE		1	<1	<1	<1	<1
STYRENE		1	<1	<1	<1	<1
TERT-BUTYLBENZENE		1	<1	<1	<1	<1
TETRACHLOROETHENE		1	<1	<1	<1	<1
TOLUENE		1	<1	<1	<1	<1
TRANS-1,2-DICHLOROETHENE		0.5	<0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE		1	<1	<1	<1	<1
TRICHLOROETHENE		1	<1	<1	<1	<1
TRICHLOROFLUOROMETHANE		1	<1	<1	<1	<1
VINYL CHLORIDE		1	<1	<1	<1	<1
Surrogate - % recovery						
1,2-DICHLOROETHANE-D4		--	98	108	108	113
4-BROMOFLUOROBENZENE		--	97	109	97	104
DIBROMOFLUOROMETHANE		--	102	108	103	107
TOLUENE-D8		--	92	97	92	99

Notes:

J Estimated, based on QC data
JB Estimated; possibly biased high or false positive based on blank contamination
JH Estimated; possibly biased high based upon QC data
JQ Estimated; Value is between reporting limit and detection limit
NA Not Analyzed
R Unusable
UJ Undetected; Reported Detection Limit is imprecise
(a) Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions.

PREPARED/DATE: RMB 9/15/05
CHECKED/DATE: JAH 9/16/05

TABLE B-3

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - BEDROCK WELLS
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type Location ID Sample Date	Reporting (a) Limit	Normal DMW-28E 7/14/2005	Normal USGS-BR2 7/15/2005	Duplicate USGS-BR2 7/15/2005
FIELD PARAMETER:					
Dissolved Oxygen - EPA 360.1 mg/L					
DISSOLVED OXYGEN		0 1	0 7	0 5	0.5
Ferrous Iron - A3500D mg/L					
FERROUS IRON		0.1	0.2	1	1
Oxidation Reduction Potential - A2580A mV					
OXIDATION REDUCTION POTENTIAL		--	-184	51	51
pH - EPA 150.1 pH Units					
pH		--	7.96	8.58	8 58
Specific Conductance - EPA 120.1 mS/cm					
SPECIFIC CONDUCTANCE		0.001	0.46	0 554	0.554
Temperature - EPA 170.1 deg. C					
TEMPERATURE		--	22.7	22.8	22.8
Turbidity - EPA 180.1 NTU					
TURBIDITY		1	<1	2	2
FIXED BASE LABORATORY ANALYSIS:					
Volatile Organic Compounds - SW846 8260 µg/L					
1,1,1,2-TETRACHLOROETHANE		1	<1	<1	<1
1,1,1-TRICHLOROETHANE		1	<1	<1	<1
1,1,2,2-TETRACHLOROETHANE		1	<1	<1	<1
1,1,2-TRICHLOROETHANE		1	<1	<1	<1
1,1-DICHLOROETHANE		1	<1	<1	<1
1,1-DICHLOROETHYLENE		1	<1	<1	<1
1,1-DICHLOROPROPENE		1	<1	<1	<1
1,2,3-TRICHLOROBENZENE		1	<1	<1	<1
1,2,3-TRICHLOROPROPANE		1	<1	<1	<1
1,2,4-TRICHLOROBENZENE		1	<1	<1	<1
1,2,4-TRIMETHYLBENZENE		1	<1	0.13 JQ	0.13 JQ
1,2-DIBROMO-3-CHLOROPROPANE		2.5	<2 5	<2.5	<2 5
1,2-DIBROMOETHANE		1	<1	<1	<1
1,2-DICHLOROBENZENE		1	<1	<1	<1
1,2-DICHLOROETHANE		1	<1	<1	<1
1,2-DICHLOROPROPANE		1	<1	<1	<1
1,3,5-TRIMETHYLBENZENE		1	<1	<1	<1
1,3-DICHLOROBENZENE		1	<1	<1	<1
1,3-DICHLOROPROPANE		1	<1	<1	<1
1,4-DICHLOROBENZENE		1	<1	<1	<1
2,2-DICHLOROPROPANE		1	<1	<1	<1
2-BUTANONE		10	<10	<10	<10
2-CHLOROTOLUENE		1	<1	<1	<1
2-HEXANONE		10	<10	<10	<10
4-CHLOROTOLUENE		1	<1	<1	<1
4-METHYL-2-PENTANONE		10	<10	<10	<10
ACETONE		10	2.5 JB	2.5 JB	3.1 JB
BENZENE		1	<1	<1	<1
BROMOBENZENE		1	<1	<1	<1
BROMODICHLOROMETHANE		1	<1	<1	<1
BROMOFORM		1	<1	<1	<1
BROMOMETHANE		1	<1	<1	<1
CARBON DISULFIDE		1	<1	<1	<1
CARBON TETRACHLORIDE		1	<1	<1	<1
CHLOROBENZENE		1	<1	<1	<1
CHLOROBROMOMETHANE		1	<1	<1	<1

TABLE B-3

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - BEDROCK WELLS
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type: Location ID Sample Date:	Reporting (a) Limit	Normal DMW-28E 7/14/2005	Normal USGS-BR2 7/15/2005	Duplicate USGS-BR2 7/15/2005
CHLORODIBROMOMETHANE		1	<1	<1	<1
CHLOROETHANE		1	<1	<1	<1
CHLOROFORM		1	<1	<1	<1
CHLOROMETHANE		1	<1	<1	<1
CIS-1,2-DICHLOROETHENE		0.5	<0.5	<0 5	<0.5
CIS-1,3-DICHLOROPROPENE		1	<1	<1	<1
DIBROMOMETHANE		1	<1	<1	<1
DICHLORODIFLUOROMETHANE		1	<1	<1	<1
ETHYLBENZENE		1	<1	0.16 JQ	0 15 JQ
HEXACHLOROBUTADIENE		1	<1	<1	<1
ISOPROPYLBENZENE		1	<1	<1	<1
M & P-XYLENES		1	<1	0.47 JQ	0.42 JQ
METHYL TERT-BUTYL ETHER		1	<1	<1	<1
METHYLENE CHLORIDE		1	<1	<1	0.11 JB
N-BUTYLBENZENE		1	<1	<1	<1
N-PROPYLBENZENE		1	<1	<1	<1
NAPHTHALENE		1	<1	<1	<1
O-XYLENE		1	<1	0.18 JQ	0.18 JQ
P-ISOPROPYLTOLUENE		1	<1	<1	<1
SEC-BUTYLBENZENE		1	<1	<1	<1
STYRENE		1	<1	0.077 JQ	0 078 JQ
TERT-BUTYLBENZENE		1	<1	<1	<1
TETRACHLOROETHENE		1	<1	<1	<1
TOLUENE		1	<1	4	4 2
TRANS-1,2-DICHLOROETHENE		0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE		1	<1	<1	<1
TRICHLOROETHENE		1	<1	<1	<1
TRICHLOROFLUOROMETHANE		1	<1	<1	<1
VINYL CHLORIDE		1	<1	<1	<1
Surrogate - % recovery					
1,2-DICHLOROETHANE-D4		–	106	103	108
4-BROMOFLUOROBENZENE		–	95	94	96
DIBROMOFLUOROMETHANE		–	104	102	104
TOLUENE-D8		–	90	91	93

Notes:

JB Estimated; possibly biased high or false positive based on blank contamination

JQ Estimated; Value is between reporting limit and detection limit

(a) Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions.

PREPARED/DATE: RMB 9/15/05
CHECKED/DATE: JAH 9/16/05

TABLE B-4

DATA SUMMARY TABLE FOR GROUNDWATER
OU 7 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type: Location ID: Sample Date:	Reporting (a) Limit	Normal AEHADG-10 7/20/2005	Duplicate AEHADG-10 7/20/2005	Normal DMW-13A 7/20/2005	Normal DMW-20A 7/20/2005	Normal DMW-22A 7/18/2005	Normal DMW-25A 7/18/2005	Normal DMW-26A 7/19/2005	Normal DMW-27A 7/18/2005	Normal DMW-33A 7/19/2005	Normal DMW-35A 7/20/2005	Normal MW112-2 7/18/2005	Normal MWFOS-1 7/18/2005	Normal MWFOS-3 7/18/2005
FIELD PARAMETER:															
Dissolved Oxygen - EPA 360.1 mg/L															
DISSOLVED OXYGEN		0.1	0.5	0.5	1.6	0 3	0 3	1.2	0 7	0 7	0 8	0.4	0.3	0 7	0.4
Ferrous Iron - A3500D mg/L															
FERROUS IRON		0.1	7 6	7.6	2.1	1.3	0.6	<0.1	8.8	<0.1	2.5	1.2	1.5	<0.1	3.6
Oxidation Reduction Potential - A2580A mV															
OXIDATION REDUCTION POTENTIAL		–	237	237	315	321	141	204	26	134	68	231	251	487	229
pH - EPA 150.1 pH Units															
pH		–	4.18	4.18	4.16	4.27	5.74	5.97	4 69	4.35	5.49	4 78	4.61	3.9	4 84
Specific Conductance - EPA 120.1 mS/cm															
SPECIFIC CONDUCTANCE		0 001	0.293	0.293	0.212	0 132	0 239	0 41	0.58	0.149	0 164	0.139	0 133	0 071	0 098
Temperature - EPA 170.1 deg. C															
TEMPERATURE		–	20.8	20.8	20 8	22 8	19 4	29.1	19.8	22.8	25.9	22.1	21 8	21.1	28 4
Turbidity - EPA 180.1 NTU															
TURBIDITY		1	<1	<1	3	<1	<1	15	3	3	<1	<1	1	1	6
FIXED BASE LABORATORY ANALYSIS:															
Anions - MCAWW 300.0A mg/L															
CHLORIDE		1	45.6	45.8	46 4	22.6	40.5	1.7	97.9	32.8	18.8	30.9	24.9	2.6	6
NITRATE AS N		0.1	<0.1	<0.1	1 98	0.16	<0 1	0.64	<0.1	0 18	<0 1	<0.1	0.21	<0.1	<0.1
SULFATE AS SO4		1	30	28 2	12 1	5.1	8 1	25.9	5.7	4.3	18 8	4	9.2	9.4	19
Dissolved Gases - RSK SOP-175 µg/L															
CARBON DIOXIDE		1000	153000 J	163000 J	147000 J	214000 J	78200 J	283000 J	223000 J	275000 J	107000 J	118000 J	79000 J	43400 J	240000 J
ETHANE		0 5	<0.5	<0.5	<0.5	<0 5	<0.5	<0.5	0 66 J	1.2	<0.5 UJ	<0.5	<0 5	<0.5	0.86
ETHENE		1.5	15	14	<1.5	<1 5	<1.5	<1.5	0.55 J	<1.5	1.3 J	<1.5	<1.5	<1 5	15
METHANE		0.5	46	45	0.83 JB	3.6	31	9.4	1800 J	3300	220 J	1.1 JB	<0 5	0 34 JQ	1000
Hydrogen by Microseeps - AM20GAX nM															
HYDROGEN		1	1.3	1 2	1.5	2.2	1 7	1 8	1.4	1.1	1.1	2 1	8.3	37	2 5
Mercury - SW846 7470 (Total) mg/L															
MERCURY		0.0003	<0.0003	<0 0003	<0.0003	<0 0003	<0 0003	<0 0003	<0 0003	<0 0003	<0.0003	<0.0003	<0.0003	<0 0003	<0 0003
Metals - SW846 6010 (Total) mg/L															
ALUMINUM		0 06	0.0518 JB	0.0474 JB	1.01	0.152 JB	0 0106 JQ	0 0998	0 303	0 713	0 0229 JQ	0 0459 JB	0 0866	0 0242 JQ	0 0899
BARIUM		0 025	0.0916	0.0924	0.197	0 0757	0 0589	0 103	0 0618	0.278	0 0511	0.0683	0 0545	0 0113 JQ	0 158
BERYLLIUM		0 005	0.0013 JQ	0.0011 JQ	<0.005	<0.005	<0.005	<0 005	<0 005	<0.005	<0 005	<0 005	0 0022 JQ	<0.005	<0 005
CADMIUM		0 005	<0.005	<0.005	<0.005	<0.005	<0.005	<0 005	<0.005	<0 005	<0 005	<0 005	<0 005	<0 005	<0 005
CALCIUM		0.5	5.09	5.09	5.65	1.87	9.62	41.3	7 18	2.01	9.39	8 08	5.5	4 69	1 39
CHROMIUM		0 01	<0 01	<0.01	<0.01	<0 01	<0 01	<0 01	<0.01	<0.01	<0 01	<0 01	<0.01	<0.01	<0 01
COBALT		0 015	0.0155	0.0162	<0 015	0 0059 JQ	0.0058 JQ	<0 015	<0.015	<0.015	<0.015	<0 015	0 007 JQ	<0 015	<0 015
COPPER		0.01	<0.01	<0 01	<0 01	0 0177	<0 01	0.0041 JB	<0.01	<0.01	<0 01	<0.01	<0.01	<0.01	<0 01
IRON		0.1	16 5	16.5	1.54	0 669	1 06	0.157 JB	22 9	8.18	3.62	1.53	1 62	0.0806 JB	8 68
MAGNESIUM		0 2	5.42	5.44	3.59	3.73	6 04	3 64	2.92	3.25	6.7	5.38	4.32	1.42	1 94
MANGANESE		0.005	0 854	0.854	0.161	0 348	0 0812	0.314	0.209	0 0321	0.102	0 108	0.0898	0 0106	0 0672
MOLYBDENUM		0.015	0.0039 JQ	<0 015	0 0045 JQ	<0.015	<0 015	<0.015	<0.015	<0 015	<0.015	<0.015	<0 015	0.0043 JB	<0 015
NICKEL		0 02	0 0209	0.0162 JQ	<0.02	<0.02	0 01 JQ	<0 02	<0 02	<0 02	<0 02	<0.02	0 0106 JQ	<0 02	<0 02
POTASSIUM		1	4.74	4.4	2.16	2 93	5.64	29.5	4.27	4 08	4.4	5.83	8.35	5 84	2.48
SILVER		0.01	<0 01	<0.01	<0.01	<0.01	<0 01	<0 01	<0 01	<0.01	<0.01	<0.01	<0 01	<0.01	0 0024 JQ
SODIUM		0.5	27.8	28.1	23.4	7.61	27.3	31.1	94.2	8 5	6.44	4 83	4.93	4 39	6.38
VANADIUM		0.01	<0.01	<0 01	<0.01	<0.01	<0 01	<0 01	<0 01	0 0022 JQ	<0.01	<0.01	<0.01	<0.01	<0 01
ZINC		0 02	0 0045 JB	0 0059 JB	0.0288	0 0173 JQ	0 0094 JB	0 0055 JB	<0.02	0.0933	0.0268	0 0277	0.0121 JB	0.0016 JB	0.029

TABLE B-4

DATA SUMMARY TABLE FOR GROUNDWATER
OU 7 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type Location ID Sample Date.	Reporting (a) Limit	Normal AEHADG-10 7/20/2005	Duplicate AEHADG-10 7/20/2005	Normal DMW-13A 7/20/2005	Normal DMW-20A 7/20/2005	Normal DMW-22A 7/18/2005	Normal DMW-25A 7/18/2005	Normal DMW-26A 7/19/2005	Normal DMW-27A 7/18/2005	Normal DMW-33A 7/19/2005	Normal DMW-35A 7/20/2005	Normal MW112-2 7/18/2005	Normal MWFOS-1 7/18/2005	Normal MWFOS-3 7/18/2005
Metals - SW846 6020 (Total) mg/L															
ANTIMONY		0 0001	<0.0001	0 00006 JB	0.00006 JB	<0 0001	0.00004 JQ	0 00041	0 00007 JB	<0.0001	0.00004 JB	0.00004 JB	0 00006 JQ	0 00006 JQ	0.00006 JQ
ARSENIC		0 0005	0.0386	0 0381	0 00017 JQ	<0 0005	0 00644	0.00043 JQ	0.0019	0.00059	0 00027 JQ	0 0001 JQ	0.0001 JQ	0 00033 JQ	0 0208
LEAD		0.0005	0 00007 JB	0.00008 JB	0 00236	0.00417	0 00008 JQ	0 00016 JQ	0 00033 JQ	0.00009 JQ	0.00003 JB	0.00007 JB	0.00011 JQ	<0 0005	0 00089
SELENIUM		0.0005	0 00135	0 00134	0 00055	0.00026 JQ	0.00031 JQ	0 00041 JQ	0 00095	0.00093	0.00059	0.00037 JQ	0.00036 JQ	<0.0005	0.00046 JQ
THALLIUM		0.0001	<0.0001	<0.0001	0 000081 JQ	0 00007 JQ	<0.0001	0 000102	<0 0001	0.000051 JQ	<0 0001	<0.0001	0 000094 JQ	<0.0001	<0 0001
Total Alkalinity - MCAWW 310.1 mg/L															
ALKALINITY, TOTAL (AS CACO3)		10	22	21	<10	<10	29	153	79	<10	17	3 JQ	3 JH	15	<10
Total Organic Carbon - SW846 9060 mg/L															
TOTAL ORGANIC CARBON		1	2.2	2.4	1.2	1.7	1.9 JH	5.3	20.9	9	3 8	0.5 JH	1 6 JH	0 8 JH	3 7 JH
Total Sulfide - MCAWW 376.1 mg/L															
SULFIDE		2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Volatile Fatty Acids - SM5560 mg/L															
ACETIC ACID		1	<1	<1	NA	NA	NA	NA	NA	<1	<1	NA	NA	NA	3.2
BUTANOIC ACID		2	<2	<2	NA	NA	NA	NA	NA	<2	<2	NA	NA	NA	<2
LACTIC ACID		1	<1	<1	NA	NA	NA	NA	NA	<1	<1	NA	NA	NA	<1
PROPIONIC ACID		1	<1	<1	NA	NA	NA	NA	NA	<1	<1	NA	NA	NA	<1
PYRUVIC ACID		0.5	<0 5	<0.5	NA	NA	NA	NA	NA	<0.5	<0.5	NA	NA	NA	<0 5
Volatile Organic Compounds - SW846 8260 ug/L															
1,1,1,2-TETRACHLOROETHANE		1	3.4	3.7	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
1,1,1-TRICHLOROETHANE		1	10000	9300	<1	<1	1.6	<1	<1	<1	100	<1	<1	<1	<10
1,1,2,2-TETRACHLOROETHANE		1	0.26 JQ	0.31 JQ	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
1,1,2-TRICHLOROETHANE		1	0.73 JQ	0 71 JQ	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
1,1-DICHLOROETHANE		1	210	210	<1	<1	3.9	<1	<1	<1	47	<1	<1	<1	<10
1,1-DICHLOROETHYLENE		1	1300	1200	<1	<1	1	<1	<1	<1	65	0.77 JQ	<1	<1	12
1,1-DICHLOROPROPENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
1,2,3-TRICHLOROBENZENE		1	0.29 JQ	0 26 JQ	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
1,2,3-TRICHLOROPROPANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
1,2,4-TRICHLOROBENZENE		1	0.72 JQ	0 69 JQ	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
1,2,4-TRIMETHYLBENZENE		1	4.1	5.2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
1,2-DIBROMO-3-CHLOROPROPANE		2.5	<2.5	<2 5	<2 5	<2 5	<2.5	<2.5	<2 5	<2.5	<2.5	<2 5	<2 5	<2.5	<25
1,2-DIBROMOETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
1,2-DICHLOROBENZENE		1	250	260	<1	<1	<1	<1	<1	<1	8.8	<1	<1	<1	120
1,2-DICHLOROETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
1,2-DICHLOROPROPANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
1,3,5-TRIMETHYLBENZENE		1	2	2.4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
1,3-DICHLOROBENZENE		1	3.7	3.9	<1	<1	<1	<1	<1	<1	0 21 JQ	<1	<1	<1	4.3 JQ
1,3-DICHLOROPROPANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
1,4-DICHLOROBENZENE		1	34	37	<1	<1	<1	<1	<1	<1	1.6	<1	<1	<1	100
2,2-DICHLOROPROPANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
2-BUTANONE		10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<100
2-CHLOROTOLUENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
2-HEXANONE		10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<100
4-CHLOROTOLUENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
4-METHYL-2-PENTANONE		10	9.2 JQ	11	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<100
ACETONE		10	<10	<10	3 3 JB	5 JB	1.9 JB	2.7 JB	5.3 JB	2.6 JB	<10	2.6 JB	2 6 JB	<10	<100
BENZENE		1	0.82 JQ	0.9 JQ	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
BROMOBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
BROMODICHLOROMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
BROMOFORM		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
BROMOMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
CARBON DISULFIDE		1	15	16	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
CARBON TETRACHLORIDE		1	250	250	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
CHLOROBENZENE		1	5 6	6	<1	<1	<1	<1	<1	<1	0 27 JQ	<1	<1	<1	160
CHLOROBROMOMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
CHLORODIBROMOMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
CHLOROETHANE		1	0 33 JQ	0 52 JQ	<1	<1	<1	<1	<1	<1	0.37 JQ	<1	<1	<1	<10
CHLOROFORM		1	98	99	<1	<1	<1	<1	<1	<1	4.9	<1	<1	<1	<10
CHLOROMETHANE		1	0.39 JB	0 39 JB	0.38 JB	0.58 JB	0 39 JQ	0 2 JQ	0.78 JQ	0.5 JQ	0.76 JQ	0.26 JB	0 2 JQ	<1	<10

TABLE B-4

DATA SUMMARY TABLE FOR GROUNDWATER
OU 7 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type Location ID Sample Date	Reporting (a) Limit	Normal AEHADG-10 7/20/2005	Duplicate AEHADG-10 7/20/2005	Normal DMW-13A 7/20/2005	Normal DMW-20A 7/20/2005	Normal DMW-22A 7/18/2005	Normal DMW-25A 7/18/2005	Normal DMW-26A 7/19/2005	Normal DMW-27A 7/18/2005	Normal DMW-33A 7/19/2005	Normal DMW-35A 7/20/2005	Normal MW112-2 7/18/2005	Normal MWFOS-1 7/18/2005	Normal MWFOS-3 7/18/2005
CIS-1,2-DICHLOROETHENE		0.5	2300	2100	<0.5	19	18	1.2	0.77	<0.5	620	1.6	<0.5	<0.5	5400 J
CIS-1,3-DICHLOROPROPENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
DIBROMOMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
DICHLORODIFLUOROMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
ETHYLBENZENE		1	17	19	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
HEXACHLORO-1,3-BUTADIENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
ISOPROPYLBENZENE		1	1.8	1.8	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
M & P-XYLENES		1	71	92	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
METHYL TERT-BUTYL ETHER		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
METHYLENE CHLORIDE		1	2.3	2.5	<1	<1	<1	<1	0.26 JB	<1	0.26 JB	<1	<1	<1	<10
N-BUTYLBENZENE		1	1.4	1.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
N-PROPYLBENZENE		1	1.6	1.6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
NAPHTHALENE		1	180	180	<1	<1	<1	<1	<1	<1	3.7	<1	<1	<1	<10
O-XYLENE		1	17	19	<1	<1	<1	<1	<1	<1	0.29 JB	<1	<1	<1	<10
P-ISOPROPYLTOLUENE		1	0.77 JQ	0.79 JQ	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
SEC-BUTYLBENZENE		1	1.2	1.2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
STYRENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
TERT-BUTYLBENZENE		1	0.2 JQ	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
TETRACHLOROETHENE		1	4200	4200	<1	0.7 JQ	5	3.3	0.28 JQ	<1	180	19	<1	<1	<10
TOLUENE		1	26	28	<1	<1	<1	<1	<1	<1	<1	<1	0.23 JQ	<1	4.8 JQ
TRANS-1,2-DICHLOROETHENE		0.5	13	13	<0.5	0.48 JQ	0.46 JQ	<0.5	<0.5	<0.5	26	<0.5	<0.5	<0.5	79
TRANS-1,3-DICHLOROPROPENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
TRICHLOROETHENE		1	26000	26000	<1	0.64 JQ	15	0.89 JQ	0.45 JQ	<1	530	16	<1	<1	2200
TRICHLOROFLUOROMETHANE		1	9	10	<1	<1	<1	<1	<1	<1	0.47 JQ	<1	<1	<1	<10
VINYL CHLORIDE		1	100	100	<1	<1	0.5 JQ	<1	1.2	2.1	35	<1	<1	<1	170
Surrogate - % recovery															
1,2-DICHLOROETHANE-D4		--	93	111	116	106	105	103	110	101	111	118	99	100	107
4-BROMOFLUOROBENZENE		--	94	97	103	100	104	103	107	104	113	106	101	105	99
DIBROMOFLUOROMETHANE		--	95	101	114	106	106	106	107	101	111	116	104	100	112
TOLUENE-D8		--	100	104	101	101	97	95	100	94	102	103	96	100	96

Notes:

J Estimated, based on QC data
JB Estimated; possibly biased high or false positive based on blank contamination
JH Estimated, possibly biased high based upon QC data
JQ Estimated, Value is between reporting limit and detection limit
NA Not Analyzed
R Unusable
UJ Undetected, Reported Detection Limit is imprecise
(a) Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions.

TABLE B-4

DATA SUMMARY TABLE FOR GROUNDWATER
OU 7 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type:		Normal	Normal	Duplicate	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
	Location ID:	Reporting (a)	MWFTA-1	MWFTA-3	MWFTA-3	MWFTA-5	MWFTA-7	MWFTA-9	MWFTA-10	MWFTA-23	OU7PZ-2	OU7PZ-4	OU7PZ-8
	Sample Date:	Limit	7/20/2005	7/20/2005	7/20/2005	7/19/2005	7/18/2005	7/19/2005	7/19/2005	7/18/2005	7/19/2005	7/19/2005	7/19/2005
FIELD PARAMETER:													
Dissolved Oxygen - EPA 360.1 mg/L													
DISSOLVED OXYGEN		0 1	0.2	0 5	0.5	0 3	2.4	0 4	0 5	0 8	0.3	0.5	0.4
Ferrous Iron - A3500D mg/L													
FERROUS IRON		0 1	5.5	4.8	4.8	0 8	<0.1	<0 1	0.1	4.8	1 4	2.2	2
Oxidation Reduction Potential - A2580A mV													
OXIDATION REDUCTION POTENTIAL		–	-8	-14	-14	91	568	206	101	99	54	62	-76
pH - EPA 150.1 pH Units													
pH		–	5.78	5 88	5 88	5.76	3.3	5.13	5.94	4.95	4 74	5.41	5.66
Specific Conductance - EPA 120.1 mS/cm													
SPECIFIC CONDUCTANCE		0.001	0 88	0 5	0.5	0.08	0 092	0.078	0.102	0.189	0 099	0.1	0.087
Temperature - EPA 170.1 deg. C													
TEMPERATURE		–	21 1	18 4	18.4	20 5	21.8	19 9	18 5	24 3	20.6	20.5	21.3
Turbidity - EPA 180.1 NTU													
TURBIDITY		1	<1	<1	<1	7	2	7	3	2	2	6	9
FIXED BASE LABORATORY ANALYSIS:													
Anions - MCAWW 300.0A mg/L													
CHLORIDE		1	47.3	83.9	76.9	6.6	6.3	10 2	6 2	36.5	18 5	8.5 JQ	6.6
NITRATE AS N		0 1	<0 1	<0 1	<0.1	0.06 JQ	0 88	<0.1	0.06 JQ	<0 1	<0.1	0.06 JQ	<0.1
SULFATE AS SO4		1	<1	18 4	16.4	6.4	15	19 3	7.4	6 8	4.2	8 7	3.9
Dissolved Gases - RSK SOP-175 µg/L													
CARBON DIOXIDE		1000	283000 J	129000 J	122000 J	57300 J	121000 J	68800 J	59800 J	214000 J	137000 J	117000 J	76200
ETHANE		0 5	<0 5	7.6	8.7	<0.5 UJ	<0.5	<0.5 UJ	<0.5 UJ	<0.5	<0 5 UJ	<0.5 UJ	<0.5
ETHENE		1 5	<1.5	1.6	1.8	<1.5 UJ	<1.5	<1.5 UJ	<1.5 UJ	22	<1.5 UJ	<1.5 UJ	<1.5
METHANE		0.5	5800	1700	1900	2.2 JB	<0 5	1.8 JB	2 9 J	780	44 J	200 J	500
Hydrogen by Microseeps - AM20GAX nM													
HYDROGEN		1	1.7	1.2	1.3	1.3	1 2	1.4	1.2	1 4	4 4	2 1	2 2
Mercury - SW846 7470 (Total) mg/L													
MERCURY		0.0003	<0.0003 UJ	<0.0003	<0 0003	<0 0003	<0 0003	<0.0003	<0 0003	<0 0003	<0 0003	<0 0003	<0.0003
Metals - SW846 6010 (Total) mg/L													
ALUMINUM		0 06	0.204 JB	0.148 JB	0.132 JB	0 0185 JQ	0.75	0 0927	0 0106 JQ	0.132	0 0367 JQ	0.0741	0 0368 JQ
BARIUM		0 025	0.421	0.0858	0.0839	0.0252	0 104	0.0179 JQ	<0 025	0 133	0 0193 JQ	0.0252	0.0252
BERYLLIUM		0 005	<0 005	<0.005	<0.005	<0.005	0 0014 JQ	<0.005	<0 005	0 0012 JQ	0 0023 JQ	<0 005	<0 005
CADMIUM		0 005	<0.005	<0.005	<0 005	<0.005	<0.005	<0.005	<0 005	<0 005	<0 005	<0 005	<0 005
CALCIUM		0.5	58 7	19 5	18.6	3 92	4 87	3.05	4 44	7.02	4.26	5.45	4.92
CHROMIUM		0 01	0.0061 JQ	<0 01	<0 01	<0.01	<0 01	<0 01	<0 01	<0 01	<0.01	<0.01	<0.01
COBALT		0 015	<0 015	<0 015	<0 015	<0 015	0.0054 JQ	<0 015	<0.015	0 0081 JQ	<0 015	<0 015	<0 015
COPPER		0 01	<0 01	<0.01	<0.01	<0 01	<0 01	<0 01	<0 01	<0 01	<0 01	<0 01	<0.01
IRON		0 1	14.7	12	11.5	1 58	<0 1	0 634	0 583	14.9	1 53	2 5	2.57
MAGNESIUM		0.2	82 5	5.92	5.7	3.1	1.92	2 09	3 38	4.94	2 87	3.91	3.4
MANGANESE		0.005	1.16	0.188	0.18	0 0547	0 0236	0.0323	0 0788	0.191	0 118	0.0664	0.0873
MOLYBDENUM		0.015	<0 015	<0 015	<0.015	<0 015	<0 015	<0.015	<0 015	<0 015	<0.015	<0 015	<0.015
NICKEL		0 02	<0.02	<0 02	<0.02	<0.02	<0 02	<0.02	<0 02	0 0098 JQ	<0 02	<0.02	<0.02
POTASSIUM		1	11 6	7.3	7.45	4 38	2 78	2.23	5 79	6.38	3.84	4 44	3.88
SILVER		0.01	<0 01	0 0023 JB	<0 01	<0 01	<0 01	<0 01	<0 01	<0 01	<0 01	<0.01	<0.01
SODIUM		0.5	18.7	55.4	53.1	9.92	2.02	6.7	10	5 89	4.6	3 92	5
VANADIUM		0 01	<0 01	<0.01	0.0022 JQ	<0.01	<0.01	<0.01	<0 01	0.0022 JQ	<0 01	<0.01	<0.01
ZINC		0.02	0 0014 JB	0.0017 JB	0.0011 JB	0 759 R	0 0109 JB	0 0127 JQ	0.0162 JQ	0 0075 JB	0.0022 JQ	<0 02	0 0072 JQ

TABLE B-4

DATA SUMMARY TABLE FOR GROUNDWATER
OU 7 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

Sample Type. Location ID. Sample Date:	Reporting (a) Limit	Normal MWFTA-1 7/20/2005	Normal MWFTA-3 7/20/2005	Duplicate MWFTA-3 7/20/2005	Normal MWFTA-5 7/19/2005	Normal MWFTA-7 7/18/2005	Normal MWFTA-9 7/19/2005	Normal MWFTA-10 7/19/2005	Normal MWFTA-23 7/18/2005	Normal OU7PZ-2 7/19/2005	Normal OU7PZ-4 7/19/2005	Normal OU7PZ-8 7/19/2005
Metals - SW846 6020 (Total) mg/L												
ANTIMONY	0 0001	0 0002 JB	0.00012 JB	0 00011 JB	<0 0001	0 00008 JQ	0 000033 JB	0 000033 JB	<0.0001	0 00006 JB	<0 0001	0 000034 JB
ARSENIC	0.0005	0 0408 J	0.0253	0.0236	<0.0005	0 00013 JQ	0.00025 JQ	0.00153	0.018	0.00169	0 00015 JQ	0 00016 JQ
LEAD	0.0005	0.00009 JB	0 00014 JQ	0.00019 JQ	0.00008 JB	0.00139	0.00018 JQ	0.00009 JB	0 00007 JQ	0 00007 JB	0.0001 JB	0.00007 JB
SELENIUM	0 0005	0 00161	0.00065	0.00053	<0 0005	0 00023 JQ	<0 0005	<0.0005	0.00058	0.00059	0 00035 JQ	0 00032 JQ
THALLIUM	0 0001	<0 0001	<0.0001	<0 0001	<0.0001	0 000058 JQ	<0 0001	<0 0001	<0 0001	<0 0001	<0.0001	<0 0001
Total Alkalinity - MCAWW 310.1 mg/L												
ALKALINITY, TOTAL (AS CACO3)	10	440	57	56	30	<10	<10	29	15	4 JQ	18	26
Total Organic Carbon - SW846 9060 mg/L												
TOTAL ORGANIC CARBON	1	30.3	9.5	9.1	0 7 JH	3 1	1 JH	0 6 JH	3.7	4.3 JH	2.2 JH	6 6
Total Sulfide - MCAWW 376.1 mg/L												
SULFIDE	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Volatile Fatty Acids - SM5560 mg/L												
ACETIC ACID	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTANOIC ACID	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LACTIC ACID	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PROPIONIC ACID	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRUVIC ACID	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds - SW846 8260 µg/L												
1,1,1,2-TETRACHLOROETHANE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
1,1,1-TRICHLOROETHANE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	0 38 JQ	<1
1,1,2,2-TETRACHLOROETHANE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
1,1,2-TRICHLOROETHANE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	0.25 JQ	<1	<1	<1
1,1-DICHLOROETHANE	1	0 35 JQ	0.43 JQ	0.41 JQ	<1	<1	<1 UJ	<1	<1	0.16 JQ	8	0 43 JQ
1,1-DICHLOROETHYLENE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	14	<1	7.4	0 51 JQ
1,1-DICHLOROPROPENE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
1,2,3-TRICHLOROBENZENE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
1,2,3-TRICHLOROPROPANE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
1,2,4-TRICHLOROBENZENE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	0.2 JQ	<1	<1	<1
1,2,4-TRIMETHYLBENZENE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
1,2-DIBROMO-3-CHLOROPROPANE	2 5	<2.5 UJ	<2.5	<2.5	<2.5	<2 5	<2.5 UJ	<2.5	<2.5	<2.5	<2.5	<2 5
1,2-DIBROMOETHANE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
1,2-DICHLOROBENZENE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	90 J	<1	0.3 JQ	<1
1,2-DICHLOROETHANE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
1,2-DICHLOROPROPANE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
1,3,5-TRIMETHYLBENZENE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
1,3-DICHLOROBENZENE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	7 6	<1	<1	<1
1,3-DICHLOROPROPANE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
1,4-DICHLOROBENZENE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	120	<1	<1	<1
2,2-DICHLOROPROPANE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
2-BUTANONE	10	<10 UJ	<10	<10	<10	<10	<10 UJ	<10	<10	1 JQ	<10	0 61 JQ
2-CHLOROTOLUENE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
2-HEXANONE	10	<10 UJ	<10	<10	<10	<10	<10 UJ	<10	<10	<10	<10	<10
4-CHLOROTOLUENE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
4-METHYL-2-PENTANONE	10	<10 UJ	<10	<10	<10	<10	<10 UJ	<10	<10	<10	<10	<10
ACETONE	10	<10 UJ	<10	2.9 JB	1 4 JB	<10	3 6 JB	2 JB	3.7 JB	1.7 JB	1.2 JB	1.3 JB
BENZENE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	0.3 JQ	<1	<1	<1
BROMOBENZENE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
BROMODICHLOROMETHANE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
BROMOFORM	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
BROMOMETHANE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
CARBON DISULFIDE	1	<1 UJ	<1	0 24 JQ	<1	<1	<1 UJ	<1	<1	<1	<1	<1
CARBON TETRACHLORIDE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
CHLOROBENZENE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	120	<1	<1	<1
CHLOROBROMOMETHANE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
CHLORODIBROMOMETHANE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
CHLOROETHANE	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
CHLOROFORM	1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
CHLOROMETHANE	1	<1 UJ	0 15 JB	0 46 JB	0 21 JQ	0 29 JQ	0.15 JQ	0 17 JQ	0.63 JQ	0 17 JQ	0.22 JQ	0.19 JQ

TABLE B-4

DATA SUMMARY TABLE FOR GROUNDWATER
OU 7 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type:		Normal	Normal	Duplicate	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
	Location ID.	Reporting (a)	MWFTA-1	MWFTA-3	MWFTA-3	MWFTA-5	MWFTA-7	MWFTA-9	MWFTA-10	MWFTA-23	OU7PZ-2	OU7PZ-4	OU7PZ-8
	Sample Date:	Limit	7/20/2005	7/20/2005	7/20/2005	7/19/2005	7/18/2005	7/19/2005	7/19/2005	7/18/2005	7/19/2005	7/19/2005	7/19/2005
CIS-1,2-DICHLOROETHENE		0.5	0.29 JQ	10	9.4	<0.5	<0.5	<0.5 UJ	<0.5	5600 J	1.3	39	1.3
CIS-1,3-DICHLOROPROPENE		1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
DIBROMOMETHANE		1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
DICHLORODIFLUOROMETHANE		1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
ETHYLBENZENE		1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
HEXACHLORO-1,3-BUTADIENE		1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
ISOPROPYLBENZENE		1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
M & P-XYLENES		1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
METHYL TERT-BUTYL ETHER		1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	0.14 JQ	0.13 JQ
METHYLENE CHLORIDE		1	<1 UJ	<1	<1	0.15 JB	<1	<1 UJ	0.13 JB	<1	<1	0.13 JB	<1
N-BUTYLBENZENE		1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
N-PROPYLBENZENE		1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
NAPHTHALENE		1	5.4 J	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
O-XYLENE		1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
P-ISOPROPYLTOLUENE		1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
SEC-BUTYLBENZENE		1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
STYRENE		1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
TERT-BUTYLBENZENE		1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
TETRACHLOROETHENE		1	0.23 JQ	1.8	1.2	<1	<1	<1 UJ	<1	<1	5.7	20	0.38 JQ
TOLUENE		1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	9.2	<1	<1	<1
TRANS-1,2-DICHLOROETHENE		0.5	<0.5 UJ	1.1	1.1	<0.5	<0.5	<0.5 UJ	<0.5	55 J	<0.5	0.42 JQ	<0.5
TRANS-1,3-DICHLOROPROPENE		1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
TRICHLOROETHENE		1	0.64 JQ	3	2.2	<1	<1	<1 UJ	<1	1300	2.9	64	7.2
TRICHLOROFLUOROMETHANE		1	<1 UJ	<1	<1	<1	<1	<1 UJ	<1	<1	<1	<1	<1
VINYL CHLORIDE		1	<1 UJ	3.4	3.3	<1	<1	<1 UJ	<1	660 J	<1	0.97 JQ	<1
Surrogate - % recovery													
1,2-DICHLOROETHANE-D4		--	124	115	111	100	105	121	103	104	103	101	102
4-BROMOFLUOROBENZENE		--	99	104	106	89	104	100	85	92	88	87	89
DIBROMOFLUOROMETHANE		--	112	112	112	98	106	112	97	106	99	97	99
TOLUENE-D8		--	98	100	108	94	98	96	93	93	96	92	96

Notes:

J Estimated; based on QC data
JB Estimated, possibly biased high or false positive based on blank contamination
JH Estimated, possibly biased high based upon QC data
JQ Estimated, Value is between reporting limit and detection limit
NA Not Analyzed
R Unusable
UJ Undetected, Reported Detection Limit is imprecise
(a) Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions

PREPARED/DATE: RMB 9/23/05
CHECKED/DATE: JAH 9/23/05

TABLE B-5

DATA SUMMARY TABLE FOR GROUNDWATER
OU 7 - LOWER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type: / Location ID: / Sample Date:	Reporting (a) Limit	Normal MWFTA-14 7/19/2005	Normal MWFTA-16 7/18/2005	Normal MWFTA-17 7/19/2005	Normal MWFTA-18 7/18/2005	Normal MWFTA-19 7/19/2005	Normal MWFTA-28B 7/19/2005	Normal MWFTA-29B 7/18/2005
FIELD PARAMETER:									
Dissolved Oxygen - EPA 360.1 mg/L									
DISSOLVED OXYGEN		0.1	0.9	2.3	5.8	0.6	0.4	1.7	0.3
Ferrous Iron - A3500D mg/L									
FERROUS IRON		0.1	<0.1	<0.1	<0.1	0.8	<0.1	1.2	<0.1
Oxidation Reduction Potential - A2580A mV									
OXIDATION REDUCTION POTENTIAL		--	195	131	111	-76	-45	30	-235
pH - EPA 150.1 pH Units									
pH		--	8.41	11.6	11.43	6.79	11.01	7.96	10.86
Specific Conductance - EPA 120.1 mS/cm									
SPECIFIC CONDUCTANCE		0.001	0.411	2.978	2.425	0.161	0.843	0.53	1.182
Temperature - EPA 170.1 deg. C									
TEMPERATURE		--	18.8	28.2	28.2	24.2	17.7	20.7	16.2
Turbidity - EPA 180.1 NTU									
TURBIDITY		1	10	12	<1	3	1	3	11
FIXED BASE LABORATORY ANALYSIS:									
Anions - MCAWW 300.0A mg/L									
CHLORIDE		1	14.3	13.2	7.2	7	11.7	53.7	1.8
NITRATE AS N		0.1	0.31	<0.1	<0.1	0.12	<0.1	0.24	<0.1
SULFATE AS SO4		1	21.4	6.5	12.1	1.5	24	11.7	17.6
Dissolved Gases - RSK SOP-175 ug/L									
CARBON DIOXIDE		1000	<1000 UJ	<1000 UJ	<1000 UJ	17100 J	<1000 UJ	4170 J	<1000 UJ
ETHANE		0.5	<0.5 UJ	5.3	<0.5 UJ	0.92	<0.5 UJ	<0.5 UJ	0.37 JQ
ETHENE		1.5	<1.5 UJ	75	0.74 J	1.4 JQ	0.68 J	<1.5 UJ	1.9
METHANE		0.5	1.1 JB	130	45 J	140	10 J	39 J	21
Hydrogen by Microseeps - AM20GAX nM									
HYDROGEN		1	1.7	7.8	29	1.8	1.5	1.2	1.8
Mercury - SW846 7470 (Total) mg/L									
MERCURY		0.0003	<0.0003	<0.0003	0.000101 JQ	<0.0003	<0.0003	<0.0003	<0.0003
Metals - SW846 6010 (Total) mg/L									
ALUMINUM		0.06	0.0305 JQ	0.0779	4.02	0.0852	0.869	0.0442 JQ	0.768
BARIUM		0.025	0.058	1.04	0.368	0.0543	0.0602	0.0805	0.111
BERYLLIUM		0.005	<0.005	<0.005	0.0012 JQ	<0.005	<0.005 UJ	<0.005	<0.005
CADMIUM		0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
CALCIUM		0.5	13.3	188	153	13.8	61.3	29.9	45
CHROMIUM		0.01	<0.01	0.0083 JQ	<0.01	<0.01	<0.01	<0.01	0.0059 JQ
COBALT		0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
COPPER		0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
IRON		0.1	0.0237 JQ	0.311	<0.1	2	<0.1	0.297	0.495

TABLE B-5

DATA SUMMARY TABLE FOR GROUNDWATER
OU 7 - LOWER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type: / Location ID: / Sample Date:	Reporting (a) Limit	Normal MWFTA-14 7/19/2005	Normal MWFTA-16 7/18/2005	Normal MWFTA-17 7/19/2005	Normal MWFTA-18 7/18/2005	Normal MWFTA-19 7/19/2005	Normal MWFTA-28B 7/19/2005	Normal MWFTA-29B 7/18/2005
MAGNESIUM		0.2	12.2	3.69	<0.2	6.45	<0.2	26.3	0.441
MANGANESE		0.005	0.0043 JQ	0.0531	<0.005	0.0732	<0.005	0.0445	0.0122
MOLYBDENUM		0.015	0.006 JQ	<0.015	0.0033 JQ	<0.015	0.0348	<0.015	0.0033 JB
NICKEL		0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.0089 JQ
POTASSIUM		1	35.9	170	84.3	7.75	12.9	21.7	60.1
SILVER		0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SODIUM		0.5	46.9	36.6	24.3	9.69	27.4	31.7	44.3
VANADIUM		0.01	<0.01	<0.01	0.005 JQ	<0.01	<0.01	<0.01	<0.01
ZINC		0.02	0.0023 JQ	<0.02	0.0116 JQ	0.204	<0.02	0.0195 JQ	0.0206
Metals - SW846 6020 (Total) mg/L									
ANTIMONY		0.0001	0.00014 JB	0.00005 JQ	0.00012 JB	0.00004 JQ	0.00014 JB	0.00006 JB	0.00025
ARSENIC		0.0005	0.00099	0.00023 JQ	0.00025 JQ	0.000095 JQ	0.00249	0.00013 JQ	0.00026 JQ
LEAD		0.0005	0.00016 JQ	0.00004 JQ	0.00033 JQ	0.00045 JQ	0.00003 JB	0.00012 JB	0.00066
SELENIUM		0.0005	<0.0005	0.00028 JQ	0.00034 JQ	0.00019 JQ	0.00054	0.00034 JQ	0.00037 JQ
THALLIUM		0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Total Alkalinity - MCAWW 310.1 mg/L									
ALKALINITY, TOTAL (AS CACO3)		10	160	645	515	64	182	172	220
Total Organic Carbon - SW846 9060 mg/L									
TOTAL ORGANIC CARBON		1	1.7	2 JH	2.7	1.2 JH	1.3	1 JH	2.7
Total Sulfide - MCAWW 376.1 mg/L									
SULFIDE		2	<2	<2	<2	<2	<2	<2	<2
Volatile Fatty Acids - SM5560 mg/L									
ACETIC ACID		1	NA	5.3	NA	NA	NA	NA	NA
BUTANOIC ACID		2	NA	<2	NA	NA	NA	NA	NA
LACTIC ACID		1	NA	<1	NA	NA	NA	NA	NA
PROPIONIC ACID		1	NA	<1	NA	NA	NA	NA	NA
PYRUVIC ACID		0.5	NA	<0.5	NA	NA	NA	NA	NA
Volatile Organic Compounds - SW846 8260 ug/L									
1,1,1,2-TETRACHLOROETHANE		1	<1	<1	<1	<1	<1	<1	<1
1,1,1-TRICHLOROETHANE		1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-TETRACHLOROETHANE		1	<1	<1	<1	<1	<1	<1	<1
1,1,2-TRICHLOROETHANE		1	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROETHANE		1	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROETHYLENE		1	<1	2.4	<1	<1	<1	<1	<1
1,1-DICHLOROPROPENE		1	<1	<1	<1	<1	<1	<1	<1
1,2,3-TRICHLOROBENZENE		1	<1	<1	<1	<1	<1	<1	<1
1,2,3-TRICHLOROPROPANE		1	<1	<1	<1	<1	<1	<1	<1
1,2,4-TRICHLOROBENZENE		1	<1	<1	<1	<1	<1	<1	<1
1,2,4-TRIMETHYLBENZENE		1	<1	<1	0.31 JB	<1	<1	<1	<1
1,2-DIBROMO-3-CHLOROPROPANE		2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
1,2-DIBROMOETHANE		1	<1	<1	<1	<1	<1	<1	<1
1,2-DICHLOROBENZENE		1	<1	7.4	<1	<1	<1	<1	<1
1,2-DICHLOROETHANE		1	<1	0.24 JQ	<1	<1	<1	<1	<1
1,2-DICHLOROPROPANE		1	<1	<1	<1	<1	<1	<1	<1

TABLE B-5

DATA SUMMARY TABLE FOR GROUNDWATER
OU 7 - LOWER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type: / Location ID: / Sample Date:	Reporting (a) Limit	Normal MWFTA-14 7/19/2005	Normal MWFTA-16 7/18/2005	Normal MWFTA-17 7/19/2005	Normal MWFTA-18 7/18/2005	Normal MWFTA-19 7/19/2005	Normal MWFTA-28B 7/19/2005	Normal MWFTA-29B 7/18/2005
1,3,5-TRIMETHYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1
1,3-DICHLOROBENZENE		1	<1	0.54 JQ	<1	<1	<1	<1	<1
1,3-DICHLOROPROPANE		1	<1	<1	<1	<1	<1	<1	<1
1,4-DICHLOROBENZENE		1	<1	10	<1	<1	<1	<1	<1
2,2-DICHLOROPROPANE		1	<1	<1	<1	<1	<1 UJ	<1	<1
2-BUTANONE		10	0.56 JQ	<10	<10	<10	1.4 JQ	1.1 JQ	<10
2-CHLOROTOLUENE		1	<1	<1	<1	<1	<1	<1	<1
2-HEXANONE		10	<10	<10	<10	<10	<10	<10	<10
4-CHLOROTOLUENE		1	<1	<1	<1	<1	<1	<1	<1
4-METHYL-2-PENTANONE		10	<10	<10	<10	<10	<10	<10	<10
ACETONE		10	1.2 JB	23 JB	4.6 JB	<10	14	2.3 JB	5.6 JB
BENZENE		1	<1	0.26 JQ	<1	<1	<1	<1	<1
BROMOBENZENE		1	<1	<1	<1	<1	<1	<1	<1
BROMODICHLOROMETHANE		1	<1	<1	<1	<1	<1	<1	<1
BROMOFORM		1	<1	<1	<1	<1	<1	<1	<1
BROMOMETHANE		1	<1	<1	<1	<1	<1	<1	<1
CARBON DISULFIDE		1	<1	<1	<1	<1	<1	<1	0.49 JQ
CARBON TETRACHLORIDE		1	<1	<1	<1	<1	<1	<1	<1
CHLOROBENZENE		1	<1	19	<1	<1	<1	<1	<1
CHLOROBROMOMETHANE		1	<1	<1	<1	<1	<1	<1	<1
CHLORODIBROMOMETHANE		1	<1	<1	<1	<1	<1	<1	<1
CHLOROETHANE		1	<1	<1	<1	<1	<1	<1	<1
CHLOROFORM		1	<1	<1	<1	<1	<1	<1	<1
CHLOROMETHANE		1	0.18 JQ	0.31 JQ	0.67 JQ	<1	0.29 JQ	0.62 JQ	0.52 JQ
CIS-1,2-DICHLOROETHENE		0.5	<0.5	1300	<0.5	0.74	1.1	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE		1	<1	<1	<1	<1	<1	<1	<1
DIBROMOMETHANE		1	<1	<1	<1	<1	<1	<1	<1
DICHLORODIFLUOROMETHANE		1	<1	<1	<1	<1	<1	<1	<1
ETHYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1
HEXACHLORO-1,3-BUTADIENE		1	<1	<1	<1	<1	<1	<1	<1
ISOPROPYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1
M & P-XYLENES		1	<1	<1	<1	<1	<1	<1	<1
METHYL TERT-BUTYL ETHER		1	<1	<1	<1	<1	0.24 JQ	<1	<1
METHYLENE CHLORIDE		1	0.15 JB	0.32 JQ	<1	<1	0.19 JB	0.21 JB	0.2 JQ
N-BUTYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1
N-PROPYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1
NAPHTHALENE		1	<1	<1	<1	<1	<1	<1	<1
O-XYLENE		1	<1	<1	0.26 JB	<1	<1	<1	<1
P-ISOPROPYLTOLUENE		1	<1	<1	<1	<1	<1	<1	<1
SEC-BUTYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1
STYRENE		1	<1	<1	<1	<1	<1	<1	<1
TERT-BUTYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1
TETRACHLOROETHENE		1	<1	<1	<1	<1	1.4	<1	0.32 JQ
TOLUENE		1	<1	3.6	<1	<1	<1	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE		0.5	<0.5	13	<0.5	<0.5	<0.5	<1	<1
TRANS-1,3-DICHLOROPROPENE		1	<1	<1	<1	<1	<1	<1	<1
TRICHLOROETHENE		1	<1	2.9	<1	<1	0.58 JQ	<1	<1
TRICHLOROFLUOROMETHANE		1	<1	<1	<1	<1	<1	<1	<1
VINYL CHLORIDE		1	<1	1300	<1	<1	<1	<1	<1

TABLE B-5

DATA SUMMARY TABLE FOR GROUNDWATER
OU 7 - LOWER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type:		Normal	Normal	Normal	Normal	Normal	Normal	Normal
	Location ID:	Reporting (a)	MWFTA-14	MWFTA-16	MWFTA-17	MWFTA-18	MWFTA-19	MWFTA-28B	MWFTA-29B
	Sample Date:	Limit	7/19/2005	7/18/2005	7/19/2005	7/18/2005	7/19/2005	7/19/2005	7/18/2005
Surrogate - % recovery									
1,2-DICHLOROETHANE-D4		--	102	102	110	106	99	101	106
4-BROMOFLUOROBENZENE		--	90	101	112	107	87	87	106
DIBROMOFLUOROMETHANE		--	100	103	110	110	95	99	107
TOLUENE-D8		--	96	99	111	95	93	95	97

Notes:

J Estimated; based on QC data
JB Estimated; possibly biased high or false positive based on blank contamination
JH Estimated; possibly biased high based upon QC data
JQ Estimated; Value is between reporting limit and detection limit
NA Not Analyzed
UJ Undetected; Reported Detection Limit is imprecise
(a) Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions.

PREPARED/DATE: RMB 9/23/05
CHECKED/DATE: JAH 9/23/05

TABLE B-6

DATA SUMMARY TABLE FOR GROUNDWATER
OU 7 - BEDROCK
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type: Location ID. Sample Date:	Reporting (a) Limit	Normal MWFTA-20 7/18/2005	Duplicate MWFTA-20 7/18/2005
FIELD PARAMETER:				
Dissolved Oxygen - EPA 360.1 mg/L				
DISSOLVED OXYGEN		0.1	3	3
Ferrous Iron - A3500D mg/L				
FERROUS IRON		0 1	<0.1	<0 1
Oxidation Reduction Potential - A2580A mV				
OXIDATION REDUCTION POTENTIAL		--	150	150
pH - EPA 150.1 pH Units				
pH		--	7.95	7.95
Specific Conductance - EPA 120.1 mS/cm				
SPECIFIC CONDUCTANCE		0.001	0 179	0.179
Temperature - EPA 170.1 deg. C				
TEMPERATURE		--	18.1	18 1
Turbidity - EPA 180.1 NTU				
TURBIDITY		1	1	1
FIXED BASE LABORATORY ANALYSIS:				
Anions - MCAWW 300.0A mg/L				
CHLORIDE		1	4 2	4.4
NITRATE AS N		0.1	0 08 JQ	0.1
SULFATE AS SO4		1	5	4.9
Dissolved Gases - RSK SOP-175 µg/L				
CARBON DIOXIDE		1000	<1000 UJ	<1000 UJ
ETHANE		0.5	<0 5	<0.5
ETHENE		1.5	11	11
METHANE		0.5	56	.50
Hydrogen by Microseeps - AM20GAX nM				
HYDROGEN		1	2 5 J	1.5 J
Mercury - SW846 7470 (Total) mg/L				
MERCURY		0.0003	<0.0003	<0.0003
Metals - SW846 6010 (Total) mg/L				
ALUMINUM		0.06	0.0328 JQ	0 0272 JQ
BARIUM		0.025	0 0923	0 0892
BERYLLIUM		0.005	<0 005	<0.005
CADMIUM		0.005	<0.005	<0 005
CALCIUM		0.5	16 6	15 8
CHROMIUM		0.01	<0 01	<0.01
COBALT		0.015	<0.015	<0 015
COPPER		0.01	<0.01	<0.01
IRON		0 1	0.28 JB	0.282 JB
MAGNESIUM		0 2	4.61	4 65
MANGANESE		0.005	0.118	0 118
MOLYBDENUM		0.015	<0.015	<0 015
NICKEL		0.02	0 0089 JQ	<0.02
POTASSIUM		1	9 46	9.11
SILVER		0.01	<0.01	<0 01
SODIUM		0.5	12 2	11.8
VANADIUM		0.01	<0.01	<0.01
ZINC		0.02	0.0017 JB	<0.02

TABLE B-6

DATA SUMMARY TABLE FOR GROUNDWATER
OU 7 - BEDROCK
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type, Location ID Sample Date	Reporting (a) Limit	Normal MWFTA-20 7/18/2005	Duplicate MWFTA-20 7/18/2005
Metals - SW846 6020 (Total) mg/L				
ANTIMONY		0.0001	0.00027	0.00027
ARSENIC		0.0005	0.00064	0 00064
LEAD		0.0005	0.00006 JQ	0.00008 JQ
SELENIUM		0.0005	0.00023 JQ	<0 0005
THALLIUM		0 0001	<0.0001	<0.0001
Total Alkalinity - MCAWW 310.1 mg/L				
ALKALINITY, TOTAL (AS CACO3)		10	73	74
Total Organic Carbon - SW846 9060 mg/L				
TOTAL ORGANIC CARBON		1	1 JH	1 JH
Total Sulfide - MCAWW 376.1 mg/L				
SULFIDE		2	<2	<2
Volatile Fatty Acids - SM5560 mg/L				
ACETIC ACID		1	<1	NA
BUTANOIC ACID		2	<2	NA
LACTIC ACID		1	<1	NA
PROPIONIC ACID		1	<1	NA
PYRUVIC ACID		0.5	<0.5	NA
Volatile Organic Compounds - SW846 8260 µg/L				
1,1,1,2-TETRACHLOROETHANE		1	<1	<1
1,1,1-TRICHLOROETHANE		1	<1	<1
1,1,2,2-TETRACHLOROETHANE		1	<1	<1
1,1,2-TRICHLOROETHANE		1	<1	<1
1,1-DICHLOROETHANE		1	11	11
1,1-DICHLOROETHYLENE		1	3.9	4
1,1-DICHLOROPROPENE		1	<1	<1
1,2,3-TRICHLOROBENZENE		1	<1	<1
1,2,3-TRICHLOROPROPANE		1	<1	<1
1,2,4-TRICHLOROBENZENE		1	<1	<1
1,2,4-TRIMETHYLBENZENE		1	<1	<1
1,2-DIBROMO-3-CHLOROPROPANE		2.5	<2.5	<2 5
1,2-DIBROMOETHANE		1	<1	<1
1,2-DICHLOROBENZENE		1	0.3 JQ	0.32 JQ
1,2-DICHLOROETHANE		1	<1	<1
1,2-DICHLOROPROPANE		1	<1	<1
1,3,5-TRIMETHYLBENZENE		1	<1	<1
1,3-DICHLOROBENZENE		1	<1	<1
1,3-DICHLOROPROPANE		1	<1	<1
1,4-DICHLOROBENZENE		1	<1	<1
2,2-DICHLOROPROPANE		1	<1	<1
2-BUTANONE		10	<10	<10
2-CHLOROTOLUENE		1	<1	<1
2-HEXANONE		10	<10	<10
4-CHLOROTOLUENE		1	<1	<1
4-METHYL-2-PENTANONE		10	<10	<10
ACETONE		10	2.2 JB	2 4 JB
BENZENE		1	<1	<1
BROMOBENZENE		1	<1	<1
BROMODICHLOROMETHANE		1	<1	<1
BROMOFORM		1	<1	<1
BROMOMETHANE		1	<1	<1
CARBON DISULFIDE		1	<1	<1
CARBON TETRACHLORIDE		1	<1	<1
CHLOROBENZENE		1	<1	<1
CHLOROBROMOMETHANE		1	<1	<1
CHLORODIBROMOMETHANE		1	<1	<1
CHLOROETHANE		1	<1	<1

TABLE B-6

DATA SUMMARY TABLE FOR GROUNDWATER
OU 7 - BEDROCK
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type: / Location ID: / Sample Date:	Reporting (a) Limit	Normal MWFTA-20 7/18/2005	Duplicate MWFTA-20 7/18/2005
CHLOROFORM		1	<1	<1
CHLOROMETHANE		1	<1	0.5 JQ
CIS-1,2-DICHLOROETHENE		0.5	61	61
CIS-1,3-DICHLOROPROPENE		1	<1	<1
DIBROMOMETHANE		1	<1	<1
DICHLORODIFLUOROMETHANE		1	<1	<1
ETHYLBENZENE		1	<1	<1
HEXACHLORO-1,3-BUTADIENE		1	<1	<1
ISOPROPYLBENZENE		1	<1	<1
M & P-XYLENES		1	<1	<1
METHYL TERT-BUTYL ETHER		1	<1	<1
METHYLENE CHLORIDE		1	<1	<1
N-BUTYLBENZENE		1	<1	<1
N-PROPYLBENZENE		1	<1	<1
NAPHTHALENE		1	<1	<1
O-XYLENE		1	<1	<1
P-ISOPROPYLTOLUENE		1	<1	<1
SEC-BUTYLBENZENE		1	<1	<1
STYRENE		1	<1	<1
TERT-BUTYLBENZENE		1	<1	<1
TETRACHLOROETHENE		1	0.26 JQ	0.26 JQ
TOLUENE		1	<1	<1
TRANS-1,2-DICHLOROETHENE		0.5	0 78	0 67
TRANS-1,3-DICHLOROPROPENE		1	<1	<1
TRICHLOROETHENE		1	3 2	3.2
TRICHLOROFLUOROMETHANE		1	<1	<1
VINYL CHLORIDE		1	13	13
Surrogate - % recovery				
1,2-DICHLOROETHANE-D4		--	104	101
4-BROMOFLUOROBENZENE		--	108	107
DIBROMOFLUOROMETHANE		--	105	106
TOLUENE-D8		--	97	99

Notes:

J Estimated, based on QC data
JB Estimated, possibly biased high or false positive based on blank contamination
JH Estimated; possibly biased high based upon QC data
JQ Estimated; Value is between reporting limit and detection limit
NA Not Analyzed
UJ Undetected; Reported Detection Limit is imprecise
(a) Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions

PREPARED/DATE. RMB 9/23/05
CHECKED/DATE. JAH 9/23/05

TABLE B-7

DATA SUMMARY TABLE FOR GROUNDWATER
OU8 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

Sample Type. Location ID. Sample Date:	Reporting (a) Limit	Normal DMW-23A 7/20/2005	Normal DMW-24A 7/20/2005	Normal DMW-30A 7/20/2005	Normal DMW-31A 7/20/2005	Duplicate DMW-31A 7/20/2005	Normal DP-1 8/3/2005	Normal DP-2 8/3/2005	Normal DP-3 8/3/2005	Normal DP-4 8/3/2005	Normal DP-5 8/3/2005
FIELD PARAMETER:											
Dissolved Oxygen - EPA 360.1 mg/L											
DISSOLVED OXYGEN	0.1	7.5	6 6	9.2	3.8	3.8	NA	NA	NA	NA	NA
Ferrous Iron - A3500D mg/L											
FERROUS IRON	0.1	0.2	0.2	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA
Oxidation Reduction Potential - A2580A mV											
OXIDATION REDUCTION POTENTIAL	–	513	555	443	111	111	NA	NA	NA	NA	NA
pH - EPA 150.1 pH Units											
pH	–	3.85	3.93	3.97	4.45	4 45	NA	NA	NA	NA	NA
Specific Conductance - EPA 120.1 mS/cm											
SPECIFIC CONDUCTANCE	0.001	0.069	0.057	0 15	0 057	0.057	NA	NA	NA	NA	NA
Temperature - EPA 170.1 deg. C											
TEMPERATURE	–	20 7	21 2	20.5	20.4	20 4	NA	NA	NA	NA	NA
Turbidity - EPA 180.1 NTU											
TURBIDITY	1	<1	<1	<1	2	2	NA	NA	NA	NA	NA
FIXED BASE LABORATORY ANALYSIS:											
Anions - MCAWW 300.0A mg/L											
CHLORIDE	1	9.9	7.7	30.6	8.9	8.7	7 4	9	8.6	5.7	7.1
NITRATE AS N	0.1	2 42	2 09	1 19	0 58	0.58	1.65	2.79	2 53	1.9	2 03
SULFATE AS SO4	1	2.2	2 5	2.7	2 8 J	3.5 J	0.5 JQ	0 4 JQ	0.6 JQ	0.7 JQ	0 6 JQ
Dissolved Gases - RSK SOP-175 ug/L											
CARBON DIOXIDE	1000	33000 J	43000 J	39100 J	138000 J	139000 J	NA	NA	NA	NA	NA
ETHANE	0.5	<0.5	<0.5	<0:5	<0.5	<0.5	NA	NA	NA	NA	NA
ETHENE	1.5	<1 5	<1.5	<1.5	<1.5	<1.5	NA	NA	NA	NA	NA
METHANE	0 5	<0.5	<0.5	<0.5	0.73	1 1	NA	NA	NA	NA	NA
Hydrogen by Microseeps - AM20GAX nM											
HYDROGEN	1	1.7	0.99 JQ	1.1	1.5	1.5	NA	NA	NA	NA	NA
Mercury - SW846 7470 (Total) mg/L											
MERCURY	0 0003	<0.0003	<0.0003	0.00021 JQ	<0 0003 UJ	0.000517 J	<0.0003	<0.0003	<0.0003	<0 0003	<0 0003
Metals - SW846 6010 (Total) mg/L											
ALUMINUM	0 06	0 108 JB	0 138 JB	0.183 JB	0.105 JB	0.14 JB	0 0222 JQ	0.506	0.189	0.0218 JQ	0.0914
BARIUM	0.025	0 0437	0.0597	0.0462	0.0516	0.0509	0.0516	0.0951	0.119	0 075	0.0856
BERYLLIUM	0 005	<0.005	<0.005	<0 005	<0 005	<0 005	<0.005	<0 005	<0.005	<0.005	<0 005
CADMIUM	0.005	<0.005	<0 005	<0.005	<0 005	<0 005	<0 005	<0 005	<0.005	<0.005	<0 005
CALCIUM	0.5	0 307 JQ	0 434 JQ	0.102 JQ	0.102 JQ	0 0926 JQ	0.345 JQ	1.25	0 902	0 401 JQ	0 423 JQ
CHROMIUM	0 01	<0.01	<0.01	<0 01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
COBALT	0 015	<0.015	<0 015	<0 015	<0.015	<0 015	0.0083 JB	<0.015	0.0091 JQ	<0 015	<0 015
COPPER	0 01	<0 01	<0 01	<0.01	<0.01	<0 01	0.054	0 101	0 0721	0.0699	0.0243
IRON	0.1	<0.1	<0.1	0.103	0.102	0.126	0.0636 JQ	0 662	<0 1	0 0524 JQ	<0 1
MAGNESIUM	0 2	0 704	0.889	0 488	0.234	0 24	0.721	0 953	1.54	0.98	1.03
MANGANESE	0 005	0.0587	0.0738	0.0031 JQ	0 0018 JQ	0.0022 JQ	0 0452	0 239	0 0771	0.0435	0 0576
MOLYBDENUM	0 015	0 004 JQ	0.0034 JQ	<0.015	0.0034 JQ	0.0034 JQ	<0.015	<0.015	<0 015	<0 015	<0 015
NICKEL	0 02	<0 02	<0.02	<0.02	<0.02	<0.02	<0 02	<0.02	<0.02	<0 02	<0.02
POTASSIUM	1	0.299 JQ	0.657 JQ	<1	<1	<1	1 48	1.33	1.25	0.924 JQ	1 58
SILVER	0.01	<0 01	<0 01	<0 01	<0.01	<0 01	<0.01	<0 01	<0.01	<0 01	<0 01
SODIUM	0.5	9.37	6.32	23 5	8.37	8 27	6 7	6.49	4 83	5.31	4.71
VANADIUM	0 01	<0.01	<0 01	<0 01	<0.01	<0 01	<0.01	<0 01	<0.01	<0 01	<0.01
ZINC	0 02	0.0058 JB	0 005 JB	0 006 JB	0 0106 JB	0.0034 JB	0 0222	0 035	0 0236	0 0386	0 0435

TABLE B-7

DATA SUMMARY TABLE FOR GROUNDWATER
OU8 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

Sample Type: / Location ID: / Sample Date:	Reporting (a) Limit	Normal DMW-23A 7/20/2005	Normal DMW-24A 7/20/2005	Normal DMW-30A 7/20/2005	Normal DMW-31A 7/20/2005	Duplicate DMW-31A 7/20/2005	Normal DP-1 8/3/2005	Normal DP-2 8/3/2005	Normal DP-3 8/3/2005	Normal DP-4 8/3/2005	Normal DP-5 8/3/2005
Metals - SW846 6020 (Total) mg/L											
ANTIMONY	0 0001	<0.0001	<0 0001	0.00004 JB	0.00005 JB	0.00005 JB	0.00006 JB	0.00006 JB	0 00005 JB	0.00005 JB	<0 0001
ARSENIC	0 0005	<0.0005	<0.0005	0.00014	0.00011 JQ	0.00012 JQ	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
LEAD	0.0005	0.00025 JQ	0 00046 JQ	0.00074	0.00054	0 00058	0.0169	0.0152	0.00982	0.0188	0 018
SELENIUM	0.0005	0.00022 JQ	<0.0005	0.00055	0.00026 JQ	0.00031 JQ	0 00023 JQ	0 00022 JQ	<0.0005	0.0002 JQ	0.00025 JQ
THALLIUM	0.0001	<0 0001	<0.0001	<0.0001	<0 0001	<0.0001	<0.0001	<0 0001	<0.0001	<0 0001	<0 0001
Total Alkalinity - MCAWW 310.1 mg/L											
ALKALINITY, TOTAL (AS CACO3)	10	2 JQ	<10	2 JQ	5 JQ	2 JQ	3 JQ	<10	<10	<10	<10
Total Organic Carbon - SW846 9060 mg/L											
TOTAL ORGANIC CARBON	1	0 6 JH	0.5 JH	0 8 JH	0.9 JH	1	NA	NA	NA	NA	NA
Total Sulfide - MCAWW 376.1 mg/L											
SULFIDE	2	<2	<2	<2	<2	<2	NA	NA	NA	NA	NA
Volatile Fatty Acids - SM5560 mg/L											
ACETIC ACID	1	NA	NA	<1	<1	NA	NA	NA	NA	NA	NA
BUTANOIC ACID	2	NA	NA	<2	<2	NA	NA	NA	NA	NA	NA
LACTIC ACID	1	NA	NA	<1	<1	NA	NA	NA	NA	NA	NA
PROPIONIC ACID	1	NA	NA	<1	<1	NA	NA	NA	NA	NA	NA
PYRUVIC ACID	0 5	NA	NA	<0.5	<0.5	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds - SW846 8260 µg/L											
1,1,1,2-TETRACHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-TRICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-TETRACHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-TRICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROETHYLENE	1	<1	<1	<1	0 23 JQ	0 2 JQ	<1	<1	<1	<1	<1
1,1-DICHLOROPROPENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-TRICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-TRICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-TRICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-TRIMETHYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DIBROMO-3-CHLOROPROPANE	2.5	<2 5	<2.5	<2.5	<2 5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
1,2-DIBROMOETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DICHLOROETHANE	1	<1	<1	0.36 JQ	0 13 JQ	<1	<1	<1	<1	<1	<1
1,2-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-TRIMETHYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-DICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-DICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,2-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-BUTANONE	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
2-CHLOROTOLUENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-HEXANONE	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-CHLOROTOLUENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-METHYL-2-PENTANONE	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
ACETONE	10	2 9 JB	2 1 JB	<10	<10	2.2 JB	3 JB	2.9 JB	2.7 JB	3.4 JB	2 6 JB
BENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMOBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMODICHLOROMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMOFORM	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARBON DISULFIDE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARBON TETRACHLORIDE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROBROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

TABLE B-7

DATA SUMMARY TABLE FOR GROUNDWATER
OU8 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type:		Normal	Normal	Normal	Normal	Duplicate	Normal	Normal	Normal	Normal	Normal
	Location ID:	Reporting (a)	DMW-23A	DMW-24A	DMW-30A	DMW-31A	DMW-31A	DP-1	DP-2	DP-3	DP-4	DP-5
	Sample Date:	Limit	7/20/2005	7/20/2005	7/20/2005	7/20/2005	7/20/2005	8/3/2005	8/3/2005	8/3/2005	8/3/2005	8/3/2005
CHLORODIBROMOMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROFORM		1	<1	<1	<1	0.36 JQ	0.36 JQ	0.5 JQ	<1	<1	<1	<1
CHLOROMETHANE		1	<1	<1	0.14 JB	0.15 JB	<1	0 26 JB	0.33 JB	1.1 JB	0.74 JB	<1
CIS-1,2-DICHLOROETHENE		0.5	<0 5	0 51	110	1.6	1.5	<0.5	<0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
DIBROMOMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
DICHLORODIFLUOROMETHANE		1	0.58 JQ	<1	<1	<1	<1	<1	<1	<1	<1	<1
ETHYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
HEXACHLORO-1,3-BUTADIENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ISOPROPYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
M & P-XYLENES		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
METHYL TERT-BUTYL ETHER		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
METHYLENE CHLORIDE		1	<1	<1	<1	<1	<1	<1	0.44 JQ	0 4 JQ	0.33 JQ	<1
N-BUTYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-PROPYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NAPHTHALENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
O-XYLENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
P-ISOPROPYLTOLUENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
SEC-BUTYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
STYRENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TERT-BUTYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TETRACHLOROETHENE		1	<1	20	62	75	73	0 26 JQ	<1	<1	<1	<1
TOLUENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TRANS-1,2-DICHLOROETHENE		0.5	<0.5	<0.5	4 9	<0.5	<0.5	<0 5	<0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TRICHLOROETHENE		1	<1	5.4	18	170	170	<1	<1	<1	<1	<1
TRICHLOROFLUOROMETHANE		1	8.8 J	7.7	1.8	2.3	2.3	0.49 JQ	<1	<1	<1	<1
VINYL CHLORIDE		1	<1	<1	3.5	<1	<1	<1	<1	<1	<1	<1
Surrogate - % recovery												
1,2-DICHLOROETHANE-D4		–	109	111	108	112	116	110	110	112	114	115
4-BROMOFLUOROBENZENE		–	104	100	106	104	106	98	100	101	99	104
DIBROMOFLUOROMETHANE		–	110	110	109	111	115	106	107	107	110	112
TOLUENE-D8		–	102	98	99	100	102	102	103	107	105	110

Notes:

J Estimated, based on QC data
JB Estimated, possibly biased high or false positive based on blank contamination
JH Estimated; possibly biased high based upon QC data
JQ Estimated; Value is between reporting limit and detection limit
NA Not Analyzed
UJ Undetected; Reported Detection Limit is imprecise
(a) Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions

TABLE B-7

DATA SUMMARY TABLE FOR GROUNDWATER
OU8 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

Sample Type: Location ID: Sample Date:	Reporting (a) Limit	Normal DP-6 8/3/2005	Normal DP-7 8/3/2005	Normal DP-8 8/3/2005	Normal DP-9 8/3/2005	Normal DP-10 8/3/2005	Normal DP-11 8/3/2005	Duplicate DP-11 8/3/2005	Normal DP-12 8/3/2005	Normal MWANP-3 7/21/2005	Duplicate MWANP-3 7/21/2005
FIELD PARAMETER:											
Dissolved Oxygen - EPA 360.1 mg/L											
DISSOLVED OXYGEN	0.1	NA	NA	NA	NA	NA	NA	NA	NA	2	2
Ferrous Iron - A3500D mg/L											
FERROUS IRON	0.1	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	<0.1
Oxidation Reduction Potential - A2580A mV											
OXIDATION REDUCTION POTENTIAL	–	NA	NA	NA	NA	NA	NA	NA	NA	374	374
pH - EPA 150.1 pH Units											
pH	–	NA	NA	NA	NA	NA	NA	NA	NA	4.51	4 51
Specific Conductance - EPA 120.1 mS/cm											
SPECIFIC CONDUCTANCE	0 001	NA	NA	NA	NA	NA	NA	NA	NA	0.081	0.081
Temperature - EPA 170.1 deg. C											
TEMPERATURE	–	NA	NA	NA	NA	NA	NA	NA	NA	22	22
Turbidity - EPA 180.1 NTU											
TURBIDITY	1	NA	NA	NA	NA	NA	NA	NA	NA	1	1
FIXED BASE LABORATORY ANALYSIS:											
Anions - MCAWW 300.0A mg/L											
CHLORIDE	1	9.2	11 6	10.8	11 4	9.2	16 4	15.9	10	11 3	11.5
NITRATE AS N	0.1	1.97	1.7	0 54	1.67	2.81	2 46	2.52	2.09	3.62	3.65
SULFATE AS SO4	1	0 3 JQ	0.5 JQ	0.5 JQ	1.1	6	0.6 JQ	0 6 JQ	0 4 JQ	1.2	1.1
Dissolved Gases - RSK SOP-175 µg/L											
CARBON DIOXIDE	1000	NA	NA	NA	NA	NA	NA	NA	NA	110000 J	110000 J
ETHANE	0.5	NA	NA	NA	NA	NA	NA	NA	NA	<0.5 UJ	<0 5 UJ
ETHENE	1.5	NA	NA	NA	NA	NA	NA	NA	NA	<1.5 UJ	<1.5 UJ
METHANE	0.5	NA	NA	NA	NA	NA	NA	NA	NA	0.39 JQ	<0 5 UJ
Hydrogen by Microseeps - AM20GAX nM											
HYDROGEN	1	NA	NA	NA	NA	NA	NA	NA	NA	1.3	1.3
Mercury - SW846 7470 (Total) mg/L											
MERCURY	0 0003	<0 0003	<0 0003	<0.0003	<0 0003	<0 0003	<0.0003	<0 0003	<0.0003	<0 0003	<0 0003
Metals - SW846 6010 (Total) mg/L											
ALUMINUM	0 06	0 0755	0.0381 JQ	0 486	0.171	0.116	0.0186 JQ	0.0192 JQ	0.404	0 135	0 134
BARIUM	0 025	0 0897	0 0704	0 101	0.0991	0.079	0.062	0.0612	0 0638	0 0979	0 0982
BERYLLIUM	0.005	<0 005	<0 005	<0.005	<0 005	<0.005	<0 005	<0 005	<0 005	<0 005	<0 005
CADMIUM	0.005	<0 005	<0 005	<0 005	<0 005	0 0011 JQ	<0 005	<0 005	<0 005	<0 005	<0.005
CALCIUM	0.5	0 579	0.568	0.567	0 884	4 42	1.54	1.52	0 689	0.597	0 577
CHROMIUM	0.01	<0.01	<0.01	<0 01	<0 01	<0.01	<0 01	<0 01	<0 01	<0 01	<0 01
COBALT	0 015	<0 015	0 0052 JQ	0.0053 JQ	<0.015	0 0059 JQ	<0 015	0 0065 JQ	0 0074 JQ	<0.015	<0 015
COPPER	0.01	0.0814	0 0418	0 063	0 0596	0.113	0 0296	0 0293	0.0627	<0 01	<0 01
IRON	0 1	0.0528 JQ	0 0647 JQ	0 742	0.137	0 26	0 0826 JQ	0.0854 JQ	1 13	0.0216 JQ	0 0265 JQ
MAGNESIUM	0.2	0.969	0 589	0 788	0.741	1 07	0 831	0.821	1 12	1.82	1.81
MANGANESE	0 005	0.0419	0.0233	0.0223	0 0214	0.0316	0.0261	0 0259	0.0518	0.018	0 0166
MOLYBDENUM	0 015	<0 015	<0 015	<0 015	<0 015	<0 015	<0.015	<0 015	<0 015	<0.015	0.0062 JB
NICKEL	0 02	<0.02	<0 02	<0 02	<0 02	<0 02	<0 02	<0.02	<0.02	<0 02	<0.02
POTASSIUM	1	1.38	1.33	1 48	0.934 JQ	1 45	1 17	1.04	1 2	0.718 JQ	1 21
SILVER	0 01	<0.01	<0.01	<0.01	<0 01	<0.01	<0 01	<0 01	<0 01	<0.01	<0 01
SODIUM	0.5	6.61	8.04	5 82	8.91	8.08	13.2	12 8	6 95	10.1	10.2
VANADIUM	0 01	<0.01	<0 01	<0.01	<0 01	<0 01	<0.01	<0.01	<0 01	<0 01	<0 01
ZINC	0.02	0.0715	0 0119 JQ	0 0842	0.234	0 122	0.0926	0.0918	0.0455	0 0145 JQ	0.0064 JB

TABLE B-7

DATA SUMMARY TABLE FOR GROUNDWATER
OU8 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

Sample Type Location ID Sample Date	Reporting (a) Limit	Normal DP-6 8/3/2005	Normal DP-7 8/3/2005	Normal DP-8 8/3/2005	Normal DP-9 8/3/2005	Normal DP-10 8/3/2005	Normal DP-11 8/3/2005	Duplicate DP-11 8/3/2005	Normal DP-12 8/3/2005	Normal MWANP-3 7/21/2005	Duplicate MWANP-3 7/21/2005
Metals - SW846 6020 (Total) mg/L											
ANTIMONY	0 0001	0.00004 JB	<0.0001	<0.0001	0 00005 JB	0.00005 JB	0 00004 JB	<0.0001	<0.0001	<0.0001	<0.0001
ARSENIC	0 0005	<0 0005	0 00014 JQ	0.00027 JQ	0.00019 JQ	<0.0005	0.0001	0 0001 JQ	0.00021 JQ	<0.0005	<0.0005
LEAD	0.0005	0 0306	0.0359	0.024	0.0115	0.0206	0.0121	0.0117	0.0145	0.00033 JQ	0.00034 JQ
SELENIUM	0.0005	0.0004 JQ	0.00059	0.00091	0.00077	0.00034 JQ	0.00041 JQ	0 00044 JQ	0 00072	<0.0005	<0.0005
THALLIUM	0 0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0 0001	<0.0001
Total Alkalinity - MCAWW 310.1 mg/L											
ALKALINITY, TOTAL (AS CACO3)	10	<10	2 JQ	3 JQ	3 JQ	7 JQ	3 JQ	3 JQ	3 JQ	3 JH	2 JB
Total Organic Carbon - SW846 9060 mg/L											
TOTAL ORGANIC CARBON	1	NA	NA	NA	NA	NA	NA	NA	NA	1.3	1.3
Total Sulfide - MCAWW 376.1 mg/L											
SULFIDE	2	NA	NA	NA	NA	NA	NA	NA	NA	<2	<2
Volatile Fatty Acids - SM5560 mg/L											
ACETIC ACID	1	NA	NA	NA	NA	NA	NA	NA	NA	<1	<1
BUTANOIC ACID	2	NA	NA	NA	NA	NA	NA	NA	NA	<2	<2
LACTIC ACID	1	NA	NA	NA	NA	NA	NA	NA	NA	<1	<1
PROPIONIC ACID	1	NA	NA	NA	NA	NA	NA	NA	NA	<1	<1
PYRUVIC ACID	0.5	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	<0.5
Volatile Organic Compounds - SW846 8260 µg/L											
1,1,1,2-TETRACHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-TRICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-TETRACHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-TRICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROETHYLENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROPROPENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-TRICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-TRICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-TRICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-TRIMETHYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DIBROMO-3-CHLOROPROPANE	2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
1,2-DIBROMOETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DICHLOROETHANE	1	<1	0 56 JQ	<1	0 44 JQ	0 21 JQ	. 3 4	2.8	<1	<1	<1
1,2-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-TRIMETHYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-DICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-DICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,2-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-BUTANONE	10	<10	<10	<10	<10	<10	1.8 JB	<10	7 9 JB	<10	<10
2-CHLOROTOLUENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-HEXANONE	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-CHLOROTOLUENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-METHYL-2-PENTANONE	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
ACETONE	10	2.9 JB	2 7 JB	3.3 JB	2 4 JB	4 2 JB	2 6 JB	2 5 JB	3 JB	<10	2.4 JB
BENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMOBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMODICHLOROMETHANE	1	<1	<1	<1	<1	<1	0 37 JQ	0.28 JQ	<1	<1	<1
BROMOFORM	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARBON DISULFIDE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARBON TETRACHLORIDE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROBROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

TABLE B-7

DATA SUMMARY TABLE FOR GROUNDWATER
OU8 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type. Location ID. Sample Date	Reporting (a) Limit	Normal DP-6 8/3/2005	Normal DP-7 8/3/2005	Normal DP-8 8/3/2005	Normal DP-9 8/3/2005	Normal DP-10 8/3/2005	Normal DP-11 8/3/2005	Duplicate DP-11 8/3/2005	Normal DP-12 8/3/2005	Normal MWANP-3 7/21/2005	Duplicate MWANP-3 7/21/2005
CHLORODIBROMOMETHANE		1	<1	<1	<1	<1	<1	0.66 JQ	0.72 JQ	<1	<1	<1
CHLOROETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROFORM		1	0.24 JQ	0 33 JQ	<1	0.26 JQ	0.42 JQ	0 34 JQ	0.27 JQ	0.18 JQ	0.34 JQ	0.36 JQ
CHLOROMETHANE		1	<1	0.21 JB	1 JB	<1	0.92 JB	0.22 JB	0.75 JB	0.22 JB	<1	0.22 JQ
CIS-1,2-DICHLOROETHENE		0 5	<0.5	2 1	<0.5	2.1	<0.5	10	8	2.9	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
DIBROMOMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
DICHLORODIFLUOROMETHANE		1	<1	<1	<1	<1	<1	0.4 JQ	<1	<1	<1	<1
ETHYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
HEXACHLORO-1,3-BUTADIENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ISOPROPYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
M & P-XYLENES		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
METHYL TERT-BUTYL ETHER		1	<1	<1	<1	<1	<1	0.19 JQ	0.16 JQ	<1	<1	<1
METHYLENE CHLORIDE		1	<1	<1	0 26 JQ	<1	0.42 JQ	<1	0.24 JQ	<1	<1	<1
N-BUTYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-PROPYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NAPHTHALENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
O-XYLENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
P-ISOPROPYLTOLUENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
SEC-BUTYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
STYRENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TERT-BUTYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TETRACHLOROETHENE		1	0.72 JQ	7.6	2 9	26	23	180	180	11	2 9	2.8
TOLUENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TRANS-1,2-DICHLOROETHENE		0 5	<0 5	<0 5	<0.5	<0.5	<0.5	0 36 JQ	0.32 JQ	<0 5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TRICHLOROETHENE		1	1.2	4 7	2.6	28	33	32	24	2 5	11	11
TRICHLOROFLUOROMETHANE		1	0.8 JQ	0.92 JQ	<1	2.1	1.2	13 J	7 6 J	7.3	<1	<1
VINYL CHLORIDE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Surrogate - % recovery												
1,2-DICHLOROETHANE-D4		--	114	112	109	111	110	103	116	112	111	101
4-BROMOFLUOROBENZENE		--	101	98	97	100	98	92	101	99	98	88
DIBROMOFLUOROMETHANE		--	109	110	105	106	104	99	106	107	110	100
TOLUENE-D8		--	108	104	101	99	99	93	96	99	96	89

Notes:

J Estimated, based on QC data
JB Estimated, possibly biased high or false positive based on blank contamination
JH Estimated, possibly biased high based upon QC data
JQ Estimated, Value is between reporting limit and detection limit
NA Not Analyzed
UJ Undetected, Reported Detection Limit is imprecise
(a) Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions

TABLE B-7

DATA SUMMARY TABLE FOR GROUNDWATER
OU8 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type Location ID. Sample Date	Reporting (a) Limit	Normal MWANP-7 7/21/2005	Normal MWANP-10 7/21/2005	Normal MWANP-13 7/21/2005	Normal MWANP-14 7/21/2005	Normal MWANP-15 7/21/2005	Normal MWANP-16 8/2/2005	Normal MWANP-17 7/21/2005	Normal MWANP-18 7/21/2005	Normal MWANP-19 8/2/2005	Normal MWANP-20 8/2/2005
FIELD PARAMETER:												
Dissolved Oxygen - EPA 360.1 mg/L												
DISSOLVED OXYGEN		0 1	8.2	9.3	7	8 5	6	6.3	6.5	2.2	1 2	5.5
Ferrous Iron - A3500D mg/L												
FERROUS IRON		0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0 2	<0 1	<0 1	1	<0.1
Oxidation Reduction Potential - A2580A mV												
OXIDATION REDUCTION POTENTIAL		–	401	404	440	384	364	310	558	590	56	294
pH - EPA 150.1 pH Units												
pH		–	4.27	4.31	4.62	4.59	4.75	4 67	3.96	3.58	5 64	5.15
Specific Conductance - EPA 120.1 mS/cm												
SPECIFIC CONDUCTANCE		0 001	0.064	0.07	0.04	0 05	0.051	0.029	0.064	0 051	0.064	0.041
Temperature - EPA 170.1 deg. C												
TEMPERATURE		–	22 1	19.6	21.2	23 4	19 6	20.2	22 1	19 5	18.5	18 1
Turbidity - EPA 180.1 NTU												
TURBIDITY		1	<1	<1	1	11	8	1	<1	<1	5	8
FIXED BASE LABORATORY ANALYSIS:												
Anions - MCAWW 300.0A mg/L												
CHLORIDE		1	11 9	8 9	4.8	5 7	4.1	2.8	10.6	6.3	3 9	3 7
NITRATE AS N		0.1	1.58	2 85	1.44	2.05	2 42	0.98	1 4	0 84	0 49	0.61
SULFATE AS SO4		1	0 4 JQ	1	0.4 JQ	0.5 JQ	2 4	0.7 JQ	1.2	0 5 JQ	2 8	2
Dissolved Gases - RSK SOP-175 µg/L												
CARBON DIOXIDE		1000	16000 J	47000 J	53000 J	31000 J	84000 J	53900 J	84000 J	150000 J	66800 J	67100 J
ETHANE		0.5	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0.5	<0.5 UJ	<0.5 UJ	<0.5	<0 5
ETHENE		1.5	<1.5 UJ	<1.5 UJ	<1.5 UJ	<1 5 UJ	<1.5 UJ	<1 5	<1.5 UJ	<1.5 UJ	<1 5	<1.5
METHANE		0 5	0 51 J	<0.5 UJ	0 35 JQ	0.35 JQ	<0 5 UJ	<0 5	<0.5 UJ	0 4 JQ	19	<0.5
Hydrogen by Microseeps - AM20GAX nM												
HYDROGEN		1	1.2	1 JQ	1.6	1.7	1.5	1.6	0 72 JQ	0.86 JQ	1	1.7
Mercury - SW846 7470 (Total) mg/L												
MERCURY		0.0003	<0 0003	<0 0003	<0.0003	<0 0003	<0 0003	<0.0003	<0 0003	<0.0003	<0.0003	<0.0003
Metals - SW846 6010 (Total) mg/L												
ALUMINUM		0.06	0 0654 JB	0.243	0.0825	0 765	0.986 JH	0.0451 JQ	0 174	0 0625 JB	0 259	0 384
BARIUM		0.025	0.0509	0.131	0.0509	0 0622	0 0677	0.0361	0.0928	0.0284	0 0094 JQ	0.0117 JQ
BERYLLIUM		0.005	<0.005	<0.005	<0.005	<0.005	<0 005	<0 005	<0.005	<0 005	<0 005	<0 005
CADMIUM		0.005	<0.005	<0.005	<0.005	<0.005	<0 005	<0 005	<0 005	<0 005	<0 005	<0.005
CALCIUM		0.5	0.332 JQ	0.924	0.308 JQ	0.397 JQ	0 346 JQ	0.148 JQ	0.22 JQ	0.722	3 6	1.5
CHROMIUM		0.01	<0.01	<0 01	<0 01	<0 01	<0 01	<0.01	<0.01	<0 01	<0.01	<0 01
COBALT		0 015	0.0124 JQ	0.0075 JQ	0 0062 JQ	<0 015	<0.015	<0 015	<0.015	0.0051 JQ	<0 015	0.0069 JB
COPPER		0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0 01	<0 01	0 0025 JB
IRON		0 1	<0 1	<0 1	0.0184 JQ	1 7	0 477	<0 1	0 061 JQ	0 0603 JQ	1.3	0.506
MAGNESIUM		0.2	0.492	1.54	0 452	0 961	1.59	0 437	0 989	0 529	0 463	0 469
MANGANESE		0 005	0 0245	0.0753	0 0256	0 0194	0.0131	0.0272	0.0191	0 137	0.0516	0.0204
MOLYBDENUM		0.015	0 004 JB	<0 015	0.004 JB	<0.015	0 0062 JB	<0.015	0.0057 JB	<0 015	<0.015	<0 015
NICKEL		0 02	<0 02	<0 02	<0.02	<0.02	<0 02	<0.02	<0 02	<0 02	<0.02	<0 02
POTASSIUM		1	0 871 JQ	1 47	1 4	1.49	0 3 JQ	0 874 JQ	1 28	0 883 JQ	3.02	1 19
SILVER		0 01	<0 01	<0.01	0 0049 JB	<0.01	0.0023 JB	<0 01	<0 01	<0.01	<0.01	<0 01
SODIUM		0 5	8 48	5.49	4.09	4.55	6 17	2 43	6 11	5.16	5.39	5
VANADIUM		0 01	<0.01	<0.01	<0.01	<0.01	<0 01	<0 01	0 0029 JQ	<0.01	<0.01	<0.01
ZINC		0 02	0.0104 JQ	0 0068 JB	0.0054 JB	0.0078 JB	0.0071 JB	0 0036 JQ	0 0146 JQ	0 0068 JB	0 238	0.0349

TABLE B-7

DATA SUMMARY TABLE FOR GROUNDWATER
OU8 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

Sample Type: / Location ID: / Sample Date:	Reporting (a) Limit	Normal MWANP-7 7/21/2005	Normal MWANP-10 7/21/2005	Normal MWANP-13 7/21/2005	Normal MWANP-14 7/21/2005	Normal MWANP-15 7/21/2005	Normal MWANP-16 8/2/2005	Normal MWANP-17 7/21/2005	Normal MWANP-18 7/21/2005	Normal MWANP-19 8/2/2005	Normal MWANP-20 8/2/2005
Metals - SW846 6020 (Total) mg/L											
ANTIMONY	0 0001	0.00006 JB	<0.0001	0.00008 JB	0.00004 JB	0.00005 JB	0.00006 JB	<0.0001	<0.0001	0.00008 JB	0 00005 JB
ARSENIC	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.00011 JQ	<0.0005	<0 0005	<0.0005	0 00035 JQ	0.00015 JQ
LEAD	0.0005	0.00059	0.00154	0.00027 JQ	0.0009	0.00068	0.00037 JQ	0 0009	0.00048 JQ	0.00026 JQ	0 00041 JQ
SELENIUM	0.0005	0.00025 JQ	<0.0005	<0 0005	<0 0005	0.00028 JQ	<0 0005	<0.0005	0.00023 JQ	0.00028 JQ	0 00031 JQ
THALLIUM	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0 0001	<0.0001	<0.0001	<0 0001	<0 0001
Total Alkalinity - MCAWW 310.1 mg/L											
ALKALINITY, TOTAL (AS CACO3)	10	2 JB	<10	2 JB	2 JB	3 JH	2 JQ	<10	4 JH	17	8 JQ
Total Organic Carbon - SW846 9060 mg/L											
TOTAL ORGANIC CARBON	1	1	0.7 JQ	0.3 JQ	0.3 JQ	1.3	0.2 JB	1	1 2	0.8 JH	0.3 JH
Total Sulfide - MCAWW 376.1 mg/L											
SULFIDE	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Volatile Fatty Acids - SM5560 mg/L											
ACETIC ACID	1	<1	NA	NA	NA	<1	NA	<1	NA	NA	NA
BUTANOIC ACID	2	<2	NA	NA	NA	<2	NA	<2	NA	NA	NA
LACTIC ACID	1	<1	NA	NA	NA	<1	NA	<1	NA	NA	NA
PROPIONIC ACID	1	<1	NA	NA	NA	<1	NA	<1	NA	NA	NA
PYRUVIC ACID	0.5	<0.5	NA	NA	NA	<0.5	NA	<0.5	NA	NA	NA
Volatile Organic Compounds - SW846 8260 µg/L											
1,1,1,2-TETRACHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-TRICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-TETRACHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-TRICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROETHYLENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROPROPENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-TRICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-TRICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-TRICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-TRIMETHYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DIBROMO-3-CHLOROPROPANE	2 5	<2.5	<2.5	<2.5	<2.5	<2 5	<2 5	<2 5	<2.5	<2.5	<2 5
1,2-DIBROMOETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-TRIMETHYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-DICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-DICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,2-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-BUTANONE	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
2-CHLOROTOLUENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-HEXANONE	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-CHLOROTOLUENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-METHYL-2-PENTANONE	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
ACETONE	10	2.8 JB	<10	2 4 JB	2.2 JB	2.2 JB	2.8 JB	4.3 JB	6 JB	4.6 JB	3 JB
BENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMOBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMODICHLOROMETHANE	1	0.2 JQ	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMOFORM	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARBON DISULFIDE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARBON TETRACHLORIDE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROBROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

TABLE B-7

DATA SUMMARY TABLE FOR GROUNDWATER
OU8 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type Location ID. Sample Date	Reporting (a) Limit	Normal MWANP-7 7/21/2005	Normal MWANP-10 7/21/2005	Normal MWANP-13 7/21/2005	Normal MWANP-14 7/21/2005	Normal MWANP-15 7/21/2005	Normal MWANP-16 8/2/2005	Normal MWANP-17 7/21/2005	Normal MWANP-18 7/21/2005	Normal MWANP-19 8/2/2005	Normal MWANP-20 8/2/2005
CHLORODIBROMOMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROFORM		1	0 35 JQ	<1	0.22 JQ	<1	<1	<1	<1	<1	<1	<1
CHLOROMETHANE		1	0 33 JQ	<1	<1	<1	0.26 JQ	0.2 JQ	0.19 JQ	0.33 JQ	0 27 JQ	<1
CIS-1,2-DICHLOROETHENE		0.5	0 45 JQ	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
DIBROMOMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
DICHLORODIFLUOROMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ETHYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
HEXACHLORO-1,3-BUTADIENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ISOPROPYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
M & P-XYLENES		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
METHYL TERT-BUTYL ETHER		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
METHYLENE CHLORIDE		1	<1	<1	0 23 JB	<1	<1	0.22 JB	0.17 JB	0.28 JB	0.21 JB	<1
N-BUTYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-PROPYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NAPHTHALENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
O-XYLENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
P-ISOPROPYLTOLUENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
SEC-BUTYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
STYRENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TERT-BUTYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TETRACHLOROETHENE		1	0 84 JQ	<1	<1	<1	1.2	<1	0.28 JQ	0 68 JQ	<1	0.2 JQ
TOLUENE		1	<1	<1	<1	<1	<1	<1	<1	0.36 JQ	<1	<1
TRANS-1,2-DICHLOROETHENE		0.5	<0.5	<0.5	<0.5	<0 5	<0.5	<0.5	<0.5	<0.5	<0 5	<0 5
TRANS-1,3-DICHLOROPROPENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TRICHLOROETHENE		1	0 39 JQ	<1	<1	<1	1.7	<1	1.6	1.3	<1	0.54 JQ
TRICHLOROFLUOROMETHANE		1	2	<1	<1	<1	<1	<1	<1	<1	<1	<1
VINYL CHLORIDE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Surrogate - % recovery												
1,2-DICHLOROETHANE-D4		–	116	108	109	110	113	108	116	115	107	113
4-BROMOFLUOROBENZENE		–	99	94	97	100	100	102	100	98	100	102
DIBROMOFLUOROMETHANE		–	113	107	108	109	114	103	112	112	104	105
TOLUENE-D8		–	100	92	98	100	100	104	97	98	99	111

Notes:

J Estimated, based on QC data
JB Estimated, possibly biased high or false positive based on blank contamination
JH Estimated, possibly biased high based upon QC data
JQ Estimated, Value is between reporting limit and detection limit
NA Not Analyzed
UJ Undetected; Reported Detection Limit is imprecise
(a) Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions

TABLE B-7

DATA SUMMARY TABLE FOR GROUNDWATER
OU8 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

Sample Type: / Location ID / Sample Date	Reporting (a) Limit	Normal MWANP-21 7/21/2005	Normal MWANP-22 7/20/2005	Normal MWANP-23 7/21/2005	Normal MWANP-24 8/2/2005	Normal MWANP-25 8/2/2005	Normal MWANP-26 8/3/2005	Normal MWANP-27 8/3/2005	Normal OS72MW-1 7/21/2005	Normal USGS-2 7/21/2005
FIELD PARAMETER:										
Dissolved Oxygen - EPA 360.1 mg/L										
DISSOLVED OXYGEN	0 1	0.5	7.1	1.5	7.3	5.3	5.3	6.2	3.7	4 5
Ferrous Iron - A3500D mg/L										
FERROUS IRON	0.1	2 6	<0.1	<0.1	<0.1	<0 1	<0.1	<0.1	<0 1	<0.1
Oxidation Reduction Potential - A2580A mV										
OXIDATION REDUCTION POTENTIAL	–	102	342	352	375	306	375	342	343	561
pH - EPA 150.1 pH Units										
pH	–	5 74	4 29	4.91	4.42	4.61	4.67	4.71	4.91	4.43
Specific Conductance - EPA 120.1 mS/cm										
SPECIFIC CONDUCTANCE	0 001	0.037	0 052	0.038	0.055	0.046	0 043	0.037	0.053	0.041
Temperature - EPA 170.1 deg. C										
TEMPERATURE	–	20 5	21 6	21.2	22.2	20 1	19.2	19 8	21.9	20 6
Turbidity - EPA 180.1 NTU										
TURBIDITY	1	3	7	7	20	6	9	10	5	2
FIXED BASE LABORATORY ANALYSIS:										
Anions - MCAWW 300.0A mg/L										
CHLORIDE	1	3 2	6	3.8	7.5 JB	4.3 JB	4.5 JB	3.8 JB	6.1	3
NITRATE AS N	0.1	0.24	2 06	1.1	1 88	1.54	1.36	1 36	1 78	1 51
SULFATE AS SO4	1	1 9	0.7 JQ	0.7 JQ	0.7 JQ	3 8	1.6	0 6 JQ	0 7 JQ	2
Dissolved Gases - RSK SOP-175 µg/L										
CARBON DIOXIDE	1000	22000 J	39600 J	70000 J	64500 J	110000 J	78800 J	68100 J	110000 J	44000 J
ETHANE	0 5	<0.5 UJ	<0.5	<0.5 UJ	<0.5	<0 5	<0.5	<0.5	<0 5 UJ	<0 5 UJ
ETHENE	1 5	<1 5 UJ	<1 5	<1.5 UJ	<1.5	<1 5	<1.5	<1.5	<1 5 UJ	<1.5 UJ
METHANE	0.5	0.69 J	<0.5	0.31 JQ	<0.5	<0.5	<0.5	<0 5	0 54 J	<0 5 UJ
Hydrogen by Microseeps - AM20GAX nM										
HYDROGEN	1	9.4	1 3	1.5	1 2	1.1	1.5	1 5	1 5	1.1
Mercury - SW846 7470 (Total) mg/L										
MERCURY	0 0003	<0.0003	<0 0003	<0 0003	<0 0003	<0 0003	<0 0003	<0.0003	<0.0003	<0.0003
Metals - SW846 6010 (Total) mg/L										
ALUMINUM	0.06	0 183	0 171 JB	0.234	0 562	0 117	0 322	0.139	0 153	0 15
BARIUM	0.025	0 0138 JQ	0.0731	0.0225 JQ	0.0892	0 048	0.0343	0 0323	0 0596	0 0284
BERYLLIUM	0.005	<0 005	<0.005	<0 005	<0 005	<0 005	<0.005	<0.005	<0.005	<0.005
CADMIUM	0.005	<0.005	<0 005	<0.005	0 0016 JB	<0 005	<0 005	<0.005	<0 005	<0 005
CALCIUM	0.5	2.7	0 761	0.087 JQ	0.707	0.263 JQ	0 882	0 575	2.08	1 04
CHROMIUM	0.01	<0.01	<0.01	<0 01	<0 01	<0.01	<0 01	<0.01	<0 01	<0.01
COBALT	0.015	<0.015	<0.015	<0.015	0.0075 JB	0.0066 JB	0 0098 JQ	<0 015	<0 015	<0.015
COPPER	0 01	0 0153	<0 01	<0.01	<0.01	<0 01	<0.01	<0.01	<0 01	<0.01
IRON	0 1	2 96	0.323	0.234	0.941	0 284	1 04	0.466	0 197	0.073 JQ
MAGNESIUM	0 2	0.408	1 02	0.477	1 18	0 497	0.462	0.393	0 822	1.01
MANGANESE	0.005	0.0873	0 106	0 027	0.0703	0 0299	0.0806	0.0196	0 0272	0.0477
MOLYBDENUM	0.015	<0.015	0.0045 JQ	0.0073 JB	<0.015	<0 015	<0 015	<0.015	0.0056 JB	<0.015
NICKEL	0 02	<0 02	<0 02	<0 02	<0 02	<0.02	<0 02	<0 02	<0.02	<0.02
POTASSIUM	1	<1	1.21	0.513 JQ	1.52	1 23	1 11	0 59 JQ	1 75	2.21
SILVER	0.01	<0 01	<0 01	0.0023 JB	<0 01	<0 01	<0.01	<0 01	0.0029 JB	0 0029 JB
SODIUM	0.5	0.896	4 52	5.39	3 42	5 23	4.28	4 08	4.88	2 01
VANADIUM	0.01	<0 01	<0 01	<0 01	<0.01	<0.01	<0.01	<0 01	<0 01	0 0024 JQ
ZINC	0 02	0.0287	0.0104 JB	0 0048 JB	0 0187 JB	0.0054 JB	0.0035 JB	0 0077 JB	0 0114 JQ	0.0058 JQ

TABLE B-7

DATA SUMMARY TABLE FOR GROUNDWATER
OU8 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

Sample Type: / Location ID: / Sample Date:	Reporting (a) Limit	Normal MWANP-21 7/21/2005	Normal MWANP-22 7/20/2005	Normal MWANP-23 7/21/2005	Normal MWANP-24 8/2/2005	Normal MWANP-25 8/2/2005	Normal MWANP-26 8/3/2005	Normal MWANP-27 8/3/2005	Normal OS72MW-1 7/21/2005	Normal USGS-2 7/21/2005
Metals - SW846 6020 (Total) mg/L										
ANTIMONY	0.0001	0.00014 JB	<0.0001	0.00004 JB	<0.0001	<0 0001	<0 0001	0.00004 JB	0 00004 JB	0.00007 JB
ARSENIC	0.0005	0.00438	<0.0005	<0.0005	0.00014 JQ	<0.0005	0.00012 JQ	<0 0005	<0.0005	<0 0005
LEAD	0.0005	0.00076	0.0003 JQ	0.0003 JQ	0.00189	0 00059	0.00037 JQ	0.00025 JQ	0.0002 JQ	0.00035 JQ
SELENIUM	0.0005	0.00192	0.0002 JQ	<0.0005	0 00029 JQ	0 00027 JQ	0 00023 JQ	0.00018 JQ	<0 0005	<0 0005
THALLIUM	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0 0001	<0 0001	<0.0001	<0.0001	<0.0001
Total Alkalinity - MCAWW 310.1 mg/L										
ALKALINITY, TOTAL (AS CACO3)	10	6 JH	2 JQ	4 JH	<10	2 JQ	3 JQ	3 JQ	5 JH	2 JB
Total Organic Carbon - SW846 9060 mg/L										
TOTAL ORGANIC CARBON	1	2 6	0.5 JH	0.4 JQ	0.6 JH	0 6 JH	0.5 JH	0 4 JH	1 3	1.8
Total Sulfide - MCAWW 376.1 mg/L										
SULFIDE	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Volatile Fatty Acids - SM5560 mg/L										
ACETIC ACID	1	NA	NA	NA	NA	NA	NA	NA	<1	NA
BUTANOIC ACID	2	NA	NA	NA	NA	NA	NA	NA	<2	NA
LACTIC ACID	1	NA	NA	NA	NA	NA	NA	NA	<1	NA
PROPIONIC ACID	1	NA	NA	NA	NA	NA	NA	NA	<0.5	NA
PYRUVIC ACID	0 5	NA	NA	NA	NA	NA	NA	NA	<1	NA
Volatile Organic Compounds - SW846 8260 µg/L										
1,1,1,2-TETRACHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-TRICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-TETRACHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-TRICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROETHYLENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROPROPENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-TRICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-TRICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-TRICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-TRIMETHYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DIBROMO-3-CHLOROPROPANE	2.5	<2 5	<2 5	<2.5	<2.5	<2 5	<2.5	<2.5	<2.5	<2.5
1,2-DIBROMOETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-TRIMETHYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-DICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-DICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,2-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-BUTANONE	10	<10	<10	<10	<10	<10	<10	<10	<10	<10
2-CHLOROTOLUENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-HEXANONE	10	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-CHLOROTOLUENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-METHYL-2-PENTANONE	10	<10	<10	<10	<10	<10	<10	<10	<10	<10
ACETONE	10	4 9 JB	<10	3.3 JB	3 JB	3.4 JB	2.8 JB	3.1 JB	4 JB	2 6 JB
BENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMOBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMODICHLOROMETHANE	1	2.3	<1	<1	<1	<1	<1	<1	<1	<1
BROMOFORM	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARBON DISULFIDE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARBON TETRACHLORIDE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROBROMOMETHANE	1	12	<1	<1	<1	<1	<1	<1	<1	<1

TABLE B-7

DATA SUMMARY TABLE FOR GROUNDWATER
OU8 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type: Location ID: Sample Date:	Reporting (a) Limit	Normal MWANP-21 7/21/2005	Normal MWANP-22 7/20/2005	Normal MWANP-23 7/21/2005	Normal MWANP-24 8/2/2005	Normal MWANP-25 8/2/2005	Normal MWANP-26 8/3/2005	Normal MWANP-27 8/3/2005	Normal OS72MW-1 7/21/2005	Normal USGS-2 7/21/2005
CHLORODIBROMOMETHANE		1	0.66 JQ	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROFORM		1	2 4	<1	<1	0 29 JB	<1	0.21 JB	<1	<1	<1
CHLOROMETHANE		1	0.35 JQ	<1	0.17 JQ	0.21 JQ	0.23 JQ	0 21 JB	0 28 JB	0.52 JQ	0 13 JQ
CIS-1,2-DICHLOROETHENE		0.5	<0 5	<0.5	<0.5	<0.5	<0.5	<0.5	<0 5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1
DIBROMOMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1
DICHLORODIFLUOROMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ETHYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1
HEXACHLORO-1,3-BUTADIENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ISOPROPYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1
M & P-XYLENES		1	<1	<1	<1	<1	<1	<1	<1	<1	<1
METHYL TERT-BUTYL ETHER		1	0.58 JQ	<1	<1	<1	<1	<1	<1	<1	<1
METHYLENE CHLORIDE		1	0 29 JB	<1	<1	0 28 JB	0 22 JB	<1	<1	<1	<1
N-BUTYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-PROPYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NAPHTHALENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1
O-XYLENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1
P-ISOPROPYLTOLUENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1
SEC-BUTYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1
STYRENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TERT-BUTYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TETRACHLOROETHENE		1	<1	<1	<1	<1	0.34 JQ	1.3	0.42 JQ	0.8 JQ	0.22 JQ
TOLUENE		1	<1	<1	<1	<1	0 22 JQ	<1	0.22 JQ	<1	<1
TRANS-1,2-DICHLOROETHENE		0 5	<0.5	<0.5	<0.5	<0.5	<0.5	<0 5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TRICHLOROETHENE		1	<1	<1	<1	0 55 JQ	1 4	3.2	0 84 JQ	3.6	0.82 JQ
TRICHLOROFLUOROMETHANE		1	2 8	5 4	<1	<1	<1	<1	<1	<1	<1
VINYL CHLORIDE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Surrogate - % recovery											
1,2-DICHLOROETHANE-D4		--	110	111	112	113	117	113	113	118	115
4-BROMOFLUOROBENZENE		--	99	105	97	104	103	101	101	101	97
DIBROMOFLUOROMETHANE		--	122	112	107	109	111	109	107	114	111
TOLUENE-D8		--	99	100	94	105	108	108	106	99	98

Notes:

J Estimated, based on QC data
JB Estimated, possibly biased high or false positive based on blank contamination
JH Estimated, possibly biased high based upon QC data
JQ Estimated, Value is between reporting limit and detection limit
NA Not Analyzed
UJ Undetected, Reported Detection Limit is imprecise
(a) Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions

PREPARED/DATE: RMB 9/26/05
CHECKED/DATE: JAH 9/27/05

TABLE B-8

DATA SUMMARY TABLE FOR GROUNDWATER
OU8 - LOWER WATER BEARING UNIT
SEMI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

Sample Type / Location ID / Sample Date	Reporting (a) Limit	Normal MWANP-4D 7/20/2005	Duplicate MWANP-4D 7/20/2005	Normal MWANP-12D 7/21/2005	Normal USGS-5 7/21/2005
FIELD PARAMETER:					
Dissolved Oxygen - EPA 360.1 mg/L					
DISSOLVED OXYGEN	0.1	1.1	1.1	2.8	2.9
Ferrous Iron - A3500D mg/L					
FERROUS IRON	0.1	<0.1	<0.1	<0 1	<0 1
Oxidation Reduction Potential - A2580A mV					
OXIDATION REDUCTION POTENTIAL	--	331	331	-180	494
pH - EPA 150.1 pH Units					
pH	--	4.87	4.87	9.81	4.44
Specific Conductance - EPA 120.1 mS/cm					
SPECIFIC CONDUCTANCE	0 001	0 047	0.047	0 23	0 064
Temperature - EPA 170.1 deg. C					
TEMPERATURE	--	21.1	21.1	22 1	21 8
Turbidity - EPA 180.1 NTU					
TURBIDITY	1	6	6	<1	4
FIXED BASE LABORATORY ANALYSIS:					
Anions - MCAWW 300.0A mg/L					
CHLORIDE	1	7 4	7.6	2.5	8.2
NITRATE AS N	0.1	0 37	0 44	0.89	2.19
SULFATE AS SO4	1	1.7	1.7	6	1 6
Dissolved Gases - RSK SOP-175 µg/L					
CARBON DIOXIDE	1000	119000 J	122000 J	<1000 UJ	100000 J
ETHANE	0.5	<0 5	<0 5	<0 5 UJ	<0 5 UJ
ETHENE	1.5	<1.5	<1.5	<1 5 UJ	<1.5 UJ
METHANE	0 5	<0 5	<0 5	0 68 J	<0.5 UJ
Hydrogen by Microseeps - AM20GAX nM					
HYDROGEN	1	1 8 J	1 3 J	2.7	3 6
Mercury - SW846 7470 (Total) mg/L					
MERCURY	0 0003	0 000394	0 000344	<0.0003	<0.0003
Metals - SW846 6010 (Total) mg/L					
ALUMINUM	0.06	0 0435 JB	0.0554 JB	0.106	0.145
BARIUM	0 025	0 0258	0 0269	0.157	0.0509
BERYLLIUM	0 005	<0.005	<0.005	<0.005	<0 005
CADMIUM	0 005	<0 005	<0.005	<0.005	<0 005
CALCIUM	0 5	1.32	1.36	33.7	2.51
CHROMIUM	0 01	<0.01	<0.01	<0 01	<0 01
COBALT	0 015	<0 015	<0 015	<0.015	<0.015
COPPER	0 01	<0 01	<0 01	<0.01	0.0028 JQ
IRON	0.1	0 0171 JQ	0.0218 JQ	0.0935 JQ	0.101
MAGNESIUM	0 2	0.467	0.516	0.823	1.23
MANGANESE	0 005	0.0425	0.0429	0.0926	0 0123
MOLYBDENUM	0.015	<0.015	<0.015	0.0068 JB	0 0079 JB
NICKEL	0 02	<0.02	<0 02	<0 02	<0.02
POTASSIUM	1	1.53	1 52	6.31	2.51
SILVER	0.01	<0 01	<0 01	<0 01	0 0049 JB
SODIUM	0.5	4 97	5.07	3.55	4 46
VANADIUM	0.01	<0.01	<0 01	<0.01	<0.01
ZINC	0.02	0.0068 JB	0.005 JB	0 0352	0.011 JQ

TABLE B-8

DATA SUMMARY TABLE FOR GROUNDWATER
OU8 - LOWER WATER BEARING UNIT
SEMI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

Sample Type: / Location ID / Sample Date	Reporting (a) Limit	Normal MWANP-4D 7/20/2005	Duplicate MWANP-4D 7/20/2005	Normal MWANP-12D 7/21/2005	Normal USGS-5 7/21/2005
Metals - SW846 6020 (Total) mg/L					
ANTIMONY	0 0001	<0.0001	<0.0001	0 00012 JB	<0.0001
ARSENIC	0 0005	0.00011	<0.0005	0.00015 JQ	<0 0005
LEAD	0 0005	0 00005 JB	0 00011 JQ	0 00062	0 00043 JQ
SELENIUM	0.0005	0 00018 JQ	<0 0005	<0.0005	<0 0005
THALLIUM	0 0001	<0.0001	<0 0001	<0.0001	<0 0001
Total Alkalinity - MCAWW 310.1 mg/L					
ALKALINITY, TOTAL (AS CACO3)	10	6 JQ	5 JQ	89	4 JH
Total Organic Carbon - SW846 9060 mg/L					
TOTAL ORGANIC CARBON	1	0.5 JH	0.4 JH	1.7	1.1
Total Sulfide - MCAWW 376.1 mg/L					
SULFIDE	2	<2	<2	<2	<2
Volatile Fatty Acids - SM5560 mg/L					
ACETIC ACID	1	<1	NA	NA	NA
BUTANOIC ACID	2	<2	NA	NA	NA
LACTIC ACID	1	<1	NA	NA	NA
PROPIONIC ACID	1	<1	NA	NA	NA
PYRUVIC ACID	0.5	<0.5	NA	NA	NA
Volatile Organic Compounds - SW846 8260 µg/L					
1,1,1,2-TETRACHLOROETHANE	1	<1	<1	<1	<1
1,1,1-TRICHLOROETHANE	1	<1	<1	<1	<1
1,1,2,2-TETRACHLOROETHANE	1	<1	<1	<1	<1
1,1,2-TRICHLOROETHANE	1	<1	<1	<1	<1
1,1-DICHLOROETHANE	1	<1	<1	<1	<1
1,1-DICHLOROETHYLENE	1	<1	<1	<1	<1
1,1-DICHLOROPROPENE	1	<1	<1	<1	<1
1,2,3-TRICHLOROBENZENE	1	<1	<1	<1	<1
1,2,3-TRICHLOROPROPANE	1	<1	<1	<1	<1
1,2,4-TRICHLOROBENZENE	1	<1	<1	<1	<1
1,2,4-TRIMETHYLBENZENE	1	<1	<1	<1	<1
1,2-DIBROMO-3-CHLOROPROPANE	2.5	<2 5	<2 5	<2.5	<2 5
1,2-DIBROMOETHANE	1	<1	<1	<1	<1
1,2-DICHLOROBENZENE	1	<1	<1	<1	<1
1,2-DICHLOROETHANE	1	<1	<1	<1	<1
1,2-DICHLOROPROPANE	1	<1	<1	<1	<1
1,3,5-TRIMETHYLBENZENE	1	<1	<1	<1	<1
1,3-DICHLOROBENZENE	1	<1	<1	<1	<1
1,3-DICHLOROPROPANE	1	<1	<1	<1	<1
1,4-DICHLOROBENZENE	1	<1	<1	<1	<1
2,2-DICHLOROPROPANE	1	<1	<1	<1	<1
2-BUTANONE	10	<10	<10	<10	<10
2-CHLOROTOLUENE	1	<1	<1	<1	<1
2-HEXANONE	10	<10	<10	<10	<10
4-CHLOROTOLUENE	1	<1	<1	<1	<1
4-METHYL-2-PENTANONE	10	<10	<10	<10	<10
ACETONE	10	2.2 JB	2 3 JB	3.5 JB	2 8 JB
BENZENE	1	<1	<1	<1	<1
BROMOBENZENE	1	<1	<1	<1	<1
BROMODICHLOROMETHANE	1	<1	<1	<1	<1
BROMOFORM	1	<1	<1	<1	<1
BROMOMETHANE	1	<1	<1	<1	<1
CARBON DISULFIDE	1	<1	<1	<1	<1
CARBON TETRACHLORIDE	1	<1	<1	<1	<1
CHLOROBENZENE	1	<1	<1	<1	<1
CHLOROBROMOMETHANE	1	<1	<1	<1	<1
CHLORODIBROMOMETHANE	1	<1	<1	<1	<1
CHLOROETHANE	1	<1	<1	<1	<1

TABLE B-8

DATA SUMMARY TABLE FOR GROUNDWATER
OU8 - LOWER WATER BEARING UNIT
SEMI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type: Location ID: Sample Date:	Reporting (a) Limit	Normal MWANP-4D 7/20/2005	Duplicate MWANP-4D 7/20/2005	Normal MWANP-12D 7/21/2005	Normal USGS-5 7/21/2005
CHLOROFORM		1	<1	<1	<1	0.29 JB
CHLOROMETHANE		1	<1	<1	0.35 JQ	0 22 JQ
CIS-1,2-DICHLOROETHENE		0.5	<0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE		1	<1	<1	<1	<1
DIBROMOMETHANE		1	<1	<1	<1	<1
DICHLORODIFLUOROMETHANE		1	<1	<1	<1	<1
ETHYLBENZENE		1	<1	<1	<1	<1
HEXACHLORO-1,3-BUTADIENE		1	<1	<1	<1	<1
ISOPROPYLBENZENE		1	<1	<1	<1	<1
M & P-XYLENES		1	<1	<1	<1	<1
METHYL TERT-BUTYL ETHER		1	<1	<1	<1	0.46 JQ
METHYLENE CHLORIDE		1	<1	<1	<1	<1
N-BUTYLBENZENE		1	<1	<1	<1	<1
N-PROPYLBENZENE		1	<1	<1	<1	<1
NAPHTHALENE		1	<1	<1	<1	<1
O-XYLENE		1	<1	<1	<1	<1
P-ISOPROPYLTOLUENE		1	<1	<1	<1	<1
SEC-BUTYLBENZENE		1	<1	<1	<1	<1
STYRENE		1	<1	<1	<1	<1
TERT-BUTYLBENZENE		1	<1	<1	<1	<1
TETRACHLOROETHENE		1	<1	<1	<1	<1
TOLUENE		1	<1	<1	0.38 JQ	0.32 JQ
TRANS-1,2-DICHLOROETHENE		0 5	<0 5	<0 5	<0 5	<0.5
TRANS-1,3-DICHLOROPROPENE		1	<1	<1	<1	<1
TRICHLOROETHENE		1	<1	<1	<1	<1
TRICHLOROFLUOROMETHANE		1	<1	<1	<1	<1
VINYL CHLORIDE		1	<1	<1	<1	<1
Surrogate - % recovery						
1,2-DICHLOROETHANE-D4		–	113	106	112	114
4-BROMOFLUOROBENZENE		–	102	98	98	100
DIBROMOFLUOROMETHANE		–	111	108	110	110
TOLUENE-D8		–	97	93	97	97

Notes:

J Estimated; based on QC data
JB Estimated; possibly biased high or false positive based on blank contamination
JH Estimated; possibly biased high based upon QC data
JQ Estimated; Value is between reporting limit and detection limit
NA Not Analyzed
UJ Undetected; Reported Detection Limit is imprecise
(a) Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions.

PREPARED/DATE: RMB 9/26/05
CHECKED/DATE: JAH 9/27/05

TABLE B-9

DATA SUMMARY TABLE FOR QUALITY CONTROL SAMPLES
OU6, OU7, OU8, IDW
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

Site Association:		OU6	OU7	OU8	OU8	OU6	OU6	OU6	OU6	OU6	OU6	OU6
Sample Type:		Equipment Blank	Equipment Blank	Equipment Blank	Equipment Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
Location ID:	Reporting (a)	OU6-BLAD-EQB-0705	OU7-BLAD-EQB-0705	OU8-BLAD-EQB-0705	OU8-BLAD-EQB-0705-2	TB-071205	TB-071305	TB-071405	TB-071505	TB-071605	TB-071705	TB-071805
Sample Date:	Limit	7/16/2005	7/19/2005	7/20/2005	8/2/2005	7/12/2005	7/13/2005	7/14/2005	7/15/2005	7/16/2005	7/17/2005	7/18/2005
Anions - MCAWW 300.0A mg/L												
CHLORIDE	1	<1	<1	<1	3.3	NA	NA	NA	NA	NA	NA	NA
NITRATE AS N	0.1	<0.1	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	NA	NA
SULFATE AS SO4	1	<1	<1	<1	0.3 JQ	NA	NA	NA	NA	NA	NA	NA
Dissolved Gases - RSK SOP-175 µg/L												
CARBON DIOXIDE	1000	<1000 UJ	<1000 UJ	1180 J	<1000	<1000 UJ	<1000	<1000 UJ	<1000	<1000 UJ	<1000	<1000 UJ
ETHANE	0.5	<0.5	<0.5 UJ	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
ETHENE	1.5	<1.5	<1.5 UJ	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
METHANE	0.5	<0.5	0 46 JB	<0.5	0.31 JB	0.34 JQ	<0.5	<0.5	0.51	<0.5	<0.5	<0.5
Mercury - SW846 7470 (Total) mg/L												
MERCURY	0.0003	<0.0003	<0.0003	<0.0003	<0.0003	NA	NA	NA	NA	NA	NA	NA
Metals - SW846 6010 (Total) mg/L												
ALUMINUM	0.06	<0.06	0 0131 JQ	0.05 JB	<0.06	NA	NA	NA	NA	NA	NA	NA
BARIUM	0.025	<0.025	<0.025	<0 025	<0.025	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	0.005	<0.005	<0.005	<0 005	<0.005	NA	NA	NA	NA	NA	NA	NA
CADMIUM	0.005	<0.005	<0 005	<0.005	<0.005	NA	NA	NA	NA	NA	NA	NA
CALCIUM	0.5	0.119 JQ	0.135	0.24 JQ	1.03	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	0.01	<0.01	<0.01	<0.01	<0.01	NA	NA	NA	NA	NA	NA	NA
COBALT	0.015	<0.015	<0.015	<0.015	0.0054 JB	NA	NA	NA	NA	NA	NA	NA
COPPER	0.01	<0.01	<0.01	<0.01	<0.01	NA	NA	NA	NA	NA	NA	NA
IRON	0.1	<0.1	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	0.2	<0.2	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	NA	NA
MANGANESE	0.005	<0.005	<0.005	<0.005	0.0011	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	0.015	<0.015	<0.015	<0.015	<0.015	NA	NA	NA	NA	NA	NA	NA
NICKEL	0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	1	<1	<1	<1	<1	NA	NA	NA	NA	NA	NA	NA
SILVER	0.01	<0.01	<0 01	0.0031 JB	<0 01	NA	NA	NA	NA	NA	NA	NA
SODIUM	0.5	0.362 JQ	0.524	0.41 JB	<0.5	NA	NA	NA	NA	NA	NA	NA
VANADIUM	0.01	<0.01	<0 01	<0.01	<0.01	NA	NA	NA	NA	NA	NA	NA
ZINC	0.02	0.0108 JQ	<0.02	0.0166 JQ	0 0245	NA	NA	NA	NA	NA	NA	NA
Metals - SW846 6020 (Total) mg/L												
ANTIMONY	0.0001	<0.0001	0 00005 JB	0.00005 JB	0 00006 JB	NA	NA	NA	NA	NA	NA	NA
ARSENIC	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NA	NA	NA	NA	NA	NA	NA
LEAD	0.0005	0.00003 JB	0.00003 JB	0.00013 JQ	0.00012 JB	NA	NA	NA	NA	NA	NA	NA
SELENIUM	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NA	NA	NA	NA	NA	NA	NA
THALLIUM	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity - MCAWW 310.1 mg/L												
ALKALINITY, TOTAL (AS CACO3)	10	2 JQ	5 JQ	3 JQ	<10	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon - SW846 9060 mg/L												
TOTAL ORGANIC CARBON	1	0.6 JQ	1.1	0.6 JH	2	NA	NA	NA	NA	NA	NA	NA
Total Sulfide - MCAWW 376.1 mg/L												
SULFIDE	2	<2	<2	<2	<2	NA	NA	NA	NA	NA	NA	NA

TABLE B-9

DATA SUMMARY TABLE FOR QUALITY CONTROL SAMPLES
OU6, OU7, OU8, IDW
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

Site Association. Sample Type: Location ID: Sample Date:	Reporting (a) Limit	OU6 Equipment Blank OU6-BLAD-EQB-0705 7/16/2005	OU7 Equipment Blank OU7-BLAD-EQB-0705 7/19/2005	OU8 Equipment Blank OU8-BLAD-EQB-0705 7/20/2005	OU8 Equipment Blank OU8-BLAD-EQB-0705-2 8/2/2005	OU6 Trip Blank TB-071205 7/12/2005	OU6 Trip Blank TB-071305 7/13/2005	OU6 Trip Blank TB-071405 7/14/2005	OU6 Trip Blank TB-071505 7/15/2005	OU6 Trip Blank TB-071605 7/16/2005	OU6 Trip Blank TB-071705 7/17/2005	OU6 Trip Blank TB-071805 7/18/2005
Volatile Organic Compounds - SW846 8260 µg/L												
1,1,1,2-TETRACHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-TRICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-TETRACHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-TRICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROETHYLENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROPROPENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-TRICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-TRICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-TRICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-TRIMETHYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DIBROMO-3-CHLOROPROPANE	2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
1,2-DIBROMOETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-TRIMETHYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-DICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-DICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,2-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-BUTANONE	10	1.7 JQ	1.4 JQ	<10	10	<10	<10	<10	<10	<10	<10	<10
2-CHLOROTOLUENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-HEXANONE	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-CHLOROTOLUENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-METHYL-2-PENTANONE	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
ACETONE	10	8.2 JB	5.5 JB	6.1 JB	7.3 JB	3.5 JB	3 JB	3 JB	2.7 JB	2.5 JB	3.5 JQ	1.8 JQ
BENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMOBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMODICHLOROMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMOFORM	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CARBON DISULFIDE	1	0.3 JQ	0.24 JQ	0.33 JQ	<1	<1	<1	<1	<1	<1	0.21 JQ	<1
CARBON TETRACHLORIDE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROBROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLORODIBROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROFORM	1	2.2	1.4	1.5	1.7	<1	<1	<1	<1	<1	<1	<1
CHLOROMETHANE	1	<1	<1	0.2 JB	<1	<1	<1	<1	<1	<1	<1	<1
CIS-1,2-DICHLOROETHENE	0.5	<0.5	<0 5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
DIBROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
DICHLORODIFLUOROMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ETHYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
HEXACHLORO-1,3-BUTADIENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ISOPROPYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
M & P-XYLENES	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
METHYL TERT-BUTYL ETHER	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
METHYLENE CHLORIDE	1	<1	0.18 JB	<1	<1	<1	0.1 JQ	0.11 JB	0.095 JB	<1	<1	0.4 JQ
N-BUTYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-PROPYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NAPHTHALENE	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

TABLE B-9

DATA SUMMARY TABLE FOR QUALITY CONTROL SAMPLES
OU6, OU7, OU8, IDW
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Site Association:		OU6	OU7	OU8	OU8	OU6	OU6	OU6	OU6	OU6	OU6	OU6
	Sample Type:		Equipment Blank	Equipment Blank	Equipment Blank	Equipment Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
	Location ID:	Reporting (a)	OU6-BLAD-EQB-0705	OU7-BLAD-EQB-0705	OU8-BLAD-EQB-0705	OU8-BLAD-EQB-0705-2	TB-071205	TB-071305	TB-071405	TB-071505	TB-071605	TB-071705	TB-071805
	Sample Date.	Limit	7/16/2005	7/19/2005	7/20/2005	8/2/2005	7/12/2005	7/13/2005	7/14/2005	7/15/2005	7/16/2005	7/17/2005	7/18/2005
O-XYLENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
P-ISOPROPYLTOLUENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
SEC-BUTYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
STYRENE		1	<1	<1	<1	0.29 JQ	<1	<1	<1	<1	<1	<1	<1
TERT-BUTYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TETRACHLOROETHENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TOLUENE		1	0.14 JQ	<1	0.16 JQ	0.25 JQ	<1	<1	<1	<1	<1	<1	<1
TRANS-1,2-DICHLOROETHENE		0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TRICHLOROETHENE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TRICHLOROFLUOROMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
VINYL CHLORIDE		1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Surrogate - %													
1,2-DICHLOROETHANE-D4		--	108	100	105	111	101	104	101	101	109	101	113
4-BROMOFLUOROBENZENE		--	97	90	101	103	102	104	91	97	101	106	114
DIBROMOFLUOROMETHANE		--	107	99	106	106	100	102	99	103	106	107	110
TOLUENE-D8		--	95	94	98	102	95	96	90	93	96	100	107

Notes:

J Estimated; based on QC data
JB Estimated; possibly biased high or false positive based on blank contamination
JH Estimated; possibly biased high based upon QC data
JQ Estimated; Value is between reporting limit and detection limit
NA Not Analyzed
UJ Undetected; Reported Detection Limit is imprecise
(a) Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions.

TABLE B-9

DATA SUMMARY TABLE FOR QUALITY CONTROL SAMPLES
OU6, OU7, OU8, IDW
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Site Association:		OU7	OU7	OU7	OU8	OU8	OU8	OU8	IDW
	Sample Type:		Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
	Location ID:	Reporting (a)	TB-071805-02	TB-071905	TB-072005	TB-072005-02	TB-072105	TB-080205-01	TB-080305-01	TB-080305-02
	Sample Date:	Limit	7/18/2005	7/19/2005	7/20/2005	7/20/2005	7/21/2005	8/2/2005	8/3/2005	8/3/2005
Anions - MCAWW 300.0A mg/L										
CHLORIDE		1	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE AS N		0.1	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE AS SO4		1	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Gases - RSK SOP-175 µg/L										
CARBON DIOXIDE		1000	<1000 UJ	<1000	<1000 UJ	<1000 UJ	<1000 UJ	<1000 UJ	<1000 UJ	NA
ETHANE		0.5	<0.5	<0.5	<0.5	<0.5	<0.5 UJ	<0.5	<0.5	NA
ETHENE		1.5	<1.5	<1.5	<1.5	<1.5	<1.5 UJ	<1.5	<1.5	NA
METHANE		0.5	<0.5	0.52	0.54	<0.5	<0.5 UJ	0.44 JQ	0.3 JQ	NA
Mercury - SW846 7470 (Total) mg/L										
MERCURY		0.0003	NA	NA	NA	NA	NA	NA	NA	NA
Metals - SW846 6010 (Total) mg/L										
ALUMINUM		0.06	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM		0.025	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM		0.005	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM		0.005	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM		0.5	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM		0.01	NA	NA	NA	NA	NA	NA	NA	NA
COBALT		0.015	NA	NA	NA	NA	NA	NA	NA	NA
COPPER		0.01	NA	NA	NA	NA	NA	NA	NA	NA
IRON		0.1	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM		0.2	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE		0.005	NA	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM		0.015	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL		0.02	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM		1	NA	NA	NA	NA	NA	NA	NA	NA
SILVER		0.01	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM		0.5	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM		0.01	NA	NA	NA	NA	NA	NA	NA	NA
ZINC		0.02	NA	NA	NA	NA	NA	NA	NA	NA
Metals - SW846 6020 (Total) mg/L										
ANTIMONY		0.0001	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC		0.0005	NA	NA	NA	NA	NA	NA	NA	NA
LEAD		0.0005	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM		0.0005	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM		0.0001	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity - MCAWW 310.1 mg/L										
ALKALINITY, TOTAL (AS CACO3)		10	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon - SW846 9060 mg/L										
TOTAL ORGANIC CARBON		1	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide - MCAWW 376.1 mg/L										
SULFIDE		2	NA	NA	NA	NA	NA	NA	NA	NA

TABLE B-9

DATA SUMMARY TABLE FOR QUALITY CONTROL SAMPLES
OU6, OU7, OU8, IDW
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

Site Association:		OU7	OU7	OU7	OU8	OU8	OU8	OU8	IDW
Sample Type:		Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
Location ID:	Reporting (a)	TB-071805-02	TB-071905	TB-072005	TB-072005-02	TB-072105	TB-080205-01	TB-080305-01	TB-080305-02
Sample Date:	Limit	7/18/2005	7/19/2005	7/20/2005	7/20/2005	7/21/2005	8/2/2005	8/3/2005	8/3/2005
Volatile Organic Compounds - SW846 8260 µg/L									
1,1,1,2-TETRACHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-TRICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-TETRACHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-TRICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROETHYLENE	1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROPROPENE	1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-TRICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-TRICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-TRICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4-TRIMETHYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DIBROMO-3-CHLOROPROPANE	2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
1,2-DIBROMOETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DICHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1
1,3,5-TRIMETHYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-DICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-DICHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1
2,2-DICHLOROPROPANE	1	<1	<1	<1	<1	<1	<1	<1	<1
2-BUTANONE	10	<10	<10	<10	<10	<10	<10	2.4 JQ	1.9 JQ
2-CHLOROTOLUENE	1	<1	<1	<1	<1	<1	<1	<1	<1
2-HEXANONE	10	<10	<10	<10	<10	<10	<10	<10	<10
4-CHLOROTOLUENE	1	<1	<1	<1	<1	<1	<1	<1	<1
4-METHYL-2-PENTANONE	10	<10	<10	<10	<10	<10	<10	<10	<10
ACETONE	10	3.1 JQ	2 JB	5.1 JQ	5.5 JQ	2.7 JQ	4 JQ	4.3 JB	4.4 JB
BENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1
BROMOBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1
BROMODICHLOROMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1
BROMOFORM	1	<1	<1	<1	<1	<1	<1	<1	<1
BROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1
CARBON DISULFIDE	1	<1	<1	<1	<1	<1	<1	0.36 JQ	<1
CARBON TETRACHLORIDE	1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROBROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1
CHLORODIBROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROFORM	1	<1	<1	<1	<1	<1	<1	<1	<1
CHLOROMETHANE	1	<1	<1	0.42 JQ	0.16 JQ	<1	<1	0.24 JQ	0.26 JQ
CIS-1,2-DICHLOROETHENE	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	1	<1	<1	<1	<1	<1	<1	<1	<1
DIBROMOMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1
DICHLORODIFLUOROMETHANE	1	<1	<1	<1	<1	<1	<1	<1	<1
ETHYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1
HEXACHLORO-1,3-BUTADIENE	1	<1	<1	<1	<1	<1	<1	<1	<1
ISOPROPYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1
M & P-XYLENES	1	<1	<1	<1	<1	<1	<1	<1	<1
METHYL TERT-BUTYL ETHER	1	<1	<1	<1	<1	<1	<1	<1	<1
METHYLENE CHLORIDE	1	<1	0.4 JQ	0.17 JQ	<1	0.36 JQ	0.31 JQ	<1	<1
N-BUTYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1
N-PROPYLBENZENE	1	<1	<1	<1	<1	<1	<1	<1	<1
NAPHTHALENE	1	<1	<1	<1	<1	<1	<1	<1	<1

TABLE B-9

DATA SUMMARY TABLE FOR QUALITY CONTROL SAMPLES
OU6, OU7, OU8, IDW
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Site Association:		OU7	OU7	OU7	OU8	OU8	OU8	OU8	IDW
	Sample Type:		Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
	Location ID:	Reporting (a)	TB-071805-02	TB-071905	TB-072005	TB-072005-02	TB-072105	TB-080205-01	TB-080305-01	TB-080305-02
	Sample Date:	Limit	7/18/2005	7/19/2005	7/20/2005	7/20/2005	7/21/2005	8/2/2005	8/3/2005	8/3/2005
O-XYLENE		1	<1	<1	<1	<1	<1	<1	<1	<1
P-ISOPROPYLTOLUENE		1	<1	<1	<1	<1	<1	<1	<1	<1
SEC-BUTYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1
STYRENE		1	<1	<1	<1	<1	<1	<1	<1	<1
TERT-BUTYLBENZENE		1	<1	<1	<1	<1	<1	<1	<1	<1
TETRACHLOROETHENE		1	<1	<1	0.22 JQ	<1	<1	<1	<1	<1
TOLUENE		1	<1	<1	<1	<1	<1	<1	<1	<1
TRANS-1,2-DICHLOROETHENE		0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE		1	<1	<1	<1	<1	<1	<1	<1	<1
TRICHLOROETHENE		1	<1	<1	0.25 JQ	<1	<1	<1	<1	<1
TRICHLOROFLUOROMETHANE		1	<1	<1	<1	<1	<1	<1	<1	<1
VINYL CHLORIDE		1	<1	<1	<1	<1	<1	<1	<1	<1
Surrogate - %										
1,2-DICHLOROETHANE-D4		–	98	102	120	110	105	105	110	111
4-BROMOFLUOROBENZENE		–	106	88	107	103	95	98	98	99
DIBROMOFLUOROMETHANE		–	103	99	116	106	103	99	105	105
TOLUENE-D8		–	101	97	102	97	95	98	102	106

Notes:

J Estimated; based on QC data
JB Estimated; possibly biased high or false positive based on blank contamination
JH Estimated; possibly biased high based upon QC data
JQ Estimated; Value is between reporting limit and detection limit
NA Not Analyzed
UJ Undetected, Reported Detection Limit is imprecise
(a) Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions.

PREPARED/DATE: RMB 10/13/05
CHECKED/DATE: JAH 10/13/05

TABLE B-10

DATA SUMMARY TABLE
INVESTIGATIVE DERIVED WASTE
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

Sample Type: Location ID. Sample Date:	Reporting (a) Limit	Normal IDW 8/3/2005
Biochemical Oxygen Demand - EPA 405.1 mg/L		
BIOCHEMICAL OXYGEN DEMAND (5-DAY)	--	280
Chlorinated Herbicides - SW846 8151 µg/L		
2,4,5-T	0 2	<0.2
2,4,5-TP SILVEX	0.2	<0.2
2,4-D	2	<2
2,4-DB	2	<2
DALAPON	5	<5
DICAMBA	0.2	0.24
DICHLORPROP	2	<2
DINOSEB	1	<1
MCPA (2-METHYL-4-CHLOROPHENOXYACETIC ACID)	200	<200
MCPP	200	<200
Surrogate - % recovery		
2,4-DICHLOROPHENYLACETIC ACID	--	122 *
Mercury - SW846 7470 (Total) mg/L		
MERCURY	0.0003	<0 0003
Metals - SW846 6010 (Total) mg/L		
ARSENIC	0.045	0 0217 JQ
BARIUM	0.025	0 11
CADMIUM	0.005	<0.005
CHROMIUM	0.01	0.006 JQ
COPPER	0 01	0 0035 JQ
LEAD	0 05	<0.05
NICKEL	0.02	<0 02
SELENIUM	0.1	<0.1
SILVER	0.01	<0 01
ZINC	0.02	0.121
Organochlorine Pesticides - SW846 8081 µg/L		
4,4'-DDD	0.1	<0.1
4,4'-DDE	0 1	<0.1
4,4'-DDT	0.1	<0.1
ALDRIN	0.05	<0.05
ALPHA-BHC	0.05	<0.05
ALPHA-CHLORDANE	0.05	<0.05
BETA-BHC	0.05	<0.05
DELTA-BHC	0.05	<0.05
DIELDRIN	0.1	<0 1
ENDOSULFAN I	0.05	<0.05
ENDOSULFAN II	0.1	<0 1
ENDOSULFAN SULFATE	0.1	<0.1
ENDRIN	0 1	<0.1
ENDRIN ALDEHYDE	0 1	<0.1
ENDRIN KETONE	0.1	<0.1
GAMMA-BHC	0.05	<0.05
GAMMA-CHLORDANE	0.05	<0.05
HEPTACHLOR	0.05	<0 05
HEPTACHLOR EPOXIDE	0.05	<0.05
METHOXYCHLOR	0 1	<0 1
TOXAPHENE	2	<2

TABLE B-10

DATA SUMMARY TABLE
INVESTIGATIVE DERIVED WASTE
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type: Location ID. Sample Date:	Reporting (a) Limit	Normal IDW 8/3/2005
Surrogate - % recovery			
DECACHLOROBIPHENYL		–	15
TETRACHLORO-M-XYLENE		–	64
Semi-Volatile Organic Compounds - SW846 8270 µg/L			
1,2,4-TRICHLOROBENZENE		10	<10
1,2-DICHLOROBENZENE		10	3 JQ
1,2-DIPHENYLHYDRAZINE		10	<10
1,3-DICHLOROBENZENE		10	<10
1,4-DICHLOROBENZENE		10	<10
2,4,5-TRICHLOROPHENOL		50	<50
2,4,6-TRICHLOROPHENOL		10	<10
2,4-DICHLOROPHENOL		10	<10
2,4-DIMETHYLPHENOL		10	<10
2,4-DINITROPHENOL		50	<50
2,4-DINITROTOLUENE		10	<10
2,6-DINITROTOLUENE		10	<10
2-CHLORONAPHTHALENE		10	<10
2-CHLOROPHENOL		10	<10
2-METHYLNAPHTHALENE		10	<10
2-METHYLPHENOL		10	<10
2-NITROANILINE		50	<50
2-NITROPHENOL		10	<10
3,3'-DICHLOROBENZIDINE		10	<10
3-NITROANILINE		50	<50
4,6-DINITRO-2-METHYLPHENOL		50	<50
4-BROMOPHENYL PHENYL ETHER		10	<10
4-CHLORO-3-METHYLPHENOL		10	<10
4-CHLOROPHENYL PHENYL ETHER		10	<10
4-METHYLPHENOL		10	<10
4-NITROPHENOL		50	<50
ACENAPHTHENE		10	<10
ACENAPHTHYLENE		10	<10
ANTHRACENE		10	<10
BENZ(A)ANTHRACENE		10	<10
BENZO(A)PYRENE		10	<10 UJ
BENZO(B)FLUORANTHENE		10	<10 UJ
BENZO(GHI)PERYLENE		10	<10 UJ
BENZO(K)FLUORANTHENE		10	<10 UJ
BENZOIC ACID		50	<50
BENZYL ALCOHOL		10	<10
BENZYL BUTYL PHTHALATE		10	<10
BIS(2-CHLOROETHOXY)METHANE		10	<10
BIS(2-CHLOROETHYL) ETHER		10	<10
BIS(2-CHLOROISOPROPYL) ETHER		10	<10
BIS(2-ETHYLHEXYL) PHTHALATE		10	<10
CHRYSENE		10	<10
DI-N-BUTYL PHTHALATE		10	<10
DI-N-OCTYL PHTHALATE		10	<10 UJ
DIBENZO(A,H)ANTHRACENE		10	<10 UJ
DIBENZOFURAN		10	<10
DIETHYL PHTHALATE		10	<10
DIMETHYL PHTHALATE		10	65
FLUORANTHENE		10	<10
FLUORENE		10	<10
HEXACHLORO-1,3-BUTADIENE		10	<10
HEXACHLOROBENZENE		10	<10
HEXACHLOROCYCLOPENTADIENE		10	<10 UL
HEXACHLOROETHANE		10	<10
HEXACHLOROPROPENE		10	<10

TABLE B-10

DATA SUMMARY TABLE
INVESTIGATIVE DERIVED WASTE
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

Sample Type. Location ID. Sample Date:	Reporting (a) Limit	Normal IDW 8/3/2005
INDENO(1,2,3-CD)PYRENE	10	<10 UJ
ISOPHORONE	10	<10
N-NITROSODI-N-PROPYLAMINE	10	<10
N-NITROSODIPHENYLAMINE	10	<10
NAPHTHALENE	10	<10
NITROBENZENE	10	<10
P-CHLOROANILINE	10	<10
P-NITROANILINE	50	<50
PENTACHLOROPHENOL	50	<50
PHENANTHRENE	10	<10
PHENOL	10	<10
PYRENE	10	<10
Surrogate - % recovery		
2,4,6-TRIBROMOPHENOL	--	109
2-FLUOROBIPHENYL	--	100
2-FLUOROPHENOL	--	84
NITROBENZENE-D5	--	76
PHENOL-D5	--	19 *
TERPHENYL-D14	--	95
Total Suspended Solids - EPA 160.2 mg/L		
TOTAL SUSPENDED SOLIDS		21
Volatile Organic Compounds - SW846 8260 µg/L		
1,1,1,2-TETRACHLOROETHANE	1	<1
1,1,1-TRICHLOROETHANE	1	40
1,1,2,2-TETRACHLOROETHANE	1	<1
1,1,2-TRICHLOROETHANE	1	<1
1,1-DICHLOROETHANE	1	2.8
1,1-DICHLOROETHYLENE	1	3
1,1-DICHLOROPROPENE	1	<1
1,2,3-TRICHLOROBENZENE	1	<1
1,2,3-TRICHLOROPROPANE	1	<1
1,2,4-TRICHLOROBENZENE	1	<1
1,2,4-TRIMETHYLBENZENE	1	<1
1,2-DIBROMO-3-CHLOROPROPANE	2.5	<2.5
1,2-DIBROMOETHANE	1	<1
1,2-DICHLOROBENZENE	1	4
1,2-DICHLOROETHANE	1	<1
1,2-DICHLOROPROPANE	1	<1
1,3,5-TRIMETHYLBENZENE	1	<1
1,3-DICHLOROBENZENE	1	<1
1,3-DICHLOROPROPANE	1	<1
1,4-DICHLOROBENZENE	1	1.2
2,2-DICHLOROPROPANE	1	<1
2-BUTANONE	10	<10
2-CHLOROTOLUENE	1	<1
2-HEXANONE	10	<10
4-CHLOROTOLUENE	1	<1
4-METHYL-2-PENTANONE	10	<10
ACETONE	10	42 JB
BENZENE	1	<1
BROMOBENZENE	1	<1
BROMODICHLOROMETHANE	1	<1
BROMOFORM	1	<1
BROMOMETHANE	1	<1
CARBON DISULFIDE	1	0.53 JQ
CARBON TETRACHLORIDE	1	<1
CHLOROBENZENE	1	1.2

TABLE B-10

DATA SUMMARY TABLE
INVESTIGATIVE DERIVED WASTE
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type Location ID Sample Date	Reporting (a) Limit	Normal IDW 8/3/2005
CHLOROBROMOMETHANE		1	<1
CHLORODIBROMOMETHANE		1	<1
CHLOROETHANE		1	<1
CHLOROFORM		1	1.6
CHLOROMETHANE		1	0.83 JB
CIS-1,2-DICHLOROETHENE		0 5	90
CIS-1,3-DICHLOROPROPENE		1	<1
DIBROMOMETHANE		1	<1
DICHLORODIFLUOROMETHANE		1	<1
ETHYLBENZENE		1	<1
HEXACHLORO-1,3-BUTADIENE		1	<1
ISOPROPYLBENZENE		1	<1
M & P-XYLENES		1	<1
METHYL TERT-BUTYL ETHER		1	<1
METHYLENE CHLORIDE		1	0.21 JQ
N-BUTYLBENZENE		1	<1
N-PROPYLBENZENE		1	<1
NAPHTHALENE		1	<1
O-XYLENE		1	<1
P-ISOPROPYLTOLUENE		1	<1
SEC-BUTYLBENZENE		1	<1
STYRENE		1	<1
TERT-BUTYLBENZENE		1	<1
TETRACHLOROETHENE		1	14
TOLUENE		1	0.55 JQ
TRANS-1,2-DICHLOROETHENE		0.5	0 85
TRANS-1,3-DICHLOROPROPENE		1	<1
TRICHLOROETHENE		1	150
TRICHLOROFLUOROMETHANE		1	<1
VINYL CHLORIDE		1	6 1
Surrogate - % recovery			
1,2-DICHLOROETHANE-D4		--	108
4-BROMOFLUOROBENZENE		--	94
DIBROMOFLUOROMETHANE		--	103
TOLUENE-D8		--	96

Notes:

JB Estimated, possibly biased high or false positive based on blank contamination

JQ Estimated; Value is between reporting limit and detection limit

UJ Undetected; Reported Detection Limit is imprecise

UL Undetected, Data biased low - Reported Detection Limit is higher than indicated

* Surrogate recovery exceeds QC limits

(a) Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions.

PREPARED/DATE. RMB 9/25/05
CHECKED/DATE: JAH 9/27/05

APPENDIX C

APPROVAL FOR DISCHARGE OF LIQUID IDW

From: Edlavitch, Steven R (DSCR) [Steven.Edlavitch@dla.mil]
Sent: Friday, September 30, 2005 10:07 AM
To: Jenkins, Josh
Subject: FW: IDW Discharge Approval

We got the go ahead to discharge, see below

****
****
Steven R. Edlavitch, Environmental Engineer
Defense Supply Center Richmond, DSCR-SD
8000 Jefferson Davis Highway
Richmond, VA 23297-5000
Steven.Edlavitch@dla.mil
Ph: (804) 279-5099
Fx: (804) 279-3397
-----Original Message-----
From: Hufford, Francis D (DSCR)
Sent: Friday, September 30, 2005 9:46 AM
To: 'Jenkins, Josh'; Edlavitch, Steven R (DSCR)
Subject: FW: IDW Discharge Approval

-----Original Message-----
From: Harper, Tiffany [mailto:HarperT@chesterfield.gov]
Sent: Friday, September 30, 2005 9:37 AM
To: Hufford, Francis D (DSCR)
Cc: Sharma, Abha
Subject: IDW Discharge Approval

David,

After reviewing the analytical results of the July 2005 IDW sampling, I find that at this time it is acceptable to discharge 130 gallons of wastewater, provided DSCR does not exceed its permit limit for flow at any given time. This approval is specific to this batch discharge. Any future request for discharge will require similar analytical testing, review and approval.

If you have any questions you can contact me at the number or email address listed below. Thank you.

Sincerely,

Tiffany Harper
Engineering Assistant
Chesterfield County Dept. of Utilities
Industrial Wastewater Pretreatment

P.O. Box 608
Chesterfield, VA 23832

Office: (804) 768-7706
Email: harpert@chesterfield.gov

APPENDIX D

DATA QUALITY EVALUATION SUMMARY

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LIST OF ACRONYMS AND ABBREVIATIONS

AFCEE	Air Force Center for Environmental Excellence
ASTM	American Society for Testing and Materials
CAS	Columbia Analytical Services, Inc.
CCB	Continuing Calibration Blank
cDCE	cis-1,2-Dichloroethene
COC	Chain of Custody
DCE	Dichloroethene
DQE	Data Quality Evaluation
DQI	Data Quality Indicator
DQO	Data Quality Objective
DSCR	Defense Supply Center Richmond
ICP	Inductively Coupled Plasma
ID	Identification
Law	Law Engineering and Environmental Services, Inc.
LCS	Laboratory Control Sample
MACTEC	MACTEC Engineering and Consulting, Inc.
MC	Methylene Chloride
MDL	Method Detection Limit
mg/L	Milligram per Liter
MNA	Monitored Natural Attenuation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
OU	Operable Unit
PCE	Tetrachloroethene
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference
SAP	Sampling and Analysis Plan
SDG	Sampling Delivery Group
SMF	Sporadic Marginal Failure

LIST OF ACRONYMS AND ABBREVIATIONS
(Continued)

TCE	Trichloroethene
TOC	Total Organic Carbon
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
VC	Vinyl Chloride
VFA	Volatile Fatty Acid
VOC	Volatile Organic Compound
WBU	Water Bearing Unit
µg/L	Microgram per Liter
%R	Percent Recovery

EXECUTIVE SUMMARY

A Data Quality Evaluation (DQE) was performed on the data reported for the bi-annual groundwater sampling event conducted at Operable Units (OUs) 6, 7, and 8 in July 2005. The following sections provide summary discussions of the required data qualifications for each OU and the analytical method for groundwater samples collected at the Defense Supply Center Richmond (DSCR). A Level II DQE was performed, and the data quality indicators (DQIs) that were evaluated included sample integrity, holding times, trip blanks, equipment rinsates, method blanks, internal standards, surrogate recoveries, matrix spike (MS)/matrix spike duplicate (MSD) recoveries, laboratory control samples (LCSs), and field duplicate precision. These DQIs are expressed in terms of precision, accuracy, representativeness, comparability, sensitivity, and completeness. The results of the DQE are summarized below.

Precision

Field duplicates were collected to assess sampling precision. They consisted of replicate grab samples collected concurrently with the associated field samples. Precision is best expressed in terms of relative percent difference (RPD). In general, the precision goals were acceptable with the following exceptions.

Field precision goals exceeded quality control (QC) limits for various groundwater parameters in the duplicate sample pairs collected from OUs 6, 7, and 8. Specific samples and the analytes with elevated RPDs are listed below by OU. Those analytes requiring qualification included volatile organic compounds (VOCs), dissolved gases, hydrogen, sulfate, alkalinity, and total organic carbon (TOC). The samples with failing VOCs required dilution and re-analysis because of high levels of target analytes, which may have been a contributing factor to the RPD failures for VOCs.

OU 6 – The groundwater field duplicate pair AEHA-5/OU6DUP-1 resulted in the qualification of results for ethane and zinc.

The groundwater field duplicate pair AEHA-23A/OU6DUP-2 resulted in the qualification of results for VOCs (dichlorofluoromethane, vinyl chloride, chloroform, and trichloroethene), sulfate, and hydrogen.

The groundwater field duplicate pair AEHA-30B/OU6DUP-5 resulted in the qualification of results for two VOCs (tetrachloroethene and 1,2-dichlorobenzene), ethane, TOC, and alkalinity.

OU 7 – The groundwater field duplicate pair OU7DUP-3/MWFTA-20 resulted in the qualification of results for hydrogen.

OU 8 – The groundwater field duplicate pair DMW-31A/OU8DUP-2 resulted in the qualification of results for mercury and sulfate.

The groundwater field duplicate pair DP-11/OU8DUP-3 resulted in the qualification of results for one VOC (trichlorofluoromethane), sulfate, and hydrogen.

The groundwater field duplicate pair OU8DUP-4/MWANP-4D resulted in the qualification of results for hydrogen.

Accuracy

Accuracy was measured through the analyses of LCSs and MS/MSDs. Sample-specific accuracy is measured through surrogate recovery. Accuracy is expressed as percent recovery.

Recoveries for LCSs in associated groundwater samples indicated estimated ("J"-flagged) data qualification for hexachlorobutadiene and pyruvic acid results. However, the LCS recovery was high, and there were no positive results in any of the associated samples. In addition, the batch MS/MSD recovered within QC limits; therefore, no qualification to the hexachlorobutadiene and pyruvic acid results were necessary for project samples. Project sample surrogate recoveries were within specified limits. MS/MSD recoveries resulted in qualification for various VOCs, anions, and sulfide data in project samples, as discussed below.

OU 6 – Recoveries for MS/MSDs in groundwater resulted in estimated ("J"-flagged) data qualification for dichlorodifluoromethane, zinc, and sulfide results in sample MWA50-37 and naphthalene, nitrate, and sulfate results in sample USGS-G4.

OU 7 – Recoveries for MS/MSDs in groundwater sample MWFTA-1 resulted in estimated ("J"- or "UJ"-flagged) data qualification for arsenic and mercury results. Additionally, the MS/MSD recoveries of sulfide in MWFTA-1 and sulfide and naphthalene in MWFTA-19 were high; however, there were no positive results in the samples and no flagging of the data was necessary. Recoveries for MS/MSDs in groundwater sample MWFTA-19 resulted in estimated ("J"- or "UJ"-flagged) data qualification for 2,2-dichloropropane.

OU 8 – Recoveries for MS/MSDs in groundwater sample DMW-23A indicated estimated ("J"- or "UJ"-flagged) data qualification for sulfide, mercury, dichlorodifluoromethane, trichlorofluoromethane, acetone, 2-butanone, 4-methyl-2-pentanone, and 2-hexanone. The results for dichlorodifluoromethane, trichlorofluoromethane, and acetone were considered estimated and qualified "J/UJ". No qualification was necessary for sulfide, mercury, 2-butanone, 4-methyl-2-pentanone, and 2-hexanone due to high recoveries because the sample was nondetect for these analytes. High recoveries for MS/MSDs in groundwater sample DMW-23A resulted in estimated ("JH"-flagged) data qualification (estimated with possible high bias) for aluminum. High recoveries for MS/MSDs in groundwater sample MWANP-15 indicated estimated ("J"-flagged) data qualification for sulfide; however, no flagging of the data was necessary because the sample was nondetect for sulfide.

Representativeness

Representativeness refers to the degree to which sample data accurately and precisely describe the population of samples at a sampling point or under certain environmental conditions. Samples that are not properly preserved or are analyzed beyond holding times may not be considered representative. Review of sampling procedures, laboratory preparation, analysis holding times, and trip blank and field blank analysis helps in providing this assessment.

Sampling procedures followed the *Final Work Plan Addendum for the Bi-annual Groundwater Sampling* (MACTEC Engineering and Consulting, Inc., 2005; Work Plan) and were considered representative of the matrices collected. Laboratory preparation and analysis followed method guidelines. The project-specified holding time of 7 days for carbon dioxide and 14 days for methane, ethane, and ethene was never clearly communicated to the laboratory, which referenced the 28-day holding time stated in the Air Force Center for Environmental Excellence (AFCEE, 2001) *Quality Assurance Project Plan*, Version 3.1. The carbon dioxide and methane, ethane, and ethene results for samples analyzed outside specified limits were considered estimated (flagged "J" or "UJ") because of project holding time exceedance. Although they were qualified as estimated, the sample results associated with the holding time exceedances are considered representative because the 28-day AFCEE holding time was achieved. Furthermore, dissolved gas data are generally used to monitor the oxidation reduction conditions in the subsurface environment that control contaminant migration and degradation.

Trip blanks, equipment rinsates, and method blanks contained low levels of VOCs, metals, and wet chemistry parameters, which resulted in the qualification of results as possibly laboratory or field artifact. Associated

positive sample results less than 5 times (10 times for common constituents) the blank value were qualified as estimated (flagged "JB") for each method. Additionally, for TOC and alkalinity, sample results between the blank value and five times the blank value were qualified as estimated (flagged "JH") with possible high bias because of blank contamination. Acetone, chloroform, chloromethane, methylene chloride, o-xylene, methane, aluminum, antimony, cadmium, copper, iron, lead, molybdenum, silver, vanadium, zinc, chloride, TOC, and alkalinity results in various samples were qualified as possible laboratory or field artifact. The effect on project data quality objectives (DQOs) is minimal because most of the qualified data results were near or below the reporting limit (RL).

Completeness

Completeness is determined for field and analytical objectives. Field completeness is calculated from the number of samples proposed verses the actual number of samples collected. Analytical completeness is expressed in terms of usable data. The project completeness goal for DSCR is 90 percent. Overall percent completeness for the data collection efforts and DQO attainment for the bi-annual groundwater sampling is 99.97. A discussion of compound and/or method completeness compared to project objectives, as well as effects of field conditions on project objectives, is presented below.

Field Completeness – Samples were collected and parameters analyzed from each well proposed in OUs 6, 7, and 8, with the exception of hydrogen from monitoring well USGS-K4 located in OU 6. Hydrogen could not be collected from monitoring well USGS-K4 because of insufficient volume. Hydrogen results, in addition to several other parameters, are used to evaluate the water system's ability for natural attenuation. Because an evaluation of natural attenuation processes depends on several parameters, the lack of hydrogen results for this location does not adversely impact the project objectives.

Analytical Completeness – The groundwater data reported for the bi-annual groundwater sampling were usable with qualifications, with the exception of total zinc results in six samples:

- OU 6: Zinc. Although five zinc results were qualified as unusable because of professional judgment, the completeness for zinc was greater than 90 percent, and the effect of data completeness based on the project objectives is negligible. Zinc is a common mineral found in groundwater and surface water, and was qualified based on historical site data and the inability to determine a specific reason for the elevated zinc levels. Therefore, the unusable zinc data in the groundwater samples are not believed to impact the overall DQOs.

- OU 7: Zinc. One zinc result was qualified as unusable because of professional judgment, and the completeness for zinc was greater than 90 percent. The effect of data completeness based on the DQOs is negligible.

- OU 8: There were no results qualified as unusable and no effect on the project completeness DQOs.

Comparability

The selection of standardized methods aids in the comparison of past data to recent studies. Past investigation data are comparable to recent studies, with the exception of the unusable zinc results described above. The samples that were found to be significantly different from previous quarterly data were OU 6 – AEHA-30A, AEHA-32A, USGS-D4, USGS-F2, and USGS-H2, and OU 7 – MWFTA-5. There is no effect on the overall DQOs.

Sensitivity

Analytical sensitivity is the concentration at which the measurement system can quantitate target analytes in the environmental matrices of concern. The ultimate expression of analytical sensitivity is the quantitation RL. The analytical method RLs and method detection limits were compared to groundwater protection standards and were determined to meet the overall project objectives within reasonable budget constraints.

Sensitivity was mainly affected with the analysis of VOCs. A number of samples required dilution because of the presence of VOCs in elevated concentrations, which resulted in higher RLs. Most of these samples were also analyzed with no dilution to quantitate analytes that were within the normal instrument calibration range.

Summary

Data obtained in July 2005 from the three groundwater OUs at DSCR are sufficient to provide data to evaluate the monitored natural attenuation process.

D-1.0 DATA QUALITY EVALUATION SUMMARY

OPERABLE UNITS 6, 7, AND 8
BI-ANNUAL GROUNDWATER SAMPLING EVENT – JULY 2005

D-1.1 INTRODUCTION

The following sections present the analytical laboratory used, the data quality objectives (DQOs) for the project, results of the analyses of quality control (QC) samples, and a discussion of the quality of the analytical data for Operable Unit (OU) 6 (groundwater beneath the Open Storage Area [OU 1], the Area 50 Landfill [OU 2], and the National Guard Area [OU 3]), OU 7 (groundwater beneath the former Fire Training Area [OU 4] and the Polycyclic Aromatic Hydrocarbon [PAH] Area [OU 13]), and OU 8 (groundwater beneath the Acid Neutralization Pits [OU 5]) at the Defense Supply Center Richmond (DSCR). This Data Quality Evaluation (DQE) narrative summarizes the quality of the data collected during the July 2005 bi-annual groundwater sampling event at the three OUs.

The data validation was performed in general accordance with the *Final General Sampling and Analyses Plan* (SAP; MACTEC Engineering and Consulting, Inc., [MACTEC] 2004); *Requirements for the Preparation of Sampling and Analysis Plans* (USACE, 2001); *USEPA Region III National Functional Guidelines for Organic and Inorganic Data Review* as modified (U.S. Environmental Protection Agency, [USEPA] 1999, 1994); and the appropriate analytical method requirements as presented in *Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods, SW-846, Update III and Subsequent Updates* (USEPA, 1996).

D-1.2 ANALYTICAL LABORATORY

Groundwater samples collected from monitoring wells in July 2005 were analyzed by Columbia Analytical Services, Inc., (CAS) of Redding, California, for volatile organic compounds (VOCs) by Method 8260B, total metals by Method 6010B/6020, mercury by Method 7470A, volatile fatty acids (VFAs) by American Society for Testing and Materials (ASTM) D5560, anions (chloride, nitrate, and sulfate) by Method 300A, dissolved gases (carbon dioxide, methane, ethane, and ethene) by Method RSK 175, total organic carbon (TOC) by Method 9060, total sulfide by Method 376.1, and alkalinity by Method 310.1. Additionally, samples were analyzed by Microseeps, Inc., of Pittsburgh, Pennsylvania, for hydrogen.

D-1.3 DATA QUALITY OBJECTIVES

Project-specific DQOs are described in Sections 2.3.2, 3.3.2, and 4.3.2 of the *Final Quarterly Groundwater Sampling Plan for Operable Unit 6, Operable Unit 7, Operable Unit 8, and Post Exchange Gas Station* (Law Engineering and Environmental Services, Inc., [Law] 2002b), and amendments to the sampling for the bi-annual event are presented in the *Final Work Plan Addendum for the Bi-annual Groundwater Sampling* (MACTEC, 2005). Once the environmental data have been collected and analyzed, the consultants assess the laboratory data for their usability as prescribed by project goals. The criteria that measure the usability of environmental data as it relates to project objectives are data accuracy, precision, and completeness. Evaluation of these criteria ultimately reveals the representativeness and bias, if any, present in the sampling and analytical processes. These criteria are explained in detail in Section 3.2 of the Quality Assurance Project Plan (QAPP) section of the *Final General Sampling and Analyses Plan* (MACTEC, 2004).

D-1.4 DATA QUALITY EVALUATION PROCEDURES

The procedures used by MACTEC for data evaluation and validation are described in the *Data Quality Evaluation Standard Operating Procedures for USEPA SW 846 Methods 8260B, 6010B/6020, 7471A, 9060, 300A, 310.1, 376.1, ASTM Method D1552, RSK Method 175, and Miscellaneous Wet Chemistry Methods* (Law, 2001, 2002a). The primary DQE was performed by MACTEC's staff or project chemist. The DQE narrative and qualified (flagged) data tables were reviewed by a senior chemist.

The laboratory data, field QC data, and field notes provide the information to evaluate the analytical data for accuracy, precision, completeness, and representativeness with respect to the project-specific DQOs. The data are first evaluated based on field notes taken during collection of the samples to assess sampling conditions and sampling procedures or determine whether changes to the planned procedures were necessary. Secondly, upon receipt, each sample shipment sent to the laboratory is assessed for adherence to method-prescribed holding times, proper chain of custody (COC) documentation, correct use of sample containers, and sample integrity.

The laboratory's internal QC procedures for calibration, method validation, and performance evaluation include appraisal of method-prescribed tune (for gas chromatograph/mass spectrometer) and calibration criteria, method blank analyses, laboratory control sample (LCS) analysis, matrix spike (MS)/matrix spike duplicate (MSD) analyses, and assessment of surrogate and internal standard recovery where applicable. MACTEC's evaluation of the laboratory data focuses on exceptions to the planned QC activities, problems

encountered, and the effectiveness of the methodologies used within the laboratory. The data are then evaluated overall with respect to the project DQOs, providing the completeness. The following sections present the evaluation procedures used for the analytical data with respect to the project-specific DQOs.

D-1.4.1 Evaluation of Field Data Quality

QC and quality assurance (QA) samples were collected to assess the quality and representativeness of the field sampling activities and the accuracy of analytical results from the primary laboratory. Field QC and QA samples are required by the USACE (2001) protocols and were collected, and their use is specified in the SAP (MACTEC, 2004). Field QC samples consisted of trip blanks, equipment rinsate blanks, and field duplicate samples. The results of the field QC samples are presented in data summary Table B-9 in Appendix B.

D-1.4.2 Evaluation of Laboratory Data Quality

Laboratory data are evaluated to assess adherence to method-prescribed calibration and/or continuing calibration criteria, method blank analysis results, analyte recoveries from LCS, MS/MSD recoveries and relative percent differences (RPDs), surrogate recoveries, and ultimately completeness. Except for completeness, these criteria are used to evaluate the accuracy and precision of the data generated by the laboratory. Furthermore, the USACE-specified control limits for the major USEPA SW-846 methodologies are presented in the shell document (USACE, 2001), and data were evaluated based on those limits. The analytical methods and the associated limits used for analysis of the environmental samples collected during the July 2005 sampling event are included in the shell document.

In general, control limits not addressed by USACE in the shell document default to laboratory-generated limits. Laboratory-established control limits are based on the mean percent recovery plus or minus 3 standard deviations of the mean using a minimum population of 20 recovery values. Specific laboratory QC elements considered in the calculation of precision, accuracy, representativeness, and completeness are presented in Section 3.2 (in the QAPP) of the SAP (MACTEC, 2004).

D-1.5 ANALYTICAL RESULTS

The comprehensive analytical results for samples associated with each OU are summarized in Appendix B as Tables B-1 through B-9. Analytical results are quantitated at the reporting limit (RL) but evaluated down to the method detection limit (MDL). The MDL is defined as the minimum concentration of a substance that

can be measured and reported with 99 percent confidence that the value is above zero. The RL is defined as the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions as defined by SW-846. Data points reported at concentrations above the MDL, but less than the RL, are considered estimated quantitative values and are qualified as "JQ". RLs are adjusted by the sample weight/volume extracted and analyzed, moisture content (soils and sediments only), and/or dilution, and therefore may be different for each sample.

D-1.6 DATA QUALITY EVALUATION

The following sections provide summary discussions of data quality for the July 2005 sampling event for OUs 6, 7, and 8. Each section highlights the main points of data quality indicators (DQIs) and identifies data points that require qualification. Data qualification flags and their descriptions are presented in the footnotes to Table D-1.

DQE forms were generated and used by MACTEC to document the evaluated data components. These forms are arranged so that parameters affecting all samples are reviewed first, such as proper execution of COC, temperature of the samples upon receipt at the laboratory, and appropriate sample containers/preservatives. These original forms and the respectively flagged data tables are filed with each sample delivery group (SDG) after senior review.

A Level II review was performed on each parameter for sample data collected during the bi-annual groundwater sampling at DSCR.

D-2.0 OPERABLE UNIT 6 DATA QUALITY EVALUATION

The following sections provide summary discussions of data quality for samples collected during the July 2005 bi-annual sampling event at OU 6. Groundwater samples were collected from monitoring well locations to evaluate monitored natural attenuation (MNA) characteristics of each water bearing unit (WBU). The comprehensive analytical results for samples associated with the bi-annual OU 6 sampling event are summarized in Appendix B (Tables B-1 through B-3). Field duplicate, trip blank, and equipment blank associations are presented in Appendix B, Table B-9.

D-2.1 GROUNDWATER – JULY 2005

A total of 57 groundwater wells were sampled in July 2005. Samples were collected and parameters analyzed from each well proposed, with the exception of USGS-K4. Hydrogen could not be collected from monitoring well USGS-K4 because of insufficient volume. All wells except AEHA-18A, DMW-9B, DMW-18A, USGS-A4, USGS-BR2, USGS-D4, USGS-F4, USGS-G4, USGS-J4, USGS-K4, USGS-M4, and USGS-P4 were sampled with dedicated bladder pumps. Equipment blank OU6-BLAD-EQB was collected on 16 July 2005 to represent these groundwater samples. The correct sample containers and preservatives were used for the analytical methods specified on the COC. Additionally, the correct methods were employed for extraction/digestion and analysis as outlined in the Work Plan. The appropriate units, detection limits, and compounds were reported by the laboratory per the 2005 subcontracts agreements between MACTEC and CAS and MACTEC and Microseeps, Inc.

D-2.2 UPPER WATER BEARING UNIT

A total of 31 groundwater and 3 duplicate samples were collected from the upper WBU. Samples AEHA-18A, DMW-18A, OU6DUP-1, OU6DUP-2, OU6DUP-3, USGS-A4, USGS-D4, USGS-F4, USGS-G4, USGS-J4, USGS-K4, USGS-M4, and USGS-P4 were collected with non-dedicated bladder pumps.

VOCs (SW-8260B) – VOC data collected from OU 6 were evaluated using a Level II approach that consisted of a review of holding times, method, calibration, trip and equipment blanks, LCS recoveries, MS/MSD recoveries and RPDs, and field duplicate precision, in addition to method-specific QC such as surrogates and internal standards. Any failures among the method listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits.

All holding times for the groundwater samples analyzed for VOCs were met. The batch-specific method blanks associated with the samples were analyzed and reported to contain VOCs, as indicated below. The samples with concentrations less than or equal to 5 times these concentrations (10 times for acetone and methylene chloride [MC]) were accordingly qualified as estimated based on blank contamination and flagged as "JB", unless overridden by qualifications for other QC exceedances. Associated samples that were nondetects required no qualification.

Blank ID	Analyte	Concentration	Action/Affected Samples
U0718W01	Acetone	5.1 µg/L (JQ)	AEHA-5, AEHA-15A, AEHA-18A, AEHA-24A, AEHA-25A, DMW-7A, MWA50-36, MWA50-38, OU6DUP-1, TB-071205, TB-071305
U0719W01	Acetone	2.5 µg/L	AEHA-12A, AEHA-16A, AEHA-23A, AEHA-33A, MWA50-37, USGS-P4, TB-071405, TB-071505
	Methylene chloride	0.13 µg/L	AEHA-23A, AEHA-33A, MWA50-37, USGS-P4, TB-071405, TB-071505
U0720W01	Acetone	3.5 µg/L	AEHA-22A, AEHA-34A, DMW-9A DMW-18A, MWA50-35, OU6-BLAD-EQB, USGS-D4, USGS-F4, TB-071605
	Methylene Chloride	0.16 µg/L	USGS-F4
U0722W01	Acetone	0.84 µg/L	AEHA-30A, OU6DUP-2
	Methylene Chloride	0.10 µg/L	OU6DUP-2
U0728W01	Hexachlorobutadiene	0.18 µg/L (JQ)	None

In addition, the MC results present in samples AEHA-28A and OU6DUP-3 were qualified as estimated possibly biased high and flagged "JB" because of professional judgment. The associated method blank U0727W01 was nondetect for MC; however, results were similar to levels detected in several site samples collected within the analytical batch.

Batch-specific LCSs were analyzed, and recoveries were within acceptable QC criteria. The surrogates and internal standards added to the samples by the laboratory were recovered within specified limits. An MS/MSD was performed on upper WBU samples MWA50-37 and USGS-G4. The percent recovery (%R) was within QC limits or sporadic marginal failure (SMF) QC limits of ±40 percent, with the exception of dichlorodifluoromethane in MWA50-37 and naphthalene in sample USGS-G4. The dichlorodifluoromethane and naphthalene data were considered estimated and flagged "UJ" in their respective samples.

Three field duplicate pairs (AEHA-5/OU6DUP-1, AEHA-23A/OU6DUP-2, and AEHA-28A/OU6DUP-3) were collected from the upper WBU. The differences between the samples and their duplicates were out of QC limits for the analytes listed below in AEHA-23A/OU6DUP-2:

Sample Duplicate Pair	Analyte	Action
AEHA-23A/OU6DUP-2	Dichlorofluoromethane	Flag both "J"
	Vinyl Chloride	Flag both "J"
	Chloroform	Flag both "J"
	Trichloroethene	Flag both "J"

An equipment blank sample (OU6-BLAD-EQB) was collected to represent samples collected with a non-dedicated bladder pump. Low levels of VOCs were detected in the equipment blank. The samples with concentrations less than or equal to 5 times these concentrations (10 times for acetone and MC) were accordingly qualified as estimated based on blank contamination and flagged as "JB", unless overridden by qualifications for other QC exceedances. Associated samples that were nondetects required no qualification. No qualification of the data was required for analytes detected in the equipment blank below the RL.

Analyte	Concentration	Associated Samples
Chloroform	2.2 µg/L	USGS-A4, USGS-G4, USGS-M4

The trip blanks associated with the groundwater samples were analyzed and reported to contain several analytes as shown below. Sample results less than 10 times the blank value for common laboratory contaminants and 5 times the blank value for other target analytes were qualified as estimated with possible trip blank contamination and flagged "JB". Sample results were previously qualified because of method blank contamination.

Blank ID	Analyte	Concentration	Affected Samples
TB-071205	Acetone	3.5 µg/L (JB)	Previously qualified "JB" because of method blank
TB-071305	Acetone	3.0 JB µg/L	Previously qualified "JB" because of method blank
	Methylene chloride	0.10 JQ µg/L	MWA50-37 (previously qualified "JB" because of method blank – no qualification required for trip blank)

Blank ID	Analyte	Concentration	Affected Samples
TB-071505	Acetone	2.7 µg/L	Previously qualified
	Methylene chloride	0.095 µg/L	Previously qualified
TB-071605	Acetone	2.5 µg/L (JB)	Previously qualified "JB" because of method blank
TB-071705	Acetone	3.5 µg/L (JQ)	USGS-A4, USGS-J4, USGS-K4
	Carbon disulfide	0.21 µg/L (JQ)	None
TB-071805	Acetone	1.8 µg/L (JQ)	AEHA-32A
	Methylene chloride	0.40 µg/L (JQ)	None

The following samples were diluted to place certain VOC results within the range of the calibration curve, resulting in elevated RLs:

Sample	Dilution Factor	Compound
AEHA-5	10×	Chlorobenzene
AEHA-23A	20×	cis-1,2-Dichloroethene
AEHA-25A	10×	cis-1,2-Dichloroethene; trichloroethene
AEHA-28A	10×, 100×	All; cis-1,2-dichloroethene; and trichloroethene
AEHA-34A	2×	Naphthalene
DMW-18A	10×	cis-1,2-Dichloroethene; trichloroethene
OU6DUP-1	10×	Chlorobenzene
OU6DUP-2	20×	cis-1,2-Dichloroethene
OU6DUP-3	10×, 100×	All; cis-1,2-dichloroethene; trichloroethene

Results were reported at the RL and evaluated down to the MDL. Results less than the RL but above the MDL were qualified as estimated and flagged "JQ".

Sample ID	Affected Analytes
AEHA-5	1,1-Dichloroethane; 1,2-dichloroethane; cis-1,2-dichloroethene; ethylbenzene; o-xylene; p-isopropyltoluene; toluene; trichloroethene; vinyl chloride
AEHA-15A	Trichlorofluoromethane, tetrachloroethene
AEHA-18A	1,1-Dichloroethane; 1,2-dichlorobenzene; benzene; tetrachloroethene; toluene
AEHA-22A	Naphthalene
AEHA-23A	1,1-Dichloroethene; 1,1-dichloroethane; 1,2-dichlorobenzene; 1,2-dichloroethane; 1,4-dichlorobenzene; chlorobenzene; tetrachloroethene
AEHA-24A	Chlorobenzene, trichloroethene, vinyl chloride
AEHA-25A	1,1-Dichloroethane;1,1-dichloroethene; 1,2-dichloroethane; 1,4-dichlorobenzene; benzene
AEHA-25B	1,1-Dichloroethene; tetrachloroethene; trans-1,2-dichlroethene
AEHA-26A	Vinyl chloride, trichloroethene, tetrachloroethene

Sample ID	Affected Analytes
AEHA-28A	Carbon tetrachloride; dichlorodifluoromethane; 1,3-dichlorobenzene; trans-1,2-dichloroethene; 1,1,2-trichloroethane; naphthalene
AEHA-30A	Vinyl chloride
AEHA-31A	Chloromethane; cis-1,2-dichloroethene
AEHA-32A	1,1-Dichloroethene; 1,2-dichloroethane; 1,4-dichlorobenzene; chloroform; chloromethane; vinyl chloride
AEHA-33A	tert-Butylmethylether; sec-butylbenzene
AEHA-34A	Ethylbenzene; o-xylene; 1,3,5-trimethylbenzene; tert-butylbenzene
DMW-9A	Naphthalene
DMW-18A	1,1-Dichloroethane; 1,1-dichloroethene; toluene; trans-1,2-dichloroethene
LAWMW-Q	Chloromethane
MWA50-35	1,1-Dichloroethane; 1,3-dichlorobenzene; trans-1,2-dichloroethene
MWA50-36	Benzene
MWA50-37	1,1-Dichloroethene; carbon disulfide; trans-1,2-dichloroethene; benzene; 1,2-dichloroethane; 1,4-dichlorobenzene; 1,2-dichlorobenzene
USGS-A4	1,4-Dichlorobenzene; chlorobenzene; chloromethane; 2-butanone; tetrachloroethene
USGS-F4	trans-1,2-Dichloroethene; trichloroethene; chlorobenzene; ethylbenzene; styrene; toluene
USGS-J4	Chloromethane, toluene
USGS-K4	Toluene
USGS-P4	Trichloroethene; 1,2,4-trimethylbenzene; m-, p-xylene; o-xylene
OU6DUP-1	1,1-Dichloroethane; 1,2-dichloroethane; cis-1,2-dichloroethene; ethylbenzene; methylene chloride; o-xylene; p-isopropyltoluene; toluene; vinyl chloride
OU6DUP-2	1,1-Dichloroethene; 1,2-dichlorobenzene; 1,4-dichlorobenzene; chlorobenzene; tetrachlorethene; trans-1,2-dichloroethene
OU6DUP-3	Dichlorodifluoromethane; 1,3-dichlorobenzene; trans-1,2-dichloroethene; 1,1,2-trichloroethane
OU6-BLAD-EQB-0705	Carbon disulfide, 2-butanone, toluene
TB-071305	Methylene chloride
TB-071705	Acetone, carbon disulfide
TB-071805	Acetone, methylene chloride

Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently overridden by the "JQ" qualifier.

Dissolved Gases (RSK-175) – Dissolved gas data (carbon dioxide, methane, ethane, and ethene) were evaluated using a Level II approach that consisted of a review of holding times, method blanks, LCS recoveries, field duplicate precision, trip blanks, and rinsate blanks. MS/MSD analyses are not assayed for dissolved gas analysis. Any failures among the method listed are discussed below.

The initial and continuing calibration for each instrument used for the analysis of dissolved gases was assumed to be within acceptable criteria. The project-specified 7-day holding time for carbon dioxide

was exceeded; however, the method-specified holding time of 14 days was met. Carbon dioxide results for samples analyzed outside the project holding time (AEHA-5, AEHA-18A, AEHA-22A, AEHA-24A, AEHA-25A, AEHA-31A, AEHA-32A, AEHA-34A, DMW-9A, OU6-BLAD-EQB, OU6DUP-1, OU6DUP-2, USGS-A4, USGS-F4, USGS-G4, USGS-J4, USGS-K4, USGS-M4, USGS-P4, TB-071205, TB-071405, TB-071605, and TB-071805) were qualified as estimated and flagged "J". The laboratory batch preparation blanks (method blanks) did not contain reportable concentrations of carbon dioxide, methane, ethane, or ethene. Batch LCSs for dissolved gases were within acceptable limits.

Three field duplicate pairs (AEHA-5/OU6DUP-1, AEHA-23A/OU6DUP-2, and AEHA-28A/OU6DUP-3) were collected and analyzed for dissolved gases. The RPD between the sample and the duplicate was outside QC limits for ethane in AEHA-5/OU6DUP-1, and the associated results were qualified as estimated and flagged "J".

An equipment blank sample (OU6-BLAD-EQB) was collected to represent samples collected with a non-dedicated bladder pump, and the dissolved gas results were nondetect. Two trip blanks (TB-071505 and TB-071205) associated with groundwater samples were reported to contain methane below the RL. Sample results associated with those trip blank samples and less than five times the blank value for methane (AEHA-24A) were qualified as estimated with possible trip blank contamination and flagged "JB".

Results were reported at the RL and evaluated down to the MDL. Flagging of dissolved gas results less than the RL, but greater than the MDL (JQ), was necessary for methane in AEHA-15A, AEHA-32A, DMW-7A, and TB-071205; ethene in AEHA-5; and ethane in AEHA-23A.

VFAs (ASTM D1552) – Samples AEHA-23A, AEHA-26A, AEHA-28A, AEHA-30A, AEHA-32A, MWA50-35, MWA50-37, and OU6DUP-2 were assayed for VFAs. VFA data (acetic, butyric, lactic, propionic, and pyruvic acids) were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The initial and continuing calibration for each instrument used for the analysis of VFAs was assumed to be within acceptable criteria. The laboratory batch preparation blanks (method blanks) did not contain reportable concentrations of VFAs. The batch LCS recovered above the acceptable limits (high) for

pyruvic acid. However, the MS/MSD performed on project-specified sample MWA50-37 was within QC limits, and there were no positive results in the OU 6 samples. Therefore, no qualification of the data was required.

One field duplicate pair (AEHA-23A/OU6DUP-2) was collected and analyzed for VFAs. The RPD between the sample and the sample duplicate could not be calculated because the results were nondetect. Results were reported at the RL and evaluated down to the MDL. Flagging of VFA results less than the RL but greater than the MDL (JQ) was not necessary.

Total Metals (SW-6010B/6020) – Antimony, arsenic, lead, selenium, and thallium were analyzed by Inductively Coupled Plasma (ICP)/Mass Spectrometry Method SW-6020. Remaining metals were analyzed by ICP Method SW-6010B.

Collected metals data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS, MS/MSD recoveries and RPDs, equipment blanks, and field duplicate precision, in addition to method-specific QC such as post-digestion spikes and serial dilutions. Any failures among the method listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits.

All holding times for the groundwater samples were met. The laboratory batch preparation blanks (method blanks) and/or continuing calibration blanks (CCBs) were less than the RL but above the MDL for some metals. Only the sample results less than five times the blank value and qualified as estimated with possible method blank contamination and flagged "JB" are shown below.

Metal	**Affected Samples**
Antimony	AEHA-12A, AEHA-16A, AEHA-22A, AEHA-23A, AEHA-28A, AEHA-33A, AEHA-34A, DMW-9A, DMW-18A, MWA50-35, OU6DUP-2, OU6DUP-3, USGS-A4, USGS-D4, USGS-J4, USGS-K4, USGS-M4
Copper	AEHA-18A, AEHA-25A, DMW-18A
Iron	AEHA-32A
Lead	OU6-BLAD-EQB, USGS-G4, USGS-J4
Molybdenum	AEHA-5, AEHA-24A, AEHA-32A, OU6DUP-1
Potassium	AEHA-5, OU6DUP-1
Zinc	AEHA-15A, AEHA-16A, AEHA-24A, AEHA-31A, AEHA-32A, DMW-9A, MWA50-35, MWA50-38, OU6DUP-1, USGS-J4, USGS-M4

The batch LCS for total metals was within USACE-prescribed limits (80 to 120 %R) or SMF criteria. MS/MSDs were performed for metals on samples MWA50-37 and USGS-G4. Recoveries and RPDs were within QC limits.

An equipment blank sample (OU6-BLAD-EQB) was collected and reported to contain metals. Calcium, sodium, and zinc were detected in the equipment blank sample below the RL but above the MDL. Natural earth metals (calcium and sodium) were present in the equipment blank and are expected to be present in the water and soil matrices. Therefore, no qualification of the data for these results was applied. In addition, no qualification of the data was required for analytes detected in the equipment blank below the RL.

Elevated levels of zinc were detected in samples AEHA-30A (1,180 µg/L), AEHA-32A (304 µg/L), and USGS-D4 (225 µg/L). A review of laboratory procedures, glassware, sample containers, and preservatives did not indicate a source for the elevated zinc. The unprepared samples were re-analyzed, and the zinc levels supported the analytical results. Field procedures were also reviewed, and no source for the zinc could be determined. Historical review of results showed that zinc was present at concentrations ranging from 101 to 485 µg/L in sample AEHA-30A, from 20.7 to 91.2 µg/L in sample AEHA-32A, and from <20 to 33.6 µg/L in sample USGS-D4. Therefore, because the historical results indicated that the zinc results were not representative of the groundwater results reported for samples AEHA-30A, AEHA-32A, and USGS-D4, the zinc results were considered unusable and flagged "R".

Three field duplicate pairs (AEHA-5/OU6DUP-1, AEHA-23A/OU6DUP-2, and AEHA-28A/OU6DUP-3) were collected and analyzed for metals. The RPD between the sample and the duplicate was outside QC limits for zinc in samples AEHA-5/OU6DUP-1, and the results were qualified as estimated and flagged "J". A serial dilution to assess matrix effects was performed on total metal samples MWA50-37 and USGS-G4. Recoveries were within QC limits, with the exception of total zinc in sample MWA50-37, and the associated result was qualified as estimated and flagged "J". In addition, the laboratory flagging indicated that the zinc results reported for samples AEHA-15A, AEHA-26A, DMW-7A, MWA50-36, MWA50-37, and MWA50-38 are estimated because of interferences; therefore, zinc results for each sample were qualified as estimated and flagged "J".

Results were reported at the RL and evaluated down to the MDL. Results less than the RL but above the MDL were qualified as estimated and flagged "JQ". Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently overridden by the "JQ" qualifier.

Total Mercury (SW-7470A) – Mercury data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, equipment blanks, and field duplicate precision, in addition to method-specific QC such as post-digestion spikes and serial dilutions. Any failures among the method listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits. The laboratory batch preparation blanks (method blanks) did not contain mercury.

Batch LCSs for mercury were within acceptable limits. MS/MSDs were performed on samples MWA50-37 and USGS-G4, and the recoveries and RPDs were within QC limits. The equipment blank sample (OU6-BLAD-EQB) did not contain mercury. Three field duplicate pairs (AEHA-5/OU6DUP-1, AEHA-23A/OU6DUP-2, and AEHA-28A/OU6DUP-3) were collected and analyzed for mercury. The RPD for the duplicate pairs was within QC requirements or could not be calculated because the parent and duplicate samples did not contain mercury.

A serial dilution was performed on samples MWA50-37 and USGS-G4, and the recoveries were within QC limits.

Results were reported at the RL and evaluated down to the MDL. Results less than the RL but above the MDL were qualified as estimated and flagged "JQ" in samples AEHA-15A, AEHA-23A, AEHA-26A, AEHA-28A, AEHA-30A, AEHA-33A, DMW-7A, MWA50-36, MWA50-37, MWA50-38 USGS-P4, OU6DUP-2, and OU6DUP-3.

Anions (300.0A) – Anion (chloride, nitrate, and sulfate) data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The initial and continuing calibration for each instrument used for the analysis of chloride, nitrate, and sulfate was assumed to be within acceptable criteria. The laboratory batch preparation blanks (method blanks) contained no reportable concentrations of chloride, nitrate, and sulfate.

Batch LCSs for anions were within acceptable limits. The MS/MSD recoveries and RPDs for sample MWA50-37 were within acceptable limits. The MS/MSD recoveries for nitrate and sulfate in sample USGS-G4 were out of acceptable limits. The associated results in USGS-G4 were qualified as estimated and flagged "J".

Three field duplicate pairs (AEHA-5/OU6DUP-1, AEHA-23A/OU6DUP-2, and AEHA-28A/OU6DUP-3) were collected and analyzed for anions. The RPD between the sample and the duplicate was outside QC limits for sulfate in AEHA-23A/OU6DUP-2. The associated results in both samples were qualified as estimated and flagged "J".

An equipment blank sample (OU6-BLAD-EQB) was collected and analyzed to assess possible contamination from using non-dedicated sampling equipment, and was nondetect for chloride, nitrate, and sulfate.

The following samples were diluted to place certain anion results within the range of the calibration curve, resulting in elevated RLs:

Sample	Dilution Factor	Analyte
AEHA-5	10×	Chloride
AEHA-12A	10×	Chloride
AEHA-16A	10×	Chloride
AEHA-18A	10×	Chloride, sulfate
AEHA-22A	10×	Chloride
AEHA-23A	10×	Chloride
AEHA-25A	10×	Chloride
AEHA-28A	25×	Chloride
AEHA-33A	10×	Chloride
AEHA-34A	10×	Chloride
DMW-9A	10×	Chloride
DMW-18A	10×	Chloride
MWA50-35	10×	Chloride, sulfate
MWA50-36	10×	Chloride, sulfate
MWA50-37	10×	Chloride, sulfate
OU6DUP-1	10×	Chloride
OU6DUP-2	10×	Chloride
OU6DUP-3	25×	Chloride
USGS-F4	10×	Chloride
USGS-G4	2×	Chloride
USGS-J4	2×	Chloride

Sample	Dilution Factor	Analyte
USGS-K4	2×	Chloride
USGS-M4	2×	Chloride
USGS-P4	10×	Chloride

Results were reported at the RL and evaluated down to the MDL. Flagging of anion results less than the RL but greater than the MDL (JQ) was necessary for nitrate in samples AEHA-16A and AEHA-26A, and sulfate in samples DMW-18A and USGS-P4. Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently overridden by the "JQ" qualifier.

TOC (9060) – TOC data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The initial and continuing calibration for each instrument used for the analysis of TOC was assumed to meet acceptable criteria. The laboratory batch preparation blanks (method blank) contained TOC below the RL at 0.1, 0.2, and 0.5 JQ milligram per liter (mg/L), respectively. TOC sample results for samples AEHA-15A, AEHA-24A, AEHA-32A, and DMW-7A were flagged "JH" because the sample result was greater than the blank concentration but less than five times the blank value.

Batch LCSs for TOC were within acceptable limits. The MS/MSD recoveries of spiked samples MWA50-37 and USGS-G4 for TOC were within acceptable QC limits.

Three field duplicate pairs (AEHA-5/OU6DUP-1, AEHA-23A/OU6DUP-2, and AEHA-28A/OU6DUP-3) were collected and analyzed for TOC. The RPD between the samples and duplicates were within QC limits.

An equipment blank (OU6-BLAD-EQB) was collected and analyzed to assess possible contamination from non-dedicated sampling equipment, and TOC was detected below the RL at 0.6 JQ mg/L. No qualification of the data was required for analytes detected in the equipment blank below the RL.

The following samples were diluted to place TOC within the range of the calibration curve, resulting in elevated RLs:

Sample	Dilution Factor
AEHA-5	10×
OU6DUP-1	10×

Results were reported at the RL and evaluated down to the MDL. Flagging of TOC results less than the RL but greater than the MDL (JQ) was necessary for samples AEHA-12A, AEHA-33A, OU6-BLAD-EQB, USGS-D4, USGS-M4, and USGS-P4.

Alkalinity (310.1) – Alkalinity data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The project-specific hold times for alkalinity were not met, but the samples were analyzed within the method hold time. Therefore, no additional qualification was necessary.

The titration standardization performed for the analysis of alkalinity was assumed to meet acceptable criteria, as were the initial and continuing calibration checks. One of the laboratory batch preparation blanks (method blanks) contained alkalinity below the RL at 2.0 JQ mg/L. Alkalinity results for sample AEHA-32A were considered biased high or false positive based on the blank data and flagged "JB". Batch LCSs for alkalinity were within acceptable limits. The MS/MSD recoveries of spiked samples MWA50-37 and USGS-G4 for alkalinity were within acceptable QC limits.

Three field duplicate pairs (AEHA-5/OU6DUP-1, AEHA-23A/OU6DUP-2, and AEHA-28A/OU6DUP-3) were collected and analyzed for alkalinity. The RPD for the duplicate pairs was within QC limits.

An equipment blank (OU6-BLAD-EQB) was collected and analyzed to assess possible contamination from non-dedicated sampling equipment, and alkalinity was detected below the RL at 2.0 JQ mg/L. No qualification of the data was required for analytes detected in the equipment blank below the RL.

The following samples were diluted to place alkalinity results within the range of the calibration curve, resulting in elevated RLs:

Sample	Dilution Factor
AEHA-5	2×
MWA50-36	2×
MWA50-37	2×
OU6DUP-1	2×

Results were reported at the RL and evaluated down to the MDL. Flagging of alkalinity results less than the RL but greater than the MDL (JQ) was necessary for samples AEHA-15A, AEHA-22A, AEHA-23A, AEHA-25A, DMW-7A, DMW-9A, MWA50-38, OU6-BLAD-EQB, OU6DUP-2, USGS-A4, USGS-D4, USGS-G4, USGS-K4, USGS-M4, and USGS-P4. Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently overridden by the "JQ" qualifier.

Sulfide (376.1) – Sulfide data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The titration standardization performed for the analysis of sulfide was assumed to meet acceptable criteria. The laboratory batch preparation blanks (method blanks) did not contain sulfide. One of the batch LCSs for sulfide was outside acceptable limits. Associated sulfide results (USGS-A4, USGS-G4, USGS-J4, USGS-K4, and USGS- M4) were qualified as estimated and flagged "UJ". MS/MSDs were performed on upper WBU samples MWA50-37 and USGS-G4. The MS/MSD recoveries for spiked sample MWA50-37 were outside the QC limits. The original sample result for MWA50-37 was qualified as estimated ("UJ"). The MS/MSD recoveries and RPDs for spiked sample USGS-G4 were within acceptable laboratory limits.

Three field duplicate pairs (AEHA-5/OU6DUP-1, AEHA-23A/OU6DUP-2, and AEHA-28A/OU6DUP-3) were collected and analyzed for sulfide. The RPD for the duplicate pairs could not be calculated because the results were nondetect. An equipment blank sample (OU6-BLAD-EQB) was collected and analyzed to assess possible contamination from using non-dedicated sampling equipment. The equipment blank was nondetect for total sulfide.

Results were reported at the RL and evaluated down to the MDL. Flagging of sulfide results less than the RL but greater than the MDL (JQ) was not necessary.

Dissolved Hydrogen (AM20GAX) – Hydrogen data were evaluated using a Tier II approach that consisted of a review of holding times, method and calibration blanks, LCS recoveries, and field duplicate precision. MS/MSD samples were not required for hydrogen analysis. Any failures among the method listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits.

A hydrogen sample could not be collected for well USGS-K4 because of insufficient water volume and extremely slow recharge. Samples were received intact, and holding times were met for the samples submitted to Microseeps, Inc., for analysis. Method blanks were within method-stated control limits. LCS results were also within laboratory-established limits.

Three field duplicate pairs (OU6DUP-1/AEHA-5, OU6DUP-2/AEHA-23A, and OU6DUP-3/AEHA-28A) were collected and analyzed. The RPD between the parent sample and the duplicate sample was outside specified limits (<20 percent) for OU6DUP-2/AEHA-23A. The associated results in both samples were qualified as estimated and flagged "J".

Results were reported at the RL and evaluated down to the MDL. There were no results less that the RL but above the MDL.

D-2.3 LOWER WATER BEARING UNIT/BEDROCK

A total of 24 groundwater and 2 duplicate samples were collected from the lower WBU, and 2 groundwater samples and 1 duplicate sample were collected from the bedrock wells. The bedrock well samples, DMW-28E and USGS-BR2/OU6DUP-6, were analyzed for VOCs only. Samples DMW-9B, OU6DUP-6, and USGS-BR2 were collected with non-dedicated bladder pumps.

VOCs (SW-8260B) – VOC data were evaluated using a Tier II approach that consisted of a review of holding times; method, calibration, trip, and equipment blanks; LCS recoveries; MS/MSD recoveries and RPDs; and field duplicate precision, in addition to method-specific QC such as surrogates and internal standards. Any failures among the method listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits.

All holding times for water samples in this SDG were met. The batch-specific method blanks associated with the samples were analyzed and reported to contain VOCs, as indicated below. The samples with concentrations less than or equal to 5 times these concentrations (10 times for acetone and MC) were accordingly qualified as estimated based on blank contamination and flagged as "JB", unless overridden by qualifications for other QC exceedances. Associated samples that were nondetects required no qualification.

Blank ID	Analyte	Concentration	Action/Affected Samples
U0718W01	Acetone	5.1 µg/L (JQ)	AEHA-18B, AEHA-21B, AEHA-24B, AEHA-25B, OU6DUP-4
U0719W01	Acetone	2.5 µg/L	AEHA-26B, AEHA-28B, DMW-28E, OU6DUP-5, USGS-P2
	Methylene chloride	0.13 µg/L	OU6DUP-5, USGS-P2
U0720W01	Acetone	3.5 µg/L	AEHA-27B, DMW-9B, LAWMW-Q, OU6DUP-6, USGS-BR2, USGS-C2, USGS-F2, USGS-H2, USGS-K2, USGS-N1
	Methylene chloride	0.16 µg/L	LAWMW-Q, OU6DUP-6
U0722W01	Acetone	0.84 µg/L	AEHA-23B, AEHA-33B
	Methylene chloride	0.10 µg/L	AEHA-23B, AEHA-33B
U0728W01	Hexachlorobutadiene	0.18 µg/L (JQ)	None

Batch-specific LCSs were analyzed, and recoveries were within acceptable QC criteria. The surrogates and internal standards added to the samples by the laboratory were recovered within specified limits. An MS/MSD was performed on sample AEHA-21B. The percent recovery was within QC limits. No qualification was necessary.

Three field duplicate pairs (AEHA-25B/OU6DUP-4, AEHA-30B/OU6DUP-5, and USGS-BR2/OU6DUP-6) were collected from the lower WBU and bedrock wells. The differences between the samples and their duplicates were out of QC limits for the analytes listed below in AEHA-30B/OU6DUP-5.

Sample Duplicate Pair	Analyte	Action
AEHA-30B/OU6DUP-5	Tetrachloroethene	Flag both "J"
	1,2-Dichlorobenzene	Flag Dup "J"

An equipment blank sample (OU6-BLAD-EQB) was collected to represent samples collected with a non-dedicated bladder pump. Low levels of VOCs were detected in the equipment blank. The samples with concentrations less than or equal to 5 times these concentrations (10 times for acetone and MC) were

accordingly qualified as estimated based on blank contamination and flagged "JB", unless overridden by qualifications for other QC exceedances. Associated samples that were nondetects required no qualification. No qualification of the data was required for analytes detected in the equipment blank below the RL.

The trip blanks associated with the groundwater samples were analyzed and reported to contain several analytes, as shown below. Sample results less than 10 times the blank value for common laboratory contaminants and 5 times the blank value for other target analytes were qualified as estimated with possible trip blank contamination and flagged "JB". Sample results were previous qualified because of method blank contamination.

Blank ID	Analyte	Concentration	Affected Samples
TB-071205	Acetone	3.5 µg/L (JB)	Previously qualified "JB" because of method blank
TB-071305	Acetone	3.0 JB µg/L	Previously qualified "JB" because of method blank
	Methylene chloride	0.10 JQ µg/L	Previously qualified "JB" because of method blank – no qualification required for trip blank
TB-071405	Acetone	3.0 µg/L (JB)	Previously qualified "JB" because of method blank
	Methylene chloride	0.11 µg/L (JB)	Previously qualified "JB" because of method blank
TB-071505	Acetone	2.7 µg/L	Previously qualified
	Methylene chloride	0.095 µg/L	Previously qualified
TB-071705	Acetone	3.5 µg/L (JQ)	USGS-G3, USGS-L2, USGS-M2
	Carbon disulfide	0.21 µg/L (JQ)	None
TB-071805	Acetone	1.8 µg/L (JQ)	None
	Methylene chloride	0.40 µg/L (JQ)	None

The following samples were diluted to place certain VOC results within the range of the calibration curve, resulting in elevated RLs:

Sample	Dilution Factor	Analyte
AEHA-24B	20×	cis-1,2-Dichloroethene, trichloroethene
AEHA-25B	10×	Trichloroethene
AEHA-30B	10×, 100×	All; cis-1,2-dichloroethene; trichloroethene
OU6DUP-4	10×	Trichloroethene
OU6DUP-5	2×, 200×	Tetrachloroethene; cis-1,2-dichloroethene; trichloroethene; vinyl chloride

Results were reported at the RL and evaluated down to the MDL. Results less that the RL but above the MDL were qualified as estimated and flagged "JQ".

Sample ID	Affected Analytes
AEHA-24B	1,1-Dichloroethane; 1,1-dichloroethene; 1,2-dichlorobenzene; benzene; dichlorodifluoromethane
AEHA-25A	1,1-Dichloroethane; 1,1-dichloroethene; 1,2-dichloroethane; 1,4-dichlorobenzene; benzene
AEHA-25B	1,1-Dichloroethene; tetrachloroethene; trans-1,2-dichloroethene
AEHA-27B	Chlorobenzene
AEHA-30B	Dichlorodifluoromethane; 1,1-dichloroethane; 1,1-dichloroethene; 1,2-dichloroethane; 1,2-dichlorobenzene; 1,4-dichlorobenzene; trans-1,2-dichloroethene
AEHA-31B	Tetrachloroethene, trichloroethylene
DMW-9B	Trichloroethene, tetrachloroethene
LAWMW-Q	Chloromethane
USGS-BR2	1,2,4-Trimethylbenzene; ethylbenzene; o-xylene; styrene; m,p-xylenes
USGS-C2	Tetrachloroethene
USGS-G3	Chloromethane
USGS-F2	1,1-Dichloroethane
USGS-H2	Trichloroethene
USGS-K2	1,1-Dichloroethane
USGS-L2	Chloromethane
USGS-M2	Chloromethane
OU6DUP-4	1,1-Dichloroethene; tetrachloroethene; trans-1,2-dichloroethene; m,p-xylenes
OU6DUP-5	Benzene; 1,3-dichlorobenzene; o-xylene; toluene; 1,1,2-trichloroethane
OU6DUP-6	1,2,4-Trimethylbenzene; ethylbenzene; o-xylene; styrene; m,p-xylenes

Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently overridden by the "JQ" qualifier.

Dissolved Gases (RSK-175) – Dissolved gas data collected from the lower WBU (carbon dioxide, methane, ethane, and ethene) were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS recoveries, field duplicate precision, trip blanks, and rinsate blanks. MS/MSD analyses are not assayed for dissolved gas analysis. Any failures among the method listed are discussed below.

The initial and continuing calibration for each instrument used for the analysis of dissolved gases was assumed to be within acceptable criteria. The project-specified 7-day holding time for carbon dioxide was exceeded; however, the method-specified holding time of 14 days was met. Carbon dioxide results for samples analyzed outside the project holding time (AEHA-18B, AEHA-24B, AEHA-25B, AEHA-31B, AEHA-32B, AEHA-33B, DMW-9B, OU6DUP-4, USGS-B2, USGS-F2, USGS-G3, USGS-K2, USGS-L2, USGS-M2, and USGS-P2) were qualified as estimated and flagged "J". The

laboratory batch preparation blanks (method blanks) did not contain reportable concentrations of carbon dioxide, methane, ethane, or ethene. Batch LCSs for dissolved gases were within acceptable limits.

Two field duplicate pairs (AEHA-25B/OU6DUP-4 and AEHA-30B/OU6DUP-5) were collected and analyzed for dissolved gases. The RPD between the sample and the duplicate was outside QC limits for ethane in AEHA-30B/OU6DUP-5, and the associated results were qualified as estimated and flagged "UJ" and "J", respectively.

An equipment blank sample (OU6-BLAD-EQB) was collected to represent samples collected with a non-dedicated bladder pump, and the dissolved gas results were nondetect. Two trip blanks (TB-071505 and TB-071205) associated with groundwater samples were reported to contain methane below the RL. Sample results associated with those trip blank samples and less than five times the blank value for methane (USGS-C2 and USGS-N1) were qualified as estimated, possibly biased high or false positive based on trip blank data, and flagged "JB".

Results were reported at the RL and evaluated down to the MDL. Flagging of dissolved gas results less than the RL but greater than the MDL (JQ) was necessary for methane in AEHA-28B and ethene in samples AEHA-30B and OU6DUP-5.

VFAs (ASTM D1552) – Samples AEHA-25B, AEHA-30B, USGS-F2, USGS-G3, and USGS-H2 were assayed for VFAs. VFA data collected from the lower WBU (acetic, butyric, lactic, propionic, and pyruvic acids) were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The initial and continuing calibration for each instrument used for the analysis of VFAs was assumed to be within acceptable criteria. The laboratory batch preparation blanks (method blanks) did not contain reportable concentrations of VFAs. The batch LCS recovered above the acceptable limits (high) for pyruvic acid. However, the MS/MSD performed on project-specified sample MWA50-37 (upper WBU) was within QC limits and there were no positive results in the samples. Therefore, no qualification of the data was required.

No field duplicate pairs were collected from the lower WBU and analyzed for VFAs. Results were reported at the RL and evaluated down to the MDL. Flagging of VFA results less than the RL but greater than the MDL (JQ) was not necessary.

Total Metals (SW-6010B/6020) – Antimony, arsenic, lead, selenium, and thallium were analyzed by ICP/Mass Spectrometry Method SW-6020. Remaining metals were analyzed by ICP Method SW-6010B.

Metals data collected from the lower WBU were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, equipment blanks, and field duplicate precision, in addition to method-specific QC such as post-digestion spikes and serial dilutions. Any failures among the method listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits.

All holding times for the groundwater samples were met. The laboratory batch preparation blanks (method blanks) and/or CCBs were less than the RL but above the MDL for some metals. Only the sample results less than five times the blank value and qualified as estimated with possible method blank contamination and flagged "JB" are shown below.

Metal	Affected Samples
Antimony	AEHA-23B, AEHA-30B, DMW-9B, OU6DUP-5, USGS-B2, USGS-C2, USGS-F2, USGS-H2, USGS-L2, USGS-P2
Copper	AEHA-18B, AEHA-25B, AEHA-27B, OU6DUP-4
Lead	AEHA-28B, DMW-9B, USGS-F2, USGS-G3, USGS-K2, USGS-L2, USGS-M2, USGS-P2
Molybdenum	AEHA-18B, AEHA-31B, USGS-G3
Potassium	AEHA-24B
Vanadium	AEHA-18B
Zinc	AEHA-21B, AEHA-27B, AEHA-28B, DMW-9B, OU6DUP-4, USGS-N1, USGS-K2, OU6DUP-4

The batch LCS for total metals was within USACE-prescribed limits (80 to 120 %R) or within SMF criteria. An MS/MSD was performed for metals on sample AEHA-21B. Recoveries and RPDs were within QC limits.

An equipment blank sample (OU6-BLAD-EQB) was collected and reported to contain metals. Calcium, sodium, and zinc were detected in the equipment blank sample below the RL but above the MDL. Natural earth metals (calcium and sodium) were present in the equipment blank and are expected to be

present in the water and soil matrices. Therefore, no qualification of the data for these results was applied. In addition, no qualification of the data was required for analytes detected in the equipment blank below the RL.

Elevated levels of zinc were detected in samples USGS-F2 (674 µg/L) and USGS-H2 (710 µg/L). Review of laboratory procedures, glassware, sample containers, and preservatives did not indicate a source for the elevated zinc. The unprepared samples were re-analyzed, and the zinc levels supported the analytical results. Field procedures were also reviewed, and no source for the zinc could be determined. However, a review of the historical data for these samples indicated that zinc has not been detected (<20 µg/L) in sample USGS-F2 in the past eight sampling events. Therefore, the zinc results reported for sample USGS-F2 were considered unusable and flagged "R". Historically, zinc was present at low concentrations ranging from 12.1 JQ to 355 µg/L in sample USGS-H2. Therefore, the zinc result reported for sample USGS-H2 was considered unusable and flagged "R".

Two field duplicate pairs (AEHA-25B/OU6DUP-4 and AEHA-30B/OU6DUP-5) were collected and analyzed for metals. The RPDs between the samples and the duplicates were within QC limits. A serial dilution to assess matrix effects was performed on total metals sample AEHA-21B, and recoveries were within QC limits. In addition, the laboratory flagging indicated that the zinc results reported for samples AEHA-21B and AEHA-26B are estimated because of interferences; therefore, zinc results for each sample were qualified as estimated and flagged "J".

Results were reported at the RL and evaluated down to the MDL. Results less than the RL but above the MDL were qualified as estimated and flagged "JQ". Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently overridden by the "JQ" qualifier.

Total Mercury (SW-7470A) – Mercury data collected from the lower WBU were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, equipment blanks, and field duplicate precision, in addition to method-specific QC such as post-digestion spikes and serial dilutions. Any failures among the method listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits. The laboratory batch preparation blanks (method blanks) did not contain mercury.

Batch LCSs for mercury were within acceptable limits. An MS/MSD was performed on sample AEHA-21B, and the recoveries and RPDs were within QC limits. The equipment blank sample (OU6-BLAD-EQB) did not contain mercury. Two field duplicate pairs (AEHA-25B/OU6DUP-4 and AEHA-30B/OU6DUP-5) was collected and analyzed for mercury. The RPD for the duplicate pairs was within QC requirements or could not be calculated because the parent and duplicate samples did not contain mercury.

A serial dilution was performed on sample AEHA-21B, and percent differences were within QC limits.

Results were reported at the RL and evaluated down to the MDL. Results less than the RL but above the MDL were qualified as estimated and flagged "JQ" in samples AEHA-21B, AEHA-23B, AEHA-24B, AEHA-26B, AEHA-28B, AEHA-30B, AEHA-33B, DMW-28E, and USGS-P2.

Anions (300.0A) – Anion (chloride, nitrate, and sulfate) data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The initial and continuing calibration for each instrument used for the analysis of chloride, nitrate, and sulfate was assumed to be within acceptable criteria. The laboratory batch preparation blanks (method blanks) contained no reportable concentrations of chloride, nitrate, and sulfate.

Batch LCSs for anions were within acceptable limits. The MS/MSD recoveries and RPD for sample AEHA-21B were within acceptable limits.

Two field duplicate pairs (AEHA-24B/OU6DUP-4 and AEHA-30B/OU6DUP-5) were collected and analyzed for anions. The RPD between the samples and the duplicates was within QC limits.

An equipment blank sample (OU6-BLAD-EQB) was collected and analyzed to assess possible contamination from using non-dedicated sampling equipment, and was nondetect for chloride, nitrate, and sulfate.

The following samples were diluted to place certain anion results within the range of the calibration curve, resulting in elevated RLs:

Sample	Dilution Factor	Compound
AEHA-24B	10×	Chloride
AEHA-30B	10×	Chloride
AEHA-33B	10×	Chloride, sulfate
AEHA-31B	10×	Chloride
OU6DUP-5	10×	Chloride
USGS-B2	2×	Chloride
USGS-K2	10×	Chloride
USGS-P2	10×	Sulfate

Results were reported at the RL and evaluated down to the MDL. Flagging of anion results less than the RL but greater than the MDL (JQ) was necessary for nitrate in samples AEHA-21B, AEHA-23B, AEHA-26B, AEHA-28B, DMW-9B, USGS-G3, USGS-H2, and USGS-L2, and chloride in sample AEHA-26B. Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently overridden by the "JQ" qualifier.

TOC (9060) – TOC data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The initial and continuing calibration for each instrument used for the analysis of TOC was assumed to meet acceptable criteria. The laboratory batch preparation blanks (method blank) contained TOC below the RL at 0.1, 0.2, and 0.5 JQ mg/L, respectively. TOC sample results for samples AEHA-21B, AEHA-24B, AEHA-25B, AEHA-26B, AEHA-31B, AEHA-32B, DMW-9B, and OU6DUP-4 were flagged "JH" because the sample result was greater than the blank concentration but less than five times the blank value.

Batch LCSs for TOC were within acceptable limits. The MS/MSD recoveries for TOC in spiked sample AEHA-21B were within acceptable QC limits.

Two field duplicate pairs (AEHA-25B/OU6DUP-4 and AEHA-30B/OU6DUP-5) were collected and analyzed for TOC. The RPD between the sample and the duplicate was outside QC limits for AEHA-30B/OU6DUP-5, and both results were qualified as estimated and flagged "J".

An equipment blank (OU6-BLAD-EQB) was collected and analyzed to assess possible contamination from non-dedicated sampling equipment, and TOC was detected below the RL at 0.6 JQ mg/L. No qualification of the data was required for analytes detected in the equipment blank below the RL.

Results were reported at the RL and evaluated down to the MDL. Flagging of TOC results less than the RL but greater than the MDL (JQ) was necessary for samples AEHA-23B, AEHA-28B, AEHA-33B, LAWMW-Q, USGS-C2, USGS-G3, USGS-M2, USGS-N1, and USGS-P2.

Alkalinity (310.1) – Alkalinity data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The project-specific hold times for alkalinity were not met, but the samples were analyzed within the method hold time. Therefore, no additional qualification was necessary.

The titration standardization performed for the analysis of alkalinity was assumed to meet acceptable criteria, as were the initial and continuing calibration checks. The laboratory batch preparation blanks (method blanks) did not contain alkalinity. Batch LCSs for alkalinity were within acceptable limits. The MS/MSD recoveries for alkalinity in spiked sample AEHA-21B were within acceptable QC limits.

Two field duplicate pairs (AEHA-25B/OU6DUP-4 and AEHA-30B/OU6DUP-5) were collected and analyzed for alkalinity. The RPD for the duplicate pairs was outside QC requirements for AEHA-30B/OU6DUP-5, and both associated results were qualified as estimated and flagged "J".

An equipment blank (OU6-BLAD-EQB) was collected and analyzed to assess possible contamination from non-dedicated sampling equipment, and alkalinity was detected below the RL at 2.0 JQ mg/L. No qualification of the data was required for analytes detected in the equipment blank below the RL.

Results were reported at the RL and evaluated down to the MDL. Flagging of alkalinity results less than the RL but greater than the MDL (JQ) was necessary for samples AEHA-24B and DMW-9B. Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently overridden by the "JQ" qualifier.

Sulfide (376.1) – Sulfide data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The titration standardization performed for the analysis of sulfide was assumed to meet acceptable criteria. The laboratory batch preparation blanks (method blanks) did not contain sulfide. One of the batch LCSs for sulfide was outside acceptable limits. Associated sulfide results (USGS-B2, USGS-G3, USGS-L2, and USGS-M2) were qualified as estimated and flagged "UJ". The MS/MSD recoveries and RPDs for spiked sample AEHA-21B were within acceptable laboratory limits.

Two field duplicate pairs (AEHA-25B/OU6DUP-4 and AEHA-30B/OU6DUP-5) were collected and analyzed for sulfide. The RPD for the duplicate pairs could not be calculated because the results were nondetect. An equipment blank sample (OU6-BLAD-EQB) was collected and analyzed to assess possible contamination from using non-dedicated sampling equipment. The equipment blank was nondetect for total sulfide.

Results were reported at the RL and evaluated down to the MDL. Flagging of sulfide results less than the RL but greater than the MDL (JQ) was not necessary.

Dissolved Hydrogen (AM20GAX) – Hydrogen data were evaluated using a Tier II approach that consisted of a review of holding times, method and calibration blanks, LCS recoveries, and field duplicate precision. MS/MSD samples were not required for hydrogen analysis. Any failures among the method listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits.

Samples were received intact, and holding times were met for the samples submitted to Microseeps, Inc., for analysis. Method blanks were within method-stated control limits. LCS results were also within laboratory-established limits.

Two field duplicate pairs (OU6DUP-4/AEHA-25B and OU6DUP-5/AEHA-30B) were collected and analyzed. RPD between the parent sample and the duplicate sample was within specified limits (<20 percent).

Results were reported at the RL and evaluated down to the MDL. Results less that the RL but above the MDL (AEHA-23B, USGS-G3, USGS-K2, USGS-M2, and USGS-P2) were qualified as estimated and flagged "JQ".

D-2.4 COMPLETENESS

Except as previously noted, the DQIs were within the USACE-prescribed QC limits and require only the qualifications described. Percent completeness for the data collection efforts and DQO attainment is 99.94 percent. A discussion of compound and/or method completeness compared to project objectives, as well as the effects of field conditions on project objectives, is presented below.

Samples were collected and parameters analyzed from each well proposed, with the exception of USGS-K4. Hydrogen could not be collected from monitoring well USGS-K4 because of insufficient volume. Hydrogen results, in addition to several other parameters, are used to evaluate the water system's ability for natural attenuation. Because an evaluation of natural attenuation processes depends on several parameters, the lack of hydrogen results for this location does not adversely impact the project objectives.

Zinc results were unusually elevated in five of the samples (AEHA-30A, AEHA-32A, USGS-D4, USGS-F2, and USGS-H2); however, no reasonable explanation could be generated by laboratory QC checks, including re-evaluation of the raw data and analysis of the nitric acid preservative. A review of field procedures and conditions could illicit no explanation for the anomaly. Five zinc results were qualified as unusable and flagged "R" because of professional judgment from a review of historical data from eight previous sampling events, resulting in a completeness of 91.9 percent. This completeness is within the project DQO of 90 percent. Zinc is a relatively common metal found in natural waters, and sporadic absence of zinc data does not adversely impact the project MNA objectives.

D-3.0 OPERABLE UNIT 7 DATA QUALITY EVALUATION

The following sections provide summary discussions of data quality for samples collected during the July 2005 bi-annual sampling event at OU 7. Groundwater samples were collected from monitoring well locations to evaluate MNA characteristics of each WBU. The comprehensive analytical results for samples associated with the bi-annual sampling event are summarized in Appendix B (Tables B-4 through B-6). Field duplicate, trip blank, and equipment blank associations are presented in Appendix B, Table B-9.

D-3.1 GROUNDWATER – JULY 2005

A total of 27 groundwater wells and 3 piezometers were sampled in July 2005. All wells except MW112-2, MWFOS-3, OU7PZ-2, OU7PZ-4, and OU7PZ-8 were sampled with dedicated bladder pumps. Equipment blank OU7-BLAD-EQB was collected on 19 July 2005 to represent these groundwater samples. The correct sample containers and preservatives were used for the analytical methods specified on the COC. Additionally, the correct methods were employed for extraction/digestion and analysis as outlined in the Work Plan. The appropriate units, detection limits, and compounds were reported by the laboratory per the 2005 subcontract agreements between MACTEC and CAS and MACTEC and Microseeps, Inc.

D-3.1.1 Upper Water Bearing Unit

A total of 22 groundwater and 2 duplicate samples were collected from the upper WBU. Samples MW112-2, MWFOS-3, OU7PZ-2, OU7PZ-4, and OU7PZ-8 were collected with non-dedicated bladder pumps. To minimize cross-contamination from the use of non-dedicated equipment, each sample was collected with a disposable bladder.

VOCs (SW-8260B) – VOC data collected from the upper WBU were evaluated using a Tier II approach that consisted of a review of holding times; method, calibration, trip, and equipment blanks; LCS recoveries; MS/MSD recoveries and RPDs, and field duplicate precision, in addition to method-specific QC such as surrogates and internal standards. Any failures among the method listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits.

All holding times for the initial analysis of water samples were met; however, six samples required re-analysis outside the holding time. Samples DMW-26A, MWFTA-1, and MWFTA-9 were re-analyzed because of possible target analyte carryover, and samples AEHADG-10, OU7DUP-1, and DMW-33A

were re-analyzed for dilution outside the recommended holding time. The initial run was used for sample DMW-26A because carryover was ruled out. Sample MWFTA-1 was re-analyzed three days past the holding time because of possible target analyte carryover. Carryover was confirmed in the original analysis, and the re-analysis data were used and qualified "UJ/J" for holding time exceedances. Carryover was confirmed in MWFTA-9, and the re-analysis was used and qualified "UJ/J" for holding time exceedances. Sample AEHADG-10 was analyzed for dilutions three and six days outside the holding time, and sample OU7DUP-1 was re-analyzed at a dilution three days outside the holding time. In both samples, the diluted results were similar to the undiluted results, and diluted results were necessary only for 1,1,1-trichloroethane; 1,1-dichloroethane; 1,1-dichloroethene (DCE); 1,2-dichlorobenzene; carbon tetrachloride; chloroform; cis-1,2-dichloroethene (cDCE); naphthalene; tetrachloroethene (PCE); trans-1,2-dichloroethene; trichloroethylene; vinyl chloride (VC); and total xylenes (for OU7DUP-1 only); therefore, qualification of the diluted analytes was not necessary. In sample DMW-33A, the diluted results were similar to the undiluted results, and diluted results were necessary only for 1,1,1-TCA; 1,1-dichloroethane; 1,1-DCE; cDCE; PCE; and trichloroethene; therefore, qualification of the diluted analytes was not necessary.

The batch-specific method blanks associated with the samples were analyzed and reported to contain VOCs, as indicated below. The samples with concentrations less than or equal to 5 times these concentrations (10 times for acetone and MC) were accordingly qualified as estimated based on blank contamination and flagged as "JB", unless overridden by qualifications for other QC exceedances. Associated samples that were nondetects required no qualification.

Blank ID	Analyte	Concentration	Action/Affected Samples
U0728W01	Hexachlorobutadiene	0.18 µg/L (JQ)	None
C0802W01	Hexachlorobutadiene	0.31 µg/L (JQ)	None
K0802W01	Acetone	1.5 µg/L (JQ)	DMW-26A
	Chloroform	0.11 µg/L (JQ)	None
	1,2,4-Trimethylbenzene	0.28 µg/L (JQ)	None
	o-Xylene	0.25 µg/L (JQ)	DMW-33A
U0801W02	Acetone	0.88 µg/L (JQ)	MWFTA-5, MWFTA-10, OU7-BLAD-EQB, OU7PZ-2, OU7PZ-4, OU7PZ-8, TB-071905
	Naphthalene	0.11 µg/L (JQ)	None
	1,2,3-Trichlorobenzene	0.13 µg/L (JQ)	None
C0803W01	Hexachlorobutadiene	0.44 µg/L (JQ)	None
C0804W02	1,2,3-Trichlorobenzene	0.14 µg/L (JQ)	None
K0809W01	Acetone	1.8 µg/L (JQ)	None
	Bromomethane	0.29 µg/L (JQ)	None

The batch-specific LCSs were analyzed, and recoveries were within acceptable QC criteria, with the exception of hexachlorobutadiene in LCS U0801W02. No qualification of the data was necessary because the recovery was high (142 percent) and the associated samples were nondetect. An MS/MSD was performed on sample MWFTA-1, and the recoveries and RPDs were within the QC and/or SMF limits.

The internal standards added to the samples by the laboratory were recovered outside QC limits for the diluted analysis and subsequent diluted re-analysis of samples MWFOS-3 and MWFTA-23. The recovery of internal standard 3 (dichlorobenzene-d4) was low, and the associated positive results were qualified as estimated and flagged "J" as shown below. Flags were applied only to analytes that were above the calibration range in the initial analysis and reported from the diluted instrument run.

Sample ID	Affected Analytes
MWFTA-23	1,2-Dichlorobenzene; 1,4-dichlorobenzene; cis-1,2-dichloroethene; trans-1,2-dichloroethene; vinyl chloride
MWFOS-3	cis-1,2-Dichloroethene

The surrogates added to the samples by the laboratory recovered outside QC limits for the diluted re-analysis of samples MWFTA-23 and MWFOS-3. However, the results of this analysis were not used because of the previously described internal standard failure in the diluted re-analysis. No additional flagging of the data was necessary.

Two field duplicate pairs (AEHADG-10/OU7DUP-1 and MWFTA-3/OU7DUP-2) were collected. The RPD between the samples and their duplicates was within the QC limits.

An equipment blank sample (OU7-BLAD-EQB) was collected to represent samples collected with a non-dedicated bladder pump. Low levels of VOCs were detected in the equipment blank. The samples with concentrations less than or equal to 5 times these concentrations (10 times for acetone and MC) were accordingly qualified as estimated based on blank contamination and flagged as "JB", unless overridden by qualifications for other QC exceedances. Associated samples that were nondetects required no qualification. No qualification of the data was required for analytes detected in the equipment blank below the RL.

Analyte	Concentration	Associated Samples
Chloroform	1.4 µg/L	None

The trip blanks associated with the groundwater samples were reported to contain several analytes, as shown below. Sample results less than 10 times the blank value for common laboratory contaminants and 5 times the blank value for other target analytes were qualified as estimated with possible trip blank contamination and flagged "JB".

Blank ID	Analyte	Concentration	Affected Samples
TB-071805-2	Acetone	3.1 µg/L (JQ)	DMW-22A, DMW-25A, DMW-27A, MW-112-2
TB-071905	Methylene chloride	0.4 µg/L (JQ)	DMW-26A, DMW-33A, MWFTA-5, MWFTA-10, OU7PZ-4, OU7-BLAD-EQB
TB-072005	Acetone	5.1 µg/L (JQ)	DMW-13A, DMW-20A, DMW-35A, OU7DUP-2
	Chloromethane	0.42 µg/L (JQ)	AEHADG-10, DMW-13A, DMW-20A, DMW-35A, MWFTA-3, OU7DUP-1, OU7DUP-2
	Trichloroethene	0.25 µg/L (JQ)	MWFTA-1*
	Tetrachloroethene	0.22 µg/L (JQ)	DMW-20A*, MWFTA-1*

*The "JB" qualifiers were removed from the PCE and trichloroethene (TCE) results for samples MWFTA-1 and DMW-20A because these compounds historically have been detected in these wells along with daughter product cDCE and are believed to be representative of groundwater conditions.

The following samples were diluted to place certain VOC results within the range of the calibration curve, resulting in elevated RLs:

Sample	Dilution Factor	Analyte
MWFOS-3	10×, 250×	All; cis-1,2-dichloroethene; trichloroethene
MWFTA-23	200×	1,2-Dichlorobenzene; 1,4-dichlorobenzene; chlorobenzene; cis-1,2-dichloroethene; trans-1,2-dichloroethene; trichloroethene; vinyl chloride
OU7DUP-3	5×	cis-1,2-Dichloroethene
DMW-33A	50×	1,1,1-Trichloroethane; 1,1-dichloroethane; 1,1-dichloroethene; cis-1,2-dichloroethene; tetrachloroethene; trichloroethene
OU7PZ-4	5×	Trichloroethene
AEHADG-10	10×	1,2-Dichlorobenzene; 1,1-dichloroethane; carbon tetrachloride; chloroform; trans-1,2-dichloroethene; naphthalene; vinyl chloride
AEHADG-10	500×	1,1-Dichloroethene; cis-1,2-dichloroethene; 1,1,1-trichloroethane; tetrachloroethene

Sample	Dilution Factor	Analyte
AEHADG-10	1000×	Trichloroethene
OU7DUP-1	10×	1,2-Dichlorobenzene; 1,1-dichloroethane; carbon tetrachloride; chloroform; trans-1,2-dichloroethene; m,p-xylenes; naphthalene; vinyl chloride
OU7DUP-1	1000×	1,1-Dichloroethene; cis-1,2-dichloroethene; 1,1,1-trichloroethane; tetrachloroethene; trichloroethene

Results were reported at the RL and evaluated down to the MDL. Results less than the RL but above the MDL were qualified as estimated and flagged "JQ".

Sample ID	Affected Analytes
AEHADG-10	1,1,2,2-Tetrachloroethane; 1,1,2-trichloroethane;1,2,3-trichlorobenzene; 1,2,4-trichlorobenzene; 4-methyl-2-pentanone; benzene; chloroethane; p-isopropyltoluene; and t-butylbenzene
DMW-20A	trans,1-2-Dichloroethene; tetrachloroethene; trichloroethene
DMW-22A	Chloromethane; trans-1,2-dichloroethene; vinyl chloride
DMW-25A	Chloromethane, trichloroethylene
DMW-26A	Chloromethane, tetrachloroethene, trichloroethene
DMW-27A	Chloromethane
DMW-33A	Chlorobenzene; chloroethane; chloromethane; 1,3-dichlorobenzene; trichlorofluoromethane
DMW-35A	1,1-Dichloroethene
MW112-2	Chloromethane, toluene
MWFOS-3	1,3-Dichlorobenzene; toluene
MWFTA-1	1,1-Dichloroethane; cis-1,2-dichloroethene; tetrachloroethene; trichloroethene
MWFTA-3	1,1-Dichloroethane
MWFTA-5	Chloromethane
MWFTA-7	Chloromethane
MWFTA-9	Chloromethane
MWFTA-10	Chloromethane
MWFTA-23	1,1,2-Trichloroethane; 1,2,4-trichlorobenzene; benzene; chloromethane
OU7PZ-2	1,1-Dichloroethane; chloromethane; 2-butanone
OU7PZ-4	1,2-Dichlorobenzene; chloromethane; methyl t-butyl ether; trans-1,2-dichloroethene; vinyl chloride
OU7PZ-8	1,1-Dichloroethane; 1,2-dichloroethene; chloromethane; 2-butanone; methyl t-butyl ether; tetrachloroethene
OU7DUP-1	1,1,2,2-Tetrachloroethane; 1,1,2-trichloroethane; 1,2,3-trichlorobenzene; 1,2,4-trichlorobenzene; benzene; chloroethane; p-isopropyltoluene
OU7DUP-2	1,1-Dichloroethane; carbon disulfide
OU7-BLAD-EQB	Carbon disulfide, 2-butanone
TB-071805-2	Acetone
TB-071905	Methylene chloride
TB-072005	Acetone, chloromethane, methylene chloride, tetrachloroethene, trichloroethene

Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently overridden by the "JQ" qualifier.

Dissolved Gases (RSK-175) – Dissolved gas data collected from the upper WBU (carbon dioxide, methane, ethane, and ethene) were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS recoveries, field duplicate precision, trip blanks, and rinsate blanks. Any failures among the method listed are discussed below.

The project-specified seven-day holding time for carbon dioxide was exceeded for all samples, and associated results were qualified as estimated and flagged "J" or "UJ". However, the method-specified holding time of 14 days was met. Additionally, the holding time for methane, ethane, and ethene was exceeded in samples DMW-26A, DMW-33A, MWFTA-5, MWFTA-9, MWFTA-10, OU7-BLAD-EQB, OU7PZ-2, OU7PZ-4, OU7PZ-8, and TB-071905. The associated dissolved gas results were qualified as estimated for exceeding the holding time and flagged "J" or "UJ". Discussions with laboratory personnel indicated that they referenced the 28-day holding time stated in the QAPP (Air Force Center for Environmental Excellence [AFCEE], 2001); therefore, holding times for the other samples were considered as being met. For future DSCR projects, a 14-day holding time for dissolved gases will be utilized.

The initial and continuing calibration for each instrument used for the analysis of dissolved gases was assumed to be within acceptable criteria. The laboratory batch preparation blanks (method blanks) did not contain reportable concentrations of carbon dioxide, methane, ethane, or ethene. Batch LCSs for dissolved gases were within acceptable limits.

Two field duplicate pairs (AEHADG-10/OU7DUP-1 and MWFTA-3/OU7DUP-2) were collected and analyzed for dissolved gases. The RPDs between the samples and duplicates were within QC limits.

The trip blanks associated with the groundwater samples were reported to contain methane, as shown below. Sample results less than five times the blank value were qualified as estimated with possible trip blank contamination and flagged "JB".

Blank ID	Analyte	Concentration	Affected Samples
TB-071905	Methane	0.52 µg/L	MWFTA-5,MWFTA-9, OU7-BLAD-EQB
TB-072005	Methane	0.54 µg/L	DMW-13A, DMW-35A

An equipment blank sample (OU7-BLAD-EQB) was collected to represent samples collected with a non-dedicated bladder pump, and there was a positive result for methane at 0.46 µg/L (JB). However, the positive result was itself flagged "JB" for trip blank contamination, and no flagging of the data was necessary.

Results were reported at the RL and evaluated down to the MDL. Flagging of dissolved gas results less than the RL but greater than the MDL (JQ) was necessary for methane in MWFOS-1.

VFAs (ASTM D1552) – Samples AEHADG-10, DMW-27A, MWFOS-3, DMW-33A, and OU7DUP-1 were assayed for VFA analysis. VFA data (acetic, butyric, lactic, propionic, and pyruvic acids) were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The initial and continuing calibration for each instrument used for the analysis of VFAs was assumed to be within acceptable criteria. The laboratory batch preparation blanks (method blanks) did not contain reportable concentrations of VFAs. The batch LCS recovered above the acceptable limits (high) for pyruvic acid. However, the MS/MSD recoveries in sample DMW-27A were within QC limits and there were no positive results in the samples. Therefore, no qualification of the data was required.

One field duplicate pair (AEHADG-10/OU7DUP-1) was collected and analyzed for VFAs. The RPD between the sample and the duplicate could not be calculated because the results were nondetect. Results were reported at the RL and evaluated down to the MDL. Flagging of VFA results less than the RL but greater than the MDL (JQ) was not necessary.

Total Metals (SW-6010B/6020) – Antimony, arsenic, lead, selenium, and thallium were analyzed by ICP/MS Method SW-6020. Remaining metals were analyzed by ICP Method SW-6010B.

Metals data collected from the upper WBU were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, equipment blanks, and field duplicate precision, in addition to method-specific QC such as post-digestion spikes and serial dilutions. Any failures among the method listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits.

All holding times for the groundwater samples were met. The laboratory batch preparation blanks (method blanks) and/or CCBs were less than the RL but above the MDL for some metals. Only the sample results less than five times the blank value and qualified as estimated with possible method blank contamination and flagged "JB" are shown below.

Metal (SW-6010)	**Affected Samples**
Aluminum	AEHADG-10, DMW-20A, DMW-35A, MWFTA-1, MWFTA-3, OU7DUP-1, OU7DUP-2
Copper	DMW-25A
Iron	DMW-25A, MWFOS-1
Molybdenum	MWFOS-1
Silver	MWFTA-3
Zinc	AEHADG-10, DMW-22A, DMW-25A, MW-112-2, MWFOS-1, MWFTA-23, MWFTA-7, MWFTA-1, MWFTA-3, OU7DUP-1, OU7DUP-2
Metal (SW-6020)	**Affected Samples**
Antimony	DMW-13A, DMW-26A, DMW-33A, DMW-35A, MWFTA-1, MWFTA-3, MWFTA-9, MWFTA-10, OU7-BLAD-EQB, OU7DUP-1, OU7DUP-2, OU7PZ-2, OU7PZ-8
Lead	AEHADG-10, DMW-33A, DMW-35A, MWFTA-1, MWFTA-5, MWFTA-10, OU7-BLAD-EQB, OU7PZ-2, OU7PZ-4, OU7PZ-8, OU7DUP-1

The batch LCS for total metals was within USACE-prescribed limits (80 to 120 %R) or within SMF criteria. An MS/MSD was performed for metals on sample MWFTA-1, and the recovery of arsenic was outside QC limits. The associated arsenic result in MWFTA-1 was qualified as estimated and flagged "J". A serial dilution to assess matrix effects was performed on total metals sample MWFTA-1. Recoveries were within QC limits for all metals present at >50 times the MDL.

An equipment blank sample (OU7-BLAD-EQB) was collected and reported to contain metals. Aluminum, antimony, calcium, and lead were detected in the equipment blank sample below the RL but above the MDL. Sodium was detected above the RL. Natural earth metals (aluminum, calcium, and sodium) were present in the equipment blank and are expected to be present in the water and soil

matrices. Therefore, no qualification of the data of these results was applied. In addition, no qualification of the data was required for analytes detected in the equipment blank below the RL.

Two field duplicate pairs (AEHADG-10/OU7DUP-1 and MWFTA-3/OU7DUP-2) were collected and analyzed for metals. The RPD for the duplicate pairs was within QC requirements.

Elevated levels of zinc were detected in sample MWFTA-5 (759 µg/L). A review of laboratory procedures, glassware, sample containers, and preservatives did not indicate a source for the elevated zinc. The unprepared samples were re-analyzed, and the zinc levels supported the analytical results. Field procedures were also reviewed, and no source for the zinc could be determined. However, a review of the historical data for this sample indicated that zinc has not been detected above the RL (<20 µg/L) in sample MWFTA-5 in the past eight sampling events. Therefore, the zinc results reported for sample MWFTA-5 were considered unusable and flagged "R".

Results were reported at the RL and evaluated down to the MDL. Results less than the RL but above the MDL were qualified as estimated and flagged "JQ". Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently overridden by the "JQ" qualifier.

Total Mercury (SW-7470A) – Mercury data collected from the upper WBU were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, equipment blanks, and field duplicate precision, in addition to method specific QC such as post-digestion spikes and serial dilutions. Any failures among the method listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits. The laboratory batch preparation blanks (method blanks) did not contain mercury.

Batch LCSs for mercury were within acceptable limits. An MS/MSD was performed on sample MWFTA-1, and the recovery was outside QC limits. The associated mercury result was qualified as estimated and flagged "UJ". A serial dilution was performed on sample MWFTA-1, and the recovery was within QC limits.

The equipment blank sample (OU7-BLAD-EQB) did not contain mercury.

Two field duplicate pairs (AEHADG-10/OU7DUP-1 and MWFTA-3/OU7DUP-2) were collected and analyzed for mercury. The RPDs for the duplicate pairs were within QC requirements.

Results were reported at the RL and evaluated down to the MDL. Flagging of mercury results less than the RL but above the MDL (JQ) was not required.

Anions (300.0A) – Anion data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The initial and continuing calibration for each instrument used for the analysis of chloride, nitrate, and sulfate was assumed to be within acceptable criteria. The laboratory batch preparation blanks (method blanks) did not contain reportable concentrations of chloride, nitrate, and sulfate.

Batch LCSs for anions were within acceptable limits. The MS/MSD recoveries for spiked sample MWFTA-1 were within QC or SMF limits. No flagging of the data was necessary.

Two field duplicate pairs (AEHADG-10/OU7DUP-1 and MWFTA-3/OU7DUP-2) were collected and analyzed for anions. The RPD between the samples and duplicates was within QC limits.

An equipment blank sample (OU7-BLAD-EQB) was collected and analyzed to assess possible contamination from using non-dedicated sampling equipment, and was nondetect for chloride, nitrate, and sulfate.

The following samples were diluted to place certain anion results within the range of the calibration curve, resulting in elevated RLs:

Sample	Dilution Factor	Compound
AEHADG-10	10×	Chloride, sulfate
DMW-13A	10×	Chloride, sulfate
DMW-20A	10×	Chloride
DMW -22A	10×	Chloride
DMW-25A	10×	Sulfate
DMW-26A	10×	Chloride
DMW-27A	10×	Chloride
DMW-35A	10×	Chloride
DMW-33A	10×	Chloride
MW112-2	10×	Chloride
MWFTA-1	10×	Chloride
MWFTA-3	10×	Chloride

Sample	Dilution Factor	Compound
MWFTA-9	10×	Chloride, sulfate
MWFTA-23	10×	Chloride
MWFOS-3	10×	Sulfate
OU7DUP-1	10×	Chloride, sulfate
OU7DUP-2	10×	Chloride
OU7PZ-2	10×	Chloride
OU7PZ-4	10×	Chloride

Results were reported at the RL and evaluated down to the MDL. Flagging of anion results less than the RL but greater than the MDL (JQ) was necessary for nitrate in samples MWFTA-5 and MWFTA-10 and for chloride and nitrate in OU7PZ-4. Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently overridden by the "JQ" qualifier.

TOC (9060) – TOC data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The initial and continuing calibration for each instrument used for the analysis of TOC was assumed to meet acceptable criteria. The batch-specific method blanks associated with the samples were analyzed and reported to contain TOC as indicated below. The samples with concentrations less than or equal to five times the blank concentrations were accordingly qualified as estimated with possible high bias because of blank contamination and flagged "JH", unless overridden by qualifications for other QC exceedances. Samples with concentrations less than the blank value were qualified as estimated with possible method blank contamination and flagged "JB". Associated samples that were nondetects required no qualification.

Blank Date	Concentration	Flag	Affected Samples
7/18/05	0.5 mg/L	JH	DMW-22A, MW112-2, MWFOS-1
7/19/05	0.2 mg/L	JH	MWFTA-5, MWFTA-9, MWFTA-10
7/20/05	0.2 mg/L	JH	DMW-35A

Batch LCSs for TOC were within acceptable limits. The MS/MSD recoveries of spiked sample MWFTA-1 for TOC were within acceptable QC limits.

Two field duplicate pairs (AEHADG-10/OU7DUP-1 and MWFTA-3/OU7DUP-2) were collected and analyzed for TOC. The RPD between the sample and the duplicate was within QC limits.

An equipment blank (OU7-BLAD-EQB) was collected and analyzed to assess possible contamination from non-dedicated sampling equipment, and TOC was detected above the RL at 1.1 mg/L. Associated samples less than five times the blank value not previously qualified (MWFOS-3) were qualified as estimated with possible equipment blank contamination and flagged "JB" or "JH" (OU7PZ-2 and OU7PZ-4).

Results were reported at the RL and evaluated down to the MDL. Flagging of TOC results less than the RL but greater than the MDL (JQ) was not necessary because of previous qualification for method blank contamination.

Alkalinity (310.1) – Alkalinity data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The project-specific hold times for alkalinity were not met, but the samples were analyzed within the method hold time. Therefore, no additional qualification was necessary.

The titration standardization performed for the analysis of alkalinity was assumed to meet acceptable criteria, as were the initial and continuing calibration checks. One laboratory batch preparation blank (method blank) contained alkalinity at 2.0 mg/L (JQ), and the associated result in sample MW112-2 was qualified as estimated with possible high bias and flagged "JH". Batch LCSs for alkalinity were within acceptable limits. The MS/MSD recoveries of spiked sample MWFTA-1 for alkalinity were within acceptable QC limits.

Two field duplicate pairs (AEHADG-10/OU7DUP-1 and MWFTA-3/OU7DUP-2) were collected and analyzed for alkalinity. The RPD for the duplicate pairs was within QC requirements.

An equipment blank (OU7-BLAD-EQB) was collected and analyzed to assess possible contamination from non-dedicated sampling equipment, and alkalinity was detected below the RL at 5.0 JQ mg/L. No qualification of the data was required for analytes detected in the equipment blank below the RL.

The following samples were diluted to place certain alkalinity results within the range of the calibration curve, resulting in elevated RLs:

Sample	Dilution Factor
MWFTA-1	5×

Results were reported at the RL and evaluated down to the MDL. Flagging of alkalinity results less than the RL but greater than the MDL (JQ) was necessary for samples DMW-35A, OU7-BLAD-EQB, and OU7PZ-2. Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently overridden by the "JQ" qualifier.

Sulfide (376.1) – Sulfide data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The titration standardization performed for the analysis of sulfide was assumed to meet acceptable criteria. The laboratory batch preparation blanks (method blanks) did not contain sulfide. Batch LCSs for sulfide were within acceptable limits. The MS/MSD recoveries for spiked sample MWFTA-1 were above acceptable laboratory QC limits because of possible matrix interference. No qualification was necessary because the sulfide recovered high but the samples were nondetect for sulfide.

Two field duplicate pairs (AEHADG-10/OU7DUP-1 and MWFTA-3/OU7DUP-2) were collected and analyzed for sulfide. The RPD for the duplicate pairs could not be calculated because the results were nondetect.

An equipment blank sample (OU7-BLAD-EQB) was collected and analyzed to assess possible contamination from using non-dedicated sampling equipment. The equipment blank was nondetect for total sulfide. Results were reported at the RL and evaluated down to the MDL. Flagging of sulfide results less than the RL but greater than the MDL (JQ) was not necessary.

Dissolved Hydrogen (AM20GAX) – Hydrogen data were evaluated using a Tier II approach that consisted of a review of holding times, method and calibration blanks, LCS recoveries, and field duplicate precision. MS/MSD samples were not required for hydrogen analysis. Any failures among the method

listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits.

Samples were received intact, and holding times were met for the samples submitted to Microseeps, Inc., for analysis. Method blanks were within method-stated control limits. LCS results were also within laboratory-established limits.

Two field duplicate pairs (OU7DUP-1/AEHADG-10 and OU7DUP-2/MWFTA-3) were collected and analyzed. The RPD between the parent sample and the duplicate sample was within specified limits (<20 percent).

Results were reported at the RL and evaluated down to the MDL. There were no results less that the RL but above the MDL.

D-3.1.2 Lower Water Bearing Unit

Seven groundwater samples were collected from the lower WBU, and one groundwater sample and one duplicate sample were collected from the bedrock. There were no samples collected with non-dedicated bladder pumps.

VOCs (SW-8260B) – VOC data collected from the lower WBU were evaluated using a Tier II approach that consisted of a review of holding times; method, calibration, trip, and equipment blanks; LCS and MS/MSD recoveries and RPDs; and field duplicate precision, in addition to method-specific QC such as surrogates and internal standards. Any failures among the method listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits.

All holding times for the analysis of water samples were met. The batch-specific method blanks associated with the samples were analyzed and reported to contain VOCs, as indicated below. The samples with concentrations less than or equal to 5 times these concentrations (10 times for acetone and MC) were accordingly qualified as estimated based on blank contamination and flagged "JB", unless overridden by qualifications for other QC exceedances. Associated samples that were nondetects required no qualification.

Blank ID	Analyte	Concentration	Action/Affected Samples
U0728W01	Hexachlorobutadiene	0.18 µg/L (JQ)	None
C0802W01	Hexachlorobutadiene	0.31 µg/L (JQ)	None
K0802W01	Acetone	1.5 µg/L (JQ)	MWFTA-17
	Chloroform	0.11 µg/L (JQ)	None
	1,2,4-Trimethylbenzene	0.28 µg/L (JQ)	MWFTA-17
	o-Xylene	0.25 µg/L (JQ)	MWFTA-17
U0801W02	Acetone	0.88 µg/L (JQ)	MWFTA-14, MWFTA-28B
	Naphthalene	0.11 µg/L (JQ)	None
	1,2,3-Trichlorobenzene	0.13 µg/L (JQ)	None
C0803W01	Hexachlorobutadiene	0.44 µg/L (JQ)	None
C0804W02	1,2,3-Trichlorobenzene	0.14 µg/L (JQ)	None
K0809W01	Acetone	1.8 µg/L (JQ)	None
	Bromomethane	0.29 µg/L (JQ)	None

The batch-specific LCSs were analyzed, and recoveries were within acceptable QC criteria, with the exception of hexachlorobutadiene in LCS U0801W02. No qualification of the data was necessary because the recovery was high (142 percent) and the associated samples were nondetect. An MS/MSD was performed on sample MWFTA-19. The %Rs were outside QC limits and SMF QC limits of ±40 percent for 2,2-dichloropropane (low recovery) and naphthalene (high recovery). The 2,2-dichloropropane results in sample MWFTA-19 were considered estimated and flagged "UJ". The naphthalene results were not qualified because the recovery showed a high bias and the sample results were nondetect.

The surrogates and internal standards added to the samples by the laboratory were recovered within QC limits. One bedrock field duplicate pair (MWFTA-20/OU7DUP-3) was collected. The RPDs between the sample and duplicate were within the QC limits.

An equipment blank sample (OU7-BLAD-EQB) was collected to represent samples collected with a non-dedicated bladder pump. Low levels of VOCs were detected in the equipment blank. The samples with concentrations less than or equal to 5 times these concentrations (10 times for acetone and MC) were accordingly qualified as estimated based on blank contamination and flagged "JB", unless overridden by qualifications for other QC exceedances. Associated samples that were nondetects required no qualification. No qualification of the data was required for analytes detected in the equipment blank below the RL.

Analyte	Concentration	Associated Samples
Chloroform	1.4 µg/L	None

The trip blanks associated with the groundwater samples were reported to contain several analytes, as shown below. Sample results less than 10 times the blank value for common laboratory contaminants and 5 times the blank value for other target analytes were qualified as estimated with possible trip blank contamination and flagged "JB".

Blank ID	Analyte	Concentration	Affected Samples
TB-071805-2	Acetone	3.1 µg/L (JQ)	MWFTA-16, MWFTA-20, MWFTA-29B, OU7DUP-3
TB-071905	Methylene chloride	0.4 µg/L (JQ)	MWFTA-14, MWFTA-19, MWFTA-28B

The following samples were diluted to place certain VOC results within the range of the calibration curve, resulting in elevated RLs:

Sample	Dilution Factor	Analyte
MWFTA-16	100×	cis-1,2-Dichloroethene, vinyl chloride
MWFTA-20	5×	cis-1,2-Dichloroethene
OU7DUP-3	5×	cis-1,2-Dichloroethene

Results were reported at the RL and evaluated down to the MDL. Results less that the RL but above the MDL were qualified as estimated and flagged "JQ".

Sample ID	Affected Analytes
MWFTA-16	1,2-Dichloroethane; benzene; chloromethane; 1,3-dichlorobenzene; methylene chloride
MWFTA-20	1,2-Dichlorobenzene; tetrachloroethene
MWFTA-29B	Carbon disulfide, chloromethane, methylene chloride, toluene
OU7DUP-3	1,2-Dichlorobenzene; chloromethane; tetrachloroethene
MWFTA-14	Chloromethane, 2-butanone
MWFTA-17	Chloromethane
MWFTA-19	Chloromethane, 2-butanone, methyl t-butyl ether, trichloroethene
MWFTA-28B	Chloromethane, 2-butanone

Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently overridden by the "JQ" qualifier.

Dissolved Gases (RSK-175) – Dissolved gas data collected from the lower WBU (carbon dioxide, methane, ethane, and ethene) were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS recoveries, field duplicate precision, trip blanks, and rinsate blanks. Any failures among the method listed are discussed below.

The project-specified seven-day holding time for carbon dioxide was exceeded for all samples, and associated results were qualified as estimated and flagged "J" or "UJ". However, the method-specified holding time of 14 days was met. Additionally, the holding time for methane, ethane, and ethene was exceeded in samples MWFTA-14, MWFTA-17, MWFTA-19, and MWFTA-28B. The associated dissolved gas results were qualified as estimated for exceeding the holding time and flagged "J" or "UJ". Discussions with the laboratory personnel indicated that they referenced the 28-day holding time stated in the QAPP (AFCEE, 2001); therefore, holding times for the other samples were considered as being met. For future DSCR projects, a 14-day holding time for dissolved gases will be utilized.

The initial and continuing calibration for each instrument used for the analysis of dissolved gases was assumed to be within acceptable criteria. The laboratory batch preparation blanks (method blanks) did not contain reportable concentrations of carbon dioxide, methane, ethane, or ethene. Batch LCSs for dissolved gases were within acceptable limits.

One field duplicate pair (MWFTA-20/OU7DUP-3) was collected and analyzed for dissolved gases. The RPDs between the samples and the duplicates were within QC limits.

The trip blanks associated with the groundwater samples were reported to contain methane, as shown below. Sample results less than five times the blank value were qualified as estimated with possible trip blank contamination and flagged "JB".

Blank ID	Analyte	Concentration	Affected Samples
TB-071905	Methane	0.52 µg/L	MWFTA-14

An equipment blank sample (OU7-BLAD-EQB) was collected to represent samples collected with a non-dedicated bladder pump, and there was a positive result for methane at 0.46 µg/L (JB). However, the positive result was itself flagged "JB" for trip blank contamination, and no flagging of the data was necessary.

Results were reported at the RL and evaluated down to the MDL. Flagging of dissolved gas results less than the RL but greater than the MDL (JQ) was necessary for ethene in sample MWFTA-18 and ethane in MWFTA-29B.

VFAs (ASTM D1552) – Samples MWFTA-16 and MWFTA-20 were assayed for VFA analysis. VFA data (acetic, butyric, lactic, propionic, and pyruvic acids) were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The initial and continuing calibration for each instrument used for the analysis of VFAs was assumed to be within acceptable criteria. The laboratory batch preparation blanks (method blanks) did not contain reportable concentrations of VFAs. The batch LCS recovered above the acceptable limits (high) for pyruvic acid. However, the MS/MSD recoveries in sample DMW-27A were within QC limits and there were no positive results in the samples. Therefore, no qualification of the data was required.

No field duplicate pairs from the lower WBU or bedrock wells were collected for VFAs. The RPD between the sample and the duplicate could not be calculated because the results were nondetect. Results were reported at the RL and evaluated down to the MDL. Flagging of VFA results less than the RL but greater than the MDL (JQ) was not necessary.

Total Metals (SW-6010B/6020) – Antimony, arsenic, lead, selenium, and thallium were analyzed by ICP/MS Method SW-6020. Remaining metals were analyzed by ICP Method SW-6010B.

Metals data collected from the lower WBU were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, equipment blanks, and field duplicate precision, in addition to method-specific QC such as post-digestion spikes and serial dilutions. Any failures among the method listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits.

All holding times for the groundwater samples were met. The laboratory batch preparation blanks (method blanks) and/or CCBs were less than the RL but above the MDL for some metals. Only the sample results less than five times the blank value and qualified as estimated with possible method blank contamination and flagged "JB" are shown below.

Metal (SW-6010B)	Affected Samples
Iron	MWFTA-20, OU7DUP-3
Molybdenum	MWFTA-29B
Zinc	MWFTA-20

Metal (SW-6020)	Affected Samples
Antimony	MWFTA-14, MWFTA-17, MWFTA-19, MWFTA-28B
Lead	MWFTA19, MWFTA-28B

The batch LCS for total metals was within USACE-prescribed limits (80 to 120 %R) or within SMF criteria. An MS/MSD was performed for metals on sample MWFTA-19. Recoveries and RPDs were within QC limits. A serial dilution to assess matrix effects was performed on total metals sample MWFTA-19. Recoveries were within QC limits for all metals present at >50 times the MDL.

An equipment blank sample (OU7-BLAD-EQB) was collected and reported to contain metals. Aluminum, antimony, calcium, and lead were detected in the equipment blank sample below the RL but above the MDL. Sodium was detected above the RL. Natural earth metals (aluminum, calcium, and sodium) were present in the equipment blank and are expected to be present in the water and soil matrices. Therefore, no qualification of the data for these results was applied. In addition, no qualification of the data was required for analytes detected in the equipment blank below the RL.

One field duplicate pair (MWFTA-20/OU7DUP-3) was collected and analyzed for metals. The RPD for the duplicate pair was within QC requirements. Results were reported at the RL and evaluated down to the MDL. Results less than the RL but above the MDL were qualified as estimated and flagged "JQ". Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently overridden by the "JQ" qualifier.

Total Mercury (SW-7470A) – Mercury data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, equipment blanks, and field duplicate precision, in addition to method-specific QC such as post-digestion spikes and serial dilutions. Any failures among the method listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits. The laboratory batch preparation blanks (method blanks) did not contain mercury.

Batch LCSs for mercury were within acceptable limits. An MS/MSD was performed on sample MWFTA-19, and the recoveries and RPDs were within QC limits. A serial dilution was performed on sample MWFTA-19, and the recoveries were within QC limits. The equipment blank sample (OU7-BLAD-EQB) did not contain mercury. No flagging of the mercury data for equipment blank contamination is necessary.

One field duplicate pair (MWFTA-20/OU7DUP-3) was collected and analyzed for mercury. The RPD for the duplicate pairs was within QC requirements.

Results were reported at the RL and evaluated down to the MDL. Mercury results less than the RL but above the MDL (MWFTA-17) were qualified as estimated and flagged "JQ".

Anions (300.0A) – Anion data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The initial and continuing calibration for each instrument used for the analysis of chloride, nitrate, and sulfate was assumed to be within acceptable criteria. The laboratory batch preparation blanks (method blanks) did not contain reportable concentrations of chloride, nitrate, and sulfate.

Batch LCSs for anions were within acceptable limits. The MS/MSD recoveries for spiked sample MWFTA-19 were within QC or SMF limits. No flagging of the data was necessary.

One field duplicate pair (MWFTA-20/OU7DUP-3) was collected and analyzed for anions. The RPDs between the sample and the duplicate were within QC limits.

An equipment blank sample (OU7-BLAD-EQB) was collected and analyzed to assess possible contamination from using non-dedicated sampling equipment and was nondetect for chloride, nitrate, and sulfate.

The following samples were diluted to place certain anion results within the range of the calibration curve, resulting in elevated RLs:

Sample	Dilution Factor	Compound
MWFTA-16	10×	Chloride
MWFTA-14	10×	Chloride
MWFTA-19	10×	Sulfate
MWFTA-28B	10×	Chloride

Results were reported at the RL and evaluated down to the MDL. Flagging of anion results less than the RL but greater than the MDL (JQ) was necessary for nitrate in sample MWFTA-20. Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently overridden by the "JQ" qualifier.

TOC (9060) – TOC data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The initial and continuing calibration for each instrument used for the analysis of TOC was assumed to meet acceptable criteria. The batch-specific method blanks associated with the samples were analyzed and reported to contain TOC, as indicated below. The samples with concentrations less than or equal to five times the blank concentrations were accordingly qualified as estimated with possible high bias because of blank contamination and flagged "JH", unless overridden by qualifications for other QC exceedances. Samples with concentrations less than the blank value were qualified as estimated with possible method blank contamination and flagged "JB". Associated samples that were nondetects required no qualification.

Blank Date	Concentration	Flag	Affected Samples
18 July 2005	0.5 mg/L	JH	MWFTA-16, MWFTA-18, MWFTA-20, OU7DUP-3
19 July 2005	0.2 mg/L	JH	MWFTA-28B

Batch LCSs for TOC were within acceptable limits. The MS/MSD recoveries of spiked sample MWFTA-19 for TOC were within acceptable QC limits.

One field duplicate pair (MWFTA-20/OU7DUP-3) was collected and analyzed for TOC. The RPD between the sample and the duplicate was within QC limits.

An equipment blank (OU7-BLAD-EQB) was collected and analyzed to assess possible contamination from non-dedicated sampling equipment, and TOC was detected above the RL at 1.1 mg/L. There were no associated samples less than five times the blank value.

Results were reported at the RL and evaluated down to the MDL. Flagging of TOC results less than the RL but greater than the MDL (JQ) was not necessary because of previous qualification for method blank contamination.

Alkalinity (310.1) – Alkalinity data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The project-specific hold times for alkalinity were not met, but the samples were analyzed within the method hold time. Therefore, no additional qualification was necessary. The titration standardization performed for the analysis of alkalinity was assumed to meet acceptable criteria, as were the initial and continuing calibration checks. The laboratory batch preparation blank contained alkalinity below the RL, but there were no associated positive results less than five times the blank value and no qualification was necessary. Batch LCSs for alkalinity were within acceptable limits. The MS/MSD recoveries of spiked sample MWFTA-19 for alkalinity were within acceptable QC limits.

One field duplicate pair (MWFTA-20/OU7DUP-3) was collected and analyzed for alkalinity. The RPD for the duplicate pair was within QC requirements.

An equipment blank (OU7-BLAD-EQB) was collected and analyzed to assess possible contamination from non-dedicated sampling equipment, and alkalinity was detected below the RL at 5.0 JQ mg/L. No qualification of the data was required for analytes detected in the equipment blank below the RL.

The following samples were diluted to place certain alkalinity results within the range of the calibration curve, resulting in elevated RLs:

Sample	Dilution Factor
MWFTA-16	4×
MWFTA-29B	4×
MWFTA-17	5×
MWFTA-19	2×

Results were reported at the RL and evaluated down to the MDL. Flagging of alkalinity results less than the RL but greater than the MDL (JQ) was not necessary for samples collected from the lower WBU or bedrock. Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently overridden by the "JQ" qualifier.

Sulfide (376.1) – Sulfide data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The titration standardization performed for the analysis of sulfide was assumed to meet acceptable criteria. The laboratory batch preparation blanks (method blanks) did not contain sulfide. Batch LCSs for sulfide were within acceptable limits. The MS/MSD recoveries for spiked sample MWFTA-19 were above acceptable laboratory QC limits because of possible matrix interference. No qualification was necessary because the sulfide recovered high but the samples were nondetect for sulfide.

One field duplicate pair (MWFTA-20/OU7DUP-3) was collected and analyzed for sulfide. The RPD for the duplicate pairs could not be calculated because the results were nondetect.

An equipment blank sample (OU7-BLAD-EQB) was collected and analyzed to assess possible contamination from using non-dedicated sampling equipment. The equipment blank was nondetect for total sulfide. Results were reported at the RL and evaluated down to the MDL. Flagging of sulfide results less than the RL but greater than the MDL (JQ) was not necessary.

Dissolved Hydrogen (AM20GAX) – Hydrogen data were evaluated using a Tier II approach that consisted of a review of holding times, method and calibration blanks, LCS recoveries, and field duplicate precision. MS/MSD samples were not required for hydrogen analysis. Any failures among the method

listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits.

Samples were received intact, and holding times were met for the samples submitted to Microseeps, Inc., for analysis. Method blanks were within method-stated control limits. LCS results were also within laboratory-established limits.

One field duplicate pair (MWFTA-20/OU7DUP-3) was collected and analyzed. The RPD between the parent sample and the duplicate sample was outside specified limits (<20 percent). The associated results in both samples were qualified as estimated and flagged "J".

Results were reported at the RL and evaluated down to the MDL. There were no results less that the RL but above the MDL.

D-3.2 COMPLETENESS

Except as previously noted, the DQIs were within the USACE-prescribed QC limits and require only the qualifications described. Percent completeness for the data collection efforts and DQO attainment is 99.97 percent. A discussion of compound and/or method completeness compared to project objectives, as well as the effects of field conditions on project objectives, is presented below.

Zinc results were unusually elevated in sample MWFTA-5; however, no reasonable explanation could be generated by laboratory QC checks, including re-evaluation of the raw data and analysis of the nitric acid preservative. Re-analysis of field conditions and procedures also could illicit no reason for the anomaly. Zinc results were qualified as unusable and flagged "R" because of professional judgment from a review of historical data from eight previous sampling events, resulting in completeness of 96.97 percent. This completeness is within the project DQO of 90 percent. Zinc is a relatively common metal found in natural waters, and sporadic absence of zinc data does not adversely impact the project MNA objectives.

D-4.0 OPERABLE UNIT 8 DATA QUALITY EVALUATION

The following sections provide summary discussions of data quality for samples collected during the July 2005 bi-annual sampling event at OU 8. Groundwater samples were collected from monitoring well locations to evaluate MNA characteristics of each WBU. The comprehensive analytical results for samples associated with the bi-annual sampling event are summarized in Appendix B (Tables B-7 through B-8). Field duplicate, trip blank, and equipment blank associations are presented in Appendix B, Table B-9.

D-4.1 GROUNDWATER – JULY 2005

A total of 27 groundwater wells and 12 dual-phase wells were sampled in July and August 2005. All wells except MWANP-12D, MWANP-18, MWANP-24, MWANP-25, MWANP-26, MWANP-27, and USGS-5 were sampled with dedicated bladder pumps. The correct sample containers and preservatives were used for the analytical methods specified on the COC. Additionally, the correct methods were employed for extraction/digestion and analysis as outlined in the Work Plan (MACTEC, 2005). The appropriate units, detection limits, and compounds were reported by the laboratory per the 2005 subcontract agreement between MACTEC and CAS and MACTEC and Microseeps, Inc.

Equipment blank OU8-BLAD-EQB was collected on 20 July 2005 to represent the groundwater samples collected with a non-dedicated bladder pump in July 2005. Associated samples are listed below:

Associated Samples
MWANP-12D, MWANP-18, USGS-5

Another equipment blank inadvertently also named "OU8-BLAD-EQB-2" was collected on 2 August 2005 to represent the groundwater samples re-collected with a non-dedicated bladder pump in August 2005 because of a FedEx delivery error. Associated samples are listed below:

Associated Samples
MWANP-24, MWANP-25, MWANP-26, MWANP-27

D-4.1.1 Upper Water Bearing Unit

A total of 36 groundwater samples and 3 duplicate samples were collected from the upper WBU. Samples MWANP-18, MWANP-24, MWANP-25, MWANP-26, and MWANP-27 were collected with non-dedicated bladder pumps.

VOCs (SW-8260B) – VOC data collected from the upper WBU were evaluated using a Tier II approach that consisted of a review of holding times; method, calibration, trip, and equipment blanks; LCS and MS/MSD recoveries and RPDs; and field duplicate precision, in addition to method-specific QC such as surrogates and internal standards. Any failures among the method listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits.

Holding times for the initial VOC analyses were achieved. However, samples DMW-30A, DMW-31A, and OU8DUP-2 were re-analyzed at a dilution three days outside the holding time. Diluted results were necessary for cDCE and PCE in DMW-30A, and for PCE and TCE in DMW-31A and OU8DUP-2. The diluted results were used without qualification. The batch-specific method blanks associated with the samples were analyzed and reported to contain VOCs, as indicated below. The samples with concentrations less than or equal to 5 times these concentrations (10 times for acetone and MC) were accordingly qualified as estimated based on blank contamination and flagged "JB", unless overridden by qualifications for other QC exceedances. Associated samples that were nondetects required no qualification.

Blank ID	Compound	Concentration	Action/Affected Samples
C0802W01	Hexachlorobutadiene	0.31 µg/L (JQ)	None
U0809W01	Acetone	1.8 µg/L	DP-1, DP-2, DP-3 DP-4, DP-5, DP-6, DP-7, DP-8, DP-9, DP-10, DP-11, DP-12, MWANP-26, MWANP-27, OU8DUP-3, TB-080305-01
	Bromomethane	0.29 µg/L	None

Batch-specific LCSs were analyzed, and recoveries were within QC criteria. An MS/MSD was performed on project-specified sample MWANP-15, and the recoveries were within QC or SMF limits of ±40 percent. An MS/MSD was also performed on sample DMW-23A. In DMW-23A, the %Rs were outside QC and SMF limits of ±40 percent for dichlorodifluoromethane, trichlorofluoromethane, acetone, 2-butanone, 4-methyl-2-pentanone, and 2-hexanone. The results for dichlorodifluoromethane,

trichlorofluoromethane, and acetone were considered estimated and qualified "J/UJ"; no qualification was necessary for 2-butanone, 4-methyl-2-pentanone, and 2-hexanone due to high recoveries because the sample was nondetect for these analytes. The surrogates and internal standards added to the samples by the laboratory were recovered within specified limits.

Three field duplicate pairs (MWANP-3/OU8DUP-1, DMW-31A/OU8DUP-2, and DP-11/OU8DUP-3) were collected from the upper WBU wells and analyzed. The RPD between the sample and the duplicate was outside QC limits for trichlorofluoromethane in DP-11/OU8DUP-3. The associated results in both samples were qualified as estimated and flagged "J".

Equipment blank samples (OU8-BLAD-EQB and OU8-BLAD-EQB-2) were collected to represent samples collected with non-dedicated bladder pumps. Low levels of VOCs were detected in both equipment blanks. The samples with concentrations less than or equal to 5 times these concentrations (10 times for acetone and MC) were accordingly qualified as estimated based on blank contamination and flagged "JB", unless overridden by qualifications for other QC exceedances. Associated samples that were nondetects required no qualification. However, no qualification of the data was required for analytes detected in the equipment blank below the RL.

Blank ID	Analyte	Concentration	Affected Samples
OU8-BLAD-EQB	Chloroform	1.5 µg/L	None
OU8-BLAD-EQB-2	Chloroform	2.2 µg/L	MWANP-24, MWANP-26

The trip blank associated with the groundwater samples in this SDG was analyzed and reported to contain several analytes, as shown below. Sample results less than 10 times the blank value for common laboratory contaminants and 5 times the blank value for other target analytes were qualified as estimated with possible trip blank contamination and flagged "JB". Sample results were previously qualified because of method blank contamination.

Blank ID	Analyte	Concentration	Affected Samples
TB-072005-02	Acetone	5.5 µg/L (JQ)	DMW-23A, DMW-24A, OU8DUP-2, OU8-BLAD-EQB
	Chloromethane	0.42 µg/L (JQ)	DMW-30A, DMW-31A, OU8-BLAD-EQB

Blank ID	Analyte	Concentration	Affected Samples
TB-072105	Acetone	2.7 µg/L (JQ)	MWANP-7, MWANP-13, MWANP-14, MWANP-15, MWANP-17, MWANP-18, MWANP-21, MWANP-23, OS72MW-1, OU8DUP-1, USGS-2
	Methylene chloride	0.36 µg/L (JQ)	MWANP-13, MWANP-17, MWANP-18, MWANP-21
TB-080205-01	Acetone	4.0 µg/L (JQ)	MWANP-16, MWANP-19, MWANP-20, MWANP-24, MWANP-25, OU8-BLAD-EQB-2
	Methylene chloride	0.31 µg/L (JQ)	MWANP-16, MWANP-19, MWANP-24, MWANP-25
TB-080305-01	Acetone	4.3 µg/L (JB)	Previously qualified
	Carbon disulfide	0.36 µg/L (JQ)	None
	2-Butanone	2.4 µg/L (JQ)	DP-11, DP-12
	Chloromethane	0.24 µg/L (JQ)	DP-1, DP-2, DP-3, DP-4, DP-7, DP-8, DP-10, DP-11, DP-12, OU8DUP-3, MWANP-26, MWANP-27

The following samples were diluted to place certain VOC results within the range of the calibration curve, resulting in elevated RLs:

Sample	Dilution Factor	Analyte
DMW-30A	10×	cis-1,2-Dichloroethene; tetrachloroethene
DMW-31A	10×	Tetrachloroethene, trichloroethene
DP-11	10×	Tetrachloroethene
OU8DUP-2	10×	Tetrachloroethene, trichloroethene
OU8DUP-3	10×	Tetrachloroethene

Results were reported at the RL and evaluated down to the MDL. Results less that the RL but above the MDL were qualified as estimated and flagged "JQ".

Sample ID	Affected Analytes
DMW-23A	Dichlorodifluoromethane
DMW-30A	1,2-Dichloroethane
DMW-31A	1,1-Dichloroethene; 1,2-dichloroethane; chloroform
DP-1	Chloroform, tetrachloroethene, trichlorofluoromethane
DP-2	Methylene chloride
DP-3	Methylene chloride
DP-4	Methylene chloride
DP-6	Chloroform, tetrachloroethene, trichlorofluoromethane
DP-7	Trichlorofluoromethane; chloroform; 1,2-dichloroethane

Sample ID	Affected Analytes
DP-8	Methylene chloride
DP-9	Chloroform; 1,2-dichloroethane
DP-10	Methylene chloride; chloroform; 1,2-dichloroethane
DP-11	Dichlorodifluoromethane; trans-1,2-dichloroethene; tert-butylmethylether; chloroform; bromodichloromethane; dibromochloromethane
DP-12	Chloroform
MWANP-3	Chloroform
MWANP-7	Bromodichloromethane; chloroform; chloromethane; cis-1,2-dichloroethene; tetrachloroethene; trichloroethene
MWANP-13	Chloroform
MWANP-15	Chloromethane
MWANP-16	Chloromethane
MWANP-17	Chloromethane, tetrachloroethene
MWANP-18	Chloromethane, tetrachloroethene, toluene
MWANP-19	Chloromethane
MWANP-20	Trichloroethene, tetrachloroethene
MWANP-21	Chlorodibromomethane, chloromethane, tert-butylmethylether
MWANP-23	Chloromethane
MWANP-24	Chloromethane, trichloroethene
MWANP-25	Chloromethane, tetrachloroethene, toluene
MWANP-27	Trichloroethene, toluene, tetrachloroethene
OS72MW-1	Chloromethane, tetrachloroethene
OU8DUP-1	Chloroform, chloromethane
OU8DUP-2	1,1-Dichloroethene; chloroform
OU8DUP-3	Methylene chloride; trans-1,2-dichloroethene; tert-butylmethylether; chloroform; bromodichloromethane; dibromochloromethane
OU8-BLAD-EQB	Carbon disulfide, toluene
OU8-BLAD-EQB-2	Toluene, styrene
USGS-2	Chloroform, tetrachloroethene, trichloroethene
TB-072005-02	Acetone, chloromethane
TB-072105	Acetone, methylene chloride
TB-080205-01	Acetone, methylene chloride
TB-080305-01	Chloromethane; carbon disulfide; cis-1,2-dichloroethene

Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently overridden by the "JQ" qualifier.

Dissolved Gases (RSK-175) – Dissolved gas data collected from the upper WBU (carbon dioxide, methane, ethane, and ethene) were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS recoveries, field duplicate precision, trip blanks, and rinsate blanks. MS/MSD analyses are not assayed for dissolved gas analysis. Any failures among the method listed are discussed below.

The initial and continuing calibration for each instrument used for the analysis of dissolved gases was assumed to be within acceptable criteria. The project-specified 7-day holding time for carbon dioxide in all samples, and the 14-day holding time for methane, ethane, and ethane, were exceeded for samples MWANP-3, MWANP-7, MWANP-10, MWANP-13, MWANP-14, MWANP-15, MWANP-17, MWANP-18, MWANP-21, MWANP-23, OS72MW-1, and USGS-2. The dissolved gas results were qualified as estimated for exceeding holding time and flagged "J" or "UJ". Discussions with the laboratory personnel indicated that they referenced the 28-day holding time stated in the QAPP (AFCEE, 2001). For future DSCR projects, a 14-day holding time for dissolved gases will be utilized. The laboratory batch preparation blanks (method blanks) did not contain reportable concentrations of carbon dioxide, methane, ethane, or ethene. Batch LCSs for dissolved gases were within acceptable limits.

Three field duplicate pairs (MWANP-3/OU8DUP-1, DMW-31A/OU8DUP-2, and MWANP-4D/OU8DUP-4) were collected and analyzed for dissolved gases. The RPD between the sample and duplicate was within QC limits.

Trip blank sample TB-080205-01 was reported to contain methane below the RL at 0.44 (JQ) µg/L. The methane result in equipment blank sample OU8-BLAD-EQB-2 was considered estimated, possibly false positive or biased high based on the trip blank data, and flagged "JB". In addition, trip blank sample TB-080305-01 was reported to contain methane below the RL at 0.31 µg/L (JQ). There were no sample results less than five times the blank value, and no flagging of the data was necessary. Equipment blank samples OU8-BLAD-EQB and OU8-BLAD-EQB-2 were collected to represent samples collected with a non-dedicated bladder pump. Methane was detected at 0.30 µg/L (JB) in OU8-BLAD-EQB-2. No flagging was necessary because the result in the equipment blank sample was flagged "JB" because of the trip blank results. Carbon dioxide was detected at 1,180 µg/L (J) in OU8-BLAD-EQB. There were no associated results less than five times the blank value.

Results were reported at the RL and evaluated down to the MDL. Flagging of dissolved gas results less than the RL but greater than the MDL (JQ) was necessary for methane in samples MWANP-3, MWANP-14, MWANP-18, MWANP-23, TB-080205-01, and TB-080305-01.

VFAs (ASTM-D1552) – Samples DMW-30A, DMW-31A, MWANP-3, MWANP-7, MWANP-15, MWANP-17, OS72MW-1, and OU8DUP-1 were assayed for VFAs. VFA data collected from the upper WBU (acetic, butyric, lactic, propionic, and pyruvic acids) were evaluated using a Tier II approach that

consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The initial and continuing calibration for each instrument used for the analysis of VFAs was assumed to be within acceptable criteria. The laboratory batch preparation blanks (method blanks) did not contain reportable concentrations of VFAs. The batch LCS recovered above the acceptable limits (high) for pyruvic acid. However, the MS/MSD performed on project-specified sample MWANP-15 was within QC limits and there were no positive results in the samples in this SDG. Therefore, no qualification of the data was required.

One field duplicate pair (MWANP-3/OU8DUP-1) was collected and analyzed for VFAs, and the results were nondetect. Results were reported at the RL and evaluated down to the MDL. Flagging of VFA results less than the RL but greater than the MDL (JQ) was not necessary.

Total Metals (SW-6010B/6020) – Antimony, arsenic, lead, selenium, and thallium were analyzed by ICP/MS Method SW-6020. Remaining metals were analyzed by ICP Method SW-6010B.

Metals data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, equipment blanks, and field duplicate precision, in addition to method-specific QC such as post-digestion spikes and serial dilutions. Any failures among the method listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits.

All holding times for the groundwater samples were met. The laboratory batch preparation blanks (method blanks) and/or CCBs were less than the RL but above the MDL for some metals. Only the sample results less than five times the blank value, qualified as estimated with possible method blank contamination, and flagged "JB" are shown below.

Metal (6010B)	**Affected Samples**
Aluminum	DMW-23A, DMW-24A, DMW-30A, DMW-31A, MWANP-7, MWANP-18, MWANP-16, MWANP-19, MWANP-20, MWANP-22, OU8DUP-2, OU8-BLAD-EQB, OU8-BLAD-EQB-2
Cobalt	DP-1, MWANP-20, MWANP-24, MWANP-25, OU8-BLAD-EQB-2
Cadmium	MWANP-24
Copper	MWANP-20

Metal (6010B)	Affected Samples
Molybdenum	MWANP-7, MWANP-13, MWANP-15, MWANP-17, MWANP-23, OS72MW-1, OU8DUP-1
Silver	MWANP-13, MWANP-15, MWANP-23, OS72MW-1, USGS-2, OU8-BLAD-EQB
Sodium	OU8-BLAD-EQB
Zinc	DMW-23A, DMW-24A, DMW-30A, DMW-31A, MWANP-10, MWANP-13, MWANP-14, MWANP-15, MWANP-18, MWANP-22, MWANP-23, OU8DUP-1, OU8DUP-2

Metal (6020)	Affected Samples
Antimony	DP-1, DP-2, DP-3, DP-4, DP-6, DP-9, DP-10, DP-11, DMW-30A, DMW-31A, MWANP-7, MWANP-13, MWANP-14, MWANP-15, MWANP-16, MWANP-19, MWANP-20, MWANP-21, MWANP-23, MWANP-27, OS72MW-1, OU8-BLAD-EQB, OU8-BLAD-EQB-2, OU8DUP-2, USGS-2
Lead	OU8-BLAD-EQB-2

The batch LCS for total metals was within USACE-prescribed limits (80 to 120 %R) or SMF criteria. An MS/MSD was performed for metals on samples MWANP-15 and DMW-23A. Recoveries and RPDs were above QC limits for aluminum in MWANP-15. The aluminum result was qualified as estimated and flagged "JH". The recovery of cadmium was outside QC limits in the MSD only in DMW-23A; therefore, no flagging of the data was necessary. A serial dilution to assess matrix effects was performed on total metals samples DMW-23A and MWANP-15. The recovery of aluminum was outside QC limits in MWANP-15; however, the results were previously flagged for MS/MSD criteria. No further flagging of the data was necessary.

Equipment blank samples (OU8-BLAD-EQB and OU8-BLAD-EQB-2) were reported to contain metals below the RL but above the MDL. No qualification of the data was required for analytes detected in the equipment blank below the RL. Zinc was detected in OU8-BLAD-EQB-2, and the associated results in samples MWANP-24, MWANP-25, MWANP-26, and MWANP-27 were qualified as estimated with possible equipment blank contamination and flagged "JB".

Three field duplicate pairs (MWANP-3/OU8DUP-1, DMW-31A/OU8DUP-2, and DP-11/OU8DUP-3) were collected with this SDG. The RPD between the samples and their duplicates was outside QC limits for aluminum in duplicate pair DMW-31A/OU8DUP-2. No further qualification was required because sample results were flagged "JB" because of method blank results.

Results were reported at the RL and evaluated down to the MDL. Results less than the RL but above the MDL were qualified as estimated and flagged "JQ". Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently overridden by the "JQ" qualifier.

Total Mercury (SW-7470A) – Mercury data collected from the upper WBU were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, equipment blanks, and field duplicate precision, in addition to method-specific QC such as post-digestion spikes and serial dilutions. Any failures among the method listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits. The laboratory batch preparation blanks (method blanks) did not contain mercury.

Batch LCSs for mercury were within acceptable limits. An MS/MSD was performed on samples MWANP-15 and DMW-23A, and the recoveries were outside QC limits in DMW-23A. No qualification was necessary for DMW-23A because the mercury recovered high but the sample was nondetect for mercury. A serial dilution was performed on samples DMW-23A and MWANP-15, and the recoveries were within QC limits.

The equipment blank samples (OU8-BLAD-EQB and OU8-BLAD-EQB-2) did not contain mercury.

Three field duplicate pairs (MWANP-3/OU8DUP-1, DMW-31A/OU8DUP-2, and DP-11/OU8DUP-3) were collected and analyzed for mercury. The RPD between the sample and duplicate was outside QC limits for DMW-31A/OU8DUP-2, and the associated results were qualified as estimated and flagged "J" or "UJ".

Results were reported at the RL and evaluated down to the MDL. Flagging of anion results less than the RL but greater than the MDL (JQ) was necessary for mercury in sample DMW-30A.

Anions (300.0A) – Anion data (chloride, nitrate, and sulfate) were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The initial and continuing calibration for each instrument used for the analysis of chloride, nitrate, and sulfate was assumed to be within acceptable criteria. The laboratory batch preparation blanks (method blanks) contained no reportable concentrations of chloride, nitrate, and sulfate.

Batch LCSs for anions were within acceptable limits. The MS/MSD recoveries for spiked samples DMW-23A and MWANP-15 were within QC limits. Three field duplicate pairs (MWANP-3/OU8DUP-1, DMW-31A/OU8DUP-2, and DP-11/OU8DUP-3) were collected and analyzed for anions. The RPD between the sample and duplicate was outside QC limits for sulfate in DMW-31A/OU8DUP-2. The associated sulfate results were qualified as estimated and flagged "J".

One equipment blank sample (OU8-BLAD-EQB) was nondetect for chloride, nitrate, and sulfate. The other equipment blank sample (OU8-BLAD-EQB-2) was reported to contain chloride (3.3 mg/L) and sulfate (0.3 JQ mg/L). The associated chloride results in samples MWANP-24, MWANP-25, MWANP-26, and MWANP-27 were qualified as estimated with possible equipment blank contamination and flagged "JB".

The following samples were diluted to place certain anion results within the range of the calibration curve, resulting in elevated RLs:

Sample	Dilution Factor	Analyte
DMW-30A	10×	Chloride
MWANP-3	10×	Nitrate
OU8DUP-1	10×	Nitrate
DP-11	10×	Chloride
OU8DUP-3	10×	Chloride

Results were reported at the RL and evaluated down to the MDL. Flagging of anion results less than the RL but greater than the MDL (JQ) was necessary for sulfate in samples DP-1, DP-2, DP-3, DP-4, DP-5, DP-6, DP-7, DP-8, DP-11, DP-12, MWANP-7, MWANP-13, MWANP-14, MWANP-16, MWANP-18, MWANP-22, MWANP-23, MWANP-24, MWANP-27, OS72MW-1, OU8DUP-3, and OU8-BLAD-EQB-2. Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently overridden by the "JQ" qualifier.

TOC (9060) – TOC data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The initial and continuing calibration for each instrument used for the analysis of TOC was assumed to meet acceptable criteria. The laboratory batch preparation blank (method blank) contained TOC at 0.2 mg/L (JQ). Associated results in samples DMW-23A, DMW-24A, DMW-30A, DMW-31A, DMW-35A, MWANP-19, MWANP-20, MWANP-22, MWANP-24, MWANP-25, MWANP-26, MWANP-27, and OU8-BLAD-EQB were qualified as estimated with possible high bias from method blank contamination and flagged "JH". Sample MWANP-16 was qualified as estimated with possible method blank contamination and flagged "JB".

Batch LCSs for TOC were within acceptable limits. The MS/MSD recoveries of spiked samples DMW-23A and MWANP-15 for TOC were within acceptable QC limits.

Two field duplicate pairs (MWANP-3/OU8DUP-1 and DMW-31A/OU8DUP-2) were collected for TOC. The RPD between the parent and duplicate was within QC limits. TOC was detected in equipment blank sample OU8-BLAD-EQB below the RL at 0.6 mg/L and in sample OU8-BLAD-EQB-2 at 2.0 mg/L. Associated results were previously flagged for method blank contamination, and no additional qualification of the data was necessary.

Results were reported at the RL and evaluated down to the MDL. Flagging of TOC results less than the RL but greater than the MDL (JQ) was necessary for MWANP-10, MWANP-13, MWANP-14, and MWANP-23.

Alkalinity (310.1) – Alkalinity data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The project-specific hold times for alkalinity were not met, but the samples were analyzed within the method hold time. Therefore, no additional qualification was necessary.

The titration standardization performed for the analysis of alkalinity was assumed to meet acceptable criteria, as were the initial and continuing calibration checks. The laboratory batch preparation blanks (method blanks) contained alkalinity at 2.0 mg/L (JQ). Associated results greater than the blank value but less than five times the blank value (MWANP-3, MWANP-15, MWANP-18, MWANP-21, MWANP-23, and OS72MW-1) were qualified as estimated with possible high bias and flagged "JH". Associated

results less than the blank value (MWANP-7, MWANP-13, MWANP-14, OU8DUP-1, and USGS-2) were qualified as estimated with possible method blank contamination and flagged "JB".

Batch LCSs for alkalinity were within acceptable limits. The MS/MSD recoveries of spiked samples DMW-23A and MWANP-15 for alkalinity were within acceptable QC limits.

Three field duplicate pairs (MWANP-3/OU8DUP-1, DMW-31A/OU8DUP-2, and DP-11/OU8DUP-3) were collected and analyzed for alkalinity. The RPD between the sample and duplicate was within QC limits. Equipment blank samples OU8-BLAD-EQB and OU8-BLAD-EQB-2 did not contain alkalinity above the RL.

Results were reported at the RL and evaluated down to the MDL. Flagging of alkalinity results less than the RL but greater than the MDL (JQ) was necessary for DP-1, DP-7, DP-8, DP-9, DP-10, DP-11, DP-12, DMW-23A, DMW-30A, DMW-31A, MWANP-16, MWANP-20, MWANP-22, MWANP-25, MWANP-26, MWANP-27, OU8DUP-2, OU8DUP-3, and OU8-BLAD-EQB.

Sulfide (376.1) – Sulfide data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The titration standardization performed for the analysis of sulfide was assumed to meet acceptable criteria. The laboratory batch preparation blanks (method blanks) did not contain sulfide. The batch LCS for sulfide was within acceptable limits. The MS/MSD recoveries for spiked samples DMW-23A and MWANP-15 were above acceptable laboratory QC limits because of possible matrix interference. The sulfide results in DMW-23A and MWANP-15 were not qualified for high bias because the sample results were nondetect.

Two field duplicate pairs (MWANP-3/OU8UP-1 and DMW-31A/OU8DUP-2) were analyzed for sulfide. The results of the samples and their duplicates were nondetect. Equipment blank samples OU8-BLAD-EQB and OU8-BLAD-EQB-2 were nondetect for total sulfide.

Results were reported at the RL and evaluated down to the MDL. Flagging of sulfide results less than the RL but greater than the MDL (JQ) was not necessary.

Dissolved Hydrogen (AM20GAX) – Hydrogen data were evaluated using a Tier II approach that consisted of a review of holding times, method and calibration blanks, LCS recoveries, and field duplicate precision. MS/MSD samples were not required for hydrogen analysis. Any failures among the method listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits.

Samples were received intact, and holding times were met for the samples submitted to Microseeps, Inc., for analysis. Method blanks were within method-stated control limits. LCS results were also within laboratory-established limits.

Two field duplicate pairs (OU8DUP-1/MWANP-3 and OU8DUP-2/DMW-31A) were collected and analyzed. The RPD between the parent sample and duplicate sample was within specified limits (<20 percent).

Results were reported at the RL and evaluated down to the MDL. Results less that the RL but above the MDL (DMW-24A, MWANP-10, MWANP-17, and MWANP-18) were qualified as estimated and flagged "JQ".

D-4.1.2 Lower Water Bearing Unit

A total of three groundwater samples and one duplicate sample were collected from the lower WBU. Samples MWANP-12D and USGS-5 were collected with non-dedicated bladder pumps. The associated equipment blank sample is OU8-BLAD-EQB.

VOCs (SW-8260B) – VOC data collected from the lower WBU were evaluated using a Tier II approach that consisted of a review of holding times; method, calibration, trip, and equipment blanks; LCS and MS/MSD recoveries and RPDs; and field duplicate precision, in addition to method-specific QC such as surrogates and internal standards. Any failures among the method listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits.

Holding times for the VOC analyses were met. The batch-specific method blanks associated with the samples were analyzed and reported to contain VOCs, as indicated below. The samples with concentrations less than or equal to 5 times these concentrations (10 times for acetone and MC) were accordingly qualified as estimated based on blank contamination and flagged "JB", unless overridden by

qualifications for other QC exceedances. Associated samples that were nondetects required no qualification.

Blank ID	Compound	Concentration	Action/Affected Samples
C0802W01	Hexachlorobutadiene	0.31 µg/L (JQ)	None
U0809W01	Acetone	1.8 µg/L	None
	Bromomethane	0.29 µg/L	None

Batch-specific LCSs were analyzed, and recoveries were within QC criteria. There were no MS/MSDs performed on samples collected from the lower WBU. The surrogates and internal standards added to the samples by the laboratory were recovered within specified limits. One field duplicate pair (MWANP-4D/OU8DUP-4) was collected and analyzed. The RPDs between the sample and its duplicate were within the QC limits.

Equipment blank sample OU8-BLAD-EQB was collected to represent samples collected with non-dedicated bladder pumps. Low levels of VOCs were detected in the equipment blank. The samples with concentrations less than or equal to 5 times these concentrations (10 times for acetone and MC) were accordingly qualified as estimated based on blank contamination and flagged "JB", unless overridden by qualifications for other QC exceedances. Associated samples that were nondetects required no qualification. However, no qualification of the data was required for analytes detected in the equipment blank below the RL.

Blank ID	Analyte	Concentration	Affected Samples
OU8-BLAD-EQB	Chloroform	1.5 µg/L	USGS-5

The trip blank associated with the groundwater samples in this SDG was analyzed and reported to contain several analytes, as shown below. Sample results less than 10 times the blank value for common laboratory contaminants and 5 times the blank value for other target analytes were qualified as estimated with possible trip blank contamination and flagged "JB". Sample results were previously qualified because of method blank contamination.

Blank ID	Analyte	Concentration	Affected Samples
TB-072005-02	Acetone	5.5 µg/L (JQ)	MWANP-4D, OU8DUP-4
	Chloromethane	0.42 µg/L (JQ)	None
TB-072105	Acetone	2.7 µg/L (JQ)	MWANP-12D, USGS-5
	Methylene chloride	0.36 µg/L (JQ)	None

Results were reported at the RL and evaluated down to the MDL. Results less than the RL but above the MDL were qualified as estimated and flagged "JQ".

Sample ID	Affected Analytes
MWANP-12D	Chloromethane, toluene
USGS-5	Chloromethane, methyl t-butyl ether, toluene

Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently overridden by the "JQ" qualifier.

Dissolved Gases (RSK-175) – Dissolved gas data collected from the lower water WBU (carbon dioxide, methane, ethane, and ethene) were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS recoveries, field duplicate precision, trip blanks, and rinsate blanks. MS/MSD analyses are not assayed for dissolved gas analysis. Any failures among the method listed are discussed below.

The initial and continuing calibration for each instrument used for the analysis of dissolved gases was assumed to be within acceptable criteria. The project-specified 7-day holding time for carbon dioxide in all samples, and the 14-day holding time for methane, ethane, and ethane, were exceeded for samples MWANP-12D and USGS-5. The dissolved gas results were qualified as estimated for exceeding holding time and flagged "J" or "UJ". Discussions with the laboratory personnel indicated that they referenced the 28-day holding time stated in the QAPP (AFCEE, 2001). For future DSCR projects, a 14-day holding time for dissolved gases will be utilized. The laboratory batch preparation blanks (method blanks) did not contain reportable concentrations of carbon dioxide, methane, ethane, or ethene. Batch LCSs for dissolved gases were within acceptable limits.

One field duplicate pair (MWANP-4D/OU8DUP-4) was collected and analyzed for dissolved gases. The RPD between the sample and duplicate was within QC limits.

The trip blanks were reported to contain methane below the RL; however, there were no sample results less than five times the blank value and no flagging of the data was necessary. Equipment blank sample OU8-BLAD-EQB was collected to represent samples collected with a non-dedicated bladder pump. Carbon dioxide was detected at 1,180 µg/L (J); however, there were no associated results less than five times the blank value.

Results were evaluated and reported down to the MDL. Flagging of dissolved gas results less than the RL but greater than the MDL (JQ) was not necessary.

VFAs (ASTM-D1552) – Sample MWANP-4D was assayed for VFAs. VFA data collected from the lower WBU (acetic, butyric, lactic, propionic, and pyruvic acids) were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The initial and continuing calibration for each instrument used for the analysis of VFAs was assumed to be within acceptable criteria. The laboratory batch preparation blanks (method blanks) did not contain reportable concentrations of VFAs. The batch LCS recovered above the acceptable limits (high) for pyruvic acid. However, the MS/MSD performed on project-specified sample MWANP-15 was within QC limits and there were no positive results in the samples in this SDG. Therefore, no qualification of the data was required.

No field duplicate pairs were collected from the lower WBU wells for VFAs. Results were reported at the RL and evaluated down to the MDL. Flagging of VFA results less than the RL but greater than the MDL (JQ) was not necessary.

Total Metals (SW-6010B/6020) – Antimony, arsenic, lead, selenium, and thallium were analyzed by ICP/MS Method SW-6020. Remaining metals were analyzed by ICP Method SW-6010B.

Metals data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, equipment blanks, and field duplicate precision, in addition to method-specific QC such as post-digestion spikes and serial dilutions. Any failures among the method listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits.

All holding times for the groundwater samples were met. The laboratory batch preparation blanks (method blanks) and/or CCBs were less than the RL but above the MDL for some metals. Only the sample results less than five times the blank value, qualified as estimated with possible method blank contamination, and flagged "JB" are shown below.

Metal (6010B)	Affected Samples
Aluminum	MWANP-4D, OU8DUP-4
Molybdenum	MWANP-12D, USGS-5
Silver	USGS-5
Zinc	MWANP-4D, OU8DUP-4

Metal (6020)	Affected Samples
Antimony	MWANP-12D
Lead	MWANP-4D

Natural earth metals (calcium and sodium) were present in the blank and are expected to be present in the water matrix. Therefore, no qualification of the data for these results was applied.

The batch LCS for total metals was within USACE-prescribed limits (80 to 120 %R) or SMF criteria. No MS/MSDs were performed for metals on samples collected from the lower WBU.

Equipment blank sample OU8-BLAD-EQB was reported to contain metals below the RL but above the MDL. No qualification of the data was required for analytes detected in the equipment blank below the RL.

One field duplicate pair (MWANP-4D/OU8DUP-4) was collected from the lower WBU. The RPD between the sample and duplicate was within QC limits.

Results were reported at the RL and evaluated down to the MDL. Results less than the RL but above the MDL were qualified as estimated and flagged "JQ". Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently overridden by the "JQ" qualifier.

Total Mercury (SW-7470A) – Mercury data collected from the lower WBU were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, equipment blanks, and field duplicate precision, in addition to method-specific QC such as post-digestion spikes and serial dilutions. Any failures among the method listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits. The laboratory batch preparation blanks (method blanks) did not contain mercury.

Batch LCSs for mercury were within acceptable limits. No MS/MSDs were performed on samples collected from the lower WBU. Equipment blank sample OU8-BLAD-EQB did not contain mercury.

One field duplicate pair (MWANP-4D/OU8DUP-4) was collected and analyzed for mercury. The RPD between the sample and duplicate was within QC limits. Results were reported at the RL and evaluated down to the MDL. There were no mercury results less than the RL but above the MDL.

Anions (300.0A) – Anion (chloride, nitrate, and sulfate) data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The initial and continuing calibration for each instrument used for the analysis of chloride, nitrate, and sulfate was assumed to be within acceptable criteria. The laboratory batch preparation blanks (method blanks) contained no reportable concentrations of chloride, nitrate, and sulfate.

Batch LCSs for anions were within acceptable limits. There were no MS/MSDs collected from the lower WBU. One field duplicate pair (MWANP-4D/OU8DUP-4) was collected and analyzed for anions. The RPD between the sample and duplicate was within the QC limits.

Equipment blank sample OU8-BLAD-EQB was nondetect for chloride, nitrate, and sulfate. Results were reported at the RL and evaluated down to the MDL. Flagging of anion results less than the RL but greater than the MDL (JQ) was not necessary.

TOC (9060) – TOC data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The initial and continuing calibration for each instrument used for the analysis of TOC was assumed to meet acceptable criteria. The laboratory batch preparation blank (method blank) contained TOC at 0.2 mg/L (JQ). Associated results in samples MWANP-4D and OU8DUP-4 were qualified as estimated with possible high bias from method blank contamination and flagged "JH".

Batch LCSs for TOC were within acceptable limits. There were no MS/MSDs collected from the lower WBU.

One field duplicate pair (MWANP-4D/OU8DUP-4) was collected for TOC. The RPD between the parent and duplicate was within QC limits. The equipment blank OU8-BLAD-EQB was analyzed, and TOC was not detected above the RL.

Results were reported at the RL and evaluated down to the MDL. Flagging of TOC results less than the RL but greater than the MDL (JQ) was not necessary.

Alkalinity (310.1) – Alkalinity data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The project-specific hold times for alkalinity were not met, but the samples were analyzed within the method hold time. Therefore, no additional qualification was necessary. The titration standardization performed for the analysis of alkalinity was assumed to meet acceptable criteria, as were the initial and continuing calibration checks. The laboratory batch preparation blanks (method blanks) contained alkalinity at 2.0 mg/L (JQ). Associated results greater than the blank value but less than five times the blank value (USGS-5) were qualified as estimated with possible high bias and flagged "JH".

Batch LCSs for alkalinity were within acceptable limits. There were no MS/MSDs collected from the lower WBU.

One field duplicate pair (MWANP-4D/OU8DUP-4) was collected and analyzed for alkalinity. The RPD between the sample and duplicate was within QC limits. The equipment blank (OU8-BLAD-EQB) was analyzed, and alkalinity was not detected above the RL.

Results were reported at the RL and evaluated down to the MDL. Flagging of alkalinity results less than the RL but greater than the MDL (JQ) was necessary for MWANP-4D and OU8DUP-4.

Sulfide (376.1) – Sulfide data were evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.

The titration standardization performed for the analysis of sulfide was assumed to meet acceptable criteria. The laboratory batch preparation blanks (method blanks) did not contain sulfide. The batch LCS for sulfide was within acceptable limits. There were no MS/MSD samples collected from the lower WBU.

One field duplicate pair (MWANP-4D/OU8DUP-4) was analyzed for sulfide. The results of the samples and their duplicate were nondetect. Equipment blank sample OU8-BLAD-EQB was analyzed and was nondetect for total sulfide.

Results were reported at the RL and evaluated down to the MDL. Flagging of sulfide results less than the RL but greater than the MDL (JQ) was not necessary.

Dissolved Hydrogen (AM20GAX) – Hydrogen data were evaluated using a Tier II approach that consisted of a review of holding times, method and calibration blanks, LCS recoveries, and field duplicate precision. MS/MSD samples were not required for hydrogen analysis. Any failures among the method listed are discussed below. Initial and continuing calibration information was assumed to be within QC limits.

Samples were received intact, and holding times were met for the samples submitted to Microseeps, Inc., for analysis. Method blanks were within method-stated control limits. LCS results were also within laboratory-established limits.

One field duplicate pair (MWANP-4D/OU8DUP-4) was collected and analyzed. The RPD between the parent sample and duplicate sample was outside specified limits (<20 percent). The associated results in both samples were qualified as estimated and flagged "J".

Results were reported at the RL and evaluated down to the MDL. There were no results less that the RL but above the MDL.

D-4.2 COMPLETENESS

Except as previously noted, the DQIs were within the USACE-prescribed QC limits and require only the qualifications described. No data were qualified as unusable; therefore, percent completeness for the data collection efforts and DQO attainment is 100 percent.

D-5.0 REFERENCES

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TABLES

TABLE D-1

DATA QUALIFIERS AND DESCRIPTIONS
APPENDIX D – DATA QUALITY EVALUATION
BI-ANNUAL GROUNDWATER MONITORING REPORT
Defense Supply Center Richmond
Richmond, Virginia

DATA QUALIFIER	DESCRIPTION
	DATA USABLE WITH QUALIFICATION
J	Estimated quantitation based upon QC data
JB	Estimated quantitation: possibly biased high or false positive based upon blank data
JH	Estimated quantitation: possibly biased high based upon QC data
JL	Estimated quantitation: possibly biased low based upon QC data
JQ	Estimated quantitation: result below the PQL
UJ	Undetected, reporting limit is inaccurate or imprecise
UL	Undetected, reporting limit is higher than indicated
	Unusable Data
R	Data rejected based upon QC data
	Flagging Hierarchy
	R > JB > JH or JL > JQ > J JH + JL = J

PREPARED/DATE: DWK 10/12/05
CHECKED/DATE: JAH 10/14/05

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