CAFB 00 ~~CAFB-00-008~~

DEPARTMENT OF THE AIR FORCE

27th CIVIL ENGINEER SQUADRON (ACC)
CANNON AIR FORCE BASE NEW MEXICO

Glenn

17 AUG 2000

Lt Col Nicholas L. Desport
Commander
506 N DL Ingram Blvd
Cannon AFB NM 88103-5323

RECEIVED 2000

Mr. James Bearzi, Chief
Hazardous and Radioactive Materials Bureau
New Mexico Environment Department
2044 Galisteo Street
PO Box 26110
Santa Fe, NM 87502

Dear Mr. Bearzi,

Enclosed for your information and records is the groundwater monitoring report for sampling at the Sewage Lagoons (SWMU 101) and Landfill 5 (SWMU 113) on Cannon Air Force Base which took place 28 Feb-2 Mar and 15 Mar 00.

If you have any questions, please contact Mr. Sanford Hutsell of my environmental staff at (505)784-6378.

Sincerely,

NICHOLAS L. DESPORT, Lt Col, USAF
Commander

Encl:
RCRA Ground-Water Monitoring at Sewage Lagoons
and at Lanfill 5, Analytical Results of Samples Collected
February 28-March 2, 2000 and March 15, 2000

cc:
NMED w/o encl (G. VonGonten)
NMED GW Bureau (J. Jacobs)
EPA Region VI (B. Sturdivant)

CAFB-00-008

LIBRARY COPY

Cannon Air Force Base, New Mexico

RCRA Ground-Water Monitoring at Sewage Lagoons and at Landfill 5

Analytical Results of Samples Collected February 28 - March 2, 2000 and March 15, 2000

Prepared for

United States Air Force Air Combat Command
Cannon Air Force Base

June 2000

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EXECUTIVE SUMMARY

The U.S. Geological Survey (USGS), Water Resources Division, and the U.S. Air Force Air Combat Command (ACC) have a memorandum of understanding that addresses the USGS assisting any ACC base in their hydrology or environmental programs. The USGS has agreed to assist Cannon Air Force Base (CAFB), an ACC base, in their Resource Conservation and Recovery Act (RCRA) ground-water sampling program. Cannon AFB is located in east-central New Mexico about 6 miles west of Clovis, as shown in figure 1. The ground-water sampling is at the sewage lagoons and at Landfill 5 on the east side and southeast corner of the base, as shown in figure 2. Annual sampling is conducted at the sewage lagoons (fig. 3). Detection sampling is conducted semiannually at Landfill 5 (fig. 4) as part of the July 13, 1990, Compliance Agreement between CAFB and the New Mexico Environment Department (NMED).

This report presents the water-quality data for samples collected from four wells around the sewage lagoons and seven wells around Landfill 5, CAFB, on February 28 - March 2, and March 15, 2000. The monitoring wells sampled at the sewage lagoons are upgradient well E (due to a pump failure well E was not sampled until March 15, 2000) and downgradient wells F, G, and H. These wells were sampled for the following Appendix IX parameters: volatile organic compounds (VOC's) by method SW8260B; pesticides and PCB's by methods SW8081A and SW8082; total metals (aluminum, barium, beryllium, calcium, cobalt, copper, iron, magnesium, manganese, molybdenum, nickel, potassium, sodium, tin, vanadium, and zinc by method SW6010B; antimony, arsenic, cadmium, chromium, lead, selenium, silver, and thallium by method SW6020; and mercury by method SW7470A); sulfate by method MCAWW300.0A; sulfide by method SW9030B/ 9034; nitrate/nitrite by method MCAWW353.2/ 354.1; and total dissolved solids by method MCAWW160.1.

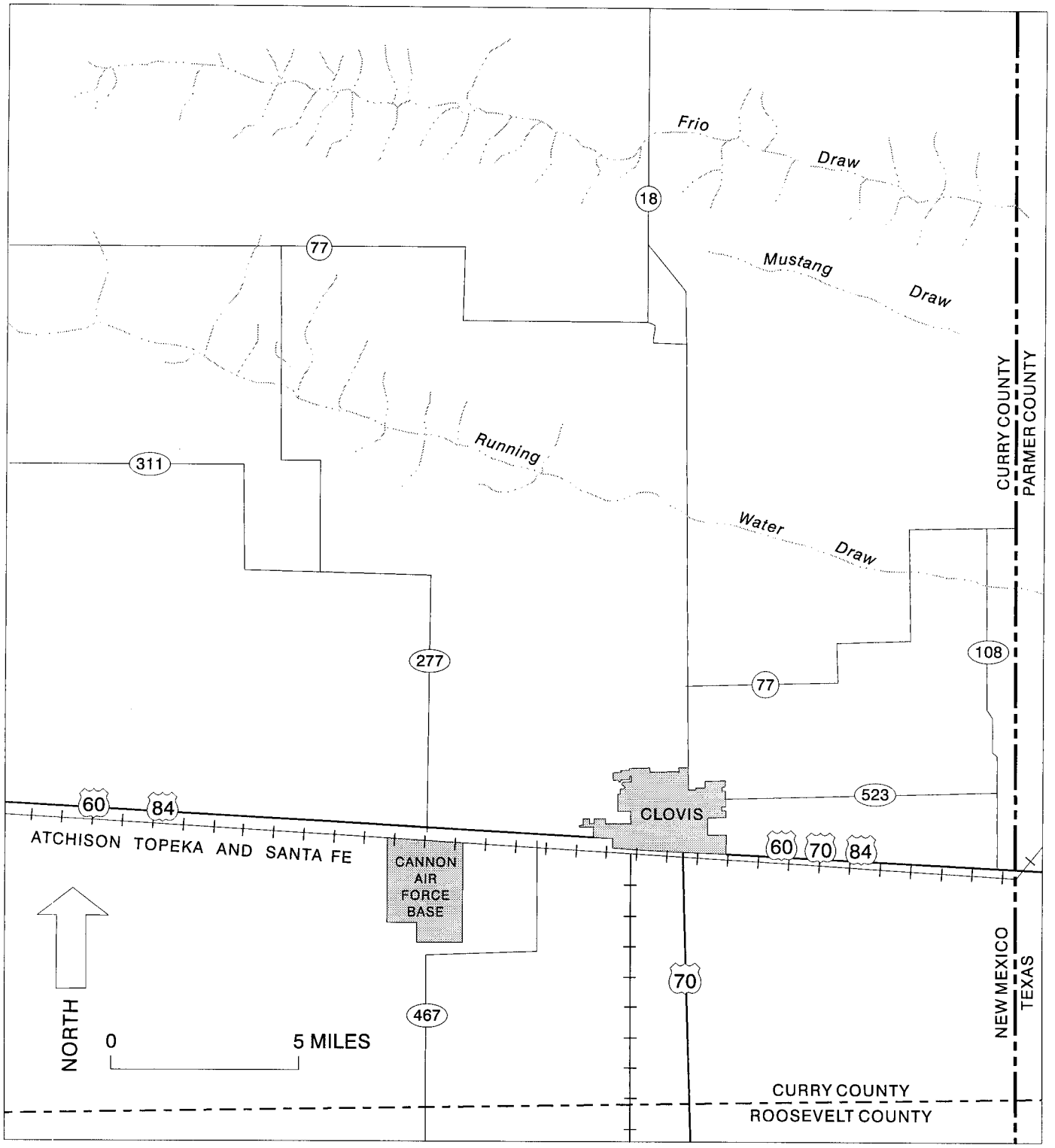
The monitoring wells sampled at Landfill 5 are downgradient wells B, C, D, S, T, and U, and upgradient well Q, as shown in figure 4. Previous semiannually samples included well I. Due to the decline of the water table in the area, the water level in well I is currently below the screen interval, a sample could not be collected. These wells were sampled for the following Appendix IX parameters: VOC's by method SW8260B; semivolatile organic compounds by method SW8270C; dioxins and furans by method SW8280; polynuclear aromatic hydrocarbons by method SW8310; pesticides and PCB's by methods SW8081A and SW8082; herbicides by method SW8151A; total metals (aluminum, barium, beryllium, calcium, cobalt, copper, iron, magnesium, manganese, molybdenum, nickel, potassium, sodium, tin,

vanadium, and zinc by SW6010; antimony, arsenic, cadmium, chromium, lead, selenium, silver, and thallium by SW6020; and mercury by SW7470A); and general chemistry (cyanide by SW9012A, sulfide by SW9030B/ 9034, total organic carbon (TOC) by SW9060, and total organic halogens (TOX) by SW9020B).

Concentrations of analytes detected in ground water from wells at the sewage lagoons are presented in table 1. Only those concentrations detected above the reporting limits are discussed in this summary. A volatile organic compound, tetrachloroethene, was detected in a water sample from well E at a concentration of 1.0 μg/L. The U.S. Environmental Protection Agency (USEPA) maximum contaminant level (MCL) drinking-water standard for tetrachloroethene is 5 μg/L. Barium was detected in water samples from wells E, F, G, and H at concentrations of 51.2, 37.9, 33.5, and 30.3, μg/L, respectively. The USEPA MCL standard for barium is 2,000 μg/L. Chromium was detected in water samples from all four wells at concentrations ranging from 1.4 μg/L (well G) to 11.5 μg/L (well E). The USEPA MCL drinking-water standard for chromium is 100 μg/L. Lead was detected in a water sample from well E at a concentration of 11.4 μg/L. The USEPA maximum contaminant level goal (SMCLG) standard for lead is zero. Selenium was detected in water samples from wells F, G, and H at concentrations of 8.8, 9.1, and 6.6 μg/L, respectively. The USEPA MCL standard for selenium is 50 μg/L. Zinc was detected in a water sample from well H at a concentration of 28 μg/L. The USEPA SMCL standard for zinc is 5,000 μg/L. Sulfate was detected in all four wells at concentrations ranging from 64.7 μg/L (well E) to 183 μg/L (well G). The USEPA MCL standard for sulfate is 500,000 μg/L.

Concentrations of analytes detected in ground water from wells at Landfill 5 are presented in table 2. Trichloroethene was detected in a water sample from well C and D at a concentrations of 1.4 μg/L in both wells. The USEPA MCL drinking-water standard for trichloroethene is 5 μg/L. Barium was detected in water samples from all eight wells at concentrations ranging from 27.7 μg/L (well U) to 46.8 μg/L (well D). Chromium was detected in water samples from wells B, C, Q, S, and T at concentrations ranging from 1.3 μg/L (wells B and C), to 76.0 μg/L (well Q). Iron was detected in only one water sample from well Q at concentration of 936 μg/L. Lead was detected in a water sample from well D at a concentration of 2.7 μg/L. Manganese was detected in the water sample from well Q, at a concentration of 65.2 μg/L. The USEPA SMCL standard for manganese is 50 μg/L. Selenium was detected in water samples from wells B, Q, S, T, and U at concentrations ranging from 9.2 μg/L (wells B and Q) to 13.2 μg/L (well T). Zinc was detected in a water sample from well S, at a concentration of 30.5 μg/L.

As part of the quality assurance and quality control (QA/QC) procedures for the sewage lagoons and Landfill 5 sites, four trip blanks, two field duplicate samples, one pair of matrix spike, and matrix spike duplicate samples were collected. No target parameters were detected above reporting limits in the trip blanks. All the sample cooler temperatures upon receipt by the laboratory were under the EPA's recommendation of 6.0 degrees Celsius. One sample bottle was broken during the shipping of sample coolers to the laboratory. The sample bottle was for pesticide analysis, however, there was an adequate amount of water in the herbicide sample bottle to perform both analysis. Analytical results of water samples from report D0C010231 for silver, and water samples from report D0C160177 for sodium and selenium should be used with caution because the associated matrix spike or matrix spike duplicate analytical results did not meet quality control acceptance criteria. The percent recoveries of these spiked analytes were either above the acceptance criteria, thus indicating potential matrix effect.



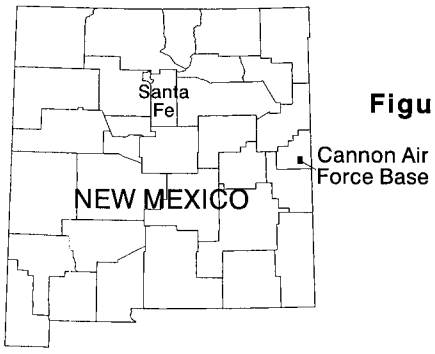


Figure 1. Location of Cannon Air Force Base, New Mexico.

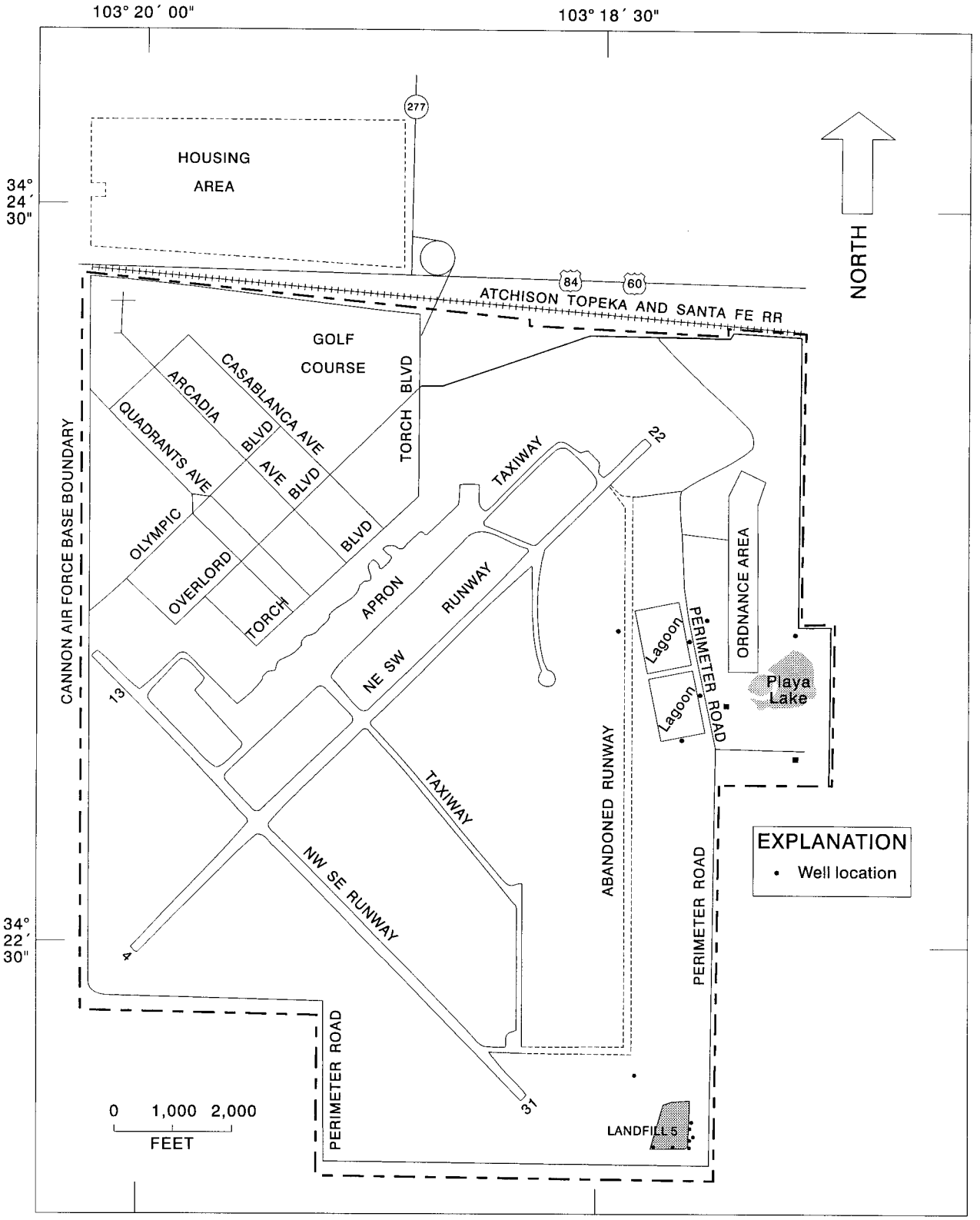


Figure 2. Cannon Air Force Base and location of sewage lagoons and Landfill 5.

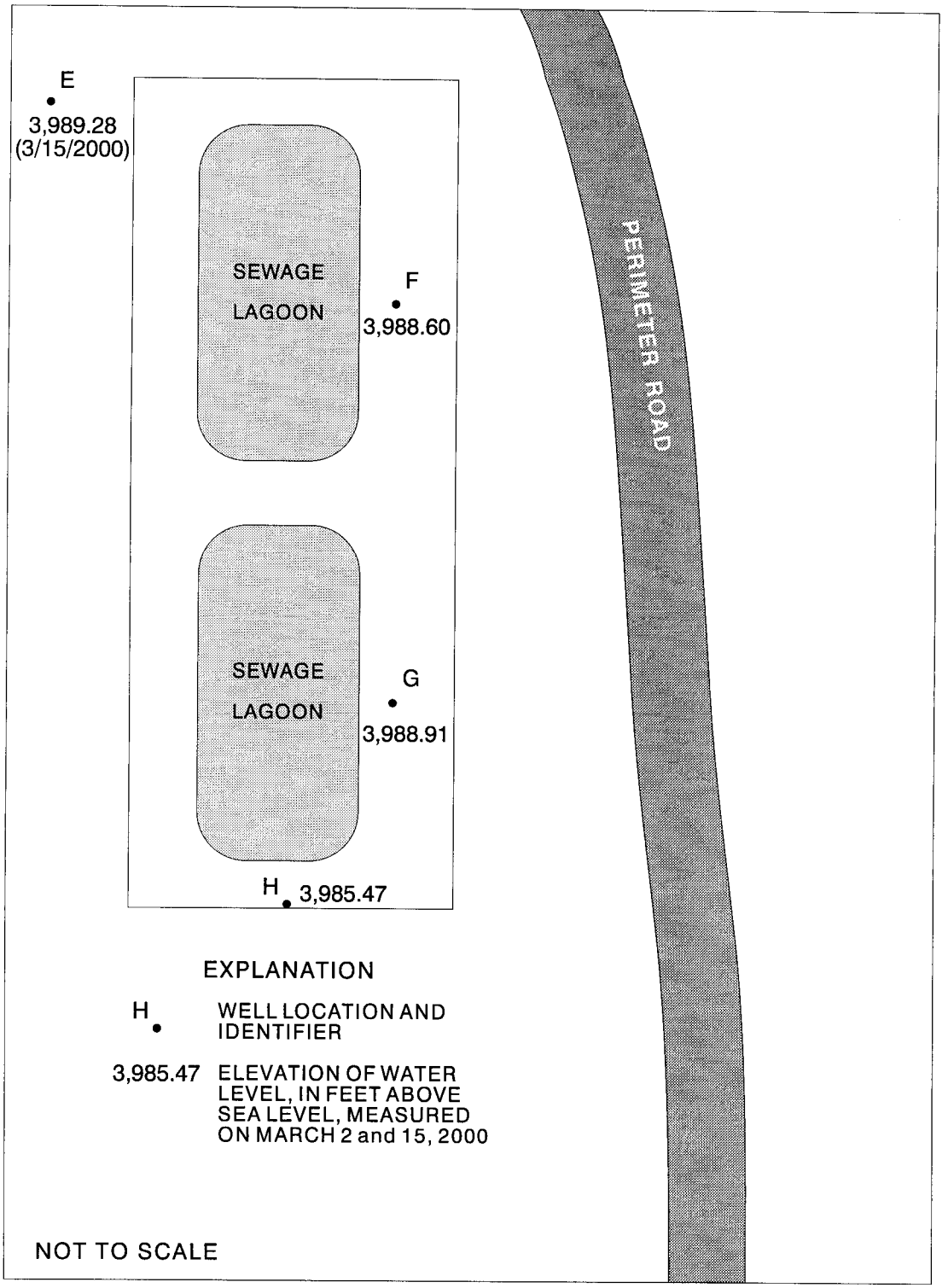


Figure 3. Location of monitoring wells around the sewage lagoons.

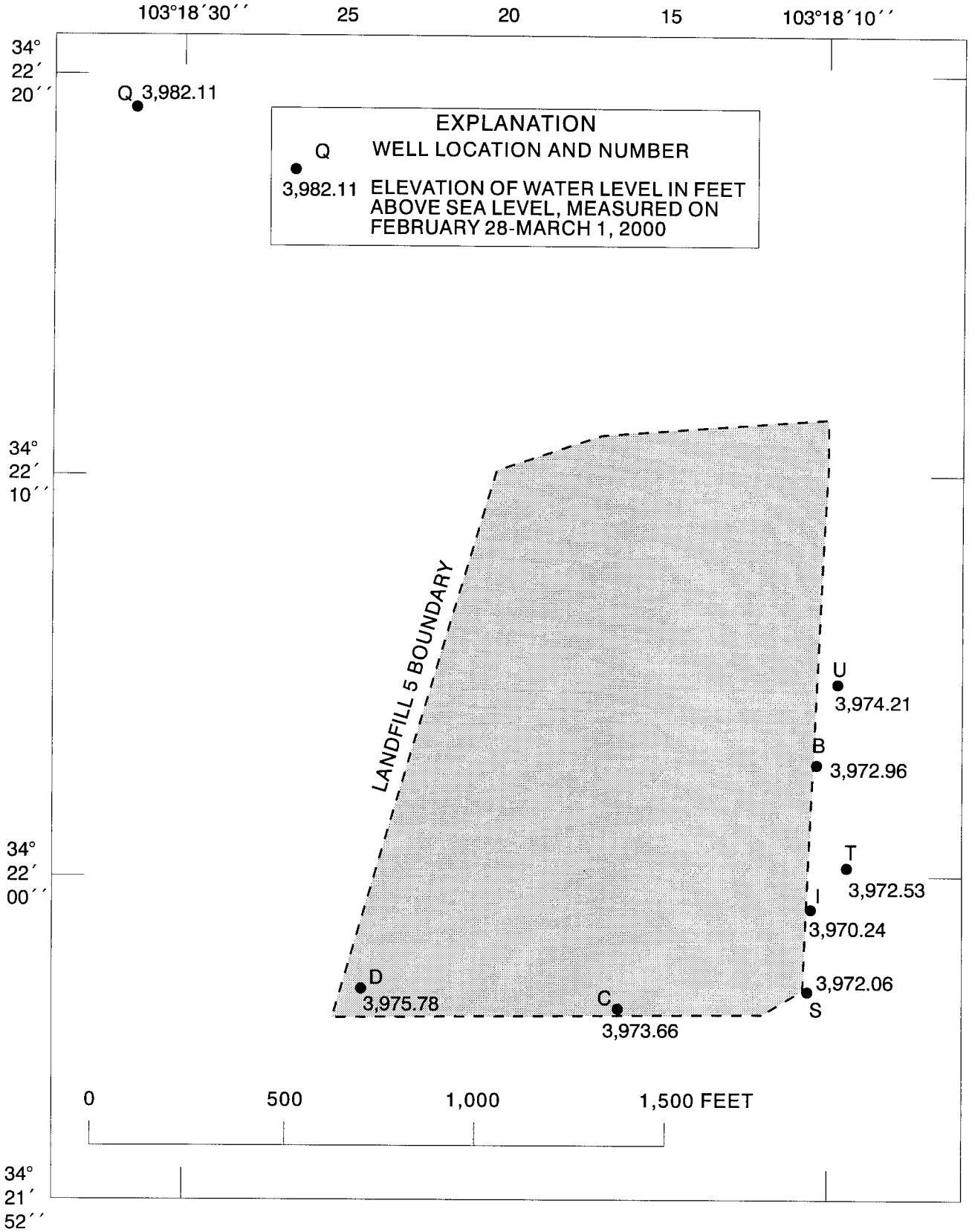


Figure 4. Location of monitoring wells around Landfill 5.

Table 1.--Summary of concentrations of analytes in ground water from monitoring wells E, F, G, and H for samples collected March 2 and 15, 2000 at the sewage lagoons, Cannon Air Force Base, New Mexico

[RL, reporting limit; µg/L, micrograms per liter; ND, not detected; J or B, result is detected below the reporting limit or is an estimated concentration; mg/L, milligrams per liter; MCAWW, methods for chemical analysis of water and wastes; Q, reporting limit is elevated due to high analyte levels]

Well/sample ID: Date sampled: :	E/CAFB-E 3-15-2000		F/CAFB-F 3-2-2000		G/CAFB-G 3-2-2000		H/CAFB-H 3-2-2000	
Analytes and Methods	Result	RL	Result	RL	Result	RL	Result	RL
Appendix-IX Volatile organics, SW8260B, (µg/L)								
Tetrachloroethene	1.0	1.0	0.11 J	1.0	ND	1.0	ND	1.0
Trichloroethene	0.12 J	1.0	ND	1.0	ND	1.0	ND	1.0
Metals, Total (µg/L)								
Aluminum SW6010B	56.9 B	100	52.2 B	100	45.6 B	100	86.3 B	100
Barium SW6010B	51.2	10.0	37.9	10.0	33.5	10.0	30.3	10.0
Calcium SW6010B	39,800	200	44,700	200	69,100	200	38,500	200
Chromium SW6020	11.5	1.0	2.2	1.0	1.4	1.0	2.4	1.0
Iron SW6010B	96.6 B	100	27.8 B	100	33.4 B	100	67.0 B	100
Lead SW6020	11.4	1.0	0.67 B	1.0	0.44 B	1.0	0.54 B	1.0
Magnesium SW6010B	37,200	200	45,000	200	69,800	200	38,000	200
Manganese SW6010B	4.0 B	10	ND		ND	10	2.2 B	100
Potassium SW6010B	6,920	5,000	7,550	5,000	9,060	5,000	6,720	5,000
Selenium SW6020	4.0 B	5.0	8.8	5.0	9.1	5.0	6.6	5.0
Sodium SW6010B	56,400	5,000	42,800	5,000	55,600	5,000	53,300	5,000
Vanadium SW6010B	19.6	10.0	18.5	10.0	17.3	10.0	21.6	10.0
Zinc SW6010B	12.3 B	20.0	5.0 B	20.0	9.8 B	20.0	28.0	20.0
General Inorganics (mg/L)								
Sulfate MCAWW300.0A	64.7 Q	25.0	139 Q	25.0	183 Q	25.0	121 Q	25.0
Nitrate MCAWW353.2	1.8	0.10	1.3	0.10	10.6 Q	0.10	1.2	0.10
Total Dissolved Solids, MCAWW160.1	426	10.0	432	10.0	696	10.0	454	10.0

Table 2.--Summary of concentrations of analytes in ground water from monitoring wells CAFB-B, C, D, Q, S, T, and U for samples collected February 29 - March 1, 2000, at Landfill 5, Cannon Air Force Base, New Mexico

[RL, reporting limit; µg/L, micrograms per liter; ND, not detected; J or B, result was detected below the reporting limit or is an estimated concentration. All samples were prepared or analyzed after the EPA-recommended temperature had been exceeded]

Well/sample ID: Date sampled:	B/CAFB-B 3-1-2000		C/CAFB-C 3-1-2000		D/CAFB-D 3-1-2000		Q/CAFB-Q 3-1-2000		S/CAFB-S 2-29-2000	
Analytes and Methods	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Appendix-IX Volatiles, SW8260B (µg/L)										
Trichloroethene	ND	1.0	1.4	1.0	1.4	1.0	ND	1.0	ND	1.0
Chloroform	ND	1.0	ND	1.0	0.11 J	1.0	ND	1.0	ND	1.0
Metals, Total (µg/L)										
Aluminum, SW6010B	52.6 B	100	42.8 B	100	49.1 B	100	98.7B	100	118	100
Barium, SW6010B	29.1	10.0	31.9	10.0	46.8	10.0	33.4	10.0	35.3	10.0
Calcium, SW6010B	40,800	200	30,600	200	30,200	200	40,900	200	43,500	200
Chromium, SW6020	1.3	1.0	1.3	1.0	0.65 B	1.0	76.0	1.0	1.6	1.0
Iron, SW6010B	52.5 B	100	14.2 B	100	74.6 B	100	936	100	33.8 B	100
Lead, SW6020	0.26B	1.0	0.16B	1.0	2.7	1.0	0.66B	1.0	0.12 B	1.0
Magnesium, SW6010B	40,500	200	31,300	200	31,300	200	39,200	200	40,200	200
Manganese, SW6010B	2.3 B	10.0	ND	10.0	ND	10.0	65.2	10.0	2.9 B	10.0
Potassium, SW6010B	6,670	5,000	5,940	5,000	5,980	5,000	6,280	5,000	6610	5,000
Selenium, SW6020	9.2	5.0	4.1 B	5.0	1.8 B	5.0	9.2	5.0	10.9	5.0
Sodium, SW6010B	57,900	5,000	48,300	5,000	46,700	5,000	48,500	5,000	48,400	5,000
Vanadium, SW6010B	27.9	10.0	42.0	10.0	25.0	10.0	31.4	10.0	26.8	10.0
Zinc, SW6010B	3.1 B	20.0	ND	20.0	6.9 B	20.0	4.8B	20.0	30.5	20.0

Table 2.--Summary of concentrations of analytes in ground water from monitoring wells CAFB-B, C, D, Q, S, T, and U for samples collected February 29 - March 1, 2000, at Landfill 5, Cannon Air Force Base, New Mexico -- Concluded

Well/sample ID: Date sampled:	T/CAFB-T 2-29-2000		U/CAFB-U 2-29-2000		U/CAFB-UU 2-29-2000 Duplicate			
Analytes and Methods	Result	RL	Result	RL	Result	RL	Result	RL
Appendix-IX Volatiles, SW8260B (µg/L)								
Trichloroethene	ND	1.0	ND	1.0	ND	1.0		
Chloroform	ND	1.0	ND	1.0	ND	1.0		
Metals, Total (µg/L)								
Aluminum, SW6010B	108	100	112	100	107	100		
Barium, SW6010B	29.3	10.0	27.7	10.0	27.5	10.0		
Calcium, SW6010B	45,500	200	43,400	200	43,400	200		
Chromium, SW6020	2.3	1.0	0.91 B	1.0	1.4	1.0		
Iron, SW6010B	86.6 B	100	23.6 B	100	14.3 B	100		
Lead, SW6020	0.17B	1.0	0.12 B	1.0	0.10B	1.0		
Magnesium, SW6010B	41,800	200	38,700	200	38,800	200		
Manganese, SW6010B	ND	10.0	ND	10.0	ND	10.0		
Potassium, SW6010B	6,970	5,000	6,630	5,000	6,610	5,000		
Selenium, SW6020	13.2	5.0	9.9	5.0	12.6	5.0		
Sodium, SW6010B	54,900	5,000	52,900	5,000	52,600	5,000		
Vanadium, SW6010B	26.5	10.0	25.0	10.0	25.6	10.0		
Zinc, SW6010B	13.3 B	20.0	ND	20.0	ND	20.0		

MONITORING WELL IDENTIFICATION REPORT

NEW MEXICO ENVIRONMENT DEPARTMENT
HAZARDOUS AND RADIOACTIVE MATERIALS BUREAU
525 CAMINO DE LOS MARQUEZ, SUITE 4
SANTA FE, NEW MEXICO 87502

FACILITY NAME Cannon Air Force Base

EPA I.D. NUMBER NM 7572124454

COUNTY Curry

WELL NUMBER B -- Landfill-5

WELL LOCATION (LONGITUDE) 103 ° 18 ' 10 "

WELL LOCATION (LATITUDE) 34 ° 22 ' 03 "

AQUIFER NAME Ogallala

AQUIFER CONFINED _____ UNCONFINED X

WELL INSTALLATION DATE 11-30-1984

DRILLING METHOD HYDRT

INNER CASING DIAMETER 4 inches

BOREHOLE DIAMETER 8 inches

CASING MATERIAL PVC

METHOD OF DEVELOPMENT AIRFT

ELEV BOTTOM OF BOREHOLE 3903.11 feet above MSL

ELEV BOTTOM OF WELL CASING 3903.11 feet above MSL

ELEV BOTTOM OF SCREENED INT 3903.11 feet above MSL

ELEV OF TOP OF SCREENED INT 3918.11 feet above MSL

SURVEYED ELEV OF CASING TOP 4265.41 feet above MSL

DATE OF REPORT 02-24-1989 SIGNATURE

NAME (TYPED) John S. Pike

MONITORING WELL IDENTIFICATION REPORT

NEW MEXICO ENVIRONMENT DEPARTMENT
HAZARDOUS AND RADIOACTIVE MATERIALS BUREAU
525 CAMINO DE LOS MARQUEZ, SUITE 4
SANTA FE, NEW MEXICO 87502

FACILITY NAME Cannon Air Force Base

EPA I.D. NUMBER NM 7572124454

COUNTY Curry

WELL NUMBER C -- Landfill-5

WELL LOCATION (LONGITUDE) 103° 18' 08.3"

WELL LOCATION (LATITUDE) 34° 21' 56.8"

AQUIFER NAME Ogalalla

AQUIFER CONFINED _____ UNCONFINED X

WELL INSTALLATION DATE 01-11-1985

DRILLING METHOD HYDRT

INNER CASING DIAMETER 4 inches

BOREHOLE DIAMETER 8 inches

CASING MATERIAL PVC

METHOD OF DEVELOPMENT AIRFT

ELEV BOTTOM OF BOREHOLE 3905.90 feet above MSL

ELEV BOTTOM OF WELL CASING 3905.90 feet above MSL

ELEV BOTTOM OF SCREENED INT 3905.90 feet above MSL

ELEV OF TOP OF SCREENED INT 3920.90 feet above MSL

SURVEYED ELEV OF CASING TOP 4267.90 feet above MSL

DATE OF REPORT 02-24-1989 SIGNATURE _____

NAME (TYPED) John S. Pike

MONITORING WELL IDENTIFICATION REPORT

NEW MEXICO ENVIRONMENT DEPARTMENT
HAZARDOUS AND RADIOACTIVE MATERIALS BUREAU
525 CAMINO DE LOS MARQUEZ, SUITE 4
SANTA FE, NEW MEXICO 87502

FACILITY NAME Cannon Air Force Base

EPA I.D. NUMBER NM 7572124454

COUNTY Curry

WELL NUMBER D -- Landfill-5

WELL LOCATION (LONGITUDE) 103 ° 18 ' 17 "

WELL LOCATION (LATITUDE) 34 ° 21 ' 57 "

AQUIFER NAME Ogallala

AQUIFER CONFINED _____ UNCONFINED X

WELL INSTALLATION DATE 12-16-1984

DRILLING METHOD HYDRT

INNER CASING DIAMETER 4 inches

BOREHOLE DIAMETER 8 inches

CASING MATERIAL PVC

METHOD OF DEVELOPMENT AIRFT

ELEV BOTTOM OF BOREHOLE 3909.15 feet above MSL

ELEV BOTTOM OF WELL CASING 3909.15 feet above MSL

ELEV BOTTOM OF SCREENED INT 3909.15 feet above MSL

ELEV OF TOP OF SCREENED INT 3924.15 feet above MSL

SURVEYED ELEV OF CASING TOP 4265.90 feet above MSL

DATE OF REPORT 02-24-1989 SIGNATURE

NAME (TYPED) John S. Pike

MONITORING WELL IDENTIFICATION REPORT

NEW MEXICO ENVIRONMENT DEPARTMENT
HAZARDOUS AND RADIOACTIVE MATERIALS BUREAU
525 CAMINO DE LOS MARQUEZ, SUITE 4
SANTA FE, NEW MEXICO 87502

FACILITY NAME Cannon Air Force Base

EPA I.D. NUMBER NM 7572124454

COUNTY Curry

WELL NUMBER E -- Sewage Lagoons

WELL LOCATION (LONGITUDE) 103° 18' 24.5"

WELL LOCATION (LATITUDE) 34° 23' 28.8"

AQUIFER NAME Ogalalla

AQUIFER CONFINED _____ UNCONFINED X

WELL INSTALLATION DATE 11-17-1985

DRILLING METHOD HYDRT

INNER CASING DIAMETER 4 inches

BOREHOLE DIAMETER 8 inches

CASING MATERIAL PVC

METHOD OF DEVELOPMENT AIRFT

ELEV BOTTOM OF BOREHOLE 3908.12 feet above MSL

ELEV BOTTOM OF WELL CASING 3911.12 feet above MSL

ELEV BOTTOM OF SCREENED INT 3911.12 feet above MSL

ELEV OF TOP OF SCREENED INT 3926.12 feet above MSL

SURVEYED ELEV OF CASING TOP 4281.12 feet above MSL

DATE OF REPORT 02-14-1989 SIGNATURE

NAME (TYPED) John S. Pike

MONITORING WELL IDENTIFICATION REPORT

NEW MEXICO ENVIRONMENT DEPARTMENT
HAZARDOUS AND RADIOACTIVE MATERIALS BUREAU
525 CAMINO DE LOS MARQUEZ, SUITE 4
SANTA FE, NEW MEXICO 87502

FACILITY NAME Cannon Air Force Base

EPA I.D. NUMBER NM 7572124454

COUNTY Curry

WELL NUMBER F -- Sewage Lagoons

WELL LOCATION (LONGITUDE) 103° 18' 10.5"

WELL LOCATION (LATITUDE) 34° 23' 21.4"

AQUIFER NAME Ogalalla

AQUIFER CONFINED _____ UNCONFINED X

WELL INSTALLATION DATE 11-19-1985

DRILLING METHOD HYDRT

INNER CASING DIAMETER 4 inches

BOREHOLE DIAMETER 8 inches

CASING MATERIAL PVC

METHOD OF DEVELOPMENT AIRFT

ELEV BOTTOM OF BOREHOLE 3902.32 feet above MSL

ELEV BOTTOM OF WELL CASING 3907.32 feet above MSL

ELEV BOTTOM OF SCREENED INT 3907.32 feet above MSL

ELEV OF TOP OF SCREENED INT 3922.32 feet above MSL

SURVEYED ELEV OF CASING TOP 4277.32 feet above MSL

DATE OF REPORT 02-24-1989 SIGNATURE

NAME (TYPED) John S. Pike

MONITORING WELL IDENTIFICATION REPORT

NEW MEXICO ENVIRONMENT DEPARTMENT
HAZARDOUS AND RADIOACTIVE MATERIALS BUREAU
525 CAMINO DE LOS MARQUEZ, SUITE 4
SANTA FE, NEW MEXICO 87502

FACILITY NAME Cannon Air Force Base

EPA I.D. NUMBER NM 7572124454

COUNTY Curry

WELL NUMBER G -- Sewage Lagoons

WELL LOCATION (LONGITUDE) 103° 18' 08"

WELL LOCATION (LATITUDE) 34° 23' 13.4"

AQUIFER NAME Ogalalla

AQUIFER CONFINED _____ UNCONFINED X

WELL INSTALLATION DATE 11-10-1985

DRILLING METHOD HYDRT

INNER CASING DIAMETER 4 inches

BOREHOLE DIAMETER 8 inches

CASING MATERIAL PVC

METHOD OF DEVELOPMENT AIRFT

ELEV BOTTOM OF BOREHOLE 3907.99 feet above MSL

ELEV BOTTOM OF WELL CASING 3907.90 feet above MSL

ELEV BOTTOM OF SCREENED INT 3907.99 feet above MSL

ELEV OF TOP OF SCREENED INT 3922.99 feet above MSL

SURVEYED ELEV OF CASING TOP 4279.99 feet above MSL

DATE OF REPORT 02-24-1989 SIGNATURE _____

NAME (TYPED) John S. Pike

MONITORING WELL IDENTIFICATION REPORT

NEW MEXICO ENVIRONMENT DEPARTMENT
HAZARDOUS AND RADIOACTIVE MATERIALS BUREAU
525 CAMINO DE LOS MARQUEZ, SUITE 4
SANTA FE, NEW MEXICO 87502

FACILITY NAME Cannon Air Force Base

EPA I.D. NUMBER NM 7572124454

COUNTY Curry

WELL NUMBER H -- Sewage Lagoons

WELL LOCATION (LONGITUDE) 103° 18' 16.80"

WELL LOCATION (LATITUDE) 34° 23' 07"

AQUIFER NAME Ogalalla

AQUIFER CONFINED _____ UNCONFINED X

WELL INSTALLATION DATE 11-18-1985

DRILLING METHOD HYDRT

INNER CASING DIAMETER 4 inches

BOREHOLE DIAMETER 8 inches

CASING MATERIAL PVC

METHOD OF DEVELOPMENT AIRFT

ELEV BOTTOM OF BOREHOLE 3901.15 feet above MSL

ELEV BOTTOM OF WELL CASING 3901.15 feet above MSL

ELEV BOTTOM OF SCREENED INT 3901.15 feet above MSL

ELEV OF TOP OF SCREENED INT 3921.15 feet above MSL

SURVEYED ELEV OF CASING TOP 4276.15 feet above MSL

DATE OF REPORT 02-24-1989 SIGNATURE

NAME (TYPED) John S. Pike

MONITORING WELL IDENTIFICATION REPORT

NEW MEXICO ENVIRONMENT DEPARTMENT
HAZARDOUS AND RADIOACTIVE MATERIALS BUREAU
525 CAMINO DE LOS MARQUEZ, SUITE 4
SANTA FE, NEW MEXICO 87502

FACILITY NAME Cannon Air Force Base

EPA I.D. NUMBER NM 7572124454

COUNTY Curry

WELL NUMBER I -- Landfill-5

WELL LOCATION (LONGITUDE) 103° 18' 06.8"

WELL LOCATION (LATITUDE) 34° 21' 58.8"

AQUIFER NAME Ogallala

AQUIFER CONFINED _____ UNCONFINED X

WELL INSTALLATION DATE 08-19-1988

DRILLING METHOD HYDRT

INNER CASING DIAMETER 6 inches

BOREHOLE DIAMETER 9 7/8 inches

CASING MATERIAL PVC

METHOD OF DEVELOPMENT BAILD

ELEV BOTTOM OF BOREHOLE 3,959.36 feet above MSL

ELEV BOTTOM OF WELL CASING 3,969.36 feet above MSL

ELEV BOTTOM OF SCREENED INT 3,969.36 feet above MSL

ELEV OF TOP OF SCREENED INT 3,989.36 feet above MSL

SURVEYED ELEV OF CASING TOP 4,262.36 feet above MSL

DATE OF REPORT 02-24-1989 SIGNATURE _____

NAME (TYPED) John S. Pike

MONITORING WELL IDENTIFICATION REPORT

NEW MEXICO ENVIRONMENT DEPARTMENT
HAZARDOUS AND RADIOACTIVE MATERIALS BUREAU
525 CAMINO DE LOS MARQUEZ, SUITE 4
SANTA FE, NEW MEXICO 87502

FACILITY NAME Cannon Air Force Base

EPA I.D. NUMBER NM 7572124454

COUNTY Curry

WELL NUMBER Q -- Landfill-5

WELL LOCATION (LONGITUDE) 103° 18' 31"

WELL LOCATION (LATITUDE) 34° 22' 19"

AQUIFER NAME Ogallala

AQUIFER CONFINED _____ UNCONFINED X

WELL INSTALLATION DATE 02-24-1996

DRILLING METHOD Unknown

INNER CASING DIAMETER 4 inches

BOREHOLE DIAMETER 8 inches

CASING MATERIAL PVC

METHOD OF DEVELOPMENT BAILD

ELEV BOTTOM OF BOREHOLE 3,969.30 feet above MSL

ELEV BOTTOM OF WELL CASING 3,970.30 feet above MSL

ELEV BOTTOM OF SCREENED INT 3,970.30 feet above MSL

ELEV OF TOP OF SCREENED INT 4,000.30 feet above MSL

SURVEYED ELEV OF CASING TOP 4,266.89 feet above MSL

DATE OF REPORT 11-27-1996 SIGNATURE

NAME (TYPED) John S. Pike

MONITORING WELL IDENTIFICATION REPORT

NEW MEXICO ENVIRONMENT DEPARTMENT
HAZARDOUS AND RADIOACTIVE MATERIALS BUREAU
525 CAMINO DE LOS MARQUEZ, SUITE 4
SANTA FE, NEW MEXICO 87502

FACILITY NAME Cannon Air Force Base

EPA I.D. NUMBER NM 7572124454

COUNTY Curry

WELL NUMBER S -- Landfill-5

WELL LOCATION (LONGITUDE) 103° 18' 10.58"

WELL LOCATION (LATITUDE) 34° 21' 57.02"

AQUIFER NAME Ogallala

AQUIFER CONFINED _____ UNCONFINED X

WELL INSTALLATION DATE 12-02 to 06-1998

DRILLING METHOD HYDRT (mud rotary)

INNER CASING DIAMETER 4 inches

BOREHOLE DIAMETER 12 inches

CASING MATERIAL PVC (Schedule-80)

METHOD OF DEVELOPMENT BAILD

ELEV BOTTOM OF BOREHOLE 3898.83 feet above MSL

ELEV BOTTOM OF WELL CASING 3898.83 feet above MSL

ELEV BOTTOM OF SCREENED INT 3939.81 feet above MSL

ELEV OF TOP OF SCREENED INT 3979.83 feet above MSL

SURVEYED ELEV OF CASING TOP 4263.83 feet above MSL

DATE OF REPORT 05-26-1999 SIGNATURE

NAME (TYPED) John S. Pike

MONITORING WELL IDENTIFICATION REPORT

NEW MEXICO ENVIRONMENT DEPARTMENT
HAZARDOUS AND RADIOACTIVE MATERIALS BUREAU
525 CAMINO DE LOS MARQUEZ, SUITE 4
SANTA FE, NEW MEXICO 87502

FACILITY NAME Cannon Air Force Base

EPA I.D. NUMBER NM 7572124454

COUNTY Curry

WELL NUMBER T -- Landfill-5

WELL LOCATION (LONGITUDE) 103 ° 18 ' 09.33 "

WELL LOCATION (LATITUDE) 34 ° 22 ' 00.10 "

AQUIFER NAME Ogallala

AQUIFER CONFINED _____ UNCONFINED X

WELL INSTALLATION DATE 12-6 to 10-1998

DRILLING METHOD HYDRT (mud rotary)

INNER CASING DIAMETER 4 inches

BOREHOLE DIAMETER 12 inches

CASING MATERIAL PVC (Schedule-80)

METHOD OF DEVELOPMENT BAILD

ELEV BOTTOM OF BOREHOLE 3898.69 feet above MSL

ELEV BOTTOM OF WELL CASING 3898.69 feet above MSL

ELEV BOTTOM OF SCREENED INT 3939.69 feet above MSL

ELEV OF TOP OF SCREENED INT 3979.69 feet above MSL

SURVEYED ELEV OF CASING TOP 4263.69 feet above MSL

DATE OF REPORT 05-26-1999 SIGNATURE _____

NAME (TYPED) John S. Pike

MONITORING WELL IDENTIFICATION REPORT

NEW MEXICO ENVIRONMENT DEPARTMENT
HAZARDOUS AND RADIOACTIVE MATERIALS BUREAU
525 CAMINO DE LOS MARQUEZ, SUITE 4
SANTA FE, NEW MEXICO 87502

FACILITY NAME Cannon Air Force Base

EPA I.D. NUMBER NM 7572124454

COUNTY Curry

WELL NUMBER U -- Landfill-5

WELL LOCATION (LONGITUDE) 103 ° 18 ' 09.84 "

WELL LOCATION (LATITUDE) 34 ° 22 ' 04.88 "

AQUIFER NAME Ogallala

AQUIFER CONFINED _____ UNCONFINED X

WELL INSTALLATION DATE 12-10 to 13-1998

DRILLING METHOD HYDRT (mud rotary)

INNER CASING DIAMETER 4 inches

BOREHOLE DIAMETER 12 inches

CASING MATERIAL PVC (Schedule 80)

METHOD OF DEVELOPMENT BAILD

ELEV BOTTOM OF BOREHOLE 3900.26 feet above MSL

ELEV BOTTOM OF WELL CASING 3900.26 feet above MSL

ELEV BOTTOM OF SCREENED INT 3941.26 feet above MSL

ELEV OF TOP OF SCREENED INT 3981.26 feet above MSL

SURVEYED ELEV OF CASING TOP 4265.26 feet above MSL

DATE OF REPORT 05-26-1999 SIGNATURE

NAME (TYPED) John S. Pike

MONITORING WELL
SEMI-ANNUAL SAMPLING REPORT

SAMPLE COLLECTED BY Fredrick E. Gebhardt

LABORATORY NAME Quanterra Environmental Services WELL NUMBER CAFB-B

WELL DEPTH 362.30 feet WELL CASING VOLUME 45.40 gallons

DATE SAMPLED 03-01-2000 LABORATORY SAMPLE I.D.# D0C010231-007

TIME SAMPLED 1230 DATE RECEIVED BY LAB 03-02-2000

PARAMETERS	STORET CODE	UNITS	VALUE	DATE
Elevation of G. Water	71993	ft.	3972.96	03-01-2000
Flow Rate	00059	gal/min	0.97	03-01-2000
Pump Period	72004	min.	72	03-01-2000
Volume Evacuated	73675	gal	70.0	03-01-2000
Well Sampling Method	84077	---	PSPMP	N/A

Sampler Material: TEFLON Well Sampling Method: BENNETT PUMP

PARAMETERS	STORET CODE	UNITS	VALUE	DETECTION LIMIT	DATE ANALYZED	METHOD USED
pH	00400	S.U.	8.29	N/A	03-01-2000	field electrometer
Specific Conductivity	00095	umhos/cm	773	N/A	03-01-2000	field electrometer
T.O.X.	70354	ug/L	ND	30.0	03-22-2000	SW9020B
T.O.C.	00680	mg/L	ND	1.0	03-20-2000	SW9060

SIGNATURE: Fredrick E. Gebhardt

NAME (PRINTED): Fredrick E. Gebhardt

MONITORING WELL
SEMI-ANNUAL SAMPLING REPORT

SAMPLE COLLECTED BY Fredrick E. Gebhardt

LABORATORY NAME Quanterra Environmental Services WELL NUMBER CAFB-C

WELL DEPTH 362.00 feet WELL CASING VOLUME 44. 4 gallons

DATE SAMPLED 03-01-2000 LABORATORY SAMPLE I.D.# D0C010231-008

TIME SAMPLED 1045 DATE RECEIVED BY LAB 03-02-2000

PARAMETERS	STORET CODE	UNITS	VALUE	DATE
Elevation of G. Water	71993	ft.	3973.66	03-01-2000
Flow Rate	00059	gal/min	0.92	03-01-2000
Pump Period	72004	min.	65.0	03-01-2000
Volume Evacuated	73675	gal	60.0	03-01-2000
Well Sampling Method	84077	---	PSPMP	N/A

Sampler Material: TEFLON Well Sampling Method: BENNETT PUMP

PARAMETERS	STORET CODE	UNITS	VALUE	DETECTION LIMIT	DATE ANALYZED	METHOD USED
pH	00400	S.U.	8.29	N/A	03-01-2000	field electrometer
Specific Conductivity	00095	umhos/cm	596	N/A	03-01-2000	field electrometer
T.O.X.	70354	ug/L	ND	30.0	03-22-2000	SW9020B
T.O.C.	00680	mg/L	ND	1.0	03-20-2000	SW9060

SIGNATURE: Fredrick E. Gebhardt

NAME (PRINTED): Fredrick. Gebhardt

MONITORING WELL
SEMI-ANNUAL SAMPLING REPORT

SAMPLE COLLECTED BY Fredrick E. Gebhardt

LABORATORY NAME Quanterra Environmental Services WELL NUMBER CAFB-D

WELL DEPTH 354.87 feet WELL CASING VOLUME 42.10 gallons

DATE SAMPLED 03-01-2000 LABORATORY SAMPLE I.D.# D0C010231-009

TIME SAMPLED 0900 DATE RECEIVED BY LAB 03-02-2000

PARAMETERS	STORET CODE	UNITS	VALUE	DATE
Elevation of G. Water	71993	ft.	3975.78.	03-01-2000
Flow Rate	00059	gal/min	0.92	03-01-2000
Pump Period	72004	min.	65.0	03-01-2000
Volume Evacuated	73675	gal	60.0	03-01-2000
Well Sampling Method	84077	---	PSPMP	N/A

Sampler Material: TEFLON Well Sampling Method: BENNETT PUMP

PARAMETERS	STORET CODE	UNITS	VALUE	DETECTION LIMIT	DATE ANALYZED	METHOD USED
pH	00400	S.U.	8.14	N/A	03-01-2000	field electrometer
Specific Conductivity	00095	umhos/cm	574	N/A	03-01-2000	field electrometer
T.O.X.	70354	ug/L	ND	30.0	03-22-00	SW9020B
T.O.C.	00680	mg/L	ND	1.0	03-20-00	SW9060

SIGNATURE: Fredrick E. Gebhardt

NAME (PRINTED): Fredrick E. Gebhardt

MONITORING WELL
SEMI-ANNUAL SAMPLING REPORT

SAMPLE COLLECTED BY Fredrick E. Gebhardt

LABORATORY NAME Quanterra Environmental Services WELL NUMBER CAFB-I

WELL DEPTH 293.00 feet WELL CASING VOLUME 0 gallons

DATE SAMPLED not sampled LABORATORY SAMPLE I.D.# N/A

TIME SAMPLED N/A DATE RECEIVED BY LAB N/A

PARAMETERS	STORET CODE	UNITS	VALUE	DATE
Elevation of G. Water	71993	ft.	3970.24	02-29-2000
Flow Rate	00059	gal/min		
Pump Period	72004	min.		
Volume Evacuated	73675	gal		
Well Sampling Method	84077	---	PSPMP	N/A

Sampler Material: TEFLON Well Sampling Method: BENNETT PUMP

PARAMETERS	STORET CODE	UNITS	VALUE	DETECTION LIMIT	DATE ANALYZED	METHOD USED
pH	00400	S.U.		N/A		field electrometer
Specific Conductivity	00095	umhos/cm		N/A		field electrometer
T.O.X.	70354	ug/L				SW9020B
T.O.C.	00680	mg/L				SW9060

SIGNATURE: Fredrick E. Gebhardt

NAME (PRINTED): Fredrick E. Gebhardt

MONITORING WELL
SEMI-ANNUAL SAMPLING REPORT

SAMPLE COLLECTED BY Fredrick E. Gebhardt

LABORATORY NAME Quanterra Environmental Services WELL NUMBER CAFB-Q

WELL DEPTH 296.69 feet WELL CASING VOLUME 7.74 gallons

DATE SAMPLED 03-01-2000 LABORATORY SAMPLE I.D.# D0C010231-006

TIME SAMPLED 1445 DATE RECEIVED BY LAB 03-02-2000

PARAMETERS	STORET CODE	UNITS	VALUE	DATE
Elevation of G. Water	71993	ft.	3982.11	03-01-2000
Flow Rate	00059	gal/min	0.83	03-01-2000
Pump Period	72004	min.	42	03-01-2000
Volume Evacuated	73675	gal	35	03-01-2000
Well Sampling Method	84077	---	PSPMP	N/A

Sampler Material: TEFLON Well Sampling Method: BENNETT PUMP

PARAMETERS	STORET CODE	UNITS	VALUE	DETECTION LIMIT	DATE ANALYZED	METHOD USED
pH	00400	S.U.	8.20	N/A	03-01-2000	field electrometer
Specific Conductivity	00095	umhos/cm	731	N/A	03-01-2000	field electrometer
T.O.X.	70354	ug/L	6.8 B	30.0	03-28-2000	SW9020B
T.O.C.	00680	mg/L	ND	1.0	03-20-2000	SW9060

SIGNATURE: Fredrick E. Gebhardt

NAME (PRINTED): Fredrick E. Gebhardt

MONITORING WELL
SEMI-ANNUAL SAMPLING REPORT

SAMPLE COLLECTED BY Fredrick E. Gebhardt

LABORATORY NAME Quanterra Environmental Services WELL NUMBER CAFB-S

WELL DEPTH 362.77 feet WELL CASING VOLUME 46.15 gallons

DATE SAMPLED 02-29-2000 LABORATORY SAMPLE I.D.# D0C010231-002

TIME SAMPLED 1130 DATE RECEIVED BY LAB 03-01-2000

PARAMETERS	STORET CODE	UNITS	VALUE	DATE
Elevation of G. Water	71993	ft.	3972.06	02-29-2000
Flow Rate	00059	gal/min	0.90	02-29-2000
Pump Period	72004	min.	67	02-29-2000
Volume Evacuated	73675	gal	60.0	02-29-2000
Well Sampling Method	84077	---	PSPMP	N/A

Sampler Material: TEFLON Well Sampling Method: BENNETT PUMP

PARAMETERS	STORET CODE	UNITS	VALUE	DETECTION LIMIT	DATE ANALYZED	METHOD USED
pH	00400	S.U.	8.09	N/A	02-29-2000	field electrometer
Specific Conductivity	00095	umhos/cm	757	N/A	02-29-2000	field electrometer
T.O.X.	70354	ug/L	ND	30.0	03-22-2000	SW9020B
T.O.C.	00680	mg/L	ND	1.0	03-20-2000	SW9060

SIGNATURE: Fredrick E. Gebhardt

NAME (PRINTED): Fredrick E. Gebhardt

MONITORING WELL
SEMI-ANNUAL SAMPLING REPORT

SAMPLE COLLECTED BY Fredrick E. Gebhardt

LABORATORY NAME Quanterra Environmental Services WELL NUMBER CAFB-T

WELL DEPTH 365.00 feet WELL CASING VOLUME 48.0 gallons

DATE SAMPLED 02-29-2000 LABORATORY SAMPLE I.D.# D0C010231-003

TIME SAMPLED 1335 DATE RECEIVED BY LAB 02-29-2000

PARAMETERS	STORET CODE	UNITS	VALUE	DATE
Elevation of G. Water	71993	ft.	3972.53	02-29-2000
Flow Rate	00059	gal/min	0.92	02-29-2000
Pump Period	72004	min.	76.0	02-29-2000
Volume Evacuated	73675	gal	70	02-29-2000
Well Sampling Method	84077	---	PSPMP	N/A

Sampler Material: TEFLON Well Sampling Method: BENNETT PUMP

PARAMETERS	STORET CODE	UNITS	VALUE	DETECTION LIMIT	DATE ANALYZED	METHOD USED
pH	00400	S.U.	8.12	N/A	02-29-2000	field electrometer
Specific Conductivity	00095	umhos/cm	808	N/A	02-29-2000	field electrometer
T.O.X.	70354	ug/L	ND	30.0	03-22-2000	SW9020B
T.O.C.	00680	mg/L	ND	1.0	03-20-2000	SW9060

SIGNATURE: Fredrick E. Gebhardt

NAME (PRINTED): Fredrick E. Gebhardt

MONITORING WELL
SEMI-ANNUAL SAMPLING REPORT

SAMPLE COLLECTED BY Fredrick E. Gebhardt

LABORATORY NAME Quanterra Environmental Services WELL NUMBER CAFB-U

WELL DEPTH 365.00 feet WELL CASING VOLUME 48.07 gallons

DATE SAMPLED 02-29-2000 LABORATORY SAMPLE I.D.# D0C010231-004

TIME SAMPLED 0915 DATE RECEIVED BY LAB 03-01-2000

PARAMETERS	STORET CODE	UNITS	VALUE	DATE
Elevation of G. Water	71993	ft.	3974.21	02-29-2000
Flow Rate	00059	gal/min	0.75	02-29-2000
Pump Period	72004	min.	80.0	02-29-2000
Volume Evacuated	73675	gal	60.0	02-29-2000
Well Sampling Method	84077	---	PSPMP	N/A

Sampler Material: TEFLON Well Sampling Method: BENNETT PUMP

PARAMETERS	STORET CODE	UNITS	VALUE	DETECTION LIMIT	DATE ANALYZED	METHOD USED
pH	00400	S.U.	8.37	N/A	02-29-2000	field electrometer
Specific Conductivity	00095	umhos/cm	765	N/A	02-29-2000	field electrometer
T.O.X.	70354	ug/L	3.0 B	30.0	03-22-2000	SW9020B
T.O.C.	00680	mg/L	ND	1.0	03-20-2000	SW9060

SIGNATURE: Fredrick E. Gebhardt

NAME (PRINTED): Fredrick E. Gebhardt

APPENDIX I

Analytical Results from Quanterra Environmental Services Laboratory for Ground-Water Samples Collected February 28 - March 2 and March 15, 2000

Quanterra
4955 Yarrow Street
Arvada, CO 80002-4517

303 421-6611 Telephone
303 431-7171 Fax

ANALYTICAL REPORT

Cannon AFB
Lot #: D0C010231

Richard Daddow

U.S. Geological Survey

QUANTERRA INCORPORATED

Karen Kuoppala
Project Manager

March 29, 2000

Table Of Contents

Standard Deliverables

Report Contents	Total Number of Pages
Standard Deliverables *The Cover Letter and the Report Cover page are considered integral parts of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.*	308

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- Case Narrative
- Executive Summary – Detection Highlights
- Methods Summary
- Method/Analyst Summary
- Lot Sample Summary
- Analytical Results
- QC Data Association Summary
- Chain-of-Custody

Case Narrative

Lot D0C010231

With exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. All laboratory quality control samples analyzed in conjunction with the samples in this project were within established control limits.

Semi-Volatiles, SW846 Method 8270C

Sample D0C010231-009 had surrogate recoveries slightly below the lower control limit. Please evaluate the data accordingly.

PCBs, SW846 Method 8082

Sample D0C010231-007 had a recovery for the surrogate tetrachloro-m-xylene outside the control limits. The recovery is out high and there are no positive detects in the sample.

Metals, SW846 Method 6010B

The MS/MSd associated with QC batches 0062181 and 0067373 had recoveries for silver outside the control limits. Please evaluate the data accordingly.

EXECUTIVE SUMMARY - Detection Highlights

DOC010231

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
CAFB-UU 02/29/00 09:20 001				
Arsenic	7.0	5.0	ug/L	SW846 6020
Chromium	1.4	1.0	ug/L	SW846 6020
Lead	0.10 B	1.0	ug/L	SW846 6020
Selenium	12.6	5.0	ug/L	SW846 6020
Aluminum	107	100	ug/L	SW846 6010B
Barium	27.5	10.0	ug/L	SW846 6010B
Beryllium	1.7 B	2.0	ug/L	SW846 6010B
Calcium	43400	200	ug/L	SW846 6010B
Iron	14.3 B	100	ug/L	SW846 6010B
Potassium	6610	5000	ug/L	SW846 6010B
Magnesium	38800	200	ug/L	SW846 6010B
Sodium	52600	5000	ug/L	SW846 6010B
Vanadium	25.6	10.0	ug/L	SW846 6010B
Methylene chloride	0.29 J	1.0	ug/L	SW846 8260B
CAFB-S 02/29/00 11:30 002				
Arsenic	6.5	5.0	ug/L	SW846 6020
Chromium	1.6	1.0	ug/L	SW846 6020
Lead	0.12 B	1.0	ug/L	SW846 6020
Selenium	10.9	5.0	ug/L	SW846 6020
Aluminum	118	100	ug/L	SW846 6010B
Barium	35.3	10.0	ug/L	SW846 6010B
Beryllium	1.5 B	2.0	ug/L	SW846 6010B
Calcium	43500	200	ug/L	SW846 6010B
Iron	33.8 B	100	ug/L	SW846 6010B
Potassium	6610	5000	ug/L	SW846 6010B
Magnesium	40200	200	ug/L	SW846 6010B
Manganese	2.9 B	10.0	ug/L	SW846 6010B
Sodium	48400	5000	ug/L	SW846 6010B
Vanadium	26.8	10.0	ug/L	SW846 6010B
Zinc	30.5	20.0	ug/L	SW846 6010B
Methylene chloride	0.31 J	1.0	ug/L	SW846 8260B
CAFB-T 02/29/00 13:35 003				
Arsenic	6.9	5.0	ug/L	SW846 6020
Chromium	2.3	1.0	ug/L	SW846 6020
Lead	0.17 B	1.0	ug/L	SW846 6020
Selenium	13.2	5.0	ug/L	SW846 6020
Aluminum	108	100	ug/L	SW846 6010B
Barium	29.3	10.0	ug/L	SW846 6010B
Beryllium	1.5 B	2.0	ug/L	SW846 6010B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

D0C010231

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
CAFB-T 02/29/00 13:35 003				
Calcium	45500	200	ug/L	SW846 6010B
Iron	86.6 B	100	ug/L	SW846 6010B
Potassium	6970	5000	ug/L	SW846 6010B
Magnesium	41800	200	ug/L	SW846 6010B
Sodium	54900	5000	ug/L	SW846 6010B
Vanadium	26.5	10.0	ug/L	SW846 6010B
Zinc	13.3 B	20.0	ug/L	SW846 6010B
CAFB-U 02/29/00 09:15 004				
Arsenic	5.7	5.0	ug/L	SW846 6020
Chromium	0.91 B	1.0	ug/L	SW846 6020
Lead	0.12 B	1.0	ug/L	SW846 6020
Selenium	9.9	5.0	ug/L	SW846 6020
Aluminum	112	100	ug/L	SW846 6010B
Barium	27.7	10.0	ug/L	SW846 6010B
Beryllium	1.5 B	2.0	ug/L	SW846 6010B
Calcium	43400	200	ug/L	SW846 6010B
Iron	23.6 B	100	ug/L	SW846 6010B
Potassium	6630	5000	ug/L	SW846 6010B
Magnesium	38700	200	ug/L	SW846 6010B
Sodium	52900	5000	ug/L	SW846 6010B
Vanadium	25.0	10.0	ug/L	SW846 6010B
Total Organic Halogens	3.0 B	30.0	ug/L	SW846 9020B
CAFB-U-TB 02/29/00 005				
Methylene chloride	0.44 J	1.0	ug/L	SW846 8260B
CAFB-Q 03/01/00 14:45 006				
Arsenic	7.3	5.0	ug/L	SW846 6020
Chromium	76.0	1.0	ug/L	SW846 6020
Lead	0.66 B	1.0	ug/L	SW846 6020
Antimony	0.53 B	1.0	ug/L	SW846 6020
Selenium	9.2	5.0	ug/L	SW846 6020
Thallium	0.077 B	1.0	ug/L	SW846 6020
Aluminum	98.7 B	100	ug/L	SW846 6010B
Barium	33.4	10.0	ug/L	SW846 6010B
Calcium	40900	200	ug/L	SW846 6010B
Copper	3.7 B	20.0	ug/L	SW846 6010B
Iron	936	100	ug/L	SW846 6010B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

DOC010231

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
CAFB-Q 03/01/00 14:45 006				
Potassium	6280	5000	ug/L	SW846 6010B
Magnesium	39200	200	ug/L	SW846 6010B
Manganese	65.2	10.0	ug/L	SW846 6010B
Sodium	48500	5000	ug/L	SW846 6010B
Nickel	149	40.0	ug/L	SW846 6010B
Vanadium	31.4	10.0	ug/L	SW846 6010B
Zinc	4.8 B	20.0	ug/L	SW846 6010B
Total Organic Halogens	6.8 B	30.0	ug/L	SW846 9020B
CAFB-B 03/01/00 12:30 007				
Arsenic	5.6	5.0	ug/L	SW846 6020
Chromium	1.3	1.0	ug/L	SW846 6020
Lead	0.26 B	1.0	ug/L	SW846 6020
Selenium	9.2	5.0	ug/L	SW846 6020
Thallium	0.074 B	1.0	ug/L	SW846 6020
Aluminum	52.6 B	100	ug/L	SW846 6010B
Barium	29.1	10.0	ug/L	SW846 6010B
Calcium	40800	200	ug/L	SW846 6010B
Copper	1.1 B	20.0	ug/L	SW846 6010B
Iron	52.5 B	100	ug/L	SW846 6010B
Potassium	6670	5000	ug/L	SW846 6010B
Magnesium	40500	200	ug/L	SW846 6010B
Manganese	2.3 B	10.0	ug/L	SW846 6010B
Sodium	57900	5000	ug/L	SW846 6010B
Vanadium	27.9	10.0	ug/L	SW846 6010B
Zinc	3.1 B	20.0	ug/L	SW846 6010B
CAFB-C 03/01/00 10:45 008				
Arsenic	7.2	5.0	ug/L	SW846 6020
Chromium	1.3	1.0	ug/L	SW846 6020
Lead	0.16 B	1.0	ug/L	SW846 6020
Selenium	4.1 B	5.0	ug/L	SW846 6020
Thallium	0.042 B	1.0	ug/L	SW846 6020
Aluminum	42.8 B	100	ug/L	SW846 6010B
Barium	31.9	10.0	ug/L	SW846 6010B
Calcium	30600	200	ug/L	SW846 6010B
Iron	14.2 B	100	ug/L	SW846 6010B
Potassium	5940	5000	ug/L	SW846 6010B
Magnesium	31300	200	ug/L	SW846 6010B
Sodium	48300	5000	ug/L	SW846 6010B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

DOC010231

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
CAFB-C 03/01/00 10:45 008				
Vanadium	42.0	10.0	ug/L	SW846 6010B
Methylene chloride	0.29 J	1.0	ug/L	SW846 8260B
Trichloroethene	1.4	1.0	ug/L	SW846 8260B
CAFB-D 03/01/00 09:00 009				
Arsenic	6.1	5.0	ug/L	SW846 6020
Chromium	0.65 B	1.0	ug/L	SW846 6020
Lead	2.7	1.0	ug/L	SW846 6020
Selenium	1.8 B	5.0	ug/L	SW846 6020
Aluminum	49.1 B	100	ug/L	SW846 6010B
Barium	46.8	10.0	ug/L	SW846 6010B
Calcium	30200	200	ug/L	SW846 6010B
Copper	1.6 B	20.0	ug/L	SW846 6010B
Iron	74.6 B	100	ug/L	SW846 6010B
Potassium	5980	5000	ug/L	SW846 6010B
Magnesium	31300	200	ug/L	SW846 6010B
Sodium	46700	5000	ug/L	SW846 6010B
Vanadium	25.0	10.0	ug/L	SW846 6010B
Zinc	6.9 B	20.0	ug/L	SW846 6010B
Chloroform	0.11 J	1.0	ug/L	SW846 8260B
Trichloroethene	1.4	1.0	ug/L	SW846 8260B
Total Organic Halogens	7.9 B	30.0	ug/L	SW846 9020B
CAFB-D-TB 03/01/00 08:15 010				
Methylene chloride	0.82 J	1.0	ug/L	SW846 8260B
CAFB-G 03/02/00 13:10 011				
Arsenic	4.3 B	5.0	ug/L	SW846 6020
Chromium	1.4	1.0	ug/L	SW846 6020
Lead	0.44 B	1.0	ug/L	SW846 6020
Selenium	9.1	5.0	ug/L	SW846 6020
Thallium	0.043 B	1.0	ug/L	SW846 6020
Aluminum	45.6 B	100	ug/L	SW846 6010B
Barium	33.5	10.0	ug/L	SW846 6010B
Calcium	69100	200	ug/L	SW846 6010B
Copper	2.1 B	20.0	ug/L	SW846 6010B
Iron	33.4 B	100	ug/L	SW846 6010B
Potassium	9060	5000	ug/L	SW846 6010B
Magnesium	69800	200	ug/L	SW846 6010B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

DOC010231

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
CAFB-G 03/02/00 13:10 011				
Sodium	55600	5000	ug/L	SW846 6010B
Vanadium	17.3	10.0	ug/L	SW846 6010B
Zinc	9.8 B	20.0	ug/L	SW846 6010B
Methylene chloride	0.38 J	1.0	ug/L	SW846 8260B
Total Dissolved Solids	696	10.0	mg/L	MCAWW 160.1
Nitrate	10.6 Q	0.50	mg/L	MCAWW 353.2
Sulfate	183 Q	25.0	mg/L	MCAWW 300.0A
CAFB-F 03/02/00 14:30 012				
Arsenic	4.2 B	5.0	ug/L	SW846 6020
Chromium	2.2	1.0	ug/L	SW846 6020
Lead	0.67 B	1.0	ug/L	SW846 6020
Selenium	8.8	5.0	ug/L	SW846 6020
Thallium	0.082 B	1.0	ug/L	SW846 6020
Aluminum	52.2 B	100	ug/L	SW846 6010B
Barium	37.9	10.0	ug/L	SW846 6010B
Calcium	44700	200	ug/L	SW846 6010B
Iron	27.8 B	100	ug/L	SW846 6010B
Potassium	7550	5000	ug/L	SW846 6010B
Magnesium	45000	200	ug/L	SW846 6010B
Sodium	42800	5000	ug/L	SW846 6010B
Vanadium	18.5	10.0	ug/L	SW846 6010B
Zinc	5.0 B	20.0	ug/L	SW846 6010B
Methylene chloride	0.38 J	1.0	ug/L	SW846 8260B
Tetrachloroethene	0.11 J	1.0	ug/L	SW846 8260B
Total Dissolved Solids	432	10.0	mg/L	MCAWW 160.1
Nitrate	1.3	0.10	mg/L	MCAWW 353.2
Sulfate	139 Q	25.0	mg/L	MCAWW 300.0A
CAFB-H 03/02/00 11:00 013				
Arsenic	4.0 B	5.0	ug/L	SW846 6020
Chromium	2.4	1.0	ug/L	SW846 6020
Lead	0.54 B	1.0	ug/L	SW846 6020
Selenium	6.6	5.0	ug/L	SW846 6020
Thallium	0.073 B	1.0	ug/L	SW846 6020
Aluminum	86.3 B	100	ug/L	SW846 6010B
Barium	30.3	10.0	ug/L	SW846 6010B
Calcium	38500	200	ug/L	SW846 6010B
Copper	1.1 B	20.0	ug/L	SW846 6010B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

DOC010231

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
CAFB-H 03/02/00 11:00 013				
Iron	67.0 B	100	ug/L	SW846 6010B
Potassium	6720	5000	ug/L	SW846 6010B
Magnesium	38000	200	ug/L	SW846 6010B
Manganese	2.2 B	10.0	ug/L	SW846 6010B
Sodium	53300	5000	ug/L	SW846 6010B
Vanadium	21.6	10.0	ug/L	SW846 6010B
Zinc	28.0	20.0	ug/L	SW846 6010B
Methylene chloride	0.29 J	1.0	ug/L	SW846 8260B
Total Dissolved Solids	454	10.0	mg/L	MCAWW 160.1
Nitrate	1.2	0.10	mg/L	MCAWW 353.2
Sulfate	121 Q	25.0	mg/L	MCAWW 300.0A
Total Sulfide	0.34 B	4.0	mg/L	SW846 9030B/9034
CAFB-H-TB 03/02/00 09:45 014				
Methylene chloride	0.77 J	1.0	ug/L	SW846 8260B
CAFB-HH 03/02/00 11:05 015				
Arsenic	5.2	5.0	ug/L	SW846 6020
Cadmium	0.066 B	1.0	ug/L	SW846 6020
Chromium	2.1	1.0	ug/L	SW846 6020
Lead	0.62 B	1.0	ug/L	SW846 6020
Antimony	0.70 B	1.0	ug/L	SW846 6020
Selenium	9.7	5.0	ug/L	SW846 6020
Thallium	0.091 B	1.0	ug/L	SW846 6020
Aluminum	67.5 B	100	ug/L	SW846 6010B
Barium	31.7	10.0	ug/L	SW846 6010B
Calcium	37600	200	ug/L	SW846 6010B
Iron	60.9 B	100	ug/L	SW846 6010B
Potassium	6740	5000	ug/L	SW846 6010B
Magnesium	37500	200	ug/L	SW846 6010B
Manganese	2.0 B	10.0	ug/L	SW846 6010B
Sodium	53900	5000	ug/L	SW846 6010B
Vanadium	21.4	10.0	ug/L	SW846 6010B
Zinc	28.0	20.0	ug/L	SW846 6010B
Methylene chloride	0.30 J	1.0	ug/L	SW846 8260B
Total Dissolved Solids	447	10.0	mg/L	MCAWW 160.1
Nitrate	1.4	0.10	mg/L	MCAWW 353.2
Sulfate	115 Q	25.0	mg/L	MCAWW 300.0A

METHODS SUMMARY

D0C010231

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Chlorinated Herbicides by GC	SW846 8151A	SW846 8151A
Cyanide, Total	SW846 9012A	SW846 9012A
Dioxins/Furans, HRGC/LRMS (8280A)	SW846 8280A	SW846 8280A
Filterable Residue (TDS)	MCAWW 160.1	MCAWW 160.1
Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3010A
ICP-MS (6020)	SW846 6020	SW846 3010
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A	SW846 7470A
Nitrate	MCAWW 353.2	MCAWW 353.2
Nitrite	MCAWW 354.1	
Organochlorine Pesticides	SW846 8081A	SW846 3510C
Polynuclear Aromatic Hydrocarbons by HPLC	SW846 8310	SW846 3510
PCBs by SW-846 8082	SW846 8082	SW846 8082
Semivolatile Organic Compounds by GC/MS	SW846 8270C	SW846 3520C
Sulfate	MCAWW 300.0A	MCAWW 300.0A
Sulfides, Total 9030B/9034	SW846 9030B/903	SW846 9030B/903
Total Organic Carbon	SW846 9060	SW846 9060
Total Organic Halogens	SW846 9020B	SW846 9020B
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B/826

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D0C010231

ANALYTICAL METHOD	ANALYST	ANALYST ID
MCAWW 160.1	Ewa Kudla	001167
MCAWW 300.0A	Chris Stevenson	004564
MCAWW 353.2		120000
MCAWW 354.1	Roxanne K. Sullivan	001200
SW846 6010B	Doug Gomer	001796
SW846 6010B	William G. Logan	002179
SW846 6020	Dave B. Roberts	002871
SW846 7470A	Jennifer Hanlon	003114
SW846 8081A	V R. Johnson	012853
SW846 8082	Michael Klasner	009124
SW846 8151A	Michael Klasner	009124
SW846 8260B	Dan Appelhans	001008
SW846 8260B	Mike G. Hoffman	001880
SW846 8270C	Tim O'Donnell	000443
SW846 8270C	Xiayasang Leewaphath	006600
SW846 8280A	Michael A. Lucchesi	053590
SW846 8310	Michael Klasner	009124
SW846 9012A		ND1167
SW846 9012A	Ewa Kudla	001167
SW846 9020B	Duane Allee	001470
SW846 9030B/9034	Ewa Kudla	001167
SW846 9060	Duane Allee	001470

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D0C010231

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
D96C4	001	CAFB-UU	02/29/00	09:20
D96CG	002	CAFB-S	02/29/00	11:30
D96CH	003	CAFB-T	02/29/00	13:35
D96CJ	004	CAFB-U	02/29/00	09:15
D96CK	005	CAFB-U-TB	02/29/00	
D97J7	006	CAFB-Q	03/01/00	14:45
D97JC	007	CAFB-B	03/01/00	12:30
D97JG	008	CAFB-C	03/01/00	10:45
D97JH	009	CAFB-D	03/01/00	09:00
D97KQ	010	CAFB-D-TB	03/01/00	08:15
D98VK	011	CAFB-G	03/02/00	13:10
D98W5	012	CAFB-F	03/02/00	14:30
D98W8	013	CAFB-H	03/02/00	11:00
D98W9	014	CAFB-H-TB	03/02/00	09:45
D98WC	015	CAFB-HH	03/02/00	11:05

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.

'esults for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-UU

GC/MS Volatiles

Lot-Sample #...: D0C010231-001 **Work Order #...:** D96C4101 **Matrix.....:** WATER
Date Sampled...: 02/29/00 09:20 **Date Received..:** 03/01/00
Prep Date.....: 03/09/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0074355 **Analysis Time..:** 14:14
Dilution Factor: 1

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acetonitrile	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	2.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroprene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	1.0	ug/L
hloromethane	ND	2.0	ug/L
Allyl chloride	ND	2.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
2-Hexanone	ND	5.0	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	10	ug/L
Methylene chloride	**0.29 J**	**1.0**	**ug/L**

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US GEOLOGICAL SURVEY

Client Sample ID: CAFB-UU

GC/MS Volatiles

Lot-Sample #...: D0C010231-001 **Work Order #...:** D96C4101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methyl methacrylate	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
2-Butanone (MEK)	ND	5.0	ug/L
crolein	ND	20	ug/L
Ethyl methacrylate	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(82 - 122)
1,2-Dichloroethane-d4	92	(78 - 123)
4-Bromofluorobenzene	94	(80 - 120)
Toluene-d8	102	(82 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

CAFB-UU

GC/MS Volatiles

Lot-Sample #: D0C010231-001 **Work Order #:** D96C4101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-S

GC/MS Volatiles

Lot-Sample #...: D0C010231-002 **Work Order #...:** D96CG101 **Matrix.....:** WATER
Date Sampled...: 02/29/00 11:30 **Date Received..:** 03/01/00
Prep Date.....: 03/09/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0074355 **Analysis Time..:** 14:36
Dilution Factor: 1

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acetonitrile	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	2.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroprene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	2.0	ug/L
Allyl chloride	ND	2.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
2-Hexanone	ND	5.0	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	10	ug/L
Methylene chloride	**0.31 J**	**1.0**	**ug/L**

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US GEOLOGICAL SURVEY

Client Sample ID: CAFB-S

GC/MS Volatiles

Lot-Sample #...: D0C010231-002 **Work Order #...:** D96CG101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methyl methacrylate	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
2-Butanone (MEK)	ND	5.0	ug/L
Acrolein	ND	20	ug/L
Ethyl methacrylate	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(82 - 122)
1,2-Dichloroethane-d4	96	(78 - 123)
4-Bromofluorobenzene	92	(80 - 120)
Toluene-d8	101	(82 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

CAFB-S

GC/MS Volatiles

Lot-Sample #: D0C010231-002 **Work Order #:** D96CG101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-T

GC/MS Volatiles

Lot-Sample #...: D0C010231-003 **Work Order #...:** D96CH101 **Matrix.....:** WATER
Date Sampled...: 02/29/00 13:35 **Date Received..:** 03/01/00
Prep Date.....: 03/09/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0074355 **Analysis Time..:** 15:01
Dilution Factor: 1

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acetonitrile	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	2.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroprene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	2.0	ug/L
Allyl chloride	ND	2.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
2-Hexanone	ND	5.0	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	10	ug/L
Methylene chloride	ND	1.0	ug/L

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-T

GC/MS Volatiles

Lot-Sample #...: D0C010231-003 **Work Order #...:** D96CH101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methyl methacrylate	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
2-Butanone (MEK)	ND	5.0	ug/L
Acrolein	ND	20	ug/L
Ethyl methacrylate	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(82 - 122)
1,2-Dichloroethane-d4	90	(78 - 123)
4-Bromofluorobenzene	91	(80 - 120)
Toluene-d8	102	(82 - 122)

US GEOLOGICAL SURVEY

CAFB-T

GC/MS Volatiles

Lot-Sample #: D0C010231-003 **Work Order #:** D96CH101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-U

GC/MS Volatiles

Lot-Sample #...: D0C010231-004 **Work Order #...:** D96CJ101 **Matrix.....:** WATER
Date Sampled...: 02/29/00 09:15 **Date Received..:** 03/01/00
Prep Date.....: 03/09/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0074355 **Analysis Time..:** 16:31
Dilution Factor: 1

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acetonitrile	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	2.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroprene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	2.0	ug/L
Allyl chloride	ND	2.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
2-Hexanone	ND	5.0	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	10	ug/L
Methylene chloride	ND	1.0	ug/L

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-U

GC/MS Volatiles

Lot-Sample #...: D0C010231-004 **Work Order #...:** D96CJ101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methyl methacrylate	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
2-Butanone (MEK)	ND	5.0	ug/L
Acrolein	ND	20	ug/L
Ethyl methacrylate	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(82 - 122)
1,2-Dichloroethane-d4	100	(78 - 123)
4-Bromofluorobenzene	95	(80 - 120)
Toluene-d8	97	(82 - 122)

US GEOLOGICAL SURVEY

CAFB-U

GC/MS Volatiles

Lot-Sample #: D0C010231-004 **Work Order #:** D96CJ101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-U-TB

GC/MS Volatiles

Lot-Sample #...: D0C010231-005 **Work Order #...:** D96CK101 **Matrix.....:** WATER
Date Sampled...: 02/29/00 **Date Received..:** 03/01/00
Prep Date.....: 03/09/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0074355 **Analysis Time..:** 17:39
Dilution Factor: 1

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acetonitrile	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	2.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroprene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	2.0	ug/L
Allyl chloride	ND	2.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
2-Hexanone	ND	5.0	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	10	ug/L
Methylene chloride	**0.44 J**	**1.0**	**ug/L**

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US GEOLOGICAL SURVEY

Client Sample ID: CAFB-U-TB

GC/MS Volatiles

Lot-Sample #...: D0C010231-005 **Work Order #...:** D96CK101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methyl methacrylate	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
2-Butanone (MEK)	ND	5.0	ug/L
Acrolein	ND	20	ug/L
Ethyl methacrylate	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(82 - 122)
1,2-Dichloroethane-d4	101	(78 - 123)
4-Bromofluorobenzene	93	(80 - 120)
Toluene-d8	94	(82 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

CAFB-U-TB

GC/MS Volatiles

Lot-Sample #: D0C010231-005 **Work Order #:** D96CK101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-Q

GC/MS Volatiles

Lot-Sample #...: D0C010231-006 **Work Order #...:** D97J7101 **Matrix.....:** WATER
Date Sampled...: 03/01/00 14:45 **Date Received..:** 03/02/00
Prep Date.....: 03/09/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0074355 **Analysis Time..:** 18:02
Dilution Factor: 1

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acetonitrile	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	2.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroprene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	2.0	ug/L
Allyl chloride	ND	2.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
2-Hexanone	ND	5.0	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	10	ug/L
Methylene chloride	ND	1.0	ug/L

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-Q

GC/MS Volatiles

Lot-Sample #...: D0C010231-006 **Work Order #...:** D97J7101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methyl methacrylate	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
2-Butanone (MEK)	ND	5.0	ug/L
Acrolein	ND	20	ug/L
Ethyl methacrylate	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(82 - 122)
1,2-Dichloroethane-d4	97	(78 - 123)
4-Bromofluorobenzene	94	(80 - 120)
Toluene-d8	97	(82 - 122)

US GEOLOGICAL SURVEY

CAFB-Q

GC/MS Volatiles

Lot-Sample #: D0C010231-006 **Work Order #:** D97J7101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-B

GC/MS Volatiles

Lot-Sample #...: D0C010231-007 **Work Order #...:** D97JC101 **Matrix.....:** WATER
Date Sampled...: 03/01/00 12:30 **Date Received..:** 03/02/00
Prep Date.....: 03/09/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0074355 **Analysis Time..:** 18:25
Dilution Factor: 1

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acetonitrile	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	2.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroprene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	1.0	ug/L
'hloromethane	ND	2.0	ug/L
Allyl chloride	ND	2.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
2-Hexanone	ND	5.0	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	10	ug/L
Methylene chloride	ND	1.0	ug/L

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US GEOLOGICAL SURVEY

Client Sample ID: CAFB-B

GC/MS Volatiles

Lot-Sample #...: D0C010231-007 **Work Order #...:** D97JC101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methyl methacrylate	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
2-Butanone (MEK)	ND	5.0	ug/L
crolein	ND	20	ug/L
Ethyl methacrylate	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(82 - 122)
1,2-Dichloroethane-d4	96	(78 - 123)
4-Bromofluorobenzene	95	(80 - 120)
Toluene-d8	97	(82 - 122)

US GEOLOGICAL SURVEY

CAFB-B

GC/MS Volatiles

Lot-Sample #: D0C010231-007 **Work Order #:** D97JC101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-C

GC/MS Volatiles

Lot-Sample #...: D0C010231-008 **Work Order #...:** D97JG101 **Matrix.....:** WATER
Date Sampled...: 03/01/00 10:45 **Date Received..:** 03/02/00
Prep Date.....: 03/09/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0074355 **Analysis Time..:** 18:48
Dilution Factor: 1

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acetonitrile	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	2.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroprene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	2.0	ug/L
Allyl chloride	ND	2.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
2-Hexanone	ND	5.0	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	10	ug/L
Methylene chloride	**0.29 J**	**1.0**	**ug/L**

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-C

GC/MS Volatiles

Lot-Sample #...: D0C010231-008 **Work Order #...:** D97JG101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methyl methacrylate	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**1.4**	**1.0**	**ug/L**
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
2-Butanone (MEK)	ND	5.0	ug/L
Acrolein	ND	20	ug/L
Ethyl methacrylate	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(82 - 122)
1,2-Dichloroethane-d4	99	(78 - 123)
4-Bromofluorobenzene	94	(80 - 120)
Toluene-d8	96	(82 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

CAFB-C

GC/MS Volatiles

Lot-Sample #: D0C010231-008 **Work Order #:** D97JG101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-D

GC/MS Volatiles

Lot-Sample #...: D0C010231-009 **Work Order #...:** D97JH101 **Matrix.....:** WATER
Date Sampled...: 03/01/00 09:00 **Date Received..:** 03/02/00
Prep Date.....: 03/09/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0074355 **Analysis Time..:** 19:10
Dilution Factor: 1

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acetonitrile	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	2.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroprene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	**0.11 J**	**1.0**	**ug/L**
Chloromethane	ND	2.0	ug/L
Allyl chloride	ND	2.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
2-Hexanone	ND	5.0	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	10	ug/L
Methylene chloride	ND	1.0	ug/L

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-D

GC/MS Volatiles

Lot-Sample #...: D0C010231-009 **Work Order #...:** D97JH101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methyl methacrylate	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**1.4**	**1.0**	**ug/L**
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
2-Butanone (MEK)	ND	5.0	ug/L
Acrolein	ND	20	ug/L
Ethyl methacrylate	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(82 - 122)
1,2-Dichloroethane-d4	98	(78 - 123)
4-Bromofluorobenzene	94	(80 - 120)
Toluene-d8	96	(82 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

CAFB-D

GC/MS Volatiles

Lot-Sample #: D0C010231-009 **Work Order #:** D97JH101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-D-TB

GC/MS Volatiles

Lot-Sample #...: D0C010231-010 **Work Order #...:** D97KQ101 **Matrix.....:** WATER
Date Sampled...: 03/01/00 08:15 **Date Received..:** 03/02/00
Prep Date.....: 03/09/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0074355 **Analysis Time..:** 19:33
Dilution Factor: 1

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acetonitrile	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	2.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroprene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	2.0	ug/L
Allyl chloride	ND	2.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
2-Hexanone	ND	5.0	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	10	ug/L
Methylene chloride	**0.82 J**	**1.0**	**ug/L**

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-D-TB

GC/MS Volatiles

Lot-Sample #...: D0C010231-010 **Work Order #...:** D97KQ101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methyl methacrylate	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
2-Butanone (MEK)	ND	5.0	ug/L
Acrolein	ND	20	ug/L
Ethyl methacrylate	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(82 - 122)
1,2-Dichloroethane-d4	97	(78 - 123)
4-Bromofluorobenzene	94	(80 - 120)
Toluene-d8	98	(82 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

CAFB-D-TB

GC/MS Volatiles

Lot-Sample #: D0C010231-010 **Work Order #:** D97KQ101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-G

GC/MS Volatiles

Lot-Sample #...: D0C010231-011 **Work Order #...:** D98VK101 **Matrix.....:** WATER
Date Sampled...: 03/02/00 13:10 **Date Received..:** 03/03/00
Prep Date.....: 03/09/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0074355 **Analysis Time..:** 19:55
Dilution Factor: 1

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acetonitrile	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	2.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroprene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	2.0	ug/L
Allyl chloride	ND	2.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
2-Hexanone	ND	5.0	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	10	ug/L
Methylene chloride	**0.38 J**	**1.0**	**ug/L**

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US GEOLOGICAL SURVEY

Client Sample ID: CAFB-G

GC/MS Volatiles

Lot-Sample #...: D0C010231-011 **Work Order #...:** D98VK101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methyl methacrylate	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
2-Butanone (MEK)	ND	5.0	ug/L
Acrolein	ND	20	ug/L
Ethyl methacrylate	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(82 - 122)
1,2-Dichloroethane-d4	102	(78 - 123)
4-Bromofluorobenzene	95	(80 - 120)
Toluene-d8	96	(82 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

CAFB-G

GC/MS Volatiles

Lot-Sample #: D0C010231-011 **Work Order #:** D98VK101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-F

GC/MS Volatiles

Lot-Sample #...: D0C010231-012 **Work Order #...:** D98W5101 **Matrix.....:** WATER
Date Sampled...: 03/02/00 14:30 **Date Received..:** 03/03/00
Prep Date.....: 03/09/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0074355 **Analysis Time..:** 20:18
Dilution Factor: 1

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acetonitrile	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	2.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroprene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	2.0	ug/L
Allyl chloride	ND	2.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
2-Hexanone	ND	5.0	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	10	ug/L
Methylene chloride	**0.38 J**	**1.0**	**ug/L**

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US GEOLOGICAL SURVEY

Client Sample ID: CAFB-F

GC/MS Volatiles

Lot-Sample #...: D0C010231-012 **Work Order #...:** D98W5101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methyl methacrylate	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	**0.11 J**	**1.0**	**ug/L**
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
2-Butanone (MEK)	ND	5.0	ug/L
Acrolein	ND	20	ug/L
Ethyl methacrylate	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(82 - 122)
1,2-Dichloroethane-d4	93	(78 - 123)
4-Bromofluorobenzene	93	(80 - 120)
Toluene-d8	98	(82 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

CAFB-F

GC/MS Volatiles

Lot-Sample #: D0C010231-012 **Work Order #:** D98W5101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-H

GC/MS Volatiles

Lot-Sample #...: D0C010231-013 **Work Order #...:** D98W8101 **Matrix.....:** WATER
Date Sampled...: 03/02/00 11:00 **Date Received..:** 03/03/00
Prep Date.....: 03/09/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0073343 **Analysis Time..:** 19:12
Dilution Factor: 1

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acetonitrile	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	2.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroprene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	2.0	ug/L
Allyl chloride	ND	2.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
2-Hexanone	ND	5.0	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	10	ug/L
Methylene chloride	**0.29 J**	**1.0**	**ug/L**

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-H

GC/MS Volatiles

Lot-Sample #...: D0C010231-013 **Work Order #...:** D98W8101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methyl methacrylate	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
2-Butanone (MEK)	ND	5.0	ug/L
Acrolein	ND	20	ug/L
Ethyl methacrylate	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(82 - 122)
1,2-Dichloroethane-d4	99	(78 - 123)
4-Bromofluorobenzene	101	(80 - 120)
Toluene-d8	103	(82 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

T2 - Confident identification - major ions and ratios largely agree.

US GEOLOGICAL SURVEY

CAFB-H

GC/MS Volatiles

Lot-Sample #: D0C010231-013 **Work Order #:** D98W8101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Cyclotetrasiloxane, octamethyl	556-67-2	2.0 J T2	M	12.706	ug/L
Unknown		1.3 J	M	14.554	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-H-TB

GC/MS Volatiles

Lot-Sample #...: D0C010231-014 **Work Order #...:** D98W9101 **Matrix.....:** WATER
Date Sampled...: 03/02/00 09:45 **Date Received..:** 03/03/00
Prep Date.....: 03/09/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0073343 **Analysis Time..:** 20:23
Dilution Factor: 1

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acetonitrile	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	2.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroprene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	2.0	ug/L
Allyl chloride	ND	2.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
2-Hexanone	ND	5.0	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	10	ug/L
Methylene chloride	**0.77 J**	**1.0**	**ug/L**

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-H-TB

GC/MS Volatiles

Lot-Sample #...: D0C010231-014 **Work Order #...:** D98W9101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methyl methacrylate	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
2-Butanone (MEK)	ND	5.0	ug/L
crolein	ND	20	ug/L
Ethyl methacrylate	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(82 - 122)
1,2-Dichloroethane-d4	98	(78 - 123)
4-Bromofluorobenzene	102	(80 - 120)
Toluene-d8	104	(82 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

T2 - Confident identification - major ions and ratios largely agree.

US GEOLOGICAL SURVEY

CAFB-H-TB

GC/MS Volatiles

Lot-Sample #: D0C010231-014 **Work Order #:** D98W9101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Cyclotetrasiloxane, octamethyl	556-67-2	2.0 J T2	M	12.723	ug/L
Unknown		1.3 J	M	14.571	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-HH

GC/MS Volatiles

Lot-Sample #...: D0C010231-015 **Work Order #...:** D98WC101 **Matrix.....:** WATER
Date Sampled...: 03/02/00 11:05 **Date Received..:** 03/03/00
Prep Date.....: 03/09/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0073343 **Analysis Time..:** 20:47
Dilution Factor: 1

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acetonitrile	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	2.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroprene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	2.0	ug/L
Allyl chloride	ND	2.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
2-Hexanone	ND	5.0	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	10	ug/L
Methylene chloride	**0.30 J**	**1.0**	**ug/L**

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-HH

GC/MS Volatiles

Lot-Sample #...: D0C010231-015 **Work Order #...:** D98WC101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methyl methacrylate	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
2-Butanone (MEK)	ND	5.0	ug/L
Acrolein	ND	20	ug/L
Ethyl methacrylate	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(82 - 122)
1,2-Dichloroethane-d4	101	(78 - 123)
4-Bromofluorobenzene	102	(80 - 120)
Toluene-d8	107	(82 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

CAFB-HH

GC/MS Volatiles

Lot-Sample #: D0C010231-015 **Work Order #:** D98WC101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		2.4 J	M	12.721	ug/L
Unknown		1.3 J	M	14.569	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-UU

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-001 **Work Order #...:** D96C4102 **Matrix.....:** WATER
Date Sampled...: 02/29/00 09:20 **Date Received..:** 03/01/00
Prep Date.....: 03/02/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0062186 **Analysis Time..:** 21:02
Dilution Factor: 1

Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Di-n-butyl phthalate	ND	10	ug/L
1,3-Dichlorobenzene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Phenol	ND	10	ug/L
2-Chlorophenol	ND	10	ug/L
bis(2-Chloroethyl)-ether	ND	10	ug/L
bis(2-Chloroethoxy) methane	ND	10	ug/L
1,4-Dichlorobenzene	ND	10	ug/L
1,2-Dichlorobenzene	ND	10	ug/L
2-Methylphenol	ND	10	ug/L
bis(2-Ethylhexyl) phthalate	ND	10	ug/L
.,2'-oxybis(1-Chloropropane)	ND	10	ug/L
4-Methylphenol	ND	10	ug/L
N-Nitrosodi-n-propyl-amine	ND	10	ug/L
Hexachloroethane	ND	10	ug/L
Nitrobenzene	ND	10	ug/L
Isophorone	ND	10	ug/L
2-Nitrophenol	ND	10	ug/L
2,4-Dimethylphenol	ND	10	ug/L
2,4-Dichlorophenol	ND	10	ug/L
1,2,4-Trichlorobenzene	ND	10	ug/L
Naphthalene	ND	10	ug/L
4-Chloroaniline	ND	10	ug/L
Hexachlorobutadiene	ND	10	ug/L
2-Methylnaphthalene	ND	10	ug/L
Hexachlorocyclopenta-diene	ND	50	ug/L
2,4,5-Trichlorophenol	ND	10	ug/L
2,4,6-Trichlorophenol	ND	10	ug/L
2-Chloronaphthalene	ND	10	ug/L
Dimethyl phthalate	ND	10	ug/L
Acenaphthene	ND	10	ug/L
3-Nitroaniline	ND	50	ug/L
2,4-Dinitrophenol	ND	50	ug/L

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-UU

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-001 **Work Order #...:** D96C4102 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
4-Nitrophenol	ND	50	ug/L
Dibenzofuran	ND	10	ug/L
2,4-Dinitrotoluene	ND	10	ug/L
2,6-Dinitrotoluene	ND	10	ug/L
Diethyl phthalate	ND	10	ug/L
4-Chlorophenyl phenyl ether	ND	10	ug/L
Fluorene	ND	10	ug/L
4-Nitroaniline	ND	50	ug/L
4,6-Dinitro-2-methylphenol	ND	50	ug/L
N-Nitrosodiphenylamine	ND	10	ug/L
4-Bromophenyl phenyl ether	ND	10	ug/L
Hexachlorobenzene	ND	10	ug/L
Pentachlorophenol	ND	50	ug/L
Phenanthrene	ND	10	ug/L
Anthracene	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Pyrene	ND	10	ug/L
Butyl benzyl phthalate	ND	10	ug/L
3,3'-Dichlorobenzidine	ND	50	ug/L
Benzo(a)anthracene	ND	10	ug/L
Chrysene	ND	10	ug/L
Di-n-octyl phthalate	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
Dibenz(a,h)anthracene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
4-Chloro-3-methylphenol	ND	10	ug/L
2-Nitroaniline	ND	50	ug/L
Acetophenone	ND	10	ug/L
2-Acetylaminofluorene	ND	100	ug/L
4-Aminobiphenyl	ND	50	ug/L
Aniline	ND	10	ug/L
Aramite	ND	20	ug/L
Benzyl alcohol	ND	10	ug/L
2-sec-Butyl-4,6-dinitrophenol	ND	20	ug/L
2,6-Dichlorophenol	ND	10	ug/L
4-Dimethylaminoazobenzene	ND	20	ug/L

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US GEOLOGICAL SURVEY

Client Sample ID: CAFB-UU

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-001 **Work Order #...:** D96C4102 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
7,12-Dimethylbenz(a)-anthracene	ND	20	ug/L
3,3'-Dimethylbenzidine	ND	20	ug/L
alpha,alpha-Dimethylphenethylamine	ND	50	ug/L
1,3-Dinitrobenzene	ND	10	ug/L
Diphenylamine	ND	10	ug/L
Ethyl methanesulfonate	ND	10	ug/L
Hexachloropropene	ND	100	ug/L
Isosafrole	ND	20	ug/L
Methapyrilene	ND	50	ug/L
3-Methylcholanthrene	ND	20	ug/L
Methyl methanesulfonate	ND	10	ug/L
3-Methylphenol	ND	10	ug/L
1,4-Naphthoquinone	ND	50	ug/L
1-Naphthylamine	ND	10	ug/L
2-Naphthylamine	ND	10	ug/L
N-Nitrosodi-n-butylamine	ND	10	ug/L
N-Nitrosodiethylamine	ND	10	ug/L
N-Nitrosodimethylamine	ND	10	ug/L
N-Nitrosomethylethylamine	ND	10	ug/L
N-Nitrosomorpholine	ND	10	ug/L
N-Nitrosopiperidine	ND	10	ug/L
N-Nitrosopyrrolidine	ND	10	ug/L
5-Nitro-o-toluidine	ND	20	ug/L
Pentachlorobenzene	ND	10	ug/L
Pentachloroethane	ND	50	ug/L
Pentachloronitrobenzene	ND	50	ug/L
Phenacetin	ND	20	ug/L
2-Picoline	ND	20	ug/L
Pronamide	ND	20	ug/L
Pyridine	ND	20	ug/L
Safrole	ND	20	ug/L
1,2,4,5-Tetrachloro-benzene	ND	10	ug/L
2,3,4,6-Tetrachlorophenol	ND	50	ug/L
2-Toluidine	ND	10	ug/L
1,3,5-Trinitrobenzene	ND	50	ug/L

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US GEOLOGICAL SURVEY

Client Sample ID: CAFB-UU

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-001 **Work Order #...:** D96C4102 **Matrix.....:** WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	57	(53 - 101)
Phenol-d5	59	(57 - 105)
Nitrobenzene-d5	61	(56 - 106)
2-Fluorobiphenyl	58	(44 - 99)
2,4,6-Tribromophenol	62	(52 - 115)
Terphenyl-d14	70	(62 - 112)

US GEOLOGICAL SURVEY

CAFB-UU

GC/MS Semivolatiles

Lot-Sample #: D0C010231-001 **Work Order #:** D96C4102 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
Cyclohexane	110-82-7	23 J T2 M	1.1839	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-S

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-002 **Work Order #...:** D96CG102 **Matrix.....:** WATER
Date Sampled...: 02/29/00 11:30 **Date Received..:** 03/01/00
Prep Date.....: 03/02/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0062186 **Analysis Time..:** 21:33
Dilution Factor: 1

Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Di-n-butyl phthalate	ND	10	ug/L
1,3-Dichlorobenzene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Phenol	ND	10	ug/L
2-Chlorophenol	ND	10	ug/L
bis(2-Chloroethyl)-ether	ND	10	ug/L
bis(2-Chloroethoxy) methane	ND	10	ug/L
1,4-Dichlorobenzene	ND	10	ug/L
1,2-Dichlorobenzene	ND	10	ug/L
2-Methylphenol	ND	10	ug/L
bis(2-Ethylhexyl) phthalate	ND	10	ug/L
2,2'-oxybis(1-Chloropropane)	ND	10	ug/L
4-Methylphenol	ND	10	ug/L
N-Nitrosodi-n-propyl-amine	ND	10	ug/L
Hexachloroethane	ND	10	ug/L
Nitrobenzene	ND	10	ug/L
Isophorone	ND	10	ug/L
2-Nitrophenol	ND	10	ug/L
2,4-Dimethylphenol	ND	10	ug/L
2,4-Dichlorophenol	ND	10	ug/L
1,2,4-Trichlorobenzene	ND	10	ug/L
Naphthalene	ND	10	ug/L
4-Chloroaniline	ND	10	ug/L
Hexachlorobutadiene	ND	10	ug/L
2-Methylnaphthalene	ND	10	ug/L
Hexachlorocyclopenta-diene	ND	50	ug/L
2,4,5-Trichlorophenol	ND	10	ug/L
2,4,6-Trichlorophenol	ND	10	ug/L
2-Chloronaphthalene	ND	10	ug/L
Dimethyl phthalate	ND	10	ug/L
Acenaphthene	ND	10	ug/L
3-Nitroaniline	ND	50	ug/L
2,4-Dinitrophenol	ND	50	ug/L

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US GEOLOGICAL SURVEY

Client Sample ID: CAFB-S

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-002 Work Order #...: D96CG102 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
4-Nitrophenol	ND	50	ug/L
Dibenzofuran	ND	10	ug/L
2,4-Dinitrotoluene	ND	10	ug/L
2,6-Dinitrotoluene	ND	10	ug/L
Diethyl phthalate	ND	10	ug/L
4-Chlorophenyl phenyl ether	ND	10	ug/L
Fluorene	ND	10	ug/L
4-Nitroaniline	ND	50	ug/L
4,6-Dinitro-2-methylphenol	ND	50	ug/L
N-Nitrosodiphenylamine	ND	10	ug/L
4-Bromophenyl phenyl ether	ND	10	ug/L
Hexachlorobenzene	ND	10	ug/L
Pentachlorophenol	ND	50	ug/L
Phenanthrene	ND	10	ug/L
Anthracene	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Pyrene	ND	10	ug/L
Butyl benzyl phthalate	ND	10	ug/L
3,3'-Dichlorobenzidine	ND	50	ug/L
Benzo(a)anthracene	ND	10	ug/L
Chrysene	ND	10	ug/L
Di-n-octyl phthalate	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
Dibenz(a,h)anthracene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
4-Chloro-3-methylphenol	ND	10	ug/L
2-Nitroaniline	ND	50	ug/L
Acetophenone	ND	10	ug/L
2-Acetylaminofluorene	ND	100	ug/L
4-Aminobiphenyl	ND	50	ug/L
Aniline	ND	10	ug/L
Aramite	ND	20	ug/L
Benzyl alcohol	ND	10	ug/L
2-sec-Butyl-4,6-dinitro-phenol	ND	20	ug/L
2,6-Dichlorophenol	ND	10	ug/L
4-Dimethylaminoazobenzene	ND	20	ug/L

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US GEOLOGICAL SURVEY

Client Sample ID: CAFB-S

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-002 **Work Order #...:** D96CG102 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
7,12-Dimethylbenz(a)-anthracene	ND	20	ug/L
3,3'-Dimethylbenzidine	ND	20	ug/L
alpha,alpha-Dimethylphenethylamine	ND	50	ug/L
1,3-Dinitrobenzene	ND	10	ug/L
Diphenylamine	ND	10	ug/L
Ethyl methanesulfonate	ND	10	ug/L
Hexachloropropene	ND	100	ug/L
Isosafrole	ND	20	ug/L
Methapyrilene	ND	50	ug/L
3-Methylcholanthrene	ND	20	ug/L
Methyl methanesulfonate	ND	10	ug/L
3-Methylphenol	ND	10	ug/L
1,4-Naphthoquinone	ND	50	ug/L
1-Naphthylamine	ND	10	ug/L
2-Naphthylamine	ND	10	ug/L
N-Nitrosodi-n-butylamine	ND	10	ug/L
N-Nitrosodiethylamine	ND	10	ug/L
N-Nitrosodimethylamine	ND	10	ug/L
N-Nitrosomethylethylamine	ND	10	ug/L
N-Nitrosomorpholine	ND	10	ug/L
N-Nitrosopiperidine	ND	10	ug/L
N-Nitrosopyrrolidine	ND	10	ug/L
5-Nitro-o-toluidine	ND	20	ug/L
Pentachlorobenzene	ND	10	ug/L
Pentachloroethane	ND	50	ug/L
Pentachloronitrobenzene	ND	50	ug/L
Phenacetin	ND	20	ug/L
2-Picoline	ND	20	ug/L
Pronamide	ND	20	ug/L
Pyridine	ND	20	ug/L
Safrole	ND	20	ug/L
1,2,4,5-Tetrachloro-benzene	ND	10	ug/L
2,3,4,6-Tetrachlorophenol	ND	50	ug/L
2-Toluidine	ND	10	ug/L
1,3,5-Trinitrobenzene	ND	50	ug/L

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US GEOLOGICAL SURVEY

Client Sample ID: CAFB-S

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-002 **Work Order #...:** D96CG102 **Matrix.....:** WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	73	(53 - 101)
Phenol-d5	76	(57 - 105)
Nitrobenzene-d5	77	(56 - 106)
2-Fluorobiphenyl	70	(44 - 99)
2,4,6-Tribromophenol	69	(52 - 115)
Terphenyl-d14	80	(62 - 112)

US GEOLOGICAL SURVEY

CAFB-S

GC/MS Semivolatiles

Lot-Sample #: D0C010231-002 **Work Order #:** D96CG102 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
Cyclohexane	110-82-7	25 J T2 M	1.1797	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-T

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-003 Work Order #...: D96CH102 Matrix.....: WATER
Date Sampled...: 02/29/00 13:35 Date Received..: 03/01/00
Prep Date.....: 03/02/00 Analysis Date..: 03/07/00
Prep Batch #...: 0062186 Analysis Time..: 22:04
Dilution Factor: 1

Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Di-n-butyl phthalate	ND	10	ug/L
1,3-Dichlorobenzene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Phenol	ND	10	ug/L
2-Chlorophenol	ND	10	ug/L
bis(2-Chloroethyl)-ether	ND	10	ug/L
bis(2-Chloroethoxy) methane	ND	10	ug/L
1,4-Dichlorobenzene	ND	10	ug/L
1,2-Dichlorobenzene	ND	10	ug/L
2-Methylphenol	ND	10	ug/L
bis(2-Ethylhexyl) phthalate	ND	10	ug/L
,2'-oxybis(1-Chloropropane)	ND	10	ug/L
4-Methylphenol	ND	10	ug/L
N-Nitrosodi-n-propyl-amine	ND	10	ug/L
Hexachloroethane	ND	10	ug/L
Nitrobenzene	ND	10	ug/L
Isophorone	ND	10	ug/L
2-Nitrophenol	ND	10	ug/L
2,4-Dimethylphenol	ND	10	ug/L
2,4-Dichlorophenol	ND	10	ug/L
1,2,4-Trichlorobenzene	ND	10	ug/L
Naphthalene	ND	10	ug/L
4-Chloroaniline	ND	10	ug/L
Hexachlorobutadiene	ND	10	ug/L
2-Methylnaphthalene	ND	10	ug/L
Hexachlorocyclopenta-diene	ND	50	ug/L
2,4,5-Trichlorophenol	ND	10	ug/L
2,4,6-Trichlorophenol	ND	10	ug/L
2-Chloronaphthalene	ND	10	ug/L
Dimethyl phthalate	ND	10	ug/L
Acenaphthene	ND	10	ug/L
3-Nitroaniline	ND	50	ug/L
2,4-Dinitrophenol	ND	50	ug/L

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-T

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-003 Work Order #...: D96CH102 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
4-Nitrophenol	ND	50	ug/L
Dibenzofuran	ND	10	ug/L
2,4-Dinitrotoluene	ND	10	ug/L
2,6-Dinitrotoluene	ND	10	ug/L
Diethyl phthalate	ND	10	ug/L
4-Chlorophenyl phenyl ether	ND	10	ug/L
Fluorene	ND	10	ug/L
4-Nitroaniline	ND	50	ug/L
4,6-Dinitro-2-methylphenol	ND	50	ug/L
N-Nitrosodiphenylamine	ND	10	ug/L
4-Bromophenyl phenyl ether	ND	10	ug/L
Hexachlorobenzene	ND	10	ug/L
Pentachlorophenol	ND	50	ug/L
Phenanthrene	ND	10	ug/L
Anthracene	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Pyrene	ND	10	ug/L
Butyl benzyl phthalate	ND	10	ug/L
3,3'-Dichlorobenzidine	ND	50	ug/L
Benzo(a)anthracene	ND	10	ug/L
Chrysene	ND	10	ug/L
Di-n-octyl phthalate	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
Dibenz(a,h)anthracene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
4-Chloro-3-methylphenol	ND	10	ug/L
2-Nitroaniline	ND	50	ug/L
Acetophenone	ND	10	ug/L
2-Acetylaminofluorene	ND	100	ug/L
4-Aminobiphenyl	ND	50	ug/L
Aniline	ND	10	ug/L
Aramite	ND	20	ug/L
Benzyl alcohol	ND	10	ug/L
2-sec-Butyl-4,6-dinitro-phenol	ND	20	ug/L
2,6-Dichlorophenol	ND	10	ug/L
4-Dimethylaminoazobenzene	ND	20	ug/L

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-T

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-003 **Work Order #...:** D96CH102 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
7,12-Dimethylbenz(a)-anthracene	ND	20	ug/L
3,3'-Dimethylbenzidine	ND	20	ug/L
alpha,alpha-Dimethylphenethylamine	ND	50	ug/L
1,3-Dinitrobenzene	ND	10	ug/L
Diphenylamine	ND	10	ug/L
Ethyl methanesulfonate	ND	10	ug/L
Hexachloropropene	ND	100	ug/L
Isosafrole	ND	20	ug/L
Methapyrilene	ND	50	ug/L
3-Methylcholanthrene	ND	20	ug/L
Methyl methanesulfonate	ND	10	ug/L
3-Methylphenol	ND	10	ug/L
1,4-Naphthoquinone	ND	50	ug/L
1-Naphthylamine	ND	10	ug/L
2-Naphthylamine	ND	10	ug/L
N-Nitrosodi-n-butylamine	ND	10	ug/L
N-Nitrosodiethylamine	ND	10	ug/L
N-Nitrosodimethylamine	ND	10	ug/L
N-Nitrosomethylethylamine	ND	10	ug/L
N-Nitrosomorpholine	ND	10	ug/L
N-Nitrosopiperidine	ND	10	ug/L
N-Nitrosopyrrolidine	ND	10	ug/L
5-Nitro-o-toluidine	ND	20	ug/L
Pentachlorobenzene	ND	10	ug/L
Pentachloroethane	ND	50	ug/L
Pentachloronitrobenzene	ND	50	ug/L
Phenacetin	ND	20	ug/L
2-Picoline	ND	20	ug/L
Pronamide	ND	20	ug/L
Pyridine	ND	20	ug/L
Safrole	ND	20	ug/L
1,2,4,5-Tetrachloro-benzene	ND	10	ug/L
2,3,4,6-Tetrachlorophenol	ND	50	ug/L
2-Toluidine	ND	10	ug/L
1,3,5-Trinitrobenzene	ND	50	ug/L

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-T

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-003 **Work Order #...:** D96CH102 **Matrix.....:** WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	62	(53 - 101)
Phenol-d5	65	(57 - 105)
Nitrobenzene-d5	65	(56 - 106)
2-Fluorobiphenyl	62	(44 - 99)
2,4,6-Tribromophenol	65	(52 - 115)
Terphenyl-d14	75	(62 - 112)

US GEOLOGICAL SURVEY

CAFB-T

GC/MS Semivolatiles

Lot-Sample #: D0C010231-003 **Work Order #:** D96CH102 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
Cyclohexane	110-82-7	22 J T2 M	1.1793	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-U

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-004 **Work Order #...:** D96CJ102 **Matrix.....:** WATER
Date Sampled...: 02/29/00 09:15 **Date Received..:** 03/01/00
Prep Date.....: 03/02/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0062186 **Analysis Time..:** 11:39
Dilution Factor: 1

Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Di-n-butyl phthalate	ND	10	ug/L
1,3-Dichlorobenzene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Phenol	ND	10	ug/L
2-Chlorophenol	ND	10	ug/L
bis(2-Chloroethyl)-ether	ND	10	ug/L
bis(2-Chloroethoxy) methane	ND	10	ug/L
1,4-Dichlorobenzene	ND	10	ug/L
1,2-Dichlorobenzene	ND	10	ug/L
2-Methylphenol	ND	10	ug/L
bis(2-Ethylhexyl) phthalate	ND	10	ug/L
,2'-oxybis(1-Chloropropane)	ND	10	ug/L
4-Methylphenol	ND	10	ug/L
N-Nitrosodi-n-propyl-amine	ND	10	ug/L
Hexachloroethane	ND	10	ug/L
Nitrobenzene	ND	10	ug/L
Isophorone	ND	10	ug/L
2-Nitrophenol	ND	10	ug/L
2,4-Dimethylphenol	ND	10	ug/L
2,4-Dichlorophenol	ND	10	ug/L
1,2,4-Trichlorobenzene	ND	10	ug/L
Naphthalene	ND	10	ug/L
4-Chloroaniline	ND	10	ug/L
Hexachlorobutadiene	ND	10	ug/L
2-Methylnaphthalene	ND	10	ug/L
Hexachlorocyclopenta-diene	ND	50	ug/L
2,4,5-Trichlorophenol	ND	10	ug/L
2,4,6-Trichlorophenol	ND	10	ug/L
2-Chloronaphthalene	ND	10	ug/L
Dimethyl phthalate	ND	10	ug/L
Acenaphthene	ND	10	ug/L
3-Nitroaniline	ND	50	ug/L
2,4-Dinitrophenol	ND	50	ug/L

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-U

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-004 **Work Order #...:** D96CJ102 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
4-Nitrophenol	ND	50	ug/L
Dibenzofuran	ND	10	ug/L
2,4-Dinitrotoluene	ND	10	ug/L
2,6-Dinitrotoluene	ND	10	ug/L
Diethyl phthalate	ND	10	ug/L
4-Chlorophenyl phenyl ether	ND	10	ug/L
Fluorene	ND	10	ug/L
4-Nitroaniline	ND	50	ug/L
4,6-Dinitro-2-methylphenol	ND	50	ug/L
N-Nitrosodiphenylamine	ND	10	ug/L
4-Bromophenyl phenyl ether	ND	10	ug/L
Hexachlorobenzene	ND	10	ug/L
Pentachlorophenol	ND	50	ug/L
Phenanthrene	ND	10	ug/L
Anthracene	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Pyrene	ND	10	ug/L
Butyl benzyl phthalate	ND	10	ug/L
3,3'-Dichlorobenzidine	ND	50	ug/L
Benzo(a)anthracene	ND	10	ug/L
Chrysene	ND	10	ug/L
Di-n-octyl phthalate	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
Dibenz(a,h)anthracene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
4-Chloro-3-methylphenol	ND	10	ug/L
2-Nitroaniline	ND	50	ug/L
Acetophenone	ND	10	ug/L
2-Acetylaminofluorene	ND	100	ug/L
4-Aminobiphenyl	ND	50	ug/L
Aniline	ND	10	ug/L
Aramite	ND	20	ug/L
Benzyl alcohol	ND	10	ug/L
2-sec-Butyl-4,6-dinitro-phenol	ND	20	ug/L
2,6-Dichlorophenol	ND	10	ug/L
4-Dimethylaminoazobenzene	ND	20	ug/L

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US GEOLOGICAL SURVEY

Client Sample ID: CAFB-U

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-004 Work Order #...: D96CJ102 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
7,12-Dimethylbenz(a)-anthracene	ND	20	ug/L
3,3'-Dimethylbenzidine	ND	20	ug/L
alpha,alpha-Dimethylphenethylamine	ND	50	ug/L
1,3-Dinitrobenzene	ND	10	ug/L
Diphenylamine	ND	10	ug/L
Ethyl methanesulfonate	ND	10	ug/L
Hexachloropropene	ND	100	ug/L
Isosafrole	ND	20	ug/L
Methapyrilene	ND	50	ug/L
3-Methylcholanthrene	ND	20	ug/L
Methyl methanesulfonate	ND	10	ug/L
3-Methylphenol	ND	10	ug/L
1,4-Naphthoquinone	ND	50	ug/L
1-Naphthylamine	ND	10	ug/L
2-Naphthylamine	ND	10	ug/L
N-Nitrosodi-n-butylamine	ND	10	ug/L
N-Nitrosodiethylamine	ND	10	ug/L
N-Nitrosodimethylamine	ND	10	ug/L
N-Nitrosomethylethylamine	ND	10	ug/L
N-Nitrosomorpholine	ND	10	ug/L
N-Nitrosopiperidine	ND	10	ug/L
N-Nitrosopyrrolidine	ND	10	ug/L
5-Nitro-o-toluidine	ND	20	ug/L
Pentachlorobenzene	ND	10	ug/L
Pentachloroethane	ND	50	ug/L
Pentachloronitrobenzene	ND	50	ug/L
Phenacetin	ND	20	ug/L
2-Picoline	ND	20	ug/L
Pronamide	ND	20	ug/L
Pyridine	ND	20	ug/L
Safrole	ND	20	ug/L
1,2,4,5-Tetrachloro-benzene	ND	10	ug/L
2,3,4,6-Tetrachlorophenol	ND	50	ug/L
2-Toluidine	ND	10	ug/L
1,3,5-Trinitrobenzene	ND	50	ug/L

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-U

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-004 Work Order #...: D96CJ102 Matrix.....: WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	83	(53 - 101)
Phenol-d5	81	(57 - 105)
Nitrobenzene-d5	89	(56 - 106)
2-Fluorobiphenyl	77	(44 - 99)
2,4,6-Tribromophenol	80	(52 - 115)
Terphenyl-d14	78	(62 - 112)

US GEOLOGICAL SURVEY

CAFB-U

GC/MS Semivolatiles

Lot-Sample #: D0C010231-004 **Work Order #:** D96CJ102 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-Q

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-006 **Work Order #...:** D97J7102 **Matrix.....:** WATER
Date Sampled...: 03/01/00 14:45 **Date Received..:** 03/02/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/13/00
Prep Batch #...: 0064119 **Analysis Time..:** 14:49
Dilution Factor: 1

Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Di-n-butyl phthalate	ND	10	ug/L
1,3-Dichlorobenzene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Phenol	ND	10	ug/L
2-Chlorophenol	ND	10	ug/L
bis(2-Chloroethyl)-ether	ND	10	ug/L
bis(2-Chloroethoxy) methane	ND	10	ug/L
1,4-Dichlorobenzene	ND	10	ug/L
1,2-Dichlorobenzene	ND	10	ug/L
2-Methylphenol	ND	10	ug/L
bis(2-Ethylhexyl) phthalate	ND	10	ug/L
2,2'-oxybis(1-Chloropropane)	ND	10	ug/L
4-Methylphenol	ND	10	ug/L
N-Nitrosodi-n-propyl-amine	ND	10	ug/L
Hexachloroethane	ND	10	ug/L
Nitrobenzene	ND	10	ug/L
Isophorone	ND	10	ug/L
2-Nitrophenol	ND	10	ug/L
2,4-Dimethylphenol	ND	10	ug/L
2,4-Dichlorophenol	ND	10	ug/L
1,2,4-Trichlorobenzene	ND	10	ug/L
Naphthalene	ND	10	ug/L
4-Chloroaniline	ND	10	ug/L
Hexachlorobutadiene	ND	10	ug/L
2-Methylnaphthalene	ND	10	ug/L
Hexachlorocyclopenta-diene	ND	50	ug/L
2,4,5-Trichlorophenol	ND	10	ug/L
2,4,6-Trichlorophenol	ND	10	ug/L
2-Chloronaphthalene	ND	10	ug/L
Dimethyl phthalate	ND	10	ug/L
Acenaphthene	ND	10	ug/L
3-Nitroaniline	ND	50	ug/L
2,4-Dinitrophenol	ND	50	ug/L

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-Q

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-006 Work Order #...: D97J7102 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
4-Nitrophenol	ND	50	ug/L
Dibenzofuran	ND	10	ug/L
2,4-Dinitrotoluene	ND	10	ug/L
2,6-Dinitrotoluene	ND	10	ug/L
Diethyl phthalate	ND	10	ug/L
4-Chlorophenyl phenyl ether	ND	10	ug/L
Fluorene	ND	10	ug/L
4-Nitroaniline	ND	50	ug/L
4,6-Dinitro-2-methylphenol	ND	50	ug/L
N-Nitrosodiphenylamine	ND	10	ug/L
4-Bromophenyl phenyl ether	ND	10	ug/L
Hexachlorobenzene	ND	10	ug/L
Pentachlorophenol	ND	50	ug/L
Phenanthrene	ND	10	ug/L
Anthracene	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Pyrene	ND	10	ug/L
Butyl benzyl phthalate	ND	10	ug/L
3,3'-Dichlorobenzidine	ND	50	ug/L
Benzo(a)anthracene	ND	10	ug/L
Chrysene	ND	10	ug/L
Di-n-octyl phthalate	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
Dibenz(a,h)anthracene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
4-Chloro-3-methylphenol	ND	10	ug/L
2-Nitroaniline	ND	50	ug/L
Acetophenone	ND	10	ug/L
2-Acetylaminofluorene	ND	100	ug/L
4-Aminobiphenyl	ND	50	ug/L
Aniline	ND	10	ug/L
Aramite	ND	20	ug/L
Benzyl alcohol	ND	10	ug/L
2-sec-Butyl-4,6-dinitro-phenol	ND	20	ug/L
2,6-Dichlorophenol	ND	10	ug/L
4-Dimethylaminoazobenzene	ND	20	ug/L

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US GEOLOGICAL SURVEY

Client Sample ID: CAFB-Q

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-006 Work Order #...: D97J7102 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
7,12-Dimethylbenz(a)-anthracene	ND	20	ug/L
3,3'-Dimethylbenzidine	ND	20	ug/L
alpha,alpha-Dimethylphenethylamine	ND	50	ug/L
1,3-Dinitrobenzene	ND	10	ug/L
Diphenylamine	ND	10	ug/L
Ethyl methanesulfonate	ND	10	ug/L
Hexachloropropene	ND	100	ug/L
Isosafrole	ND	20	ug/L
Methapyrilene	ND	50	ug/L
3-Methylcholanthrene	ND	20	ug/L
Methyl methanesulfonate	ND	10	ug/L
3-Methylphenol	ND	10	ug/L
1,4-Naphthoquinone	ND	50	ug/L
1-Naphthylamine	ND	10	ug/L
2-Naphthylamine	ND	10	ug/L
N-Nitrosodi-n-butylamine	ND	10	ug/L
N-Nitrosodiethylamine	ND	10	ug/L
N-Nitrosodimethylamine	ND	10	ug/L
N-Nitrosomethylethylamine	ND	10	ug/L
N-Nitrosomorpholine	ND	10	ug/L
N-Nitrosopiperidine	ND	10	ug/L
N-Nitrosopyrrolidine	ND	10	ug/L
5-Nitro-o-toluidine	ND	20	ug/L
Pentachlorobenzene	ND	10	ug/L
Pentachloroethane	ND	50	ug/L
Pentachloronitrobenzene	ND	50	ug/L
Phenacetin	ND	20	ug/L
2-Picoline	ND	20	ug/L
Pronamide	ND	20	ug/L
Pyridine	ND	20	ug/L
Safrole	ND	20	ug/L
1,2,4,5-Tetrachlorobenzene	ND	10	ug/L
2,3,4,6-Tetrachlorophenol	ND	50	ug/L
2-Toluidine	ND	10	ug/L
1,3,5-Trinitrobenzene	ND	50	ug/L

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US GEOLOGICAL SURVEY

Client Sample ID: CAFB-Q

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-006 **Work Order #...:** D97J7102 **Matrix.....:** WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	70	(53 - 101)
Phenol-d5	70	(57 - 105)
Nitrobenzene-d5	68	(56 - 106)
2-Fluorobiphenyl	68	(44 - 99)
2,4,6-Tribromophenol	81	(52 - 115)
Terphenyl-d14	72	(62 - 112)

US GEOLOGICAL SURVEY

CAFB-Q

GC/MS Semivolatiles

Lot-Sample #: D0C010231-006 **Work Order #:** D97J7102 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
Cyclohexane	110-82-7	23 J T2 M	1.3646	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-B

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-007 **Work Order #...:** D97JC102 **Matrix.....:** WATER
Date Sampled...: 03/01/00 12:30 **Date Received..:** 03/02/00
Prep Date.....: 03/08/00 **Analysis Date..:** 03/13/00
Prep Batch #...: 0068151 **Analysis Time..:** 21:20
Dilution Factor: 1

Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Di-n-butyl phthalate	ND	10	ug/L
1,3-Dichlorobenzene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Phenol	ND	10	ug/L
2-Chlorophenol	ND	10	ug/L
bis(2-Chloroethyl)-ether	ND	10	ug/L
bis(2-Chloroethoxy) methane	ND	10	ug/L
1,4-Dichlorobenzene	ND	10	ug/L
1,2-Dichlorobenzene	ND	10	ug/L
2-Methylphenol	ND	10	ug/L
bis(2-Ethylhexyl) phthalate	ND	10	ug/L
2,2'-oxybis(1-Chloropropane)	ND	10	ug/L
4-Methylphenol	ND	10	ug/L
N-Nitrosodi-n-propyl-amine	ND	10	ug/L
Hexachloroethane	ND	10	ug/L
Nitrobenzene	ND	10	ug/L
Isophorone	ND	10	ug/L
2-Nitrophenol	ND	10	ug/L
2,4-Dimethylphenol	ND	10	ug/L
2,4-Dichlorophenol	ND	10	ug/L
1,2,4-Trichlorobenzene	ND	10	ug/L
Naphthalene	ND	10	ug/L
4-Chloroaniline	ND	10	ug/L
Hexachlorobutadiene	ND	10	ug/L
2-Methylnaphthalene	ND	10	ug/L
Hexachlorocyclopenta-diene	ND	50	ug/L
2,4,5-Trichlorophenol	ND	10	ug/L
2,4,6-Trichlorophenol	ND	10	ug/L
2-Chloronaphthalene	ND	10	ug/L
Dimethyl phthalate	ND	10	ug/L
Acenaphthene	ND	10	ug/L
3-Nitroaniline	ND	50	ug/L
2,4-Dinitrophenol	ND	50	ug/L

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-B

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-007 **Work Order #...:** D97JC102 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
4-Nitrophenol	ND	50	ug/L
Dibenzofuran	ND	10	ug/L
2,4-Dinitrotoluene	ND	10	ug/L
2,6-Dinitrotoluene	ND	10	ug/L
Diethyl phthalate	ND	10	ug/L
4-Chlorophenyl phenyl ether	ND	10	ug/L
Fluorene	ND	10	ug/L
4-Nitroaniline	ND	50	ug/L
4,6-Dinitro-2-methylphenol	ND	50	ug/L
N-Nitrosodiphenylamine	ND	10	ug/L
4-Bromophenyl phenyl ether	ND	10	ug/L
Hexachlorobenzene	ND	10	ug/L
Pentachlorophenol	ND	50	ug/L
Phenanthrene	ND	10	ug/L
Anthracene	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Pyrene	ND	10	ug/L
Butyl benzyl phthalate	ND	10	ug/L
3,3'-Dichlorobenzidine	ND	50	ug/L
Benzo(a)anthracene	ND	10	ug/L
Chrysene	ND	10	ug/L
Di-n-octyl phthalate	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
Dibenz(a,h)anthracene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
4-Chloro-3-methylphenol	ND	10	ug/L
2-Nitroaniline	ND	50	ug/L
Acetophenone	ND	10	ug/L
2-Acetylaminofluorene	ND	100	ug/L
4-Aminobiphenyl	ND	50	ug/L
Aniline	ND	10	ug/L
Aramite	ND	20	ug/L
Benzyl alcohol	ND	10	ug/L
2-sec-Butyl-4,6-dinitro-phenol	ND	20	ug/L
2,6-Dichlorophenol	ND	10	ug/L
4-Dimethylaminoazobenzene	ND	20	ug/L

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-B

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-007 **Work Order #...:** D97JC102 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
7,12-Dimethylbenz(a)-anthracene	ND	20	ug/L
3,3'-Dimethylbenzidine	ND	20	ug/L
alpha,alpha-Dimethylphenethylamine	ND	50	ug/L
1,3-Dinitrobenzene	ND	10	ug/L
Diphenylamine	ND	10	ug/L
Ethyl methanesulfonate	ND	10	ug/L
Hexachloropropene	ND	100	ug/L
Isosafrole	ND	20	ug/L
Methapyrilene	ND	50	ug/L
3-Methylcholanthrene	ND	20	ug/L
Methyl methanesulfonate	ND	10	ug/L
3-Methylphenol	ND	10	ug/L
1,4-Naphthoquinone	ND	50	ug/L
1-Naphthylamine	ND	10	ug/L
2-Naphthylamine	ND	10	ug/L
N-Nitrosodi-n-butylamine	ND	10	ug/L
N-Nitrosodiethylamine	ND	10	ug/L
N-Nitrosodimethylamine	ND	10	ug/L
N-Nitrosomethylethylamine	ND	10	ug/L
N-Nitrosomorpholine	ND	10	ug/L
N-Nitrosopiperidine	ND	10	ug/L
N-Nitrosopyrrolidine	ND	10	ug/L
5-Nitro-o-toluidine	ND	20	ug/L
Pentachlorobenzene	ND	10	ug/L
Pentachloroethane	ND	50	ug/L
Pentachloronitrobenzene	ND	50	ug/L
Phenacetin	ND	20	ug/L
2-Picoline	ND	20	ug/L
Pronamide	ND	20	ug/L
Pyridine	ND	20	ug/L
Safrole	ND	20	ug/L
1,2,4,5-Tetrachlorobenzene	ND	10	ug/L
2,3,4,6-Tetrachlorophenol	ND	50	ug/L
2-Toluidine	ND	10	ug/L
1,3,5-Trinitrobenzene	ND	50	ug/L

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-B

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-007 **Work Order #...:** D97JC102 **Matrix.....:** WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	65	(53 - 101)
Phenol-d5	67	(57 - 105)
Nitrobenzene-d5	65	(56 - 106)
2-Fluorobiphenyl	63	(44 - 99)
2,4,6-Tribromophenol	78	(52 - 115)
Terphenyl-d14	66	(62 - 112)

US GEOLOGICAL SURVEY

CAFB-B

GC/MS Semivolatiles

Lot-Sample #: D0C010231-007 **Work Order #:** D97JC102 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Cyclohexane	110-82-7	26 J T2	M	1.3652	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-C

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-008 **Work Order #...:** D97JG102 **Matrix.....:** WATER
Date Sampled...: 03/01/00 10:45 **Date Received..:** 03/02/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/13/00
Prep Batch #...: 0064119 **Analysis Time..:** 15:19
Dilution Factor: 1

Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Di-n-butyl phthalate	ND	10	ug/L
1,3-Dichlorobenzene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Phenol	ND	10	ug/L
2-Chlorophenol	ND	10	ug/L
bis(2-Chloroethyl)-ether	ND	10	ug/L
bis(2-Chloroethoxy) methane	ND	10	ug/L
1,4-Dichlorobenzene	ND	10	ug/L
1,2-Dichlorobenzene	ND	10	ug/L
2-Methylphenol	ND	10	ug/L
bis(2-Ethylhexyl) phthalate	ND	10	ug/L
.,2'-oxybis(1-Chloropropane)	ND	10	ug/L
4-Methylphenol	ND	10	ug/L
N-Nitrosodi-n-propyl-amine	ND	10	ug/L
Hexachloroethane	ND	10	ug/L
Nitrobenzene	ND	10	ug/L
Isophorone	ND	10	ug/L
2-Nitrophenol	ND	10	ug/L
2,4-Dimethylphenol	ND	10	ug/L
2,4-Dichlorophenol	ND	10	ug/L
1,2,4-Trichlorobenzene	ND	10	ug/L
Naphthalene	ND	10	ug/L
4-Chloroaniline	ND	10	ug/L
Hexachlorobutadiene	ND	10	ug/L
2-Methylnaphthalene	ND	10	ug/L
Hexachlorocyclopenta-diene	ND	50	ug/L
2,4,5-Trichlorophenol	ND	10	ug/L
2,4,6-Trichlorophenol	ND	10	ug/L
2-Chloronaphthalene	ND	10	ug/L
Dimethyl phthalate	ND	10	ug/L
Acenaphthene	ND	10	ug/L
3-Nitroaniline	ND	50	ug/L
2,4-Dinitrophenol	ND	50	ug/L

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-C

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-008 Work Order #...: D97JG102 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
4-Nitrophenol	ND	50	ug/L
Dibenzofuran	ND	10	ug/L
2,4-Dinitrotoluene	ND	10	ug/L
2,6-Dinitrotoluene	ND	10	ug/L
Diethyl phthalate	ND	10	ug/L
4-Chlorophenyl phenyl ether	ND	10	ug/L
Fluorene	ND	10	ug/L
4-Nitroaniline	ND	50	ug/L
4,6-Dinitro-2-methylphenol	ND	50	ug/L
N-Nitrosodiphenylamine	ND	10	ug/L
4-Bromophenyl phenyl ether	ND	10	ug/L
Hexachlorobenzene	ND	10	ug/L
Pentachlorophenol	ND	50	ug/L
Phenanthrene	ND	10	ug/L
Anthracene	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Pyrene	ND	10	ug/L
Butyl benzyl phthalate	ND	10	ug/L
3,3'-Dichlorobenzidine	ND	50	ug/L
Benzo(a)anthracene	ND	10	ug/L
Chrysene	ND	10	ug/L
Di-n-octyl phthalate	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
Dibenz(a,h)anthracene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
4-Chloro-3-methylphenol	ND	10	ug/L
2-Nitroaniline	ND	50	ug/L
Acetophenone	ND	10	ug/L
2-Acetylaminofluorene	ND	100	ug/L
4-Aminobiphenyl	ND	50	ug/L
Aniline	ND	10	ug/L
Aramite	ND	20	ug/L
Benzyl alcohol	ND	10	ug/L
2-sec-Butyl-4,6-dinitro-phenol	ND	20	ug/L
2,6-Dichlorophenol	ND	10	ug/L
4-Dimethylaminoazobenzene	ND	20	ug/L

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-C

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-008 Work Order #...: D97JG102 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
7,12-Dimethylbenz(a)-anthracene	ND	20	ug/L
3,3'-Dimethylbenzidine	ND	20	ug/L
alpha,alpha-Dimethylphenethylamine	ND	50	ug/L
1,3-Dinitrobenzene	ND	10	ug/L
Diphenylamine	ND	10	ug/L
Ethyl methanesulfonate	ND	10	ug/L
Hexachloropropene	ND	100	ug/L
Isosafrole	ND	20	ug/L
Methapyrilene	ND	50	ug/L
3-Methylcholanthrene	ND	20	ug/L
Methyl methanesulfonate	ND	10	ug/L
3-Methylphenol	ND	10	ug/L
1,4-Naphthoquinone	ND	50	ug/L
1-Naphthylamine	ND	10	ug/L
2-Naphthylamine	ND	10	ug/L
N-Nitrosodi-n-butylamine	ND	10	ug/L
N-Nitrosodiethylamine	ND	10	ug/L
N-Nitrosodimethylamine	ND	10	ug/L
N-Nitrosomethylethylamine	ND	10	ug/L
N-Nitrosomorpholine	ND	10	ug/L
N-Nitrosopiperidine	ND	10	ug/L
N-Nitrosopyrrolidine	ND	10	ug/L
5-Nitro-o-toluidine	ND	20	ug/L
Pentachlorobenzene	ND	10	ug/L
Pentachloroethane	ND	50	ug/L
Pentachloronitrobenzene	ND	50	ug/L
Phenacetin	ND	20	ug/L
2-Picoline	ND	20	ug/L
Pronamide	ND	20	ug/L
Pyridine	ND	20	ug/L
Safrole	ND	20	ug/L
1,2,4,5-Tetrachloro-benzene	ND	10	ug/L
2,3,4,6-Tetrachlorophenol	ND	50	ug/L
2-Toluidine	ND	10	ug/L
1,3,5-Trinitrobenzene	ND	50	ug/L

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-C

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-008 **Work Order #...:** D97JG102 **Matrix.....:** WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	60	(53 - 101)
Phenol-d5	62	(57 - 105)
Nitrobenzene-d5	60	(56 - 106)
2-Fluorobiphenyl	62	(44 - 99)
2,4,6-Tribromophenol	79	(52 - 115)
Terphenyl-d14	70	(62 - 112)

US GEOLOGICAL SURVEY

CAFB-C

GC/MS Semivolatiles

Lot-Sample #: D0C010231-008 **Work Order #:** D97JG102 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Cyclohexane	110-82-7	19 J T2	M	1.3707	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-D

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-009 **Work Order #...:** D97JH102 **Matrix.....:** WATER
Date Sampled...: 03/01/00 09:00 **Date Received..:** 03/02/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/13/00
Prep Batch #...: 0064119 **Analysis Time..:** 15:49
Dilution Factor: 1

Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Di-n-butyl phthalate	ND	10	ug/L
1,3-Dichlorobenzene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Phenol	ND	10	ug/L
2-Chlorophenol	ND	10	ug/L
bis(2-Chloroethyl)-ether	ND	10	ug/L
bis(2-Chloroethoxy) methane	ND	10	ug/L
1,4-Dichlorobenzene	ND	10	ug/L
1,2-Dichlorobenzene	ND	10	ug/L
2-Methylphenol	ND	10	ug/L
bis(2-Ethylhexyl) phthalate	ND	10	ug/L
2,2'-oxybis(1-Chloropropane)	ND	10	ug/L
4-Methylphenol	ND	10	ug/L
N-Nitrosodi-n-propyl-amine	ND	10	ug/L
Hexachloroethane	ND	10	ug/L
Nitrobenzene	ND	10	ug/L
Isophorone	ND	10	ug/L
2-Nitrophenol	ND	10	ug/L
2,4-Dimethylphenol	ND	10	ug/L
2,4-Dichlorophenol	ND	10	ug/L
1,2,4-Trichlorobenzene	ND	10	ug/L
Naphthalene	ND	10	ug/L
4-Chloroaniline	ND	10	ug/L
Hexachlorobutadiene	ND	10	ug/L
2-Methylnaphthalene	ND	10	ug/L
Hexachlorocyclopenta-diene	ND	50	ug/L
2,4,5-Trichlorophenol	ND	10	ug/L
2,4,6-Trichlorophenol	ND	10	ug/L
2-Chloronaphthalene	ND	10	ug/L
Dimethyl phthalate	ND	10	ug/L
Acenaphthene	ND	10	ug/L
3-Nitroaniline	ND	50	ug/L
2,4-Dinitrophenol	ND	50	ug/L

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-D

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-009 Work Order #...: D97JH102 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
4-Nitrophenol	ND	50	ug/L
Dibenzofuran	ND	10	ug/L
2,4-Dinitrotoluene	ND	10	ug/L
2,6-Dinitrotoluene	ND	10	ug/L
Diethyl phthalate	ND	10	ug/L
4-Chlorophenyl phenyl ether	ND	10	ug/L
Fluorene	ND	10	ug/L
4-Nitroaniline	ND	50	ug/L
4,6-Dinitro-2-methylphenol	ND	50	ug/L
N-Nitrosodiphenylamine	ND	10	ug/L
4-Bromophenyl phenyl ether	ND	10	ug/L
Hexachlorobenzene	ND	10	ug/L
Pentachlorophenol	ND	50	ug/L
Phenanthrene	ND	10	ug/L
Anthracene	ND	10	ug/L
Fluoranthene	ND	10	ug/L
yrene	ND	10	ug/L
Butyl benzyl phthalate	ND	10	ug/L
3,3'-Dichlorobenzidine	ND	50	ug/L
Benzo(a)anthracene	ND	10	ug/L
Chrysene	ND	10	ug/L
Di-n-octyl phthalate	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
Dibenz(a,h)anthracene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
4-Chloro-3-methylphenol	ND	10	ug/L
2-Nitroaniline	ND	50	ug/L
Acetophenone	ND	10	ug/L
2-Acetylaminofluorene	ND	100	ug/L
4-Aminobiphenyl	ND	50	ug/L
Aniline	ND	10	ug/L
Aramite	ND	20	ug/L
Benzyl alcohol	ND	10	ug/L
2-sec-Butyl-4,6-dinitro-phenol	ND	20	ug/L
2,6-Dichlorophenol	ND	10	ug/L
4-Dimethylaminoazobenzene	ND	20	ug/L

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-D

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-009 Work Order #...: D97JH102 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
7,12-Dimethylbenz(a)-anthracene	ND	20	ug/L
3,3'-Dimethylbenzidine	ND	20	ug/L
alpha,alpha-Dimethylphenethylamine	ND	50	ug/L
1,3-Dinitrobenzene	ND	10	ug/L
Diphenylamine	ND	10	ug/L
Ethyl methanesulfonate	ND	10	ug/L
Hexachloropropene	ND	100	ug/L
Isosafrole	ND	20	ug/L
Methapyrilene	ND	50	ug/L
3-Methylcholanthrene	ND	20	ug/L
Methyl methanesulfonate	ND	10	ug/L
3-Methylphenol	ND	10	ug/L
1,4-Naphthoquinone	ND	50	ug/L
1-Naphthylamine	ND	10	ug/L
2-Naphthylamine	ND	10	ug/L
N-Nitrosodi-n-butylamine	ND	10	ug/L
N-Nitrosodiethylamine	ND	10	ug/L
N-Nitrosodimethylamine	ND	10	ug/L
N-Nitrosomethylethylamine	ND	10	ug/L
N-Nitrosomorpholine	ND	10	ug/L
N-Nitrosopiperidine	ND	10	ug/L
N-Nitrosopyrrolidine	ND	10	ug/L
5-Nitro-o-toluidine	ND	20	ug/L
Pentachlorobenzene	ND	10	ug/L
Pentachloroethane	ND	50	ug/L
Pentachloronitrobenzene	ND	50	ug/L
Phenacetin	ND	20	ug/L
2-Picoline	ND	20	ug/L
Pronamide	ND	20	ug/L
Pyridine	ND	20	ug/L
Safrole	ND	20	ug/L
1,2,4,5-Tetrachloro-benzene	ND	10	ug/L
2,3,4,6-Tetrachlorophenol	ND	50	ug/L
2-Toluidine	ND	10	ug/L
1,3,5-Trinitrobenzene	ND	50	ug/L

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-D

GC/MS Semivolatiles

Lot-Sample #...: D0C010231-009 **Work Order #...:** D97JH102 **Matrix.....:** WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	52 *	(53 - 101)
Phenol-d5	54 *	(57 - 105)
Nitrobenzene-d5	53 *	(56 - 106)
2-Fluorobiphenyl	55	(44 - 99)
2,4,6-Tribromophenol	67	(52 - 115)
Terphenyl-d14	60 *	(62 - 112)

NOTE(S):

* Surrogate recovery is outside stated control limits.

US GEOLOGICAL SURVEY

CAFB-D

GC/MS Semivolatiles

Lot-Sample #: D0C010231-009 **Work Order #:** D97JH102 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
Cyclohexane	110-82-7	16 J T2 M	1.375	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-UU

GC Semivolatiles

Lot-Sample #...: D0C010231-001 **Work Order #...:** D96C4103 **Matrix.....:** WATER
Date Sampled...: 02/29/00 09:20 **Date Received..:** 03/01/00
Prep Date.....: 03/02/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0062154 **Analysis Time..:** 20:16
Dilution Factor: 1

Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diallate	ND	1.0	ug/L
Isodrin	ND	0.10	ug/L
Kepone	ND	1.0	ug/L
Aldrin	ND	0.050	ug/L
alpha-BHC	ND	0.050	ug/L
beta-BHC	ND	0.050	ug/L
delta-BHC	ND	0.050	ug/L
gamma-BHC (Lindane)	ND	0.050	ug/L
alpha-Chlordane	ND	0.050	ug/L
gamma-Chlordane	ND	0.050	ug/L
4,4'-DDD	ND	0.050	ug/L
4,4'-DDE	ND	0.050	ug/L
4,4'-DDT	ND	0.050	ug/L
Dieldrin	ND	0.050	ug/L
Endosulfan I	ND	0.050	ug/L
Endosulfan II	ND	0.050	ug/L
Endosulfan sulfate	ND	0.050	ug/L
Endrin	ND	0.050	ug/L
Endrin aldehyde	ND	0.050	ug/L
Heptachlor	ND	0.050	ug/L
Heptachlor epoxide	ND	0.050	ug/L
Methoxychlor	ND	0.10	ug/L
Toxaphene	ND	2.0	ug/L
Endrin ketone	ND	0.050	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	103	(39 - 143)
Tetrachloro-m-xylene	95	(56 - 107)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-S

GC Semivolatiles

Lot-Sample #...: D0C010231-002 **Work Order #...:** D96CG103 **Matrix.....:** WATER
Date Sampled...: 02/29/00 11:30 **Date Received..:** 03/01/00
Prep Date.....: 03/02/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0062154 **Analysis Time..:** 20:45
Dilution Factor: 1

Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diallate	ND	1.0	ug/L
Isodrin	ND	0.10	ug/L
Kepone	ND	1.0	ug/L
Aldrin	ND	0.050	ug/L
alpha-BHC	ND	0.050	ug/L
beta-BHC	ND	0.050	ug/L
delta-BHC	ND	0.050	ug/L
gamma-BHC (Lindane)	ND	0.050	ug/L
alpha-Chlordane	ND	0.050	ug/L
gamma-Chlordane	ND	0.050	ug/L
4,4'-DDD	ND	0.050	ug/L
4,4'-DDE	ND	0.050	ug/L
4,4'-DDT	ND	0.050	ug/L
Dieldrin	ND	0.050	ug/L
Endosulfan I	ND	0.050	ug/L
Endosulfan II	ND	0.050	ug/L
Endosulfan sulfate	ND	0.050	ug/L
Endrin	ND	0.050	ug/L
Endrin aldehyde	ND	0.050	ug/L
Heptachlor	ND	0.050	ug/L
Heptachlor epoxide	ND	0.050	ug/L
Methoxychlor	ND	0.10	ug/L
Toxaphene	ND	2.0	ug/L
Endrin ketone	ND	0.050	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	111	(39 - 143)
Tetrachloro-m-xylene	94	(56 - 107)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-T

GC Semivolatiles

Lot-Sample #...: D0C010231-003 **Work Order #...:** D96CH103 **Matrix.....:** WATER
Date Sampled...: 02/29/00 13:35 **Date Received..:** 03/01/00
Prep Date.....: 03/02/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0062154 **Analysis Time..:** 21:15
Dilution Factor: 1

Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diallate	ND	1.0	ug/L
Isodrin	ND	0.10	ug/L
Kepone	ND	1.0	ug/L
Aldrin	ND	0.050	ug/L
alpha-BHC	ND	0.050	ug/L
beta-BHC	ND	0.050	ug/L
delta-BHC	ND	0.050	ug/L
gamma-BHC (Lindane)	ND	0.050	ug/L
alpha-Chlordane	ND	0.050	ug/L
gamma-Chlordane	ND	0.050	ug/L
4,4'-DDD	ND	0.050	ug/L
4,4'-DDE	ND	0.050	ug/L
4,4'-DDT	ND	0.050	ug/L
Dieldrin	ND	0.050	ug/L
ndosulfan I	ND	0.050	ug/L
Endosulfan II	ND	0.050	ug/L
Endosulfan sulfate	ND	0.050	ug/L
Endrin	ND	0.050	ug/L
Endrin aldehyde	ND	0.050	ug/L
Heptachlor	ND	0.050	ug/L
Heptachlor epoxide	ND	0.050	ug/L
Methoxychlor	ND	0.10	ug/L
Toxaphene	ND	2.0	ug/L
Endrin ketone	ND	0.050	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	131	(39 - 143)
Tetrachloro-m-xylene	106	(56 - 107)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-U

GC Semivolatiles

Lot-Sample #...: D0C010231-004 **Work Order #...:** D96CJ103 **Matrix.....:** WATER
Date Sampled...: 02/29/00 09:15 **Date Received..:** 03/01/00
Prep Date.....: 03/02/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0062154 **Analysis Time..:** 21:45
Dilution Factor: 1

Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diallate	ND	1.0	ug/L
Isodrin	ND	0.10	ug/L
Kepone	ND	1.0	ug/L
Aldrin	ND	0.050	ug/L
alpha-BHC	ND	0.050	ug/L
beta-BHC	ND	0.050	ug/L
delta-BHC	ND	0.050	ug/L
gamma-BHC (Lindane)	ND	0.050	ug/L
alpha-Chlordane	ND	0.050	ug/L
gamma-Chlordane	ND	0.050	ug/L
4,4'-DDD	ND	0.050	ug/L
4,4'-DDE	ND	0.050	ug/L
4,4'-DDT	ND	0.050	ug/L
Dieldrin	ND	0.050	ug/L
Endosulfan I	ND	0.050	ug/L
Endosulfan II	ND	0.050	ug/L
Endosulfan sulfate	ND	0.050	ug/L
Endrin	ND	0.050	ug/L
Endrin aldehyde	ND	0.050	ug/L
Heptachlor	ND	0.050	ug/L
Heptachlor epoxide	ND	0.050	ug/L
Methoxychlor	ND	0.10	ug/L
Toxaphene	ND	2.0	ug/L
Endrin ketone	ND	0.050	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	101	(39 - 143)
Tetrachloro-m-xylene	88	(56 - 107)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-Q

GC Semivolatiles

Lot-Sample #...: D0C010231-006 Work Order #...: D97J7103 Matrix.....: WATER
Date Sampled...: 03/01/00 14:45 Date Received..: 03/02/00
Prep Date.....: 03/04/00 Analysis Date..: 03/14/00
Prep Batch #...: 0064144 Analysis Time..: 00:20
Dilution Factor: 1

Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diallate	ND	1.0	ug/L
Isodrin	ND	0.10	ug/L
Kepone	ND	1.0	ug/L
Aldrin	ND	0.050	ug/L
alpha-BHC	ND	0.050	ug/L
beta-BHC	ND	0.050	ug/L
delta-BHC	ND	0.050	ug/L
gamma-BHC (Lindane)	ND	0.050	ug/L
alpha-Chlordane	ND	0.050	ug/L
gamma-Chlordane	ND	0.050	ug/L
4,4'-DDD	ND	0.050	ug/L
4,4'-DDE	ND	0.050	ug/L
4,4'-DDT	ND	0.050	ug/L
Dieldrin	ND	0.050	ug/L
Endosulfan I	ND	0.050	ug/L
Endosulfan II	ND	0.050	ug/L
Endosulfan sulfate	ND	0.050	ug/L
Endrin	ND	0.050	ug/L
Endrin aldehyde	ND	0.050	ug/L
Heptachlor	ND	0.050	ug/L
Heptachlor epoxide	ND	0.050	ug/L
Methoxychlor	ND	0.10	ug/L
Toxaphene	ND	2.0	ug/L
Endrin ketone	ND	0.050	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	99	(39 - 143)
Tetrachloro-m-xylene	97	(56 - 107)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-B

GC Semivolatiles

Lot-Sample #...: D0C010231-007 **Work Order #...:** D97JC103 **Matrix.....:** WATER
Date Sampled...: 03/01/00 12:30 **Date Received..:** 03/02/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/14/00
Prep Batch #...: 0064144 **Analysis Time..:** 00:50
Dilution Factor: 1

Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diallate	ND	1.0	ug/L
Isodrin	ND	0.10	ug/L
Kepone	ND	1.0	ug/L
Aldrin	ND	0.050	ug/L
alpha-BHC	ND	0.050	ug/L
beta-BHC	ND	0.050	ug/L
delta-BHC	ND	0.050	ug/L
gamma-BHC (Lindane)	ND	0.050	ug/L
alpha-Chlordane	ND	0.050	ug/L
gamma-Chlordane	ND	0.050	ug/L
4,4'-DDD	ND	0.050	ug/L
4,4'-DDE	ND	0.050	ug/L
4,4'-DDT	ND	0.050	ug/L
Dieldrin	ND	0.050	ug/L
Endosulfan I	ND	0.050	ug/L
Endosulfan II	ND	0.050	ug/L
Endosulfan sulfate	ND	0.050	ug/L
Endrin	ND	0.050	ug/L
Endrin aldehyde	ND	0.050	ug/L
Heptachlor	ND	0.050	ug/L
Heptachlor epoxide	ND	0.050	ug/L
Methoxychlor	ND	0.10	ug/L
Toxaphene	ND	2.0	ug/L
Endrin ketone	ND	0.050	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	107	(39 - 143)
Tetrachloro-m-xylene	99	(56 - 107)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-C

GC Semivolatiles

Lot-Sample #...: D0C010231-008 **Work Order #...:** D97JG103 **Matrix.....:** WATER
Date Sampled...: 03/01/00 10:45 **Date Received..:** 03/02/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/14/00
Prep Batch #...: 0064144 **Analysis Time..:** 01:19
Dilution Factor: 1

Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diallate	ND	1.0	ug/L
Isodrin	ND	0.10	ug/L
Kepone	ND	1.0	ug/L
Aldrin	ND	0.050	ug/L
alpha-BHC	ND	0.050	ug/L
beta-BHC	ND	0.050	ug/L
delta-BHC	ND	0.050	ug/L
gamma-BHC (Lindane)	ND	0.050	ug/L
alpha-Chlordane	ND	0.050	ug/L
gamma-Chlordane	ND	0.050	ug/L
4,4'-DDD	ND	0.050	ug/L
4,4'-DDE	ND	0.050	ug/L
4,4'-DDT	ND	0.050	ug/L
Dieldrin	ND	0.050	ug/L
Endosulfan I	ND	0.050	ug/L
Endosulfan II	ND	0.050	ug/L
Endosulfan sulfate	ND	0.050	ug/L
Endrin	ND	0.050	ug/L
Endrin aldehyde	ND	0.050	ug/L
Heptachlor	ND	0.050	ug/L
Heptachlor epoxide	ND	0.050	ug/L
Methoxychlor	ND	0.10	ug/L
Toxaphene	ND	2.0	ug/L
Endrin ketone	ND	0.050	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	76	(39 - 143)
Tetrachloro-m-xylene	97	(56 - 107)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-D

GC Semivolatiles

Lot-Sample #...: D0C010231-009
Date Sampled...: 03/01/00 09:00
Prep Date.....: 03/04/00
Prep Batch #...: 0064144
Dilution Factor: 1

Work Order #...: D97JH103
Date Received..: 03/02/00
Analysis Date..: 03/14/00
Analysis Time..: 01:49

Matrix.....: WATER

Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diallate	ND	1.0	ug/L
Isodrin	ND	0.10	ug/L
Kepone	ND	1.0	ug/L
Aldrin	ND	0.050	ug/L
alpha-BHC	ND	0.050	ug/L
beta-BHC	ND	0.050	ug/L
delta-BHC	ND	0.050	ug/L
gamma-BHC (Lindane)	ND	0.050	ug/L
alpha-Chlordane	ND	0.050	ug/L
gamma-Chlordane	ND	0.050	ug/L
4,4'-DDD	ND	0.050	ug/L
4,4'-DDE	ND	0.050	ug/L
4,4'-DDT	ND	0.050	ug/L
Dieldrin	ND	0.050	ug/L
Endosulfan I	ND	0.050	ug/L
Endosulfan II	ND	0.050	ug/L
Endosulfan sulfate	ND	0.050	ug/L
Endrin	ND	0.050	ug/L
Endrin aldehyde	ND	0.050	ug/L
Heptachlor	ND	0.050	ug/L
Heptachlor epoxide	ND	0.050	ug/L
Methoxychlor	ND	0.10	ug/L
Toxaphene	ND	2.0	ug/L
Endrin ketone	ND	0.050	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	87	(39 - 143)
Tetrachloro-m-xylene	99	(56 - 107)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-G

GC Semivolatiles

Lot-Sample #...: D0C010231-011 **Work Order #...:** D98VK102 **Matrix.....:** WATER
Date Sampled...: 03/02/00 13:10 **Date Received..:** 03/03/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/14/00
Prep Batch #...: 0064144 **Analysis Time..:** 02:19
Dilution Factor: 1

Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diallate	ND	1.0	ug/L
Isodrin	ND	0.10	ug/L
Kepone	ND	1.0	ug/L
Aldrin	ND	0.050	ug/L
alpha-BHC	ND	0.050	ug/L
beta-BHC	ND	0.050	ug/L
delta-BHC	ND	0.050	ug/L
gamma-BHC (Lindane)	ND	0.050	ug/L
alpha-Chlordane	ND	0.050	ug/L
gamma-Chlordane	ND	0.050	ug/L
4,4'-DDD	ND	0.050	ug/L
4,4'-DDE	ND	0.050	ug/L
4,4'-DDT	ND	0.050	ug/L
Dieldrin	ND	0.050	ug/L
ndosulfan I	ND	0.050	ug/L
Endosulfan II	ND	0.050	ug/L
Endosulfan sulfate	ND	0.050	ug/L
Endrin	ND	0.050	ug/L
Endrin aldehyde	ND	0.050	ug/L
Heptachlor	ND	0.050	ug/L
Heptachlor epoxide	ND	0.050	ug/L
Methoxychlor	ND	0.10	ug/L
Toxaphene	ND	2.0	ug/L
Endrin ketone	ND	0.050	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	90	(39 - 143)
Tetrachloro-m-xylene	90	(56 - 107)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-F

GC Semivolatiles

Lot-Sample #...: D0C010231-012 **Work Order #...:** D98W5102 **Matrix.....:** WATER
Date Sampled...: 03/02/00 14:30 **Date Received..:** 03/03/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/14/00
Prep Batch #...: 0064144 **Analysis Time..:** 02:48
Dilution Factor: 1

Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diallate	ND	1.0	ug/L
Isodrin	ND	0.10	ug/L
Kepone	ND	1.0	ug/L
Aldrin	ND	0.050	ug/L
alpha-BHC	ND	0.050	ug/L
beta-BHC	ND	0.050	ug/L
delta-BHC	ND	0.050	ug/L
gamma-BHC (Lindane)	ND	0.050	ug/L
alpha-Chlordane	ND	0.050	ug/L
gamma-Chlordane	ND	0.050	ug/L
4,4'-DDD	ND	0.050	ug/L
4,4'-DDE	ND	0.050	ug/L
4,4'-DDT	ND	0.050	ug/L
Dieldrin	ND	0.050	ug/L
Endosulfan I	ND	0.050	ug/L
Endosulfan II	ND	0.050	ug/L
Endosulfan sulfate	ND	0.050	ug/L
Endrin	ND	0.050	ug/L
Endrin aldehyde	ND	0.050	ug/L
Heptachlor	ND	0.050	ug/L
Heptachlor epoxide	ND	0.050	ug/L
Methoxychlor	ND	0.10	ug/L
Toxaphene	ND	2.0	ug/L
Endrin ketone	ND	0.050	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	108	(39 - 143)
Tetrachloro-m-xylene	98	(56 - 107)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-H

GC Semivolatiles

Lot-Sample #...: D0C010231-013
Date Sampled...: 03/02/00 11:00
Prep Date.....: 03/04/00
Prep Batch #...: 0064144
Dilution Factor: 1

Work Order #...: D98W8102
Date Received..: 03/03/00
Analysis Date..: 03/14/00
Analysis Time..: 05:46

Matrix.....: WATER

Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diallate	ND	1.0	ug/L
Isodrin	ND	0.10	ug/L
Kepone	ND	1.0	ug/L
Aldrin	ND	0.050	ug/L
alpha-BHC	ND	0.050	ug/L
beta-BHC	ND	0.050	ug/L
delta-BHC	ND	0.050	ug/L
gamma-BHC (Lindane)	ND	0.050	ug/L
alpha-Chlordane	ND	0.050	ug/L
gamma-Chlordane	ND	0.050	ug/L
4,4'-DDD	ND	0.050	ug/L
4,4'-DDE	ND	0.050	ug/L
4,4'-DDT	ND	0.050	ug/L
Dieldrin	ND	0.050	ug/L
Endosulfan I	ND	0.050	ug/L
Endosulfan II	ND	0.050	ug/L
Endosulfan sulfate	ND	0.050	ug/L
Endrin	ND	0.050	ug/L
Endrin aldehyde	ND	0.050	ug/L
Heptachlor	ND	0.050	ug/L
Heptachlor epoxide	ND	0.050	ug/L
Methoxychlor	ND	0.10	ug/L
Toxaphene	ND	2.0	ug/L
Endrin ketone	ND	0.050	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	99	(39 - 143)
Tetrachloro-m-xylene	89	(56 - 107)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-HH

GC Semivolatiles

Lot-Sample #...: D0C010231-015 **Work Order #...:** D98WC102 **Matrix.....:** WATER
Date Sampled...: 03/02/00 11:05 **Date Received..:** 03/03/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/14/00
Prep Batch #...: 0064144 **Analysis Time..:** 07:14
Dilution Factor: 1

Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diallate	ND	1.0	ug/L
Isodrin	ND	0.10	ug/L
Kepone	ND	1.0	ug/L
Aldrin	ND	0.050	ug/L
alpha-BHC	ND	0.050	ug/L
beta-BHC	ND	0.050	ug/L
delta-BHC	ND	0.050	ug/L
gamma-BHC (Lindane)	ND	0.050	ug/L
alpha-Chlordane	ND	0.050	ug/L
gamma-Chlordane	ND	0.050	ug/L
4,4'-DDD	ND	0.050	ug/L
4,4'-DDE	ND	0.050	ug/L
4,4'-DDT	ND	0.050	ug/L
Dieldrin	ND	0.050	ug/L
Endosulfan I	ND	0.050	ug/L
Endosulfan II	ND	0.050	ug/L
Endosulfan sulfate	ND	0.050	ug/L
Endrin	ND	0.050	ug/L
Endrin aldehyde	ND	0.050	ug/L
Heptachlor	ND	0.050	ug/L
Heptachlor epoxide	ND	0.050	ug/L
Methoxychlor	ND	0.10	ug/L
Toxaphene	ND	2.0	ug/L
Endrin ketone	ND	0.050	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	102	(39 - 143)
Tetrachloro-m-xylene	90	(56 - 107)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-UU

GC Semivolatiles

Lot-Sample #...: D0C010231-001 **Work Order #...:** D96C4104 **Matrix.....:** WATER
Date Sampled...: 02/29/00 09:20 **Date Received..:** 03/01/00
Prep Date.....: 03/02/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0062157 **Analysis Time..:** 19:01
Dilution Factor: 1

Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	100	(52 - 129)
Tetrachloro-m-xylene	108	(54 - 113)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-S

GC Semivolatiles

Lot-Sample #...: D0C010231-002 **Work Order #...:** D96CG104 **Matrix.....:** WATER
Date Sampled...: 02/29/00 11:30 **Date Received..:** 03/01/00
Prep Date.....: 03/02/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0062157 **Analysis Time..:** 19:28
Dilution Factor: 1

Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	106	(52 - 129)
Tetrachloro-m-xylene	103	(54 - 113)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-T

GC Semivolatiles

Lot-Sample #...: D0C010231-003 **Work Order #...:** D96CH104 **Matrix.....:** WATER
Date Sampled...: 02/29/00 13:35 **Date Received..:** 03/01/00
Prep Date.....: 03/02/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0062157 **Analysis Time..:** 19:55
Dilution Factor: 1

Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	109	(52 - 129)
Tetrachloro-m-xylene	101	(54 - 113)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-U

GC Semivolatiles

Lot-Sample #...: D0C010231-004 **Work Order #...:** D96CJ104 **Matrix.....:** WATER
Date Sampled...: 02/29/00 09:15 **Date Received..:** 03/01/00
Prep Date.....: 03/02/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0062157 **Analysis Time..:** 20:23
Dilution Factor: 1

Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	101	(52 - 129)
Tetrachloro-m-xylene	101	(54 - 113)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-Q

GC Semivolatiles

Lot-Sample #...: D0C010231-006 **Work Order #...:** D97J7104 **Matrix.....:** WATER
Date Sampled...: 03/01/00 14:45 **Date Received..:** 03/02/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0064145 **Analysis Time..:** 23:35
Dilution Factor: 1

Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	103	(52 - 129)
Tetrachloro-m-xylene	110	(54 - 113)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-B

GC Semivolatiles

Lot-Sample #...: D0C010231-007 **Work Order #...:** D97JC104 **Matrix.....:** WATER
Date Sampled...: 03/01/00 12:30 **Date Received..:** 03/02/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/08/00
Prep Batch #...: 0064145 **Analysis Time..:** 00:02
Dilution Factor: 1

Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	112	(52 - 129)
Tetrachloro-m-xylene	115 *	(54 - 113)

NOTE(S):

Surrogate recovery is outside stated control limits.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-C

GC Semivolatiles

Lot-Sample #...: D0C010231-008 **Work Order #...:** D97JG104 **Matrix.....:** WATER
Date Sampled...: 03/01/00 10:45 **Date Received..:** 03/02/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/08/00
Prep Batch #...: 0064145 **Analysis Time..:** 00:29
Dilution Factor: 1

Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	80	(52 - 129)
Tetrachloro-m-xylene	111	(54 - 113)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-D

GC Semivolatiles

Lot-Sample #...: D0C010231-009 **Work Order #...:** D97JH104 **Matrix.....:** WATER
Date Sampled...: 03/01/00 09:00 **Date Received..:** 03/02/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/08/00
Prep Batch #...: 0064145 **Analysis Time..:** 00:57
Dilution Factor: 1

Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	89	(52 - 129)
Tetrachloro-m-xylene	112	(54 - 113)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-G

GC Semivolatiles

Lot-Sample #...: D0C010231-011
Date Sampled...: 03/02/00 13:10
Prep Date.....: 03/04/00
Prep Batch #...: 0064145
Dilution Factor: 1

Work Order #...: D98VK103
Date Received..: 03/03/00
Analysis Date..: 03/08/00
Analysis Time..: 01:24

Matrix.....: WATER

Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	94	(52 - 129)
Tetrachloro-m-xylene	102	(54 - 113)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-F

GC Semivolatiles

Lot-Sample #...:	D0C010231-012	**Work Order #...:**	D98W5103	**Matrix.....:**	WATER
Date Sampled...:	03/02/00 14:30	**Date Received..:**	03/03/00		
Prep Date.....:	03/04/00	**Analysis Date..:**	03/08/00		
Prep Batch #...:	0064145	**Analysis Time..:**	01:52		
Dilution Factor:	1				
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	113	(52 - 129)
Tetrachloro-m-xylene	111	(54 - 113)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-H

GC Semivolatiles

Lot-Sample #...: D0C010231-013 **Work Order #...:** D98W8103 **Matrix.....:** WATER
Date Sampled...: 03/02/00 11:00 **Date Received..:** 03/03/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/08/00
Prep Batch #...: 0064145 **Analysis Time..:** 02:19
Dilution Factor: 1

Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	100	(52 - 129)
Tetrachloro-m-xylene	101	(54 - 113)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-HH

GC Semivolatiles

Lot-Sample #...: D0C010231-015 **Work Order #...:** D98WC103 **Matrix.....:** WATER
Date Sampled...: 03/02/00 11:05 **Date Received..:** 03/03/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/08/00
Prep Batch #...: 0064145 **Analysis Time..:** 03:41
Dilution Factor: 1

Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	104	(52 - 129)
Tetrachloro-m-xylene	104	(54 - 113)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-UU

GC Semivolatiles

Lot-Sample #...: D0C010231-001 **Work Order #...:** D96C4105 **Matrix.....:** WATER
Date Sampled...: 02/29/00 09:20 **Date Received..:** 03/01/00
Prep Date.....: 03/06/00 **Analysis Date..:** 03/15/00
Prep Batch #...: 0066375 **Analysis Time..:** 06:49
Dilution Factor: 1

Method.....: SW846 8151A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,4-D	ND	4.0	ug/L
2,4,5-T	ND	1.0	ug/L
2,4,5-TP (Silvex)	ND	1.0	ug/L
Dinoseb	ND	0.60	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	108	(43 - 139)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-S

GC Semivolatiles

Lot-Sample #...: D0C010231-002 **Work Order #...:** D96CG105 **Matrix.....:** WATER
Date Sampled...: 02/29/00 11:30 **Date Received..:** 03/01/00
Prep Date.....: 03/06/00 **Analysis Date..:** 03/15/00
Prep Batch #...: 0066375 **Analysis Time..:** 08:35
Dilution Factor: 1

Method.....: SW846 8151A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,4-D	ND	4.0	ug/L
2,4,5-T	ND	1.0	ug/L
2,4,5-TP (Silvex)	ND	1.0	ug/L
Dinoseb	ND	0.60	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	104	(43 - 139)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-T

GC Semivolatiles

Lot-Sample #...: D0C010231-003
Date Sampled...: 02/29/00 13:35
Prep Date.....: 03/06/00
Prep Batch #...: 0066375
Dilution Factor: 1

Work Order #...: D96CH105
Date Received..: 03/01/00
Analysis Date..: 03/15/00
Analysis Time..: 09:10

Matrix.....: WATER

Method.....: SW846 8151A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,4-D	ND	4.0	ug/L
2,4,5-T	ND	1.0	ug/L
2,4,5-TP (Silvex)	ND	1.0	ug/L
Dinoseb	ND	0.60	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	89	(43 - 139)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-U

GC Semivolatiles

Lot-Sample #...:	D0C010231-004	**Work Order #...:**	D96CJ105	**Matrix.....:**	WATER
Date Sampled...:	02/29/00 09:15	**Date Received..:**	03/01/00		
Prep Date.....:	03/06/00	**Analysis Date..:**	03/15/00		
Prep Batch #...:	0066375	**Analysis Time..:**	09:45		
Dilution Factor:	1				
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,4-D	ND	4.0	ug/L
2,4,5-T	ND	1.0	ug/L
2,4,5-TP (Silvex)	ND	1.0	ug/L
Dinoseb	ND	0.60	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	105	(43 - 139)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-Q

GC Semivolatiles

Lot-Sample #...: D0C010231-006 **Work Order #...:** D97J7105 **Matrix.....:** WATER
Date Sampled...: 03/01/00 14:45 **Date Received..:** 03/02/00
Prep Date.....: 03/06/00 **Analysis Date..:** 03/15/00
Prep Batch #...: 0066375 **Analysis Time..:** 11:30
Dilution Factor: 1

Method.....: SW846 8151A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,4-D	ND	4.0	ug/L
2,4,5-T	ND	1.0	ug/L
2,4,5-TP (Silvex)	ND	1.0	ug/L
Dinoseb	ND	0.60	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	103	(43 - 139)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-B

GC Semivolatiles

Lot-Sample #...: D0C010231-007
Date Sampled...: 03/01/00 12:30
Prep Date.....: 03/06/00
Prep Batch #...: 0066375
Dilution Factor: 1

Work Order #...: D97JC105
Date Received..: 03/02/00
Analysis Date..: 03/15/00
Analysis Time..: 12:05

Matrix.....: WATER

Method.....: SW846 8151A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,4-D	ND	4.0	ug/L
2,4,5-T	ND	1.0	ug/L
2,4,5-TP (Silvex)	ND	1.0	ug/L
Dinoseb	ND	0.60	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	101	(43 - 139)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-C

GC Semivolatiles

Lot-Sample #...: D0C010231-008 **Work Order #...:** D97JG105 **Matrix.....:** WATER
Date Sampled...: 03/01/00 10:45 **Date Received..:** 03/02/00
Prep Date.....: 03/06/00 **Analysis Date..:** 03/15/00
Prep Batch #...: 0066375 **Analysis Time..:** 12:40
Dilution Factor: 1

Method.....: SW846 8151A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,4-D	ND	4.0	ug/L
2,4,5-T	ND	1.0	ug/L
2,4,5-TP (Silvex)	ND	1.0	ug/L
Dinoseb	ND	0.60	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	102	(43 - 139)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-D

GC Semivolatiles

Lot-Sample #...:	D0C010231-009	**Work Order #...:**	D97JH105	**Matrix.....:**	WATER
Date Sampled...:	03/01/00 09:00	**Date Received..:**	03/02/00		
Prep Date.....:	03/06/00	**Analysis Date..:**	03/15/00		
Prep Batch #...:	0066375	**Analysis Time..:**	13:15		
Dilution Factor:	1				
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,4-D	ND	4.0	ug/L
2,4,5-T	ND	1.0	ug/L
2,4,5-TP (Silvex)	ND	1.0	ug/L
Dinoseb	ND	0.60	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	104	(43 - 139)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-UU

HPLC

Lot-Sample #...: D0C010231-001 **Work Order #...:** D96C4106 **Matrix.....:** WATER
Date Sampled...: 02/29/00 09:20 **Date Received..:** 03/01/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0064146 **Analysis Time..:** 09:07
Dilution Factor: 1

Method.....: SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	1.0	ug/L
Acenaphthylene	ND	1.0	ug/L
Anthracene	ND	0.10	ug/L
Benzo(a)anthracene	ND	0.10	ug/L
Benzo(a)pyrene	ND	0.10	ug/L
Benzo(b)fluoranthene	ND	0.10	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.10	ug/L
Chrysene	ND	0.20	ug/L
Dibenzo(a,h)anthracene	ND	0.20	ug/L
Fluoranthene	ND	0.20	ug/L
Fluorene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
1-Methylnaphthalene	ND	1.0	ug/L
2-Methylnaphthalene	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Phenanthrene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	79	(57 - 128)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-S

HPLC

Lot-Sample #...: D0C010231-002 **Work Order #...:** D96CG106 **Matrix.....:** WATER
Date Sampled...: 02/29/00 11:30 **Date Received..:** 03/01/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0064146 **Analysis Time..:** 09:36
Dilution Factor: 1

Method.....: SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	1.0	ug/L
Acenaphthylene	ND	1.0	ug/L
Anthracene	ND	0.10	ug/L
Benzo(a)anthracene	ND	0.10	ug/L
Benzo(a)pyrene	ND	0.10	ug/L
Benzo(b)fluoranthene	ND	0.10	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.10	ug/L
Chrysene	ND	0.20	ug/L
Dibenzo(a,h)anthracene	ND	0.20	ug/L
Fluoranthene	ND	0.20	ug/L
Fluorene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
1-Methylnaphthalene	ND	1.0	ug/L
2-Methylnaphthalene	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Phenanthrene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	78	(57 - 128)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-T

HPLC

Lot-Sample #...: D0C010231-003 **Work Order #...:** D96CH106 **Matrix.....:** WATER
Date Sampled...: 02/29/00 13:35 **Date Received..:** 03/01/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0064146 **Analysis Time..:** 10:05
Dilution Factor: 1

Method.....: SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	1.0	ug/L
Acenaphthylene	ND	1.0	ug/L
Anthracene	ND	0.10	ug/L
Benzo(a)anthracene	ND	0.10	ug/L
Benzo(a)pyrene	ND	0.10	ug/L
Benzo(b)fluoranthene	ND	0.10	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.10	ug/L
Chrysene	ND	0.20	ug/L
Dibenzo(a,h)anthracene	ND	0.20	ug/L
Fluoranthene	ND	0.20	ug/L
Fluorene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
1-Methylnaphthalene	ND	1.0	ug/L
2-Methylnaphthalene	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Phenanthrene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	80	(57 - 128)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-U

HPLC

Lot-Sample #...: D0C010231-004 **Work Order #...:** D96CJ106 **Matrix.....:** WATER
Date Sampled...: 02/29/00 09:15 **Date Received..:** 03/01/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0064146 **Analysis Time..:** 10:34
Dilution Factor: 1

Method.....: SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	1.0	ug/L
Acenaphthylene	ND	1.0	ug/L
Anthracene	ND	0.10	ug/L
Benzo(a)anthracene	ND	0.10	ug/L
Benzo(a)pyrene	ND	0.10	ug/L
Benzo(b)fluoranthene	ND	0.10	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.10	ug/L
Chrysene	ND	0.20	ug/L
Dibenzo(a,h)anthracene	ND	0.20	ug/L
Fluoranthene	ND	0.20	ug/L
Fluorene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
1-Methylnaphthalene	ND	1.0	ug/L
2-Methylnaphthalene	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Phenanthrene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	80	(57 - 128)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-Q

HPLC

Lot-Sample #...: D0C010231-006 Work Order #...: D97J7106 Matrix.....: WATER
Date Sampled...: 03/01/00 14:45 Date Received..: 03/02/00
Prep Date.....: 03/04/00 Analysis Date..: 03/07/00
Prep Batch #...: 0064146 Analysis Time..: 12:30
Dilution Factor: 1

Method.....: SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	1.0	ug/L
Acenaphthylene	ND	1.0	ug/L
Anthracene	ND	0.10	ug/L
Benzo(a)anthracene	ND	0.10	ug/L
Benzo(a)pyrene	ND	0.10	ug/L
Benzo(b)fluoranthene	ND	0.10	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.10	ug/L
Chrysene	ND	0.20	ug/L
Dibenzo(a,h)anthracene	ND	0.20	ug/L
Fluoranthene	ND	0.20	ug/L
Fluorene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
1-Methylnaphthalene	ND	1.0	ug/L
2-Methylnaphthalene	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Phenanthrene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	76	(57 - 128)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-B

HPLC

Lot-Sample #...: D0C010231-007 **Work Order #...:** D97JC106 **Matrix.....:** WATER
Date Sampled...: 03/01/00 12:30 **Date Received..:** 03/02/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0064146 **Analysis Time..:** 12:59
Dilution Factor: 1

Method.....: SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	1.0	ug/L
Acenaphthylene	ND	1.0	ug/L
Anthracene	ND	0.10	ug/L
Benzo(a)anthracene	ND	0.10	ug/L
Benzo(a)pyrene	ND	0.10	ug/L
Benzo(b)fluoranthene	ND	0.10	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.10	ug/L
Chrysene	ND	0.20	ug/L
Dibenzo(a,h)anthracene	ND	0.20	ug/L
Fluoranthene	ND	0.20	ug/L
Fluorene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
1-Methylnaphthalene	ND	1.0	ug/L
2-Methylnaphthalene	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Phenanthrene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	82	(57 - 128)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-C

HPLC

Lot-Sample #...: D0C010231-008 **Work Order #...:** D97JG106 **Matrix.....:** WATER
Date Sampled...: 03/01/00 10:45 **Date Received..:** 03/02/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0064146 **Analysis Time..:** 13:29
Dilution Factor: 1

Method.....: SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	1.0	ug/L
Acenaphthylene	ND	1.0	ug/L
Anthracene	ND	0.10	ug/L
Benzo(a)anthracene	ND	0.10	ug/L
Benzo(a)pyrene	ND	0.10	ug/L
Benzo(b)fluoranthene	ND	0.10	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.10	ug/L
Chrysene	ND	0.20	ug/L
Dibenzo(a,h)anthracene	ND	0.20	ug/L
Fluoranthene	ND	0.20	ug/L
Fluorene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
1-Methylnaphthalene	ND	1.0	ug/L
-Methylnaphthalene	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Phenanthrene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	68	(57 - 128)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-D

HPLC

Lot-Sample #...: D0C010231-009 **Work Order #...:** D97JH106 **Matrix.....:** WATER
Date Sampled...: 03/01/00 09:00 **Date Received..:** 03/02/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0064146 **Analysis Time..:** 13:58
Dilution Factor: 1

Method.....: SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	1.0	ug/L
Acenaphthylene	ND	1.0	ug/L
Anthracene	ND	0.10	ug/L
Benzo(a)anthracene	ND	0.10	ug/L
Benzo(a)pyrene	ND	0.10	ug/L
Benzo(b)fluoranthene	ND	0.10	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.10	ug/L
Chrysene	ND	0.20	ug/L
Dibenzo(a,h)anthracene	ND	0.20	ug/L
Fluoranthene	ND	0.20	ug/L
Fluorene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
1-Methylnaphthalene	ND	1.0	ug/L
2-Methylnaphthalene	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Phenanthrene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	77	(57 - 128)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-UU

Trace Level Organic Compounds

Lot-Sample #...: D0C010231-001 Work Order #...: D96C4117 Matrix.....: WATER
Date Sampled...: 02/29/00 09:20 Date Received..: 03/01/00
Prep Date.....: 03/08/00 Analysis Date..: 03/10/00
Prep Batch #...: 0069397 Analysis Time..: 21:38
Dilution Factor: 1

Method.....: SW846 8280A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,3,7,8-TCDD	ND	0.17	ng/L
Total TCDD	ND	0.17	ng/L
Total PeCDD	ND	1.9	ng/L
Total HxCDD	ND	0.61	ng/L
Total TCDF	ND	1.2	ng/L
Total PeCDF	ND	0.70	ng/L
Total HxCDF	ND	0.31	ng/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	89	(25 - 150)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-S

Trace Level Organic Compounds

Lot-Sample #...:	D0C010231-002	**Work Order #...:**	D96CG117	**Matrix.....:**	WATER
Date Sampled...:	02/29/00 11:30	**Date Received..:**	03/01/00		
Prep Date.....:	03/08/00	**Analysis Date..:**	03/10/00		
Prep Batch #...:	0069397	**Analysis Time..:**	22:24		
Dilution Factor:	1				
		Method.....:	SW846 8280A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,3,7,8-TCDD	ND	0.29	ng/L
Total TCDD	ND	0.29	ng/L
Total PeCDD	ND	2.2	ng/L
Total HxCDD	ND	0.94	ng/L
Total TCDF	ND	1.4	ng/L
Total PeCDF	ND	0.92	ng/L
Total HxCDF	ND	0.44	ng/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	80	(25 - 150)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-T

Trace Level Organic Compounds

Lot-Sample #...: D0C010231-003 Work Order #...: D96CH117 Matrix.....: WATER
Date Sampled...: 02/29/00 13:35 Date Received..: 03/01/00
Prep Date.....: 03/08/00 Analysis Date..: 03/10/00
Prep Batch #...: 0069397 Analysis Time..: 23:10
Dilution Factor: 1

Method.....: SW846 8280A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,3,7,8-TCDD	ND	0.32	ng/L
Total TCDD	ND	0.32	ng/L
Total PeCDD	ND	1.7	ng/L
Total HxCDD	ND	2.3	ng/L
Total TCDF	ND	1.2	ng/L
Total PeCDF	ND	1.4	ng/L
Total HxCDF	ND	1.1	ng/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	88	(25 - 150)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-U

Trace Level Organic Compounds

Lot-Sample #...: D0C010231-004 Work Order #...: D96CJ14H Matrix.....: WATER
Date Sampled...: 02/29/00 09:15 Date Received..: 03/01/00
Prep Date.....: 03/08/00 Analysis Date..: 03/10/00
Prep Batch #...: 0069397 Analysis Time..: 23:56
Dilution Factor: 1

Method.....: SW846 8280A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,3,7,8-TCDD	ND	0.23	ng/L
Total TCDD	ND	0.23	ng/L
Total PeCDD	ND	3.0	ng/L
Total HxCDD	ND	0.58	ng/L
Total TCDF	ND	0.98	ng/L
Total PeCDF	ND	0.87	ng/L
Total HxCDF	ND	0.38	ng/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	91	(25 - 150)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-Q

Trace Level Organic Compounds

Lot-Sample #...:	D0C010231-006	**Work Order #...:**	D97J7117	**Matrix.....:**	WATER
Date Sampled...:	03/01/00 14:45	**Date Received..:**	03/02/00		
Prep Date.....:	03/08/00	**Analysis Date..:**	03/11/00		
Prep Batch #...:	0069397	**Analysis Time..:**	00:42		
Dilution Factor:	1				
		Method.....:	SW846 8280A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,3,7,8-TCDD	ND	0.30	ng/L
Total TCDD	ND	0.30	ng/L
Total PeCDD	ND	2.5	ng/L
Total HxCDD	ND	0.82	ng/L
Total TCDF	ND	1.1	ng/L
Total PeCDF	ND	0.97	ng/L
Total HxCDF	ND	0.39	ng/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	95	(25 - 150)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-B

Trace Level Organic Compounds

Lot-Sample #...:	D0C010231-007	**Work Order #...:**	D97JC117	**Matrix.....:**	WATER
Date Sampled...:	03/01/00 12:30	**Date Received..:**	03/02/00		
Prep Date.....:	03/08/00	**Analysis Date..:**	03/11/00		
Prep Batch #...:	0069397	**Analysis Time..:**	01:29		
Dilution Factor:	1				
		Method.....:	SW846 8280A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,3,7,8-TCDD	ND	0.41	ng/L
Total TCDD	ND	0.41	ng/L
Total PeCDD	ND	2.4	ng/L
Total HxCDD	ND	0.79	ng/L
Total TCDF	ND	1.1	ng/L
Total PeCDF	ND	0.80	ng/L
Total HxCDF	ND	0.39	ng/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	89	(25 - 150)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-C

Trace Level Organic Compounds

Lot-Sample #...: D0C010231-008 **Work Order #...:** D97JG117 **Matrix.....:** WATER
Date Sampled...: 03/01/00 10:45 **Date Received..:** 03/02/00
Prep Date.....: 03/08/00 **Analysis Date..:** 03/11/00
Prep Batch #...: 0069397 **Analysis Time..:** 02:15
Dilution Factor: 1

Method.....: SW846 8280A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,3,7,8-TCDD	ND	0.23	ng/L
Total TCDD	ND	0.23	ng/L
Total PeCDD	ND	1.8	ng/L
Total HxCDD	ND	0.82	ng/L
Total TCDF	ND	1.2	ng/L
Total PeCDF	ND	0.87	ng/L
Total HxCDF	ND	0.43	ng/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	88	(25 - 150)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-D

Trace Level Organic Compounds

Lot-Sample #...: D0C010231-009 **Work Order #...:** D97JH117 **Matrix.....:** WATER
Date Sampled...: 03/01/00 09:00 **Date Received..:** 03/02/00
Prep Date.....: 03/08/00 **Analysis Date..:** 03/11/00
Prep Batch #...: 0069397 **Analysis Time..:** 03:01
Dilution Factor: 1

Method.....: SW846 8280A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,3,7,8-TCDD	ND	0.28	ng/L
Total TCDD	ND	0.28	ng/L
Total PeCDD	ND	2.0	ng/L
Total HxCDD	ND	0.73	ng/L
Total TCDF	ND	1.1	ng/L
Total PeCDF	ND	0.92	ng/L
Total HxCDF	ND	0.39	ng/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	90	(25 - 150)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-UU

TOTAL Metals

Lot-Sample #...: D0C010231-001 **Matrix.....:** WATER
Date Sampled...: 02/29/00 09:20 **Date Received..:** 03/01/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0062169						
Aluminum	**107**	**100**	**ug/L**	**SW846 6010B**	**03/04-03/09/00**	**D96C4108**
		Dilution Factor: 1		Analysis Time..: 16:03		
Barium	**27.5**	**10.0**	**ug/L**	**SW846 6010B**	**03/04-03/09/00**	**D96C4109**
		Dilution Factor: 1		Analysis Time..: 16:03		
Beryllium	**1.7 B**	**2.0**	**ug/L**	**SW846 6010B**	**03/04-03/09/00**	**D96C410A**
		Dilution Factor: 1		Analysis Time..: 16:03		
Calcium	**43400**	**200**	**ug/L**	**SW846 6010B**	**03/04-03/09/00**	**D96C410C**
		Dilution Factor: 1		Analysis Time..: 16:03		
Cobalt	ND	10.0	ug/L	SW846 6010B	03/04-03/09/00	D96C410D
		Dilution Factor: 1		Analysis Time..: 16:03		
Copper	ND	20.0	ug/L	SW846 6010B	03/04-03/09/00	D96C410E
		Dilution Factor: 1		Analysis Time..: 16:03		
Iron	**14.3 B**	**100**	**ug/L**	**SW846 6010B**	**03/04-03/06/00**	**D96C410F**
		Dilution Factor: 1		Analysis Time..: 10:44		
Potassium	**6610**	**5000**	**ug/L**	**SW846 6010B**	**03/04-03/06/00**	**D96C410G**
		Dilution Factor: 1		Analysis Time..: 10:44		
Magnesium	**38800**	**200**	**ug/L**	**SW846 6010B**	**03/04-03/09/00**	**D96C410H**
		Dilution Factor: 1		Analysis Time..: 16:03		
Manganese	ND	10.0	ug/L	SW846 6010B	03/04-03/09/00	D96C410J
		Dilution Factor: 1		Analysis Time..: 16:03		
Molybdenum	ND	20.0	ug/L	SW846 6010B	03/04-03/09/00	D96C410K
		Dilution Factor: 1		Analysis Time..: 16:03		
Sodium	**52600**	**5000**	**ug/L**	**SW846 6010B**	**03/04-03/06/00**	**D96C410L**
		Dilution Factor: 1		Analysis Time..: 10:44		
Nickel	ND	40.0	ug/L	SW846 6010B	03/04-03/09/00	D96C410M
		Dilution Factor: 1		Analysis Time..: 16:03		
Tin	ND	100	ug/L	SW846 6010B	03/04-03/09/00	D96C410N
		Dilution Factor: 1		Analysis Time..: 16:03		

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-UU

TOTAL Metals

Lot-Sample #...: D0C010231-001 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Vanadium	**25.6**	**10.0**	**ug/L**	**SW846 6010B**	**03/04-03/09/00**	**D96C410P**
		Dilution Factor: 1		Analysis Time..: 16:03		
Zinc	ND	20.0	ug/L	SW846 6010B	03/04-03/09/00	D96C410Q
		Dilution Factor: 1		Analysis Time..: 16:03		
Prep Batch #...: 0062171						
Mercury	ND	0.20	ug/L	SW846 7470A	03/03/00	D96C4112
		Dilution Factor: 1		Analysis Time..: 12:58		
Prep Batch #...: 0062181						
Silver	ND	1.0	ug/L	SW846 6020	03/04-03/09/00	D96C410R
		Dilution Factor: 1		Analysis Time..: 11:51		
Arsenic	**7.0**	**5.0**	**ug/L**	**SW846 6020**	**03/04-03/09/00**	**D96C410T**
		Dilution Factor: 1		Analysis Time..: 11:51		
Cadmium	ND	1.0	ug/L	SW846 6020	03/04-03/09/00	D96C410U
		Dilution Factor: 1		Analysis Time..: 11:51		
Chromium	**1.4**	**1.0**	**ug/L**	**SW846 6020**	**03/04-03/09/00**	**D96C410V**
		Dilution Factor: 1		Analysis Time..: 11:51		
Lead	**0.10 B**	**1.0**	**ug/L**	**SW846 6020**	**03/04-03/09/00**	**D96C410W**
		Dilution Factor: 1		Analysis Time..: 11:51		
Antimony	ND	1.0	ug/L	SW846 6020	03/04-03/09/00	D96C410X
		Dilution Factor: 1		Analysis Time..: 11:51		
Selenium	**12.6**	**5.0**	**ug/L**	**SW846 6020**	**03/04-03/09/00**	**D96C4110**
		Dilution Factor: 1		Analysis Time..: 11:51		
Thallium	ND	1.0	ug/L	SW846 6020	03/04-03/09/00	D96C4111
		Dilution Factor: 1		Analysis Time..: 11:51		

NOTE(S):

B Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-S

TOTAL Metals

Lot-Sample #...: D0C010231-002
Date Sampled...: 02/29/00 11:30 Date Received..: 03/01/00

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0062169						
Aluminum	118	100	ug/L	SW846 6010B	03/04-03/09/00	D96CG108
		Dilution Factor: 1		Analysis Time..: 16:09		
Barium	35.3	10.0	ug/L	SW846 6010B	03/04-03/09/00	D96CG109
		Dilution Factor: 1		Analysis Time..: 16:09		
Beryllium	1.5 B	2.0	ug/L	SW846 6010B	03/04-03/09/00	D96CG10A
		Dilution Factor: 1		Analysis Time..: 16:09		
Calcium	43500	200	ug/L	SW846 6010B	03/04-03/09/00	D96CG10C
		Dilution Factor: 1		Analysis Time..: 16:09		
Cobalt	ND	10.0	ug/L	SW846 6010B	03/04-03/09/00	D96CG10D
		Dilution Factor: 1		Analysis Time..: 16:09		
Copper	ND	20.0	ug/L	SW846 6010B	03/04-03/09/00	D96CG10E
		Dilution Factor: 1		Analysis Time..: 16:09		
Iron	33.8 B	100	ug/L	SW846 6010B	03/04-03/06/00	D96CG10F
		Dilution Factor: 1		Analysis Time..: 10:55		
Potassium	6610	5000	ug/L	SW846 6010B	03/04-03/06/00	D96CG10G
		Dilution Factor: 1		Analysis Time..: 10:55		
Magnesium	40200	200	ug/L	SW846 6010B	03/04-03/09/00	D96CG10H
		Dilution Factor: 1		Analysis Time..: 16:09		
Manganese	2.9 B	10.0	ug/L	SW846 6010B	03/04-03/09/00	D96CG10J
		Dilution Factor: 1		Analysis Time..: 16:09		
Molybdenum	ND	20.0	ug/L	SW846 6010B	03/04-03/09/00	D96CG10K
		Dilution Factor: 1		Analysis Time..: 16:09		
Sodium	48400	5000	ug/L	SW846 6010B	03/04-03/06/00	D96CG10L
		Dilution Factor: 1		Analysis Time..: 10:55		
Nickel	ND	40.0	ug/L	SW846 6010B	03/04-03/09/00	D96CG10M
		Dilution Factor: 1		Analysis Time..: 16:09		
Tin	ND	100	ug/L	SW846 6010B	03/04-03/09/00	D96CG10N
		Dilution Factor: 1		Analysis Time..: 16:09		

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US GEOLOGICAL SURVEY

Client Sample ID: CAFB-S

TOTAL Metals

Lot-Sample #...: D0C010231-002 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Vanadium	**26.8**	**10.0**	**ug/L**	**SW846 6010B**	**03/04-03/09/00**	**D96CG10P**
		Dilution Factor: 1		Analysis Time..: 16:09		
Zinc	**30.5**	**20.0**	**ug/L**	**SW846 6010B**	**03/04-03/09/00**	**D96CG10Q**
		Dilution Factor: 1		Analysis Time..: 16:09		
Prep Batch #...: 0062171						
Mercury	ND	0.20	ug/L	SW846 7470A	03/03/00	D96CG112
		Dilution Factor: 1		Analysis Time..: 13:03		
Prep Batch #...: 0062181						
Silver	ND	1.0	ug/L	SW846 6020	03/04-03/09/00	D96CG10R
		Dilution Factor: 1		Analysis Time..: 11:55		
Arsenic	**6.5**	**5.0**	**ug/L**	**SW846 6020**	**03/04-03/09/00**	**D96CG10T**
		Dilution Factor: 1		Analysis Time..: 11:55		
Cadmium	ND	1.0	ug/L	SW846 6020	03/04-03/09/00	D96CG10U
		Dilution Factor: 1		Analysis Time..: 11:55		
Chromium	**1.6**	**1.0**	**ug/L**	**SW846 6020**	**03/04-03/09/00**	**D96CG10V**
		Dilution Factor: 1		Analysis Time..: 11:55		
Lead	**0.12 B**	**1.0**	**ug/L**	**SW846 6020**	**03/04-03/09/00**	**D96CG10W**
		Dilution Factor: 1		Analysis Time..: 11:55		
Antimony	ND	1.0	ug/L	SW846 6020	03/04-03/09/00	D96CG10X
		Dilution Factor: 1		Analysis Time..: 11:55		
Selenium	**10.9**	**5.0**	**ug/L**	**SW846 6020**	**03/04-03/09/00**	**D96CG110**
		Dilution Factor: 1		Analysis Time..: 11:55		
Thallium	ND	1.0	ug/L	SW846 6020	03/04-03/09/00	D96CG111
		Dilution Factor: 1		Analysis Time..: 11:55		

NOTE(S):

B Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-T

TOTAL Metals

Lot-Sample #...: D0C010231-003 Matrix.....: WATER
Date Sampled...: 02/29/00 13:35 Date Received..: 03/01/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0062169						
Aluminum	108	100	ug/L	SW846 6010B	03/04-03/09/00	D96CH108
		Dilution Factor: 1		Analysis Time..: 16:15		
Barium	29.3	10.0	ug/L	SW846 6010B	03/04-03/09/00	D96CH109
		Dilution Factor: 1		Analysis Time..: 16:15		
Beryllium	1.5 B	2.0	ug/L	SW846 6010B	03/04-03/09/00	D96CH10A
		Dilution Factor: 1		Analysis Time..: 16:15		
Calcium	45500	200	ug/L	SW846 6010B	03/04-03/09/00	D96CH10C
		Dilution Factor: 1		Analysis Time..: 16:15		
Cobalt	ND	10.0	ug/L	SW846 6010B	03/04-03/09/00	D96CH10D
		Dilution Factor: 1		Analysis Time..: 16:15		
Copper	ND	20.0	ug/L	SW846 6010B	03/04-03/09/00	D96CH10E
		Dilution Factor: 1		Analysis Time..: 16:15		
Iron	86.6 B	100	ug/L	SW846 6010B	03/04-03/06/00	D96CH10F
		Dilution Factor: 1		Analysis Time..: 10:58		
Potassium	6970	5000	ug/L	SW846 6010B	03/04-03/06/00	D96CH10G
		Dilution Factor: 1		Analysis Time..: 10:58		
Magnesium	41800	200	ug/L	SW846 6010B	03/04-03/09/00	D96CH10H
		Dilution Factor: 1		Analysis Time..: 16:15		
Manganese	ND	10.0	ug/L	SW846 6010B	03/04-03/09/00	D96CH10J
		Dilution Factor: 1		Analysis Time..: 16:15		
Molybdenum	ND	20.0	ug/L	SW846 6010B	03/04-03/09/00	D96CH10K
		Dilution Factor: 1		Analysis Time..: 16:15		
Sodium	54900	5000	ug/L	SW846 6010B	03/04-03/06/00	D96CH10L
		Dilution Factor: 1		Analysis Time..: 10:58		
Nickel	ND	40.0	ug/L	SW846 6010B	03/04-03/09/00	D96CH10M
		Dilution Factor: 1		Analysis Time..: 16:15		
Tin	ND	100	ug/L	SW846 6010B	03/04-03/09/00	D96CH10N
		Dilution Factor: 1		Analysis Time..: 16:15		

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US GEOLOGICAL SURVEY

Client Sample ID: CAFB-T

TOTAL Metals

Lot-Sample #...: D0C010231-003 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Vanadium	**26.5**	**10.0**	**ug/L**	**SW846 6010B**	**03/04-03/09/00**	**D96CH10P**
		Dilution Factor: 1		Analysis Time..: 16:15		
Zinc	**13.3 B**	**20.0**	**ug/L**	**SW846 6010B**	**03/04-03/09/00**	**D96CH10Q**
		Dilution Factor: 1		Analysis Time..: 16:15		
Prep Batch #...: 0062171						
Mercury	ND	0.20	ug/L	SW846 7470A	03/03/00	D96CH112
		Dilution Factor: 1		Analysis Time..: 13:04		
Prep Batch #...: 0062181						
Silver	ND	1.0	ug/L	SW846 6020	03/04-03/09/00	D96CH10R
		Dilution Factor: 1		Analysis Time..: 12:00		
Arsenic	**6.9**	**5.0**	**ug/L**	**SW846 6020**	**03/04-03/09/00**	**D96CH10T**
		Dilution Factor: 1		Analysis Time..: 12:00		
dmium	ND	1.0	ug/L	SW846 6020	03/04-03/09/00	D96CH10U
		Dilution Factor: 1		Analysis Time..: 12:00		
Chromium	**2.3**	**1.0**	**ug/L**	**SW846 6020**	**03/04-03/09/00**	**D96CH10V**
		Dilution Factor: 1		Analysis Time..: 12:00		
Lead	**0.17 B**	**1.0**	**ug/L**	**SW846 6020**	**03/04-03/09/00**	**D96CH10W**
		Dilution Factor: 1		Analysis Time..: 12:00		
Antimony	ND	1.0	ug/L	SW846 6020	03/04-03/09/00	D96CH10X
		Dilution Factor: 1		Analysis Time..: 12:00		
Selenium	**13.2**	**5.0**	**ug/L**	**SW846 6020**	**03/04-03/09/00**	**D96CH110**
		Dilution Factor: 1		Analysis Time..: 12:00		
Thallium	ND	1.0	ug/L	SW846 6020	03/04-03/09/00	D96CH111
		Dilution Factor: 1		Analysis Time..: 12:00		

NOTE(S):

B Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-U

TOTAL Metals

Lot-Sample #...: D0C010231-004
Date Sampled...: 02/29/00 09:15 Date Received..: 03/01/00
Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0062169						
Aluminum	112	100	ug/L	SW846 6010B	03/04-03/09/00	D96CJ108
		Dilution Factor: 1		Analysis Time..: 16:22		
Barium	27.7	10.0	ug/L	SW846 6010B	03/04-03/09/00	D96CJ109
		Dilution Factor: 1		Analysis Time..: 16:22		
Beryllium	1.5 B	2.0	ug/L	SW846 6010B	03/04-03/09/00	D96CJ10A
		Dilution Factor: 1		Analysis Time..: 16:22		
Calcium	43400	200	ug/L	SW846 6010B	03/04-03/09/00	D96CJ10C
		Dilution Factor: 1		Analysis Time..: 16:22		
Cobalt	ND	10.0	ug/L	SW846 6010B	03/04-03/09/00	D96CJ10D
		Dilution Factor: 1		Analysis Time..: 16:22		
Copper	ND	20.0	ug/L	SW846 6010B	03/04-03/09/00	D96CJ10E
		Dilution Factor: 1		Analysis Time..: 16:22		
Iron	23.6 B	100	ug/L	SW846 6010B	03/04-03/06/00	D96CJ10F
		Dilution Factor: 1		Analysis Time..: 11:02		
Potassium	6630	5000	ug/L	SW846 6010B	03/04-03/06/00	D96CJ10G
		Dilution Factor: 1		Analysis Time..: 11:02		
Magnesium	38700	200	ug/L	SW846 6010B	03/04-03/09/00	D96CJ10H
		Dilution Factor: 1		Analysis Time..: 16:22		
Manganese	ND	10.0	ug/L	SW846 6010B	03/04-03/09/00	D96CJ10J
		Dilution Factor: 1		Analysis Time..: 16:22		
Molybdenum	ND	20.0	ug/L	SW846 6010B	03/04-03/09/00	D96CJ10K
		Dilution Factor: 1		Analysis Time..: 16:22		
Sodium	52900	5000	ug/L	SW846 6010B	03/04-03/06/00	D96CJ10L
		Dilution Factor: 1		Analysis Time..: 11:02		
Nickel	ND	40.0	ug/L	SW846 6010B	03/04-03/09/00	D96CJ10M
		Dilution Factor: 1		Analysis Time..: 16:22		
Tin	ND	100	ug/L	SW846 6010B	03/04-03/09/00	D96CJ10N
		Dilution Factor: 1		Analysis Time..: 16:22		

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-U

TOTAL Metals

Lot-Sample #...: D0C010231-004 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Vanadium	**25.0**	**10.0**	**ug/L**	**SW846 6010B**	**03/04-03/09/00**	**D96CJ10P**
		Dilution Factor: 1		Analysis Time..: 16:22		
Zinc	ND	20.0	ug/L	SW846 6010B	03/04-03/09/00	D96CJ10Q
		Dilution Factor: 1		Analysis Time..: 16:22		
Prep Batch #...: 0062171						
Mercury	ND	0.20	ug/L	SW846 7470A	03/03/00	D96CJ112
		Dilution Factor: 1		Analysis Time..: 13:06		
Prep Batch #...: 0062181						
Silver	ND	1.0	ug/L	SW846 6020	03/04-03/09/00	D96CJ10R
		Dilution Factor: 1		Analysis Time..: 12:19		
Arsenic	**5.7**	**5.0**	**ug/L**	**SW846 6020**	**03/04-03/09/00**	**D96CJ10T**
		Dilution Factor: 1		Analysis Time..: 12:19		
admium	ND	1.0	ug/L	SW846 6020	03/04-03/09/00	D96CJ10U
		Dilution Factor: 1		Analysis Time..: 12:19		
Chromium	**0.91 B**	**1.0**	**ug/L**	**SW846 6020**	**03/04-03/09/00**	**D96CJ10V**
		Dilution Factor: 1		Analysis Time..: 12:19		
Lead	**0.12 B**	**1.0**	**ug/L**	**SW846 6020**	**03/04-03/09/00**	**D96CJ10W**
		Dilution Factor: 1		Analysis Time..: 12:19		
Antimony	ND	1.0	ug/L	SW846 6020	03/04-03/09/00	D96CJ10X
		Dilution Factor: 1		Analysis Time..: 12:19		
Selenium	**9.9**	**5.0**	**ug/L**	**SW846 6020**	**03/04-03/09/00**	**D96CJ110**
		Dilution Factor: 1		Analysis Time..: 12:19		
Thallium	ND	1.0	ug/L	SW846 6020	03/04-03/09/00	D96CJ111
		Dilution Factor: 1		Analysis Time..: 12:19		

NOTE(S):

B Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-Q

TOTAL Metals

Lot-Sample #...: D0C010231-006
Date Sampled...: 03/01/00 14:45 Date Received..: 03/02/00
Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0064108						
Mercury	ND	0.20	ug/L	SW846 7470A	03/04/00	D97J7112
		Dilution Factor: 1		Analysis Time..: 14:34		
Prep Batch #...: 0067373						
Silver	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D97J710R
		Dilution Factor: 1		Analysis Time..: 12:56		
Arsenic	**7.3**	**5.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D97J710T**
		Dilution Factor: 1		Analysis Time..: 12:56		
Cadmium	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D97J710U
		Dilution Factor: 1		Analysis Time..: 12:56		
Chromium	**76.0**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D97J710V**
		Dilution Factor: 1		Analysis Time..: 12:56		
ad	**0.66 B**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D97J710W**
		Dilution Factor: 1		Analysis Time..: 12:56		
Antimony	**0.53 B**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D97J710X**
		Dilution Factor: 1		Analysis Time..: 12:56		
Selenium	**9.2**	**5.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D97J7110**
		Dilution Factor: 1		Analysis Time..: 12:56		
Thallium	**0.077 B**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D97J7111**
		Dilution Factor: 1		Analysis Time..: 12:56		
Prep Batch #...: 0069318						
Aluminum	**98.7 B**	**100**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D97J7108**
		Dilution Factor: 1		Analysis Time..: 14:12		
Barium	**33.4**	**10.0**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D97J7109**
		Dilution Factor: 1		Analysis Time..: 14:12		
Beryllium	ND	2.0	ug/L	SW846 6010B	03/10-03/21/00	D97J710A
		Dilution Factor: 1		Analysis Time..: 14:12		
Calcium	**40900**	**200**	**ug/L**	**SW846 6010B**	**03/10-03/15/00**	**D97J710C**
		Dilution Factor: 1		Analysis Time..: 10:11		
Cobalt	ND	10.0	ug/L	SW846 6010B	03/10-03/21/00	D97J710D
		Dilution Factor: 1		Analysis Time..: 14:12		

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-Q

TOTAL Metals

Lot-Sample #...: D0C010231-006

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	3.7 B	20.0	ug/L	SW846 6010B	03/10-03/21/00	D97J710E
		Dilution Factor: 1		Analysis Time..: 14:12		
Iron	936	100	ug/L	SW846 6010B	03/10-03/15/00	D97J710F
		Dilution Factor: 1		Analysis Time..: 10:11		
Potassium	6280	5000	ug/L	SW846 6010B	03/10-03/15/00	D97J710G
		Dilution Factor: 1		Analysis Time..: 10:11		
Magnesium	39200	200	ug/L	SW846 6010B	03/10-03/15/00	D97J710H
		Dilution Factor: 1		Analysis Time..: 10:11		
Manganese	65.2	10.0	ug/L	SW846 6010B	03/10-03/21/00	D97J710J
		Dilution Factor: 1		Analysis Time..: 14:12		
Molybdenum	ND	20.0	ug/L	SW846 6010B	03/10-03/21/00	D97J710K
		Dilution Factor: 1		Analysis Time..: 14:12		
Sodium	48500	5000	ug/L	SW846 6010B	03/10-03/15/00	D97J710L
		Dilution Factor: 1		Analysis Time..: 10:11		
Nickel	149	40.0	ug/L	SW846 6010B	03/10-03/21/00	D97J710M
		Dilution Factor: 1		Analysis Time..: 14:12		
Tin	ND	100	ug/L	SW846 6010B	03/10-03/21/00	D97J710N
		Dilution Factor: 1		Analysis Time..: 14:12		
Vanadium	31.4	10.0	ug/L	SW846 6010B	03/10-03/21/00	D97J710P
		Dilution Factor: 1		Analysis Time..: 14:12		
Zinc	4.8 B	20.0	ug/L	SW846 6010B	03/10-03/21/00	D97J710Q
		Dilution Factor: 1		Analysis Time..: 14:12		

NOTE(S):

B Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-B

TOTAL Metals

Lot-Sample #...: D0C010231-007 **Matrix.....:** WATER
Date Sampled...: 03/01/00 12:30 **Date Received..:** 03/02/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0064108						
Mercury	ND	0.20	ug/L	SW846 7470A	03/04/00	D97JC112
		Dilution Factor: 1		Analysis Time..: 14:35		
Prep Batch #...: 0067373						
Silver	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D97JC10R
		Dilution Factor: 1		Analysis Time..: 13:00		
Arsenic	**5.6**	**5.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D97JC10T**
		Dilution Factor: 1		Analysis Time..: 13:00		
Cadmium	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D97JC10U
		Dilution Factor: 1		Analysis Time..: 13:00		
Chromium	**1.3**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D97JC10V**
		Dilution Factor: 1		Analysis Time..: 13:00		
:ad	**0.26 B**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D97JC10W**
		Dilution Factor: 1		Analysis Time..: 13:00		
Antimony	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D97JC10X
		Dilution Factor: 1		Analysis Time..: 13:00		
Selenium	**9.2**	**5.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D97JC110**
		Dilution Factor: 1		Analysis Time..: 13:00		
Thallium	**0.074 B**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D97JC111**
		Dilution Factor: 1		Analysis Time..: 13:00		
Prep Batch #...: 0069318						
Aluminum	**52.6 B**	**100**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D97JC108**
		Dilution Factor: 1		Analysis Time..: 14:17		
Barium	**29.1**	**10.0**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D97JC109**
		Dilution Factor: 1		Analysis Time..: 14:17		
Beryllium	ND	2.0	ug/L	SW846 6010B	03/10-03/21/00	D97JC10A
		Dilution Factor: 1		Analysis Time..: 14:17		
Calcium	**40800**	**200**	**ug/L**	**SW846 6010B**	**03/10-03/15/00**	**D97JC10C**
		Dilution Factor: 1		Analysis Time..: 10:15		
Cobalt	ND	10.0	ug/L	SW846 6010B	03/10-03/21/00	D97JC10D
		Dilution Factor: 1		Analysis Time..: 14:17		

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-B

TOTAL Metals

Lot-Sample #...: D0C010231-007

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	1.1 B	20.0	ug/L	SW846 6010B	03/10-03/21/00	D97JC10E
		Dilution Factor: 1		Analysis Time..: 14:17		
Iron	52.5 B	100	ug/L	SW846 6010B	03/10-03/15/00	D97JC10F
		Dilution Factor: 1		Analysis Time..: 10:15		
Potassium	6670	5000	ug/L	SW846 6010B	03/10-03/15/00	D97JC10G
		Dilution Factor: 1		Analysis Time..: 10:15		
Magnesium	40500	200	ug/L	SW846 6010B	03/10-03/15/00	D97JC10H
		Dilution Factor: 1		Analysis Time..: 10:15		
Manganese	2.3 B	10.0	ug/L	SW846 6010B	03/10-03/21/00	D97JC10J
		Dilution Factor: 1		Analysis Time..: 14:17		
Molybdenum	ND	20.0	ug/L	SW846 6010B	03/10-03/21/00	D97JC10K
		Dilution Factor: 1		Analysis Time..: 14:17		
Sodium	57900	5000	ug/L	SW846 6010B	03/10-03/15/00	D97JC10L
		Dilution Factor: 1		Analysis Time..: 10:15		
Nickel	ND	40.0	ug/L	SW846 6010B	03/10-03/21/00	D97JC10M
		Dilution Factor: 1		Analysis Time..: 14:17		
Tin	ND	100	ug/L	SW846 6010B	03/10-03/21/00	D97JC10N
		Dilution Factor: 1		Analysis Time..: 14:17		
Vanadium	27.9	10.0	ug/L	SW846 6010B	03/10-03/21/00	D97JC10P
		Dilution Factor: 1		Analysis Time..: 14:17		
Zinc	3.1 B	20.0	ug/L	SW846 6010B	03/10-03/21/00	D97JC10Q
		Dilution Factor: 1		Analysis Time..: 14:17		

NOTE(S):

B Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-C

TOTAL Metals

Lot-Sample #...: D0C010231-008 Matrix.....: WATER
Date Sampled...: 03/01/00 10:45 Date Received..: 03/02/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0064108						
Mercury	ND	0.20	ug/L	SW846 7470A	03/04/00	D97JG112
		Dilution Factor: 1		Analysis Time..: 14:37		
Prep Batch #...: 0067373						
Silver	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D97JG10R
		Dilution Factor: 1		Analysis Time..: 13:04		
Arsenic	**7.2**	**5.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D97JG10T**
		Dilution Factor: 1		Analysis Time..: 13:04		
Cadmium	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D97JG10U
		Dilution Factor: 1		Analysis Time..: 13:04		
Chromium	**1.3**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D97JG10V**
		Dilution Factor: 1		Analysis Time..: 13:04		
:ad	**0.16 B**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D97JG10W**
		Dilution Factor: 1		Analysis Time..: 13:04		
Antimony	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D97JG10X
		Dilution Factor: 1		Analysis Time..: 13:04		
Selenium	**4.1 B**	**5.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D97JG110**
		Dilution Factor: 1		Analysis Time..: 13:04		
Thallium	**0.042 B**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D97JG111**
		Dilution Factor: 1		Analysis Time..: 13:04		
Prep Batch #...: 0069318						
Aluminum	**42.8 B**	**100**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D97JG108**
		Dilution Factor: 1		Analysis Time..: 14:22		
Barium	**31.9**	**10.0**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D97JG109**
		Dilution Factor: 1		Analysis Time..: 14:22		
Beryllium	ND	2.0	ug/L	SW846 6010B	03/10-03/21/00	D97JG10A
		Dilution Factor: 1		Analysis Time..: 14:22		
Calcium	**30600**	**200**	**ug/L**	**SW846 6010B**	**03/10-03/15/00**	**D97JG10C**
		Dilution Factor: 1		Analysis Time..: 10:18		
Cobalt	ND	10.0	ug/L	SW846 6010B	03/10-03/21/00	D97JG10D
		Dilution Factor: 1		Analysis Time..: 14:22		

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-C

TOTAL Metals

Lot-Sample #...: D0C010231-008 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	20.0	ug/L	SW846 6010B	03/10-03/21/00	D97JG10E
		Dilution Factor: 1		Analysis Time..: 14:22		
Iron	**14.2 B**	**100**	**ug/L**	**SW846 6010B**	**03/10-03/15/00**	**D97JG10F**
		Dilution Factor: 1		Analysis Time..: 10:18		
Potassium	**5940**	**5000**	**ug/L**	**SW846 6010B**	**03/10-03/15/00**	**D97JG10G**
		Dilution Factor: 1		Analysis Time..: 10:18		
Magnesium	**31300**	**200**	**ug/L**	**SW846 6010B**	**03/10-03/15/00**	**D97JG10H**
		Dilution Factor: 1		Analysis Time..: 10:18		
Manganese	ND	10.0	ug/L	SW846 6010B	03/10-03/21/00	D97JG10J
		Dilution Factor: 1		Analysis Time..: 14:22		
Molybdenum	ND	20.0	ug/L	SW846 6010B	03/10-03/21/00	D97JG10K
		Dilution Factor: 1		Analysis Time..: 14:22		
Sodium	**48300**	**5000**	**ug/L**	**SW846 6010B**	**03/10-03/15/00**	**D97JG10L**
		Dilution Factor: 1		Analysis Time..: 10:18		
Nickel	ND	40.0	ug/L	SW846 6010B	03/10-03/21/00	D97JG10M
		Dilution Factor: 1		Analysis Time..: 14:22		
Tin	ND	100	ug/L	SW846 6010B	03/10-03/21/00	D97JG10N
		Dilution Factor: 1		Analysis Time..: 14:22		
Vanadium	**42.0**	**10.0**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D97JG10P**
		Dilution Factor: 1		Analysis Time..: 14:22		
Zinc	ND	20.0	ug/L	SW846 6010B	03/10-03/21/00	D97JG10Q
		Dilution Factor: 1		Analysis Time..: 14:22		

NOTE(S):

B Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-D

TOTAL Metals

Lot-Sample #...: D0C010231-009 **Matrix.....:** WATER
Date Sampled...: 03/01/00 09:00 **Date Received..:** 03/02/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0064108						
Mercury	ND	0.20	ug/L	SW846 7470A	03/04/00	D97JH112
		Dilution Factor: 1		Analysis Time..: 14:38		
Prep Batch #...: 0067373						
Silver	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D97JH10R
		Dilution Factor: 1		Analysis Time..: 13:10		
Arsenic	**6.1**	**5.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D97JH10T**
		Dilution Factor: 1		Analysis Time..: 13:10		
Cadmium	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D97JH10U
		Dilution Factor: 1		Analysis Time..: 13:10		
Chromium	**0.65 B**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D97JH10V**
		Dilution Factor: 1		Analysis Time..: 13:10		
.ad	**2.7**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D97JH10W**
		Dilution Factor: 1		Analysis Time..: 13:10		
Antimony	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D97JH10X
		Dilution Factor: 1		Analysis Time..: 13:10		
Selenium	**1.8 B**	**5.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D97JH110**
		Dilution Factor: 1		Analysis Time..: 13:10		
Thallium	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D97JH111
		Dilution Factor: 1		Analysis Time..: 13:10		
Prep Batch #...: 0069318						
Aluminum	**49.1 B**	**100**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D97JH108**
		Dilution Factor: 1		Analysis Time..: 14:31		
Barium	**46.8**	**10.0**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D97JH109**
		Dilution Factor: 1		Analysis Time..: 14:31		
Beryllium	ND	2.0	ug/L	SW846 6010B	03/10-03/21/00	D97JH10A
		Dilution Factor: 1		Analysis Time..: 14:31		
Calcium	**30200**	**200**	**ug/L**	**SW846 6010B**	**03/10-03/15/00**	**D97JH10C**
		Dilution Factor: 1		Analysis Time..: 10:22		
balt	ND	10.0	ug/L	SW846 6010B	03/10-03/21/00	D97JH10D
		Dilution Factor: 1		Analysis Time..: 14:31		

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-D

TOTAL Metals

Lot-Sample #...: D0C010231-009 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	1.6 B	20.0	ug/L	SW846 6010B	03/10-03/21/00	D97JH10E
		Dilution Factor: 1		Analysis Time..: 14:31		
Iron	74.6 B	100	ug/L	SW846 6010B	03/10-03/15/00	D97JH10F
		Dilution Factor: 1		Analysis Time..: 10:22		
Potassium	5980	5000	ug/L	SW846 6010B	03/10-03/15/00	D97JH10G
		Dilution Factor: 1		Analysis Time..: 10:22		
Magnesium	31300	200	ug/L	SW846 6010B	03/10-03/15/00	D97JH10H
		Dilution Factor: 1		Analysis Time..: 10:22		
Manganese	ND	10.0	ug/L	SW846 6010B	03/10-03/21/00	D97JH10J
		Dilution Factor: 1		Analysis Time..: 14:31		
Molybdenum	ND	20.0	ug/L	SW846 6010B	03/10-03/21/00	D97JH10K
		Dilution Factor: 1		Analysis Time..: 14:31		
Sodium	46700	5000	ug/L	SW846 6010B	03/10-03/15/00	D97JH10L
		Dilution Factor: 1		Analysis Time..: 10:22		
Nickel	ND	40.0	ug/L	SW846 6010B	03/10-03/21/00	D97JH10M
		Dilution Factor: 1		Analysis Time..: 14:31		
Tin	ND	100	ug/L	SW846 6010B	03/10-03/21/00	D97JH10N
		Dilution Factor: 1		Analysis Time..: 14:31		
Vanadium	25.0	10.0	ug/L	SW846 6010B	03/10-03/21/00	D97JH10P
		Dilution Factor: 1		Analysis Time..: 14:31		
Zinc	6.9 B	20.0	ug/L	SW846 6010B	03/10-03/21/00	D97JH10Q
		Dilution Factor: 1		Analysis Time..: 14:31		

NOTE(S):

B Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-G

TOTAL Metals

Lot-Sample #...: D0C010231-011
Date Sampled...: 03/02/00 13:10 Date Received..: 03/03/00
Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0064108						
Mercury	ND	0.20	ug/L	SW846 7470A	03/04/00	D98VK10W
		Dilution Factor: 1		Analysis Time..: 14:40		
Prep Batch #...: 0067373						
Silver	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D98VK10T
		Dilution Factor: 1		Analysis Time..: 13:14		
Arsenic	**4.3 B**	**5.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D98VK10N**
		Dilution Factor: 1		Analysis Time..: 13:14		
Cadmium	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D98VK10P
		Dilution Factor: 1		Analysis Time..: 13:14		
Chromium	**1.4**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D98VK10V**
		Dilution Factor: 1		Analysis Time..: 13:14		
Lead	**0.44 B**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D98VK10Q**
		Dilution Factor: 1		Analysis Time..: 13:14		
Antimony	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D98VK10M
		Dilution Factor: 1		Analysis Time..: 13:14		
Selenium	**9.1**	**5.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D98VK10R**
		Dilution Factor: 1		Analysis Time..: 13:14		
Thallium	**0.043 B**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D98VK10U**
		Dilution Factor: 1		Analysis Time..: 13:14		
Prep Batch #...: 0069318						
Aluminum	**45.6 B**	**100**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D98VK104**
		Dilution Factor: 1		Analysis Time..: 14:36		
Barium	**33.5**	**10.0**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D98VK105**
		Dilution Factor: 1		Analysis Time..: 14:36		
Beryllium	ND	2.0	ug/L	SW846 6010B	03/10-03/21/00	D98VK106
		Dilution Factor: 1		Analysis Time..: 14:36		
Calcium	**69100**	**200**	**ug/L**	**SW846 6010B**	**03/10-03/15/00**	**D98VK107**
		Dilution Factor: 1		Analysis Time..: 10:26		
Cobalt	ND	10.0	ug/L	SW846 6010B	03/10-03/21/00	D98VK108
		Dilution Factor: 1		Analysis Time..: 14:36		

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-G

TOTAL Metals

Lot-Sample #...: D0C010231-011 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	2.1 B	20.0	ug/L	SW846 6010B	03/10-03/21/00	D98VK109
		Dilution Factor: 1		Analysis Time..: 14:36		
Iron	33.4 B	100	ug/L	SW846 6010B	03/10-03/15/00	D98VK10A
		Dilution Factor: 1		Analysis Time..: 10:26		
Potassium	9060	5000	ug/L	SW846 6010B	03/10-03/15/00	D98VK10G
		Dilution Factor: 1		Analysis Time..: 10:26		
Magnesium	69800	200	ug/L	SW846 6010B	03/10-03/15/00	D98VK10C
		Dilution Factor: 1		Analysis Time..: 10:26		
Manganese	ND	10.0	ug/L	SW846 6010B	03/10-03/21/00	D98VK10D
		Dilution Factor: 1		Analysis Time..: 14:36		
Molybdenum	ND	20.0	ug/L	SW846 6010B	03/10-03/21/00	D98VK10E
		Dilution Factor: 1		Analysis Time..: 14:36		
Sodium	55600	5000	ug/L	SW846 6010B	03/10-03/15/00	D98VK10H
		Dilution Factor: 1		Analysis Time..: 10:26		
Nickel	ND	40.0	ug/L	SW846 6010B	03/10-03/21/00	D98VK10F
		Dilution Factor: 1		Analysis Time..: 14:36		
Tin	ND	100	ug/L	SW846 6010B	03/10-03/21/00	D98VK10J
		Dilution Factor: 1		Analysis Time..: 14:36		
Vanadium	17.3	10.0	ug/L	SW846 6010B	03/10-03/21/00	D98VK10K
		Dilution Factor: 1		Analysis Time..: 14:36		
Zinc	9.8 B	20.0	ug/L	SW846 6010B	03/10-03/21/00	D98VK10L
		Dilution Factor: 1		Analysis Time..: 14:36		

NOTE(S):

B Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-F

TOTAL Metals

Lot-Sample #...: D0C010231-012
Date Sampled...: 03/02/00 14:30 **Date Received..:** 03/03/00
Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0064108						
Mercury	ND	0.20	ug/L	SW846 7470A	03/04/00	D98W510W
		Dilution Factor: 1		Analysis Time..: 14:42		
Prep Batch #...: 0067373						
Silver	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D98W510T
		Dilution Factor: 1		Analysis Time..: 13:19		
Arsenic	**4.2 B**	**5.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D98W510N**
		Dilution Factor: 1		Analysis Time..: 13:19		
Cadmium	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D98W510P
		Dilution Factor: 1		Analysis Time..: 13:19		
Chromium	**2.2**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D98W510V**
		Dilution Factor: 1		Analysis Time..: 13:19		
ead	**0.67 B**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D98W510Q**
		Dilution Factor: 1		Analysis Time..: 13:19		
Antimony	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D98W510M
		Dilution Factor: 1		Analysis Time..: 13:19		
Selenium	**8.8**	**5.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D98W510R**
		Dilution Factor: 1		Analysis Time..: 13:19		
Thallium	**0.082 B**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D98W510U**
		Dilution Factor: 1		Analysis Time..: 13:19		
Prep Batch #...: 0069318						
Aluminum	**52.2 B**	**100**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D98W5104**
		Dilution Factor: 1		Analysis Time..: 14:40		
Barium	**37.9**	**10.0**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D98W5105**
		Dilution Factor: 1		Analysis Time..: 14:40		
Beryllium	ND	2.0	ug/L	SW846 6010B	03/10-03/21/00	D98W5106
		Dilution Factor: 1		Analysis Time..: 14:40		
Calcium	**44700**	**200**	**ug/L**	**SW846 6010B**	**03/10-03/15/00**	**D98W5107**
		Dilution Factor: 1		Analysis Time..: 10:29		
obalt	ND	10.0	ug/L	SW846 6010B	03/10-03/21/00	D98W5108
		Dilution Factor: 1		Analysis Time..: 14:40		

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-F

TOTAL Metals

Lot-Sample #...: D0C010231-012 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	20.0	ug/L	SW846 6010B	03/10-03/21/00	D98W5109
		Dilution Factor: 1		Analysis Time..: 14:40		
Iron	**27.8 B**	**100**	**ug/L**	**SW846 6010B**	**03/10-03/15/00**	**D98W510A**
		Dilution Factor: 1		Analysis Time..: 10:29		
Potassium	**7550**	**5000**	**ug/L**	**SW846 6010B**	**03/10-03/15/00**	**D98W510G**
		Dilution Factor: 1		Analysis Time..: 10:29		
Magnesium	**45000**	**200**	**ug/L**	**SW846 6010B**	**03/10-03/15/00**	**D98W510C**
		Dilution Factor: 1		Analysis Time..: 10:29		
Manganese	ND	10.0	ug/L	SW846 6010B	03/10-03/21/00	D98W510D
		Dilution Factor: 1		Analysis Time..: 14:40		
Molybdenum	ND	20.0	ug/L	SW846 6010B	03/10-03/21/00	D98W510E
		Dilution Factor: 1		Analysis Time..: 14:40		
Sodium	**42800**	**5000**	**ug/L**	**SW846 6010B**	**03/10-03/15/00**	**D98W510H**
		Dilution Factor: 1		Analysis Time..: 10:29		
Nickel	ND	40.0	ug/L	SW846 6010B	03/10-03/21/00	D98W510F
		Dilution Factor: 1		Analysis Time..: 14:40		
Tin	ND	100	ug/L	SW846 6010B	03/10-03/21/00	D98W510J
		Dilution Factor: 1		Analysis Time..: 14:40		
Vanadium	**18.5**	**10.0**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D98W510K**
		Dilution Factor: 1		Analysis Time..: 14:40		
Zinc	**5.0 B**	**20.0**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D98W510L**
		Dilution Factor: 1		Analysis Time..: 14:40		

NOTE(S):

B Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-H

TOTAL Metals

Lot-Sample #...: D0C010231-013
Date Sampled...: 03/02/00 11:00 Date Received..: 03/03/00
Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0064108						
Mercury	ND	0.20	ug/L	SW846 7470A	03/04/00	D98W810W
		Dilution Factor: 1		Analysis Time..: 14:43		
Prep Batch #...: 0067373						
Silver	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D98W810T
		Dilution Factor: 1		Analysis Time..: 13:38		
Arsenic	**4.0 B**	**5.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D98W810N**
		Dilution Factor: 1		Analysis Time..: 13:38		
Cadmium	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D98W810P
		Dilution Factor: 1		Analysis Time..: 13:38		
Chromium	**2.4**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D98W810V**
		Dilution Factor: 1		Analysis Time..: 13:38		
ad	**0.54 B**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D98W810Q**
		Dilution Factor: 1		Analysis Time..: 13:38		
Antimony	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D98W810M
		Dilution Factor: 1		Analysis Time..: 13:38		
Selenium	**6.6**	**5.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D98W810R**
		Dilution Factor: 1		Analysis Time..: 13:38		
Thallium	**0.073 B**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D98W810U**
		Dilution Factor: 1		Analysis Time..: 13:38		
Prep Batch #...: 0069318						
Aluminum	**86.3 B**	**100**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D98W8104**
		Dilution Factor: 1		Analysis Time..: 14:55		
Barium	**30.3**	**10.0**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D98W8105**
		Dilution Factor: 1		Analysis Time..: 14:55		
Beryllium	ND	2.0	ug/L	SW846 6010B	03/10-03/21/00	D98W8106
		Dilution Factor: 1		Analysis Time..: 14:55		
Calcium	**38500**	**200**	**ug/L**	**SW846 6010B**	**03/10-03/15/00**	**D98W8107**
		Dilution Factor: 1		Analysis Time..: 10:40		
›balt	ND	10.0	ug/L	SW846 6010B	03/10-03/21/00	D98W8108
		Dilution Factor: 1		Analysis Time..: 14:55		

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-H

TOTAL Metals

Lot-Sample #...: D0C010231-013 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	1.1 B	20.0	ug/L	SW846 6010B	03/10-03/21/00	D98W8109
		Dilution Factor: 1		Analysis Time..: 14:55		
Iron	67.0 B	100	ug/L	SW846 6010B	03/10-03/15/00	D98W810A
		Dilution Factor: 1		Analysis Time..: 10:40		
Potassium	6720	5000	ug/L	SW846 6010B	03/10-03/15/00	D98W810G
		Dilution Factor: 1		Analysis Time..: 10:40		
Magnesium	38000	200	ug/L	SW846 6010B	03/10-03/15/00	D98W810C
		Dilution Factor: 1		Analysis Time..: 10:40		
Manganese	2.2 B	10.0	ug/L	SW846 6010B	03/10-03/21/00	D98W810D
		Dilution Factor: 1		Analysis Time..: 14:55		
Molybdenum	ND	20.0	ug/L	SW846 6010B	03/10-03/21/00	D98W810E
		Dilution Factor: 1		Analysis Time..: 14:55		
Sodium	53300	5000	ug/L	SW846 6010B	03/10-03/15/00	D98W810H
		Dilution Factor: 1		Analysis Time..: 10:40		
Nickel	ND	40.0	ug/L	SW846 6010B	03/10-03/21/00	D98W810F
		Dilution Factor: 1		Analysis Time..: 14:55		
Tin	ND	100	ug/L	SW846 6010B	03/10-03/21/00	D98W810J
		Dilution Factor: 1		Analysis Time..: 14:55		
Vanadium	21.6	10.0	ug/L	SW846 6010B	03/10-03/21/00	D98W810K
		Dilution Factor: 1		Analysis Time..: 14:55		
Zinc	28.0	20.0	ug/L	SW846 6010B	03/10-03/21/00	D98W810L
		Dilution Factor: 1		Analysis Time..: 14:55		

NOTE(S):

B Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-HH

TOTAL Metals

Lot-Sample #...: D0C010231-015 Matrix.....: WATER
Date Sampled...: 03/02/00 11:05 Date Received..: 03/03/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0064108						
Mercury	ND	0.20	ug/L	SW846 7470A	03/04/00	D98WC10W
		Dilution Factor: 1		Analysis Time..: 14:51		
Prep Batch #...: 0067373						
Silver	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D98WC10T
		Dilution Factor: 1		Analysis Time..: 14:01		
Arsenic	**5.2**	**5.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D98WC10N**
		Dilution Factor: 1		Analysis Time..: 14:01		
Cadmium	**0.066 B**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D98WC10P**
		Dilution Factor: 1		Analysis Time..: 14:01		
Chromium	**2.1**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D98WC10V**
		Dilution Factor: 1		Analysis Time..: 14:01		
ead	**0.62 B**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D98WC10Q**
		Dilution Factor: 1		Analysis Time..: 14:01		
Antimony	**0.70 B**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D98WC10M**
		Dilution Factor: 1		Analysis Time..: 14:01		
Selenium	**9.7**	**5.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D98WC10R**
		Dilution Factor: 1		Analysis Time..: 14:01		
Thallium	**0.091 B**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D98WC10U**
		Dilution Factor: 1		Analysis Time..: 14:01		
Prep Batch #...: 0069318						
Aluminum	**67.5 B**	**100**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D98WC104**
		Dilution Factor: 1		Analysis Time..: 15:14		
Barium	**31.7**	**10.0**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D98WC105**
		Dilution Factor: 1		Analysis Time..: 15:14		
Beryllium	ND	2.0	ug/L	SW846 6010B	03/10-03/21/00	D98WC106
		Dilution Factor: 1		Analysis Time..: 15:14		
Calcium	**37600**	**200**	**ug/L**	**SW846 6010B**	**03/10-03/15/00**	**D98WC107**
		Dilution Factor: 1		Analysis Time..: 10:55		
obalt	ND	10.0	ug/L	SW846 6010B	03/10-03/21/00	D98WC108
		Dilution Factor: 1		Analysis Time..: 15:14		

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-HH

TOTAL Metals

Lot-Sample #...: D0C010231-015 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	20.0	ug/L	SW846 6010B	03/10-03/21/00	D98WC109
		Dilution Factor: 1		Analysis Time..: 15:14		
Iron	**60.9 B**	**100**	**ug/L**	**SW846 6010B**	**03/10-03/15/00**	**D98WC10A**
		Dilution Factor: 1		Analysis Time..: 10:55		
Potassium	**6740**	**5000**	**ug/L**	**SW846 6010B**	**03/10-03/15/00**	**D98WC10G**
		Dilution Factor: 1		Analysis Time..: 10:55		
Magnesium	**37500**	**200**	**ug/L**	**SW846 6010B**	**03/10-03/15/00**	**D98WC10C**
		Dilution Factor: 1		Analysis Time..: 10:55		
Manganese	**2.0 B**	**10.0**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D98WC10D**
		Dilution Factor: 1		Analysis Time..: 15:14		
Molybdenum	ND	20.0	ug/L	SW846 6010B	03/10-03/21/00	D98WC10E
		Dilution Factor: 1		Analysis Time..: 15:14		
Sodium	**53900**	**5000**	**ug/L**	**SW846 6010B**	**03/10-03/15/00**	**D98WC10H**
		Dilution Factor: 1		Analysis Time..: 10:55		
Nickel	ND	40.0	ug/L	SW846 6010B	03/10-03/21/00	D98WC10F
		Dilution Factor: 1		Analysis Time..: 15:14		
Tin	ND	100	ug/L	SW846 6010B	03/10-03/21/00	D98WC10J
		Dilution Factor: 1		Analysis Time..: 15:14		
Vanadium	**21.4**	**10.0**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D98WC10K**
		Dilution Factor: 1		Analysis Time..: 15:14		
Zinc	**28.0**	**20.0**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D98WC10L**
		Dilution Factor: 1		Analysis Time..: 15:14		

NOTE(S):

B Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-UU

General Chemistry

Lot-Sample #...: D0C010231-001 **Work Order #...:** D96C4 **Matrix.....:** WATER
Date Sampled...: 02/29/00 09:20 **Date Received..:** 03/01/00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	03/09-03/10/00	0073235
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Organic Carbon	ND	1.0	mg/L	SW846 9060	03/20/00	0081225
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Organic Halogens	ND	30.0	ug/L	SW846 9020B	03/22/00	0087406
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Sulfide	ND	4.0	mg/L	SW846 9030B/9034	03/07/00	0068378
		Dilution Factor: 1		Analysis Time..: 10:00		

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-S

General Chemistry

Lot-Sample #...: D0C010231-002 **Work Order #...:** D96CG **Matrix.....:** WATER
Date Sampled...: 02/29/00 11:30 **Date Received..:** 03/01/00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	03/09-03/10/00	0073235
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Organic Carbon	ND	1.0	mg/L	SW846 9060	03/20/00	0081225
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Organic Halogens	ND	30.0	ug/L	SW846 9020B	03/22/00	0087406
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Sulfide	ND	4.0	mg/L	SW846 9030B/9034	03/07/00	0068378
		Dilution Factor: 1		Analysis Time..: 10:00		

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-T

General Chemistry

Lot-Sample #...: D0C010231-003 **Work Order #...:** D96CH **Matrix.....:** WATER
Date Sampled...: 02/29/00 13:35 **Date Received..:** 03/01/00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	03/09-03/10/00	0073235
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Organic Carbon	ND	1.0	mg/L	SW846 9060	03/20/00	0081225
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Organic Halogens	ND	30.0	ug/L	SW846 9020B	03/22/00	0087406
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Sulfide	ND	4.0	mg/L	SW846 9030B/9034	03/07/00	0068378
		Dilution Factor: 1		Analysis Time..: 10:00		

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-U

General Chemistry

Lot-Sample #...: D0C010231-004 **Work Order #...:** D96CJ **Matrix.....:** WATER
Date Sampled...: 02/29/00 09:15 **Date Received..:** 03/01/00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	03/09-03/10/00	0073235
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Organic Carbon	ND	1.0	mg/L	SW846 9060	03/20/00	0081225
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Organic Halogens	**3.0 B**	**30.0**	**ug/L**	**SW846 9020B**	**03/22/00**	**0087406**
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Sulfide	ND	4.0	mg/L	SW846 9030B/9034	03/07/00	0068378
		Dilution Factor: 1		Analysis Time..: 10:00		

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-Q

General Chemistry

Lot-Sample #...: D0C010231-006 **Work Order #...:** D97J7 **Matrix.....:** WATER
Date Sampled...: 03/01/00 14:45 **Date Received..:** 03/02/00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	03/09-03/10/00	0073235
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Organic Carbon	ND	1.0	mg/L	SW846 9060	03/20/00	0081225
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Organic Halogens	**6.8 B**	**30.0**	**ug/L**	**SW846 9020B**	**03/22-03/28/00**	**0087406**
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Sulfide	ND	4.0	mg/L	SW846 9030B/9034	03/07/00	0068378
		Dilution Factor: 1		Analysis Time..: 10:00		

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-B

General Chemistry

Lot-Sample #...: D0C010231-007 **Work Order #...:** D97JC **Matrix.....:** WATER
Date Sampled...: 03/01/00 12:30 **Date Received..:** 03/02/00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	03/09-03/10/00	0073235
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Organic Carbon	ND	1.0	mg/L	SW846 9060	03/20/00	0081225
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Organic Halogens	ND	30.0	ug/L	SW846 9020B	03/22/00	0087406
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Sulfide	ND	4.0	mg/L	SW846 9030B/9034	03/07/00	0068378
		Dilution Factor: 1		Analysis Time..: 10:00		

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-C

General Chemistry

Lot-Sample #...: D0C010231-008 **Work Order #...:** D97JG **Matrix.....:** WATER
Date Sampled...: 03/01/00 10:45 **Date Received..:** 03/02/00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	03/09-03/10/00	0073235
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Organic Carbon	ND	1.0	mg/L	SW846 9060	03/20/00	0081225
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Organic Halogens	ND	30.0	ug/L	SW846 9020B	03/22/00	0087406
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Sulfide	ND	4.0	mg/L	SW846 9030B/9034	03/07/00	0068378
		Dilution Factor: 1		Analysis Time..: 10:00		

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-D

General Chemistry

Lot-Sample #...: D0C010231-009 **Work Order #...:** D97JH **Matrix.....:** WATER
Date Sampled...: 03/01/00 09:00 **Date Received..:** 03/02/00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	03/09-03/10/00	0073235
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Organic Carbon	ND	1.0	mg/L	SW846 9060	03/20/00	0081225
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Organic Halogens	**7.9 B**	**30.0**	**ug/L**	**SW846 9020B**	**03/22/00**	**0087406**
		Dilution Factor: 1		Analysis Time..: 12:00		
Total Sulfide	ND	4.0	mg/L	SW846 9030B/9034	03/07/00	0068378
		Dilution Factor: 1		Analysis Time..: 10:00		

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-G

General Chemistry

Lot-Sample #...: D0C010231-011 **Work Order #...:** D98VK **Matrix.....:** WATER
Date Sampled...: 03/02/00 13:10 **Date Received..:** 03/03/00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrate	**10.6 Q**	**0.50**	**mg/L**	**MCAWW 353.2**	**03/04/00**	**0067325**
		Dilution Factor: 5		Analysis Time..: 11:00		
Nitrite	ND	0.010	mg/L	MCAWW 354.1	03/04/00	0068209
		Dilution Factor: 1		Analysis Time..: 11:00		
Sulfate	**183 Q**	**25.0**	**mg/L**	**MCAWW 300.0A**	**03/22/00**	**0082432**
		Dilution Factor: 5		Analysis Time..: 19:56		
Total Dissolved Solids	**696**	**10.0**	**mg/L**	**MCAWW 160.1**	**03/08/00**	**0070353**
		Dilution Factor: 1		Analysis Time..: 15:00		
Total Sulfide	ND	4.0	mg/L	SW846 9030B/9034	03/07/00	0068378
		Dilution Factor: 1		Analysis Time..: 10:00		

)TE(S):

L Reporting Limit

Q Elevated reporting limit. The reporting limit is elevated due to high analyte levels.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-F

General Chemistry

Lot-Sample #...: D0C010231-012 Work Order #...: D98W5 Matrix.....: WATER
Date Sampled...: 03/02/00 14:30 Date Received..: 03/03/00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrate	1.3	0.10	mg/L	MCAWW 353.2	03/04/00	0067325
		Dilution Factor: 1		Analysis Time..: 11:00		
Nitrite	ND	0.010	mg/L	MCAWW 354.1	03/04/00	0068209
		Dilution Factor: 1		Analysis Time..: 11:00		
Sulfate	139 Q	25.0	mg/L	MCAWW 300.0A	03/22/00	0082432
		Dilution Factor: 5		Analysis Time..: 20:07		
Total Dissolved Solids	432	10.0	mg/L	MCAWW 160.1	03/08/00	0070353
		Dilution Factor: 1		Analysis Time..: 15:00		
Total Sulfide	ND	4.0	mg/L	SW846 9030B/9034	03/07/00	0068378
		Dilution Factor: 1		Analysis Time..: 10:00		

OTE(S):

Reporting Limit

Q Elevated reporting limit. The reporting limit is elevated due to high analyte levels.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-H

General Chemistry

Lot-Sample #...: D0C010231-013 Work Order #...: D98W8 Matrix.....: WATER
Date Sampled...: 03/02/00 11:00 Date Received..: 03/03/00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrate	1.2	0.10	mg/L	MCAWW 353.2	03/04/00	0067325
		Dilution Factor: 1		Analysis Time..: 11:00		
Nitrite	ND	0.010	mg/L	MCAWW 354.1	03/04/00	0068209
		Dilution Factor: 1		Analysis Time..: 11:00		
Sulfate	121 Q	25.0	mg/L	MCAWW 300.0A	03/22/00	0082432
		Dilution Factor: 5		Analysis Time..: 20:19		
Total Dissolved Solids	454	10.0	mg/L	MCAWW 160.1	03/08/00	0070353
		Dilution Factor: 1		Analysis Time..: 15:00		
Total Sulfide	0.34 B	4.0	mg/L	SW846 9030B/9034	03/07/00	0068378
		Dilution Factor: 1		Analysis Time..: 10:00		

NOTE(S):

L Reporting Limit

Q Elevated reporting limit. The reporting limit is elevated due to high analyte levels.

B Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-HH

General Chemistry

Lot-Sample #...: D0C010231-015 **Work Order #...:** D98WC **Matrix.....:** WATER
Date Sampled...: 03/02/00 11:05 **Date Received..:** 03/03/00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrate	**1.4**	**0.10**	**mg/L**	**MCAWW 353.2**	**03/04/00**	**0067325**
		Dilution Factor: 1		Analysis Time..: 11:00		
Nitrite	ND	0.010	mg/L	MCAWW 354.1	03/04/00	0068209
		Dilution Factor: 1		Analysis Time..: 11:00		
Sulfate	**115 Q**	**25.0**	**mg/L**	**MCAWW 300.0A**	**03/22/00**	**0082432**
		Dilution Factor: 5		Analysis Time..: 21:41		
Total Dissolved Solids	**447**	**10.0**	**mg/L**	**MCAWW 160.1**	**03/08/00**	**0070353**
		Dilution Factor: 1		Analysis Time..: 15:00		
Total Sulfide	ND	4.0	mg/L	SW846 9030B/9034	03/07/00	0068378
		Dilution Factor: 1		Analysis Time..: 10:00		

OTE(S):

L Reporting Limit

Q Elevated reporting limit. The reporting limit is elevated due to high analyte levels.

Quanterra
4955 Yarrow Street
Arvada, CO 80002-4517

303 421-6611 Telephone
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ANALYTICAL REPORT

Cannon AFB
Lot #: D0C160177

Richard Daddow

U.S. Geological Survey

QUANTERRA INCORPORATED

Karen Kuoppala
Project Manager

April 12, 2000

Table Of Contents

Standard Deliverables with Supporting Documentation

Report Contents	Number of Pages
Standard Deliverables *(The Cover Letter and the Report Cover page are considered integral parts of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.)*	58

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- Case Narrative
- Executive Summary – Detection Highlights
- Methods Summary
- Method/Analyst Summary
- Lot Sample Summary
- Analytical Results
- QC Data Association Summary
- Chain-of-Custody

Supporting Documentation *(Note: A one-page "Description of Supporting Documentation" is provided at the beginning of this section.).*	Check below when supporting documentation is present.
• Volatile GC/MS	✓
• Semivolatile GC/MS	
• Volatile GC	
• Semivolatile GC	✓
• LC/MS or HPLC	
• Metals	✓
• General Chemistry	✓
• Subcontracted Data	

Case Narrative

Lot D0C160177

With exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. All laboratory quality control samples analyzed in conjunction with the samples in this project were within established control limits.

Metals, SW846 Method 6020

The continuing calibration blank contained antimony at a concentration greater then the project reporting limit but lower than STLs standard reporting limit. The lab controls the blank to our standard reporting limit, so no corrective action was taken.

The LCSD recovery for selenium was higher than the upper control limit. There were no detects in the samples, so no corrective action was taken.

EXECUTIVE SUMMARY - Detection Highlights

DOC160177

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
CAFB-E 03/15/00 14:45 001				
Arsenic	3.5 B	5.0	ug/L	SW846 6020
Chromium	11.5	1.0	ug/L	SW846 6020
Lead	11.4	1.0	ug/L	SW846 6020
Antimony	0.75 B	1.0	ug/L	SW846 6020
Selenium	4.0 B	5.0	ug/L	SW846 6020
Aluminum	56.9 B	100	ug/L	SW846 6010B
Barium	51.2	10.0	ug/L	SW846 6010B
Calcium	39800	200	ug/L	SW846 6010B
Iron	96.6 B	100	ug/L	SW846 6010B
Potassium	6920	5000	ug/L	SW846 6010B
Sodium	56400	5000	ug/L	SW846 6010B
Vanadium	19.6	10.0	ug/L	SW846 6010B
Magnesium	37200	200	ug/L	SW846 6010B
Manganese	4.0 B	10.0	ug/L	SW846 6010B
Zinc	12.3 B	20.0	ug/L	SW846 6010B
Methylene chloride	1.0	1.0	ug/L	SW846 8260B
Tetrachloroethene	1.0	1.0	ug/L	SW846 8260B
Trichloroethene	0.12 J	1.0	ug/L	SW846 8260B
Total Dissolved Solids	426	10.0	mg/L	MCAWW 160.1
Nitrate	1.8	0.10	mg/L	MCAWW 353.2
Sulfate	64.7 Q	25.0	mg/L	MCAWW 300.0A
CAFB-E-TB 03/15/00 13:30 002				
Methylene chloride	0.69 J	1.0	ug/L	SW846 8260B

METHODS SUMMARY

D0C160177

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Filterable Residue (TDS)	MCAWW 160.1	MCAWW 160.1
Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3010A
ICP-MS (6020)	SW846 6020	SW846 3010
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A	SW846 7470A
Nitrate	MCAWW 353.2	MCAWW 353.2
Nitrite	MCAWW 354.1	
Organochlorine Pesticides	SW846 8081A	SW846 3510C
PCBs by SW-846 8082	SW846 8082	SW846 8082
Sulfate	MCAWW 300.0A	MCAWW 300.0A
Sulfides, Total 9030B/9034	SW846 9030B/903	SW846 9030B/903
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B/826

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D0C160177

ANALYTICAL METHOD	ANALYST	ANALYST ID
MCAWW 160.1	Ewa Kudla	001167
MCAWW 300.0A	Patty Jungk	002008
MCAWW 353.2	Roxanne K. Sullivan	001200
MCAWW 354.1	Roxanne K. Sullivan	001200
SW846 6010B	Doug Gomer	001796
SW846 6010B	William G. Logan	002179
SW846 6020	Dave B. Roberts	002871
SW846 7470A	Jennifer Hanlon	003114
SW846 8081A	V R. Johnson	012853
SW846 8082	Michael Klasner	009124
SW846 8260B	Dan Appelhans	001008
SW846 9030B/9034	Andrea Sporleder	001971

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D0C160177

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
D9P5J	001	CAFB-E	03/15/00	14:45
D9P6L	002	CAFB-E-TB	03/15/00	13:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-E

GC/MS Volatiles

Lot-Sample #...: D0C160177-001 **Work Order #...:** D9P5J101 **Matrix.....:** WATER
Date Sampled...: 03/15/00 14:45 **Date Received..:** 03/16/00
Prep Date.....: 03/23/00 **Analysis Date..:** 03/24/00
Prep Batch #...: 0084336 **Analysis Time..:** 00:25
Dilution Factor: 1

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acetonitrile	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	2.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroprene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	2.0	ug/L
Allyl chloride	ND	2.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
2-Hexanone	ND	5.0	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	10	ug/L
Methylene chloride	**1.0**	**1.0**	**ug/L**

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-E

GC/MS Volatiles

Lot-Sample #...: D0C160177-001 **Work Order #...:** D9P5J101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methyl methacrylate	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	**1.0**	**1.0**	**ug/L**
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**0.12 J**	**1.0**	**ug/L**
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
-Butanone (MEK)	ND	5.0	ug/L
rolein	ND	20	ug/L
Ethyl methacrylate	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(82 - 122)
1,2-Dichloroethane-d4	99	(78 - 123)
4-Bromofluorobenzene	103	(80 - 120)
Toluene-d8	101	(82 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

T2 - Confident identification - major ions and ratios largely agree.

US GEOLOGICAL SURVEY

CAFB-E

GC/MS Volatiles

Lot-Sample #: D0C160177-001 **Work Order #:** D9P5J101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Cyclotetrasiloxane, octamethyl	556-67-2	1.5 J T2	M	12.703	ug/L
Unknown		1.4 J	M	14.552	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-E-TB

GC/MS Volatiles

Lot-Sample #...: D0C160177-002 **Work Order #...:** D9P6L101 **Matrix.....:** WATER
Date Sampled...: 03/15/00 13:30 **Date Received..:** 03/16/00
Prep Date.....: 03/23/00 **Analysis Date..:** 03/24/00
Prep Batch #...: 0084336 **Analysis Time..:** 00:50
Dilution Factor: 1

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acetonitrile	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	2.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroprene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	2.0	ug/L
Allyl chloride	ND	2.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
2-Hexanone	ND	5.0	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	10	ug/L
Methylene chloride	**0.69 J**	**1.0**	**ug/L**

(Continued on next page)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-E-TB

GC/MS Volatiles

Lot-Sample #...: D0C160177-002 **Work Order #...:** D9P6L101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methyl methacrylate	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
2-Butanone (MEK)	ND	5.0	ug/L
Acrolein	ND	20	ug/L
Ethyl methacrylate	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(82 - 122)
1,2-Dichloroethane-d4	103	(78 - 123)
4-Bromofluorobenzene	104	(80 - 120)
Toluene-d8	103	(82 - 122)

NOTE(S):

J Estimated result. Result is less than RL.

T2 - Confident identification - major ions and ratios largely agree.

US GEOLOGICAL SURVEY

CAFB-E-TB

GC/MS Volatiles

Lot-Sample #: D0C160177-002 **Work Order #:** D9P6L101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
Cyclotetrasiloxane, octamethyl	556-67-2	2.4 J T2 M	12.687	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-E

GC Semivolatiles

Lot-Sample #...:	D0C160177-001	**Work Order #...:**	D9P5J102	**Matrix.....:**	WATER
Date Sampled...:	03/15/00 14:45	**Date Received..:**	03/16/00		
Prep Date.....:	03/17/00	**Analysis Date..:**	03/21/00		
Prep Batch #...:	0077150	**Analysis Time..:**	13:59		
Dilution Factor:	1				
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diallate	ND	1.0	ug/L
Isodrin	ND	0.10	ug/L
Kepone	ND	1.0	ug/L
Aldrin	ND	0.050	ug/L
alpha-BHC	ND	0.050	ug/L
beta-BHC	ND	0.050	ug/L
delta-BHC	ND	0.050	ug/L
gamma-BHC (Lindane)	ND	0.050	ug/L
alpha-Chlordane	ND	0.050	ug/L
gamma-Chlordane	ND	0.050	ug/L
4,4'-DDD	ND	0.050	ug/L
4,4'-DDE	ND	0.050	ug/L
4,4'-DDT	ND	0.050	ug/L
Dieldrin	ND	0.050	ug/L
Endosulfan I	ND	0.050	ug/L
Endosulfan II	ND	0.050	ug/L
Endosulfan sulfate	ND	0.050	ug/L
Endrin	ND	0.050	ug/L
Endrin aldehyde	ND	0.050	ug/L
Heptachlor	ND	0.050	ug/L
Heptachlor epoxide	ND	0.050	ug/L
Methoxychlor	ND	0.10	ug/L
Toxaphene	ND	2.0	ug/L
Endrin ketone	ND	0.050	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	118	(39 - 143)
Tetrachloro-m-xylene	104	(56 - 107)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-E

GC Semivolatiles

Lot-Sample #...: D0C160177-001 **Work Order #...:** D9P5J103 **Matrix.....:** WATER
Date Sampled...: 03/15/00 14:45 **Date Received..:** 03/16/00
Prep Date.....: 03/17/00 **Analysis Date..:** 03/20/00
Prep Batch #...: 0077157 **Analysis Time..:** 19:45
Dilution Factor: 1
Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	87	(52 - 129)
Tetrachloro-m-xylene	103	(54 - 113)

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-E

TOTAL Metals

Lot-Sample #...: D0C160177-001 Matrix.....: WATER
Date Sampled...: 03/15/00 14:45 Date Received..: 03/16/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0080215						
Mercury	ND	0.20	ug/L	SW846 7470A	03/20-03/21/00	D9P5J10W
		Dilution Factor: 1		Analysis Time..: 17:41		
Prep Batch #...: 0089302						
Silver	ND	1.0	ug/L	SW846 6020	03/29-03/31/00	D9P5J10T
		Dilution Factor: 1		Analysis Time..: 13:14		
Arsenic	**3.5 B**	**5.0**	**ug/L**	**SW846 6020**	**03/29-03/31/00**	**D9P5J10N**
		Dilution Factor: 1		Analysis Time..: 13:14		
Cadmium	ND	1.0	ug/L	SW846 6020	03/29-03/31/00	D9P5J10P
		Dilution Factor: 1		Analysis Time..: 13:14		
Chromium	**11.5**	**1.0**	**ug/L**	**SW846 6020**	**03/29-03/31/00**	**D9P5J10V**
		Dilution Factor: 1		Analysis Time..: 13:14		
allium	ND	1.0	ug/L	SW846 6020	03/29-03/31/00	D9P5J10U
		Dilution Factor: 1		Analysis Time..: 13:14		
Lead	**11.4**	**1.0**	**ug/L**	**SW846 6020**	**03/29-03/31/00**	**D9P5J10Q**
		Dilution Factor: 1		Analysis Time..: 13:14		
Antimony	**0.75 B**	**1.0**	**ug/L**	**SW846 6020**	**03/29-03/31/00**	**D9P5J10M**
		Dilution Factor: 1		Analysis Time..: 13:14		
Selenium	**4.0 B**	**5.0**	**ug/L**	**SW846 6020**	**03/29-03/31/00**	**D9P5J10R**
		Dilution Factor: 1		Analysis Time..: 13:14		
Prep Batch #...: 0089412						
Aluminum	**56.9 B**	**100**	**ug/L**	**SW846 6010B**	**03/30-04/04/00**	**D9P5J104**
		Dilution Factor: 1		Analysis Time..: 17:35		
Barium	**51.2**	**10.0**	**ug/L**	**SW846 6010B**	**03/30-04/04/00**	**D9P5J105**
		Dilution Factor: 1		Analysis Time..: 17:35		
Beryllium	ND	2.0	ug/L	SW846 6010B	03/30-04/04/00	D9P5J106
		Dilution Factor: 1		Analysis Time..: 17:35		
Calcium	**39800**	**200**	**ug/L**	**SW846 6010B**	**03/30-04/04/00**	**D9P5J107**
		Dilution Factor: 1		Analysis Time..: 17:35		
balt	ND	10.0	ug/L	SW846 6010B	03/30-04/04/00	D9P5J108
		Dilution Factor: 1		Analysis Time..: 17:35		

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-E

TOTAL Metals

Lot-Sample #...: D0C160177-001 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	20.0	ug/L	SW846 6010B	03/30-04/04/00	D9P5J109
		Dilution Factor: 1		Analysis Time..: 17:35		
Iron	96.6 B	100	ug/L	SW846 6010B	03/30-04/03/00	D9P5J10A
		Dilution Factor: 1		Analysis Time..: 14:27		
Potassium	6920	5000	ug/L	SW846 6010B	03/30-04/03/00	D9P5J10G
		Dilution Factor: 1		Analysis Time..: 14:27		
Sodium	56400	5000	ug/L	SW846 6010B	03/30-04/03/00	D9P5J10H
		Dilution Factor: 1		Analysis Time..: 14:27		
Nickel	ND	40.0	ug/L	SW846 6010B	03/30-04/04/00	D9P5J10F
		Dilution Factor: 1		Analysis Time..: 17:35		
Tin	ND	100	ug/L	SW846 6010B	03/30-04/04/00	D9P5J10J
		Dilution Factor: 1		Analysis Time..: 17:35		
Vanadium	19.6	10.0	ug/L	SW846 6010B	03/30-04/04/00	D9P5J10K
		Dilution Factor: 1		Analysis Time..: 17:35		
Magnesium	37200	200	ug/L	SW846 6010B	03/30-04/04/00	D9P5J10C
		Dilution Factor: 1		Analysis Time..: 17:35		
Manganese	4.0 B	10.0	ug/L	SW846 6010B	03/30-04/04/00	D9P5J10D
		Dilution Factor: 1		Analysis Time..: 17:35		
Molybdenum	ND	20.0	ug/L	SW846 6010B	03/30-04/04/00	D9P5J10E
		Dilution Factor: 1		Analysis Time..: 17:35		
Zinc	12.3 B	20.0	ug/L	SW846 6010B	03/30-04/04/00	D9P5J10L
		Dilution Factor: 1		Analysis Time..: 17:35		

NOTE(S):

B Estimated result. Result is less than RL.

US GEOLOGICAL SURVEY

Client Sample ID: CAFB-E

General Chemistry

Lot-Sample #...: D0C160177-001 Work Order #...: D9P5J Matrix.....: WATER
Date Sampled...: 03/15/00 14:45 Date Received..: 03/16/00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrate	**1.8**	**0.10**	**mg/L**	**MCAWW 353.2**	**03/16/00**	**0080242**
		Dilution Factor: 1		Analysis Time..: 13:00		
Nitrite	ND	0.010	mg/L	MCAWW 354.1	03/16/00	0077121
		Dilution Factor: 1		Analysis Time..: 13:00		
Sulfate	**64.7 Q**	**25.0**	**mg/L**	**MCAWW 300.0A**	**03/23-03/24/00**	**0086114**
		Dilution Factor: 5		Analysis Time..: 04:25		
Total Dissolved Solids	**426**	**10.0**	**mg/L**	**MCAWW 160.1**	**03/20/00**	**0081187**
		Dilution Factor: 1		Analysis Time..: 11:00		
Total Sulfide	ND	4.0	mg/L	SW846 9030B/9034	03/21/00	0083288
		Dilution Factor: 1		Analysis Time..: 13:00		

NOTE(S):

Reporting Limit

Elevated reporting limit. The reporting limit is elevated due to high analyte levels.

APPENDIX II

Laboratory Quality Assurance / Quality Control Results

LABORATORY DATA VALIDATION CHECKLIST

SECTION 1.0: GENERAL INFORMATION (Landfill 5) (*also see Appendix 1)*

Data reviewer(s) name, affiliation, title, signature, and date of review:

Fredrick E. Gebhardt, USGS, Hydrologic Technician, 22JUN2000

DATA INVENTORY

1.1 Sample project number: Quanterra Environmental Services (Severn Trent Laboratories), Report # D0C010231

1.2 Operable unit and site: Landfill 5 unit, Cell 3
Cannon Air Force Base, New Mexico

Sample collection date: 29FEB - 1MAR2000

1.3 Sample locations (location IDs): Wells CAFB-B, C, D, Q, S, T, and U; CAFB-UU was a duplicate sample for CAFB-U.

1.4 Sample matrix (ground water, soil, other): ground water

1.5 Type and number of field samples (environmental and quality control) in sample project:

Type	number	Type	number
environmental	7	MS/MSD	0
field duplicate	1	trip blank	2
equipment blank	0	ambient blank	0

SECTION 1.0: GENERAL INFORMATION (Sewage Lagoons) (*also see Appendix 1)*

Data reviewer(s) name, affiliation, title, signature, and date of review:

Fredrick E. Gebhardt, USGS, Hydrologic Technician, 22JUN2000

DATA INVENTORY

1.1 Sample project number: Quanterra Environmental Services (Severn Trent Laboratories), Report#'s D0C010231 and D0C160177

1.2 Operable unit and site: Sewage Lagoon, Cannon Air Force Base, New Mexico

Sample collection date: 2MAR & 15MAR2000

1.3 Sample locations (location IDs): Wells CAFB-E, CAFB-F, CAFB-G, and CAFB-H; CAFB-HH was duplicate sample for CAFB-H.

1.4 Sample matrix (ground water, soil, other): ground water

1.5 Type and number of field samples (environmental and quality control) in sample project:

Type	number	Type	number
environmental	4	MS/MSD	1 pair
field duplicate	1	trip blank	2
equipment blank	0	ambient blank	0

OTHER CHECKLIST SECTIONS COMPLETED FOR SAMPLE PROJECT:

√ 2.0 Data Reports and Completeness

√ 3.0 Appendix-IX, Volatile organic compounds (VOC)--Method SW5030/SW8260B

√ 4.0 Appendix-IX, Semivolatile organic compounds (SVOC)--Method SW3510/SW8270C

√ 5.0 Appendix-IX, Pesticides and PCB's--Method SW3520/SW8081A and 8082

√ 6.0 Appendix-IX, Herbicides--Method SW3520/SW8151A

√ 7.0 Appendix-IX, Dioxins and Furans--Method SW3520/SW8280

√ 8.0 Appendix-IX, Polynuclear aromatic hydrocarbons (PAH)--Method SW3510/SW8310

√ 9.0 Appendix-IX, Metals (Total)--Methods SW3005/SW6010B (Aluminum, Barium, Beryllium, Calcium, Cobalt, Copper, Iron, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Sodium, Tin, Vanadium, and Zinc), SW3005/SW6020 (Antimony, Arsenic, Cadmium, Chromium, Lead, Selenium, Silver, and Thallium), and SW3020/SW7470A (Mercury).

√ 10.0 Cyanide and Sulfide--Methods SW9012A (cyanide), 9030B/9030 (sulfide)

√ 11.0 Total Organic Carbon (TOC)--Method SW9060

√ 12.0 Total Organic Halogens (TOX)--Method SW9020B

√ 13.0 Sulfate--Method MCAWW300.0A

√ 14.0 Nitrate/Nitrite--Method MCAWW353.2/MCAWW354.1

√ 15.0 Sulfide--Method SW9030B/9034

√ 16.0 Total Dissolved Solids (TDS)--Method MCAWW160.1

SECTION 2.0: DATA REPORTS AND COMPLETENESS

Name of reviewer(s) and review date: Fredrick E. Gebhardt 22JUN2000

LABORATORY DATA REPORTS

2.1 Analytical Results Report--report date: 29MAR2000

2.2 Raw Data Report--number of volumes: N/A

2.3 Was completeness of lab reports acceptable? yes √ no ____

(overview, analytical results, quality-control report)

Lab report was complete and acceptable.

DATA COMPLETENESS

2.4 Were all samples requested on chain of custody form analyzed by lab? yes √ no ____

All appendix IX parameters (Landfill 5):

	VOC SW8260B	SVOC SW8270C	Pesticide SW8081A/ SW8082	Herbicide SW8151A	Dioxin SW8280
requested:	9	7	7	7	7
analyzed:	9	7	7	7	7

	PAH SW8310	Total Metals: 16-SW6010B, 8-SW6020, Mercury by SW7470A	Cyanide by SW9012A, Sulfide by 9030B/9034	TOC SW9060	TOX SW9020B
requested:	7	7	7	7	7
analyzed:	7	7	7	7	7

All appendix IX parameters (Sewage Lagoons):

	VOC SW8260B	Pesticides SW8081A, SW8082	Total Metals: 16-SW6010B 8-SW6020 Mercury-SW7470A	Sulfate MCAWW 300.0A	Nitrate & Nitrite by MCAWW 353.2/354.1
requested:	9	7	7	7	7
analyzed:	9	7	7	7	7

	TDS MCAWW 160.1
requested:	7
analyzed:	7

2.5 List cancelled analyses on cancelled-data worksheet: None.

2.6 Was sample cooler seal intact upon receipt by lab? Yes

2.7 What was the sample cooler temperature upon receipt by lab? Temperatures ranged from 0.8 - 5.7 °C (D0C010231); 2.8 °C (D0C160177)

2.8 Additional comments:

SECTION 3.0: APPENDIX-IX, VOLATILE ORGANIC COMPOUNDS-- METHOD SW5030/SW8260B

Name of reviewer(s) and review date: Fredrick E. Gebhardt 22JUN2000

LEVEL I AND II -- Data Validation

HOLDING TIMES

3.1 Were project-required analytical holding times met? yes √ no ____

(14-day limit from sample date to analysis date for water samples)

[FG-ORG, p. 6-8]

sample date: 29FEB-2Mar, 15Mar2000 analysis date limit: 14-16MAR & 31MAR2000. Samples were analyzed by 9MAR & 24MAR2000, and met required holding times.

SURROGATE SPIKE RECOVERY

3.2 Did surrogate spike results meet frequency and QC acceptance criteria? yes √ no ____

(all samples and blanks: SW8260A:%R varies)

[FG-ORG, p. 26-29]

All surrogate spike recovery results met Quanterra QC acceptance criteria.

PROJECT REPORTING LIMIT (PRL)

3.3 Did sample results meet project reporting limits? yes √ no ____

PRL's were not provided in Sampling and Analysis Plan (SAP).

FIELD DUPLICATES

3.4 Did field duplicate results meet frequency and QC acceptance criteria?yes √ no ____

(1 set per sampling period; RPD < 30 %)

Field duplicate results met QC acceptance criteria.

EQUIPMENT BLANKS

3.5 Did equipment blank results meet frequency and QC acceptance criteria? yes ____ no ____

(1 set for non-dedicated pump; analytes <3 x RL)

[FG-ORG, p. 20-25]

N/A No equipment blanks were collected.

AMBIENT and TRIP BLANKS (water samples only)

3.6 Did blank results meet frequency and QC acceptance criteria? yes √ no ____

(ambient and trip blank frequency varies per sampling period)

[FG-ORG, p. 20-25]

All trip blank results were ND or below reporting limit and met QC acceptance criteria. Ambient condition blank was not collected for this sampling period.

TENTATIVELY IDENTIFIED COMPOUNDS (TICs)

3.7 List number and level of TICs for each sample analyzed on TIC data sheet.

[FG-ORG, p. 41-44]

DUPLICATE CONTROL SAMPLES (DCSs)

3.8 Did DCS results meet frequency and QC acceptance criteria? yes √ no ____

(1 DCS per quarter; %R and RPD within 3 SD of historical results of lab performance)

[FG-ORG, p. 32-33]

All DCS results met QC acceptance criteria.

SINGLE CONTROL SAMPLES (SCSs)

3.9 Did SCS results meet frequency and QC acceptance criteria? yes √ no ____

(1 SCS per sample lot; %R limits established by laboratory)

[FG-ORG, p. 32-33]

All SCS results met QC acceptance criteria.

LABORATORY METHOD BLANKS

3.10 Did method blank results meet frequency and QC acceptance criteria? yes √ no ____

(1 method blank per batch; analyte concentration ≤ RL except for common lab contaminants ≤ 5 times RL)

[FG-ORG, p. 20-25]

All method blank results were ND or J value (less than RL) and met QC acceptance criteria.

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE (MS/MSD)

3.11 Did MS/MSD results meet frequency and QC acceptance criteria? yes √ no ____

(1 set per quarter; method SW8260A: %R and RPD varies)

[FG-ORG, p. 30-31]

All MS/MSD results met QC acceptance criteria.

LEVEL II -- Data Validation

INSTRUMENT CALIBRATION

3.12 Did initial calibrations meet frequency and QC acceptance criteria? yes ____ no ____

[FG-ORG, p. 12-16]

Not reviewed.

3.13 Did continuing calibrations meet frequency and QC acceptance criteria? yes ____ no ____

[FG-ORG, p. 17-19]

Not reviewed.

GC/MS TUNING

3.14 Did BFB tuning results meet frequency and QC acceptance criteria? yes ____ no ____

[FG-ORG, p. 9-11]

Not reviewed.

INTERNAL STANDARDS (IS)

3.15 Did IS results meet frequency and QC acceptance criteria? yes _____ no _____

(all blanks, standards, and samples; IS area limits within 50 to 200%)
[FG-ORG, p. 35-36]

Not reviewed

SAMPLE RESULT VERIFICATION

3.16 No omissions, problems, discrepancies, transcription errors, or reduction (dilution, conversion) errors in selected raw data? [FG-ORG, p. 47] yes _____ no _____

Not reviewed

LEVEL I and II -- Data Validation

ANALYTE RESULTS WITH DATA QUALIFIERS

3.17 Summarize analyte results with data qualifiers. List pertinent information on qualified-data worksheet: For samples from wells C, E, F, G, H, HH, S, UU and trip blanks, methylene chloride had qualifier J. Sample from well D, chloroform, qualifier J.

J = Result is estimated and is less than reporting limit

3.18 Additional comments: None.

SECTION 4.0: APPENDIX-IX SEMIVOLATILE ORGANIC COMPOUNDS--METHOD SW846/SW8270C

Name of reviewer(s) and review date: Fredrick E. Gebhardt 22JUN2000

LEVEL I AND II -- Data Validation

HOLDING TIMES

4.1 Were project-required analytical holding times met? yes √ no ____

(7-day limit from sample date to extraction date for water samples)

(40-day limit from sample extraction date to analysis date for water samples)

[FG-ORG, p. 49-50]

sample date: 29FEB-1Mar2000 extraction date limit: 7, 8MAR2000

extraction date: 2, 4MAR2000 analysis date limit: 7, 13APR2000

Samples were extracted by 7, 8MAR2000 and were analyzed by 13MAR2000 and met required extraction and analysis holding time limits.

SURROGATE SPIKE RECOVERY

4.2 Did surrogate spike results meet frequency and QC acceptance criteria? yes √ no ____

(frequency: all samples and blanks: SW8270B:%R varies)

[FG-ORG, p. 66-68]

All surrogate recoveries were within QC acceptance criteria.

PROJECT REPORTING LIMIT (PRL)

4.3 Did sample results meet project reporting limits? yes √ no ____

PRL's were not provided in SAP. Reporting limits were not raised for any of the samples.

FIELD DUPLICATES

4.4 Did field duplicate results meet frequency and QC acceptance criteria?yes √ no ____

(1 set per sampling period; RPD ≤ 30%)

Field duplicate results met QC acceptance criteria.

EQUIPMENT BLANKS

4.5 Did equipment blank results meet frequency and QC acceptance criteria? yes √ no ____

(1 set for non-dedicated pump; analytes < 3 x RL)

[FG-ORG, p. 62-65]

Equipment blank results were ND and met QC acceptance criteria.

TENTATIVELY IDENTIFIED COMPOUNDS (TICs)

4.6 List number and level of TICs for each sample analyzed on TIC data sheet.

[FG-ORG, p. 80-83]

Sample ID	Page Number	Number of TICs	Reporting Level*
CAFB-B	I-87	1	Cyclohexane, T2
CAFB-C	I-92	1	Cyclohexane, T2
CAFB-D	I-97	1	Cyclohexane, T2
CAFB-Q	I-82	1	Cyclohexane, T2
CAFB-S	I-67	1	Cyclohexane, T2
CAFB-T	I-72	3	Cyclohexane, Unknown, T2
CAFB-UU (Duplicate)	I-62	1	Cyclohexane, T2

* T1 = tentative identification, T2 = confident identification, and T3 = confirmed identification.

DUPLICATE CONTROL SAMPLES (DCSs)

4.7 Did DCS results meet frequency and QC acceptance criteria? yes √ no ____

(1 DCS per quarter; %R and RPD within 3 SD of historical results of lab performance)

[FG-ORG, p. 71-72]

All DCS results met QC acceptance criteria.

SINGLE CONTROL SAMPLES (SCSs)

4.8 Did SCS results meet frequency and QC acceptance criteria? yes √ no ____

(1 SCS per quarter; %R limits established by laboratory)

[FG-ORG, p. 71-72]

All SCS results met QC acceptance criteria.

LABORATORY METHOD BLANKS

4.9 Did method blank results meet frequency and QC acceptance criteria?yes √ no ____

(1 method blank per batch; analyte concentration ≤ RL except for common lab contaminants ≤ 5 times RL)

[FG-ORG, p. 62-65]

All results were ND and met QC acceptance criteria.

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE (MS/MSD)

4.10 Did MS/MSD results meet frequency and QC acceptance criteria? yes √ no ____

(1 set per quarter; method SW8270B:%R and RPD varies)

[FG-ORG, p. 69-70]

All MS/MSD results met QC acceptance criteria.

LEVEL II -- Data Validation

INSTRUMENT CALIBRATION

4.11 Did initial calibration meet frequency and QC acceptance criteria? yes ____ no ____

[FG-ORG, p. 55-58]

Not reviewed

4.12 Did continuing calibrations meet frequency and QC acceptance criteria? yes ____ no ____

[FG-ORG, p. 59-61]

Not reviewed

GC/MS TUNING

4.13 Did BFB tuning results meet frequency and QC acceptance criteria? yes _____ no _____

[FG-ORG, p. 51-54]

Not reviewed

INTERNAL STANDARDS (IS)

4.14 Did IS results meet frequency and QC acceptance criteria? yes _____ no _____

(all blanks, standards, and samples; IS area limits within 50 to 200%)

[FG-ORG, p. 74-75]

Not reviewed

SAMPLE RESULT VERIFICATION

4.15 No omissions, problems, discrepancies, transcription errors, or reduction (dilution, conversion) errors in selected raw data? yes _____ no _____

Not reviewed

LEVEL I and II -- Data Validation

ANALYTE RESULTS WITH DATA QUALIFIERS

4.16 Summarize analyte results with data qualifiers. List pertinent information on qualified-data worksheet: _____

4.17 Additional comments: _____

SECTION 5.0: APPENDIX-IX, PESTICIDES AND PCB'S-- METHOD SW3520/SW8081A AND 8082

Name of reviewer(s) and review date: Fredrick E. Gebhardt 22JUN2000

LEVEL I AND II -- Data Validation

HOLDING TIMES

5.1 Were project-required analytical holding times met? yes √ no ____

(7-day limit from sample date to extraction date and 40-day limit from extraction date to analysis date)
[FG-ORG, p. 49-50]

sample date: 29FEB-2MAR & 15MAR2000 extraction date limit: 7-9MAR & 22Mar2000
extraction date: 2, 4, 17MAR2000 analysis date limit: 15Apr & 1MAY2000

Samples were extracted by 4, 17MAR2000 and were analyzed by 21MAR2000, and met required extraction and analysis holding time limits.

SURROGATE SPIKE RECOVERY

5.2 Did surrogate spike results meet frequency and QC acceptance criteria? yes √ no ____

(frequency: all samples and blanks: SW8080A:%R varies)
[FG-ORG, p. 66-68]

All surrogate spike recovery results met QC acceptance criteria.

PROJECT REPORTING LIMIT

5.3 Did sample results meet project reporting limits? yes √ no ____

PRL's were not provided in SAP.

FIELD DUPLICATES

5.4 Did field duplicate results meet frequency and QC acceptance criteria?yes __√__ no _____

(1 set per sampling period; RPD ≤ 30%)

Field duplicate results met QC acceptance criteria.

EQUIPMENT BLANKS

5.5 Did equipment blank results meet frequency and QC acceptance criteria? yes ____ no _____

(1 set for non-dedicated pump; target compound concentration ≤ RL)

[FG-ORG, p. 62-65]

N/A

DUPLICATE CONTROL SAMPLES (DCSs)

5.6 Did DCS results meet frequency and QC acceptance criteria? yes __√__ no _____

(1 DCS per quarter; %R and RPD within 3 SD of historical results of lab performance)

[FG-ORG, p. 71-72]

All DCS results met QC acceptance criteria.

SINGLE CONTROL SAMPLES (SCSs)

5.7 Did SCS results meet frequency and QC acceptance criteria? yes __√__ no _____

(1 SCS per quarter; %R limits established by laboratory)

[FG-ORG, p. 71-72]

SCS results met QC acceptance criteria.

LABORATORY METHOD BLANKS

5.8 Did method blank results meet frequency and QC acceptance criteria?yes __√__ no _____

(1 method blank per batch; concentration ≤ 2 times RL)

[FG-ORG, p. 62-65]

All method blank results were ND and met QC acceptance criteria.

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE (MS/MSD)

5.9 Did MS/MSD results meet frequency and QC acceptance criteria? yes ___√___ no _____

(1 set per quarter; %R and RPD limits varies)

[FG-ORG, p. 69-70]

All MS/MSD results met QC acceptance criteria.

LEVEL II -- Data Validation

INSTRUMENT CALIBRATION

5.10 Did initial and continuing calibrations meet frequency and QC criteria?yes _____ no _____

[FG-ORG, p. 55-58]

Not reviewed

SAMPLE RESULT VERIFICATION

5.11 No omissions, problems, discrepancies, transcription errors, or reduction (dilution, conversion) errors in selected raw data? yes _____ no _____

Not reviewed

5.12 Additional comments: _____

SECTION 6.0: APPENDIX-IX, HERBICIDES-- METHOD SW846/SW8151A

Name of reviewer(s) and review date: Fredrick E. Gebhardt 22JUN2000

LEVEL I AND II -- Data Validation

HOLDING TIMES

6.1 Were project-required analytical holding times met? yes √ no ____

(7-day limit from sample date to extraction date and 40-day limit from extraction date to analysis date)
[FG-ORG, p. 49-50]

sample date: 29FEB-1MAR2000 extraction date limit: 6-7MAR2000
extraction date: 6MAR2000 analysis date limit: 15APR2000

All samples were extracted by 6MAR2000 and were analyzed by 15APR2000, and met required extraction and analysis holding time limits.

SURROGATE SPIKE RECOVERY

6.2 Did surrogate spike results meet frequency and QC acceptance criteria? yes √ no ____

(frequency: all samples and blanks: SW8150:%R varies)
[FG-ORG, p. 66-68]

Surrogate spike recovery results were within QC acceptance criteria.

PROJECT REPORTING LIMIT

6.3 Did sample results meet project reporting limits? yes √ no ____

PRL's were not provided in SAP.

FIELD DUPLICATES

6.4 Did field duplicate results meet frequency and QC acceptance criteria?yes ___√___ no _____

(1 set per sampling period; RPD ≤ 30%)

Field duplicate results met QC acceptance criteria.

EQUIPMENT BLANKS

6.5 Did equipment blank results meet frequency and QC acceptance criteria? yes ____ no _____

(1 set for non-dedicated pump; target compound concentration ≤ RL)

[FG-ORG, p. 62-65]

N/A

DUPLICATE CONTROL SAMPLES (DCSs)

6.6 Did DCS results meet frequency and QC acceptance criteria? yes ___√___ no _____

(1 DCS per quarter; %R and RPD within 3 SD of historical results of lab performance)

[FG-ORG, p. 71-72]

DCS results met QC acceptance criteria.

SINGLE CONTROL SAMPLES (SCSs)

6.7 Did SCS results meet frequency and QC acceptance criteria? yes ___√___ no _____

(1 SCS per quarter; %R limits established by laboratory)

[FG-ORG, p. 71-72]

SCS results met QC acceptance criteria.

LABORATORY METHOD BLANKS

6.8 Did method blank results meet frequency and QC acceptance criteria?yes ___√___ no _____

(1 method blank per batch; concentration ≤ 2 times RL)

[FG-ORG, p. 62-65]

All method blank results were ND and met QC acceptance criteria.

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE (MS/MSD)

6.9 Did MS/MSD results meet frequency and QC acceptance criteria? yes √ no ____

(1 set per quarter; %R and RPD limits varies)

[FG-ORG, p. 69-70]

MS/MSD results met QC acceptance criteria.

LEVEL II -- Data Validation

INSTRUMENT CALIBRATION

6.10 Did initial and continuing calibrations meet frequency and QC criteria?yes ____ no ____

[FG-ORG, p. 55-58]

Not reviewed

SAMPLE RESULT VERIFICATION

6.11 No omissions, problems, discrepancies, transcription errors, or reduction (dilution, conversion) errors in selected raw data? yes ____ no ____

Not reviewed

6.12 Additional comments: ____

SECTION 7.0: APPENDIX-IX, DIOXINS AND FURANS-- METHOD SW3520/SW8280

Name of reviewer(s) and review date: Fredrick E. Gebhardt 22JUN2000

LEVEL I AND II -- Data Validation

HOLDING TIMES

7.1 Were project-required analytical holding times met? yes √ no ____

(30-day limit from sample date to extraction date and 45-day limit from extraction date to analysis date for method SW8280)
[FG-ORG, p. 49-50]

sample date: 29FEB-1MAR2000 extraction date limit: 30-31MAR2000
extraction date: 8MAR2000 analysis date limit: 5MAY2000

Samples were extracted by 8MAR2000 and were analyzed by 11MAR2000, met required extraction and analysis holding time limits.

SURROGATE SPIKE RECOVERY

7.2 Did surrogate spike results meet frequency and QC acceptance criteria? yes ____ no √

(frequency: all samples and blanks: SW8280:%R varies)
[FG-ORG, p. 66-68]

All surrogate spike recovery results met QC acceptance criteria except for 13C-1,2,3,6,7,8-HpCDF was greater than control limits. Associated samples are; CAFB-B, C, D, Q, S, T, and duplicate sample UU.

PROJECT REPORTING LIMIT

7.3 Did sample results meet project reporting limits? yes √ no ____

PRL's were not provided in SAP. Reporting limits were not raised for any of the samples.

FIELD DUPLICATES

7.4 Did field duplicate results meet frequency and QC acceptance criteria?yes ___√___ no _____

(1 set per sampling period; RPD ≤ 30%)

Field duplicate results met QC acceptance criteria.

EQUIPMENT BLANKS

7.5 Did equipment blank results meet frequency and QC acceptance criteria? yes ____ no _____

(1 set for non-dedicated pump; target compound concentration ≤ RL)

[FG-ORG, p. 62-65]

N/A

DUPLICATE CONTROL SAMPLES (DCSs)

7.6 Did DCS results meet frequency and QC acceptance criteria? yes ___√___ no _____

(1 DCS per quarter; %R and RPD within 3 SD of historical results of lab performance)

[FG-ORG, p. 71-72]

DCS results met QC acceptance criteria.

LABORATORY METHOD BLANKS

7.7 Did method blank results meet frequency and QC acceptance criteria?yes ___√___ no _____

(1 method blank per batch; concentration ≤ 2 times RL)

[FG-ORG, p. 62-65]

All method blank results were ND and met QC acceptance criteria.

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE (MS/MSD)

7.8 Did MS/MSD results meet frequency and QC acceptance criteria? yes ___√___ no _____

(1 set per quarter; %R and RPD limits varies)

[FG-ORG, p. 69-70]

MS/MSD results met QC acceptance criteria.

LEVEL II -- Data Validation

INSTRUMENT CALIBRATION

7.9 Did initial and continuing calibrations meet frequency and QC criteria? yes _____ no _____
[FG-ORG, p. 55-58]

Not reviewed

SAMPLE RESULT VERIFICATION

7.10 No omissions, problems, discrepancies, transcription errors, or reduction (dilution, conversion) errors in selected raw data? yes _____ no _____

Not reviewed

7.11 Additional comments: _____

SECTION 8.0: APPENDIX-IX, POLYNUCLEAR AROMATIC HYDROCARBONS (PAH)--METHOD SW846/SW8310

Name of reviewer(s) and review date: Fredrick E. Gebhardt 22JUN2000

LEVEL I AND II -- Data Validation

HOLDING TIMES

8.1 Were project-required analytical holding times met? yes √ no ____

(7-day limit from sample date to extraction date and 40-day limit from extraction date to analysis date for method SW8310)
[FG-ORG, p. 49-50]

sample date: 29FEB-1MAR2000 extraction date limit: 6-7MAR2000
extraction date: 4MAR2000 analysis date limit: 16APR2000

Samples were extracted by 4MAR2000 and were analyzed by 7MAR2000 and met required extraction and analysis holding time limits.

SURROGATE SPIKE RECOVERY

8.2 Did surrogate spike results meet frequency and QC acceptance criteria? yes √ no ____

(frequency: all samples and blanks: SW8310:%R varies)
[FG-ORG, p. 66-68]

All surrogate spike recovery results met QC acceptance criteria.

PROJECT REPORTING LIMIT

8.3 Did sample results meet project reporting limits? yes √ no ____

PRL's were not provided in SAP.

FIELD DUPLICATES

8.4 Did field duplicate results meet frequency and QC acceptance criteria?yes __√__ no _____

(1 set per sampling period; RPD ≤ 30%)

Field duplicate results met QC acceptance criteria.

EQUIPMENT BLANKS

8.5 Did equipment blank results meet frequency and QC acceptance criteria? yes ____ no _____

(1 set for non-dedicated pump; target compound concentration ≤ RL)

[FG-ORG, p. 62-65]

N/A

DUPLICATE CONTROL SAMPLES (DCSs)

8.6 Did DCS results meet frequency and QC acceptance criteria? yes __√__ no _____

(1 DCS per quarter; %R and RPD within 3 SD of historical results of lab performance)

[FG-ORG, p. 71-72]

All DCS results met QC acceptance criteria.

SINGLE CONTROL SAMPLES (SCSs)

8.7 Did SCS results meet frequency and QC acceptance criteria? yes __√__ no _____

(1 SCS per quarter; %R limits established by laboratory)

[FG-ORG, p. 71-72]

SCS results met QC acceptance criteria.

LABORATORY METHOD BLANKS

8.8 Did method blank results meet frequency and QC acceptance criteria?yes __√__ no _____

(1 method blank per batch; concentration ≤ 2 times RL)

[FG-ORG, p. 62-65]

All method blank results were ND and met QC acceptance criteria.

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE (MS/MSD)

8.9 Did MS/MSD results meet frequency and QC acceptance criteria? yes √ no ____

(1 set per quarter; %R and RPD limits varies)

[FG-ORG, p. 69-70]

MS/MSD results met QC acceptance criteria.

LEVEL II -- Data Validation

INSTRUMENT CALIBRATION

8.10 Did initial and continuing calibrations meet frequency and QC criteria?yes ____ no ____

[FG-ORG, p. 55-58]

Not reviewed

SAMPLE RESULT VERIFICATION

8.11 No omissions, problems, discrepancies, transcription errors, or reduction (dilution, conversion) errors in selected raw data? yes ____ no ____

Not reviewed

8.12 Additional comments: ____

SECTION 9.0: APPENDIX-IX, METALS (TOTAL)-- METHODS SW846/SW6010B (ALUMINUM, BARIUM, BERYLLIUM, CALCIUM, COBALT, COPPER, IRON, MAGNESIUM, MANGANESE, MOLYBDENUM, NICKEL, POTASSIUM, SODIUM, TIN, VANADIUM, AND ZINC), SW846/SW6020 (ANTIMONY, ARSENIC, CADMIUM, CHROMIUM, LEAD, SELENIUM, SILVER, AND THALLIUM), AND SW846/SW7470A (MERCURY).

Name of reviewer(s) and review date: Fredrick E. Gebhardt 22JUN2000

LEVEL I AND II -- Data Validation

HOLDING TIMES

9.1 Were project-required analytical holding times met? yes √ no ____

(180-day limit from sample date to analysis, except mercury-28 days)

[FG-INORG, p. 6-7]

Mercury sample date: 29FEB-2MAR & 15MAR2000 analysis date limit: 28-30MAR & 12APR2000

All rest sample date: 29FEB-2MAR & 15MAR2000 analysis date limit: 27-29AUG; 14SEP2000

Mercury samples were analyzed by 4MAR & 21MAR2000 and met required holding time limits. All rest were analyzed by 21MAR & 4APR2000 and met required holding time limits.

PROJECT REPORTING LIMIT (PRL)

9.2 Did sample results meet project reporting limits? yes √ no ____

PRL's were not provided in SAP. Quanterra reporting limits were not raised for any of the samples.

FIELD DUPLICATES

9.3 Did field duplicate results meet frequency and QC acceptance criteria? yes √ no ____

(1 set for each sampling period; RPD < 30 %)

[FG-INORG, p. 35]

Field duplicate samples met QC acceptance criteria.

EQUIPMENT BLANKS

9.4 Did equipment blank results meet frequency and QC acceptance criteria? yes ____ no ____

(1 set for non-dedicated pump; analytes < 3 x RL)

[FG-INORG, p. 16-18]

N/A

DUPLICATE CONTROL SAMPLES (DCSs)

9.5 Did DCS results meet frequency and QC acceptance criteria? yes √ no ____

(1 DCS per quarter; % R and RPD within 3 SD of historical results of lab performance)

[FG-INORG, p. 25-26]

All DCS results met QC acceptance criteria.

LABORATORY METHOD BLANKS

9.6 Did method blank results meet frequency and QC acceptance criteria? yes √ no ____

(1 method blank per batch; analyte concentration ≤ RL except for common lab contaminants ≤ 2 times RL)

[FG-INORG, p. 16-18]

All method blank results were ND or below reporting limit and met QC acceptance criteria.

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE (MS/MSD)

9.7 Did MS/MSD results meet frequency and QC acceptance criteria? yes ____ no √

(1 set per quarter; %R and RPD varies)

[FG-INORG, p. 27-29]

MS/MSD results for silver, in report # D0C010231, sodium and selenium, in report # D0C160177, recovered outside control limits. Matrix effects are suspected.

LEVEL II -- Data Validation

CALIBRATION

9.8 Did initial (ICV) and continuing (CCV) calibrations meet QC acceptance criteria?
[FG-INORG, p. 8-15] yes _____ no _____

Not reviewed.

INTERELEMENT CHECK SAMPLES (method SW6010 only)

9.9 Did interelement check results meet frequency and QC criteria? yes _____ no _____

(within 20% of known value)
[FG-INORG, p. 19-21]

Not reviewed.

ANALYTICAL SPIKE RECOVERY (all methods except SW6010 and mercury)

9.10 Did analytical spike results meet frequency and QC acceptance criteria? yes _____ no _____

(every sample; %R within 80-120% except when sample results are ND, the %R within 40-120%)the %R within 40-120%)
[FG-INORG, p. 27-29]

Not reviewed.

SAMPLE RESULT VERIFICATION

9.11 No omissions, problems, discrepancies, transcription errors, or reduction (dilution, conversion) errors in selected raw data? **[FG-INORG, p. 36]** yes _____ no _____

Not reviewed.

LEVEL I AND II -- Data Validation

ANALYTE RESULTS WITH DATA QUALIFIERS

9.12 Summarize analyte results with data qualifiers. List pertinent information on qualified-data worksheet: _____

9.13 Additional comments: None.

SECTION 10.0: CYANIDE--METHOD SW9012A AND SULFIDE--METHOD 9030B/9034

Name of reviewer(s) and review date: Fredrick E. Gebhardt 22JUN2000

LEVEL I AND II -- Data Validation

HOLDING TIMES

10.1 Were project-required analytical holding times met? yes √ no ____

(Cyanide: 14-day limit from sample date to analysis date for water samples)
(Sulfide: 7-day limit from sample date to analysis date for water samples)
[FG-INORG, p. 6-7]

Cyanide sample date: 29FEB-1MAR2000 analysis date limit: 14-15MAR2000
Sulfide sample date: 29FEB-1MAR2000 analysis date limit: 7-8MAR2000

Cyanide samples were analyzed by 10MAR2000 and sulfide samples were analyzed by 7MAR2000. All samples met required holding time limits.

PROJECT REPORTING LIMIT

10.2 Did sample results meet project reporting limits? yes √ no ____

(Quanterra RL for: Cyanide 0.01 mg/L, Sulfide 0.05 mg/L)

PRL's were not provided in SAP.

FIELD DUPLICATES

10.3 Did field duplicate results meet frequency and QC acceptance criteria? yes √ no ____

(1 set per each sampling period; RPD ≤ 30%)
[FG-INORG, p. 35]

Field duplicate results met QC acceptance criteria.

EQUIPMENT BLANKS

10.4 Did equipment blank results meet frequency and QC acceptance criteria? yes ____ no ____

(1 set for non-dedicated pump; target compound concentration ≤ 3 times RL)
[FG-INORG, p. 16-18]

DUPLICATE CONTROL SAMPLES (DCSs)

10.5 Did DCS results meet frequency and QC acceptance criteria? yes √ no ____

(1 DCS per batch; %R and RPD within 3 SD of historical results of lab performance)

[FG-INORG, p. 25-26]

All DCS results met QC acceptance criteria.

LABORATORY METHOD BLANKS

10.6 Did method blank results meet frequency and QC acceptance criteria?yes √ no ____

(1 method blank per batch; concentration ≤ 2 times RL)

[FG-INORG, p. 16-18]

Laboratory method blank results for both cyanide and sulfide were ND and met QC acceptance criteria.

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE (MS/MSD)

10.7 Did MS/MSD results meet frequency and QC acceptance criteria? yes √ no ____

(1 set per quarter; %R and RPD varies)

[FG-INORG, p. 27-29]

MS/MSD results met QC acceptance criteria for cyanide and sulfide.

LEVEL II -- Data Validation

INSTRUMENT CALIBRATION

10.8 Did initial and continuing calibrations meet frequency and QC criteria?yes ____ no ____

(%R within 90-110%)

[FG-INORG, p. 8-15]

Not reviewed

SAMPLE RESULT VERIFICATION

10.9 No omissions, problems, discrepancies, transcription errors, or reduction (dilution, conversion) errors in selected raw data? **[FG-INORG, p. 36]** yes ____ no ____

Not reviewed

10.10 Additional comments: ____

SECTION 11.0: TOTAL ORGANIC CARBON (TOC)-- METHOD SW9060

Name of reviewer(s) and review date: Fredrick E. Gebhardt 22JUN2000

LEVEL I AND II -- Data Validation

HOLDING TIMES

11.1 Were project-required analytical holding times met? yes √ no ____

(28-day limit from sample date to analysis date for water samples)

[FG-ORG, p. 6-8]

sample date: 29FEB-1MAR2000 analysis date limit: 28, 29MAR2000

Samples were analyzed by 2MAR2000 and met required holding times.

PROJECT REPORTING LIMIT (PRL)

11.2 Did sample results meet project reporting limits? yes √ no ____

(Quanterra RL: 1.0 mg/L)

PRL was not provided in SAP.

FIELD DUPLICATES

11.3 Did field duplicate results meet frequency and QC acceptance criteria? yes √ no ____

(1 set per each sampling period; RPD <30 %)

Field duplicate results were within acceptance criteria.

EQUIPMENT BLANKS

11.4 Did equipment blank results meet frequency and QC acceptance criteria? yes ____ no ____

(1 set for non-dedicated pump; target compound concentration ≤ RL)

[FG-ORG, p. 20-25]

DUPLICATE CONTROL SAMPLES (DCSs)

11.5 Did DCS results meet frequency and QC acceptance criteria? yes √ no ____

(1 DCS per batch; %R and RPD within 3 SD of historical results of Lab performance)

[FG-ORG, p. 32-33]

DCS results met QC acceptance criteria.

LABORATORY METHOD BLANK

11.6 Did method blank results meet frequency and QC acceptance criteria? yes √ no ____

(1 method blank per batch)

[FG-ORG, p. 20-25]

Method blank result was ND and met QC acceptance criteria.

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE (MS/MSD)

11.7 Did MS/MSD results meet frequency and QC acceptance criteria? yes √ no ____

(1 set per quarter)

[FG-ORG, p. 30-31]

MS/MSD results met QC acceptance criteria.

LEVEL II -- Data Validation

INSTRUMENT CALIBRATION

11.8 Did initial and continuing calibrations meet frequency and QC criteria? yes ____ no ____

[FG-ORG, p. 12-16]

Not reviewed.

SAMPLE RESULT VERIFICATION

11.9 No omissions, problems, discrepancies, transcription errors, or reduction (dilution, conversion) errors in selected raw data? yes ____ no ____

Not reviewed.

11.10 Additional comments: None.

SECTION 12.0: TOTAL ORGANIC HALOGENS (TOX) METHOD SW9020B

Name of reviewer(s) and review date: Fredrick E. Gebhardt 22JUN2000

LEVEL I AND II -- Data Validation

HOLDING TIMES

12.1 Were project-required analytical holding times met? yes √ no ____

(28-day limit from sample date to analysis date for water samples)

[FG-ORG, p. 6-8]

sample date: 29FEB-1MAR2000 analysis date limit: 28, 29MAR2000

Samples were analyzed by 22MAR2000 and met required holding times.

PROJECT REPORTING LIMIT

12.2 Did sample results meet project reporting limits? yes √ no ____

(Quanterra RL: 30 µg/L)

PRL was not provided in SAP.

FIELD DUPLICATES

12.3 Did field duplicate results meet frequency and QC acceptance criteria? yes √ no ____

(1 set per each sampling period; RPD ≤ 30 %)

Field duplicate results met QC acceptance criteria.

EQUIPMENT BLANKS

12.4 Did equipment blank results meet frequency and QC acceptance criteria? yes ____ no ____

(1 set for non-dedicated pump; target compound concentration ≤ RL)

[FG-ORG, p. 20-25]

N/A

DUPLICATE CONTROL SAMPLES (DCSs)

12.5 Did DCS results meet frequency and QC acceptance criteria? yes √ no ____

(1 DCS per batch; %R within 80 to 120% and RPD < 20%)

[FG-ORG, p. 32-33]

DCS results met QC acceptance criteria.

LABORATORY METHOD BLANKS

12.6 Did method blank results meet frequency and QC acceptance criteria? yes √ no ____

(1 method blank per quarter)

[FG-ORG, p. 20-25]

Laboratory method blank result met QC acceptance criteria.

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE (MS/MSD)

12.7 Did MS/MSD results meet frequency and QC acceptance criteria? yes √ no ____

(1 set per quarter; %R within 80 to 120 %; RPD < 20 %)

[FG-ORG, p. 30-31]

MS/MSD results met QC acceptance criteria.

LEVEL II -- Data Validation

INSTRUMENT CALIBRATION

12.8 Did initial and continuing calibrations meet frequency and QC criteria? yes ____ no ____

[FG-ORG, p. 12-16]

Not reviewed.

SAMPLE RESULT VERIFICATION

12.9 No omissions, problems, discrepancies, transcription errors, or reduction (dilution, conversion) errors in selected raw data? yes ____ no ____

Not reviewed.

12.10 Additional comments: ____

SECTION 13.0: SULFATE--METHOD MCAWW300.0A

Name of reviewer(s) and review date: Fredrick E. Gebhardt 22JUN2000

LEVEL I AND II -- Data Validation

HOLDING TIMES

6.1 Were project-required analytical holding times met? yes √ no ____

(28-day limit from sample date to analysis date for water samples)
[FG-INORG, p. 6-7]

sample date: 2MAR & 15MAR2000 analysis date limit: 30MAR & 1APR2000

All samples were analyzed by 24MAR2000 and met required holding times.

PROJECT REPORTING LIMIT

6.2 Did sample results meet project reporting limits? yes √ no ____

PRL's were not provided in SAP.

FIELD DUPLICATES

6.3 Did field duplicate results meet frequency and QC acceptance criteria? yes √ no ____

(1 set per each sampling period; RPD < 30%)
[FG-INORG, p. 35]

Field duplicate samples met frequency and QC acceptance criteria.

EQUIPMENT BLANKS

6.4 Did equipment blank results meet frequency and QC acceptance criteria? yes ____ no ____

(1 set for non-dedicated pump; target compound concentration ≤ 3 times RL)
[FG-INORG, p. 16-18]

N/A

DUPLICATE CONTROL SAMPLES (DCSs)

6.5 Did DCS results meet frequency and QC acceptance criteria? yes √ no ____

(1 DCS per batch; %R and RPD within 3 SD of historical results of lab performance)

[FG-INORG, p. 25-26]

All DCS results met QC acceptance criteria.

LABORATORY METHOD BLANKS

6.6 Did method blank results meet frequency and QC acceptance criteria? yes √ no ____

(1 method blank per batch; concentration ≤ 2 times RL)

[FG-INORG, p. 16-18]

Laboratory method blank result was ND and met QC acceptance criteria

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE (MS/MSD)

6.7 Did MS/MSD results meet frequency and QC acceptance criteria? yes ____ no √

(1 set per quarter; %R and RPD varies)

[FG-INORG, p. 27-29]

Estimated results for spiked analyte recovery was outside stated control limits, for both reports.

LEVEL II -- Data Validation

INSTRUMENT CALIBRATION

6.8 Did initial and continuing calibrations meet frequency and QC criteria? yes ____ no ____

(%R within 90-110%)

[FG-INORG, p. 8-15]

Not reviewed

SAMPLE RESULT VERIFICATION

6.9 No omissions, problems, discrepancies, transcription errors, or reduction (dilution, conversion) errors in selected raw data? **[FG-INORG, p. 36]** yes ____ no ____

Not reviewed

6.10 Additional comments: ____

SECTION 14.0: NITRATE AND NITRITE--METHOD MCAWW353.2/354.1

Name of reviewer(s) and review date: Fredrick E. Gebhardt 22JUN2000

LEVEL I AND II -- Data Validation

HOLDING TIMES

7.1 Were project-required analytical holding times met? yes √ no ____

(48-hour limit from sample date to analysis date for Nitrite -MCAWW354.1)
(28-day limit from sample date to analysis date for Nitrate -MCAWW353.2)

[FG-INORG, p. 6-7]

Nitrite sample date: 2, 15MAR2000 analysis date limit: 4, 17MAR2000
Nitrate sample date: 2, 15MAR2000 analysis date limit: 30MAR & 14APR2000

Nitrite and nitrate samples were analyzed by 4,16MAR2000.
All samples met required holding times.

PROJECT REPORTING LIMIT

7.2 Did sample results meet project reporting limits? yes √ no ____

The reporting limits were not raised for any of the samples and met project reporting limits.

FIELD DUPLICATES

7.3 Did field duplicate results meet frequency and QC acceptance criteria? yes √ no ____

(1 set per each sampling period; RPD < 30%)

[FG-INORG, p. 35]

Field duplicate samples met frequency and QC acceptance criteria.

EQUIPMENT BLANKS

7.4 Did equipment blank results meet frequency and QC acceptance criteria? yes ____ no ____

(1 set for non-dedicated pump; target compound concentration < 3 times RL)

[FG-INORG, p. 16-18]

N/A

DUPLICATE CONTROL SAMPLES (DCSs)

7.5 Did DCS results meet frequency and QC acceptance criteria? yes √ no ____

(1 DCS per batch; %R and RPD within 3 SD of historical results of lab performance)

[FG-INORG, p. 25-26]

All DCS results met QC acceptance criteria.

LABORATORY METHOD BLANKS

7.6 Did method blank results meet frequency and QC acceptance criteria? yes √ no ____

(1 method blank per batch; concentration ≤ 2 times RL)

[FG-INORG, p. 16-18]

Laboratory method blank results were ND and met QC acceptance criteria.

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE (MS/MSD)

7.7 Did MS/MSD results meet frequency and QC acceptance criteria? yes √ no ____

(1 set per quarter; %R and RPD varies)

[FG-INORG, p. 27-29]

MS/MSD results met QC acceptance criteria.

LEVEL II -- Data Validation

INSTRUMENT CALIBRATION

7.8 Did initial and continuing calibrations meet frequency and QC criteria? yes ____ no ____

(%R within 90-110%)

[FG-INORG, p. 8-15]

Not reviewed

SAMPLE RESULT VERIFICATION

7.9 No omissions, problems, discrepancies, transcription errors, or reduction (dilution, conversion) errors in selected raw data? **[FG-INORG, p. 36]** yes ____ no ____

Not reviewed

7.10 Additional comments: None.

SECTION 15.0: SULFIDE--METHOD SW9030B/9034

Name of reviewer(s) and review date: Fredrick E. Gebhardt 22JUN2000

LEVEL I AND II -- Data Validation

HOLDING TIMES

8.1 Were project-required analytical holding times met? yes √ no ____

(7-day limit from sample date to analysis date for water samples)
[FG-INORG, p. 6-7]

sample date: 2, 15MAR2000 analysis date limit: 9, 22MAR2000

All samples were analyzed by 7, 21MAR2000 and met required holding times.

PROJECT REPORTING LIMIT

8.2 Did sample results meet project reporting limits? yes √ no ____

(Quanterra RL: 0.05 mg/L)

PRL's were not provided in SAP. Reporting limits were not raised for any of the samples.

FIELD DUPLICATES

8.3 Did field duplicate results meet frequency and QC acceptance criteria? yes √ no ____

(1 set per each sampling period; RPD ≤ 30%)
[FG-INORG, p. 35]

Field duplicate sample met frequency and QC acceptance criteria.

EQUIPMENT BLANKS

8.4 Did equipment blank results meet frequency and QC acceptance criteria? yes ____ no ____

(1 set for non-dedicated pump; target compound concentration ≤ 3 times RL)
[FG-INORG, p. 16-18]

N/A

DUPLICATE CONTROL SAMPLES (DCSs)

8.5 Did DCS results meet frequency and QC acceptance criteria? yes √ no ____

(1 DCS per batch; %R and RPD within 3 SD of historical results of lab performance)

[FG-INORG, p. 25-26]

All DCS results met QC acceptance criteria.

LABORATORY METHOD BLANKS

8.6 Did method blank results meet frequency and QC acceptance criteria? yes √ no ____

(1 method blank per batch; concentration ≤ 2 times RL)

[FG-INORG, p. 16-18]

Laboratory method blank result was ND and met QC acceptance criteria.

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE (MS/MSD)

8.7 Did MS/MSD results meet frequency and QC acceptance criteria? yes √ no ____

(1 set per quarter; %R and RPD varies)

[FG-INORG, p. 27-29]

MS/MSD results met QC acceptance criteria.

LEVEL II -- Data Validation

INSTRUMENT CALIBRATION

8.8 Did initial and continuing calibrations meet frequency and QC criteria? yes ____ no ____

(%R within 90-110%)

[FG-INORG, p. 8-15]

Not reviewed

SAMPLE RESULT VERIFICATION

8.9 No omissions, problems, discrepancies, transcription errors, or reduction (dilution, conversion) errors in selected raw data? **[FG-INORG, p. 36]** yes ____ no ____

Not reviewed

8.10 Additional comments: None.

SECTION 16.0: TOTAL DISSOLVED SOLIDS (TDS)-- METHOD MCAWW160.1

Name of reviewer(s) and review date: Fredrick E. Gebhardt 22JUN2000

LEVEL I AND II -- Data Validation

HOLDING TIMES

9.1 Were project-required analytical holding times met? yes √ no ____

(7-day limit from sample date to analysis date for water samples)

[FG-INORG, p. 6-7]

sample date: 2, 15MAR2000 analysis date limit: 9, 22MAR2000

Samples were analyzed by 8, 20MAR1999 and met required holding times.

PROJECT REPORTING LIMIT (PRL)

9.2 Did sample results meet project reporting limits? yes √ no ____

(Quanterra RL: 10 mg/L)

PRL was not provided in SAP.

FIELD DUPLICATES

9.3 Did field duplicate results meet frequency and QC acceptance criteria? yes √ no ____

(1 set per each sampling period; RPD <30 %)

[FG-INORG, p. 35]

Field duplicate sample met frequency and QC acceptance criteria.

EQUIPMENT BLANKS

9.4 Did equipment blank results meet frequency and QC acceptance criteria? yes ____ no ____

(1 set for non-dedicated pump; target compound concentration ≤ 3XRL)

[FG-INORG, p. 16-18]

N/A

DUPLICATE CONTROL SAMPLES (DCSs)

9.5 Did DCS results meet frequency and QC acceptance criteria? yes √ no ____

(1 DCS per batch; %R 86-106% and RPD ≤ 10 %)

[FG-INORG, p. 25-26]

All DCS results were within acceptance criteria.

LABORATORY METHOD BLANK

9.6 Did method blank results meet frequency and QC acceptance criteria? yes √ no ____

(1 method blank per batch; concentration ≤ 2 X RL)

[FG-INORG, p. 16-18]

Laboratory method blank result was ND and met QC acceptance criteria.

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE (MS/MSD)

9.7 Did MS/MSD results meet frequency and QC acceptance criteria? yes ____ no ____

(1 set per quarter; %R 86-106% and RPD ≤ 10%)

[FG-INORG, p. 27-29]

MS/MSD results were not reported.

LEVEL II -- Data Validation

INSTRUMENT CALIBRATION

9.8 Did initial and continuing calibrations meet frequency and QC criteria? yes ____ no ____

(%R within 90-110%)

[FG-INORG, p. 8-15]

Not reviewed.

SAMPLE RESULT VERIFICATION

9.9 No omissions, problems, discrepancies, transcription errors, or reduction (dilution, conversion) errors in selected raw data? **[FG-INORG, p. 36]** yes ____ no ____

Not reviewed.

9.10 Additional comments: None.

Appendix A -- Laboratory Data Validation Checklist

Instruction Notes for the Data Validation Checklist

This data validation checklist will be used when validating the chemical analytical results. Data validation is a systematic and independent verification of data quality and consists of checking, verifying, evaluating, and qualifying the chemical analytical results.

Two different levels of data validation are used with level I being not as detailed or as rigorous as level II. Level I data validation includes: (1) checking holding times limits, (2) evaluating the results of field and laboratory quality-control (QC) samples such as field replicates, matrix spikes, surrogate samples, and duplicate control samples, and (3) checking that contamination during sample processing has not occurred in QC blanks such as equipment, method, ambient, and trip blanks. Most of the information and data used to conduct a level I data validation is contained in the summary-data reports prepared by the reporting laboratory. Level II data validation includes all the level I guidelines plus using the raw-data reports prepared by the reporting laboratory to: (1) check that the laboratory instruments have been properly tuned and calibrated, and (2) verify that selected sample results do not have any omissions, problems, discrepancies, transcription errors, and reduction (dilution, conversion) errors.

Field samples (environmental and QC) are processed and analyzed by the reporting laboratory in specific groups of samples called sample projects (also called sample cases). A sample project usually consists of 20 or fewer samples that are collected from one or more sampling locations (monitoring well) in a given sampling period. Numerous laboratory QC samples also are analyzed with the field samples for each sample project.

This data validation checklist is designed to be used when validating the analytical results for a given sample project and it has a multi-level organization. The first part of the checklist contains general information (section 1.0) about the scope (who, when, how, and what) of the data validation and data reports and completeness (section 2.0) for each sample project. Sections 1.0 and 2.0 will be completed and included with all data validation checklists. The data validation checklist also contains numerous supplemental sections which are listed at the bottom of the first page of this document. These supplemental checklist sections are used for specific analytical methods and will be marked with a checkmark (√) when they are completed for a given sample project. Specific project-required frequency and QC acceptance criteria, and pertinent reference page numbers are listed with most of the checklist items. The major data-validation references are the USEPA guidance documents (USEPA 1994).

Checklist Abbreviations, Acronyms, and Notes

Abbreviations:

Al	aluminum
Ag	silver
As	arsenic
CAP	Chromic Acid Pit
CCV	continuing calibration verification
Cr	chromium
DCS	duplicate control sample
Ba	barium
Be	beryllium
Ca	calcium
Cd	cadmium
Cl	chloride
Co	cobalt
Conc.	concentration
Cu	copper
Diss.	dissolved
DRO	diesel range organics with GC/FID analysis C10-C28
DU	duplicate environmental sample
EB	equipment blank
Fe	iron
FG-INORG	Functional guidelines (EPA) for evaluating inorganic analyses
FG-ORG	Functional guidelines (EPA) for evaluating organic analyses
Fl	fluoride
GFAA	graphite furnace atomic absorption
Hg	mercury
ICP	inductively coupled plasma
ID	identification
IS	internal standards
J	estimated value qualifier
K	potassium
LCS	Laboratory control sample
MCAWW	"Methods for Chemical Analysis of Water and Wastes"', EPA-600/4-79-020, March 1983 subsequent revisions.
Mg	magnesium
mg/L	milligrams per liter
Mn	manganese
Mo	molybdenum

Checklist Abbreviations, Acronyms, and Notes -- *continued*

Abbreviations:

MS/MSD	matrix spike/matrix spike duplicate
MW	monitoring well
Na	sodium
Ni	nickel
NO_2	nitrate
NO_3	nitrite
PAC	Chromic Acid Pit duplicate sample identification
Pb	lead
PO_4	orthophosphate
PRL	project reporting limit
QC	quality control
RCLs	Recovery Control Limits
RL	reporting limits
RMAL	Rocky Mountain Analytical Laboratory
RPD	relative percent difference
SA	environmental sample
SAP	Sampling and Analysis Plan
Sb	antimony
SCS	single control sample
Se	selenium
Sn	tin
SO_4	sulfate
SVOC	semivolatile organic compounds
TB	trip blank
TDS	total dissolved solids
TIC	tentatively identified compound
Tl	thallium
TOC	total organic carbon
Tot.	total
TOX	total organic halogen
TPH	total petroleum hydrocarbons
TSS	total suspended solids
USEPA	United States Environmental Protection Agency
USGS/WRD	United States Geological Survey, Water Resources Division
V	vanadium
VOC	volatile organic compounds

Checklist Abbreviations, Acronyms, and Notes -- *continued*

Abbreviations:

Zn	zinc
µg/L	microgram per liter
<	less than
>	greater than
%	percent
%R	percent recovery

USEPA, 1994, USEPA Contract laboratory program national functional guidelines for organic data review, February, 1994, Publication 9240.1-05, Document number PB94-963501, 124 p.

NOTE: this reference is abbreviated FG-ORG in this checklist.

USEPA, 1994, USEPA contract laboratory program national functional guidelines for inorganic data review, February, 1994, Publication 9240.1-05-01, Document number PB94-963502, 42 p.

NOTE: this reference is abbreviated FG-INORG in this checklist.

USGS, 1992, Laboratory data validation checklist: Wyoming District, U.S. Geological Survey checklist prepared for the U.S. Air Force, multiple pages.

DODEC LABORATORY DATA REVIEW WORKSHEET

1.0 GENERAL INFORMATION

Data reviewer: R Reddow
Date of review: April 5, 2000
Sample project number: DOC010231
Project name: New Mexico Cannon AFB (4635-36004)
Sample collection date: Feb. 29 → March 2, 2000
Sample matrix and number: 15- water 4- MS/MSD

Type and number of samples in project:

Type	Number
Environmental	12
Trip blank	3
Equipment blank	
Ambient blank	
MS/MSD	4
Other:	

COPY FOR YOUR INFORMATION

INVOICE: OK
see attached copy

2.0 DATA REPORT

Date of Analytical Results Report: March 29, 2000 → One bound and unbound copy of analytical report
Number of volumes in Raw Data Report: CD only
Raw Data Report reviewed? Yes ____ No X

Were all analyses requested on the COC form performed by the laboratory?
Yes X No ____

If no, list canceled analyses and reason for non-performance:

Were the samples properly preserved upon receipt by the laboratory?
Yes ____ No X

If no, list laboratory ID for samples that were not properly preserved.
Lid broken and sample gone for method 8081 analysis for sample CAFB-D (-009) - extra bottle used for analysis (p. 308)

3.0 ANALYTICAL METHODS

Analytical methods used in this project Project No. 00C010231

X VOC by GC/MS (SW 8240, SW 8260, E524, E624)
___ Halogenated VOC by GC (~~SW 8010~~)
___ Aromatic VOC by GC (SW 8020)
X SVOC by GC/MS (SW 8270)
X PAH by HPLC (SW 8310)
X Organochlorine pesticides and PCB (~~SW 8080~~) 8081, 8082
___ Organophosphorous pesticides (SW 8140)
X Chlorinated herbicides (~~SW 8150~~) 8151
X Dioxins and Furans (SW 8280)
___ Explosives (SW 8330)
X TOC (E415.1 or SW 9060)
___ TPH (E418.1)
___ Oil and Grease (E413.2)
X TOX (SW 9020)

X ICP screen for metals (SW 6010) – Total
X ICP/MS screen for metals (SW 6020) – 8 metals – Total
___ Trace ICP screen for metals (SW 6010 modified)
___ Antimony by GFAA (SW 7041)
___ Arsenic by GFAA (SW 7060)
___ Chromium (SW 7191 or 7196)
___ Lead by GFAA (SW ~~7421~~)
X Mercury by CVAA (SW 7470 or 7471)
___ Selenium by GFAA (~~SW 7740~~)
___ Thallium by GFAA (SW 7841)
X Inorganic anions (E300.0) – SO4 only
___ Alkalinity (E310.1)
X Cyanide, total and amenable (SW 9010/9012)
___ Nitrogen, ammonia (E350.1)
___ Nitrogen, TKN (E351.2)
X Nitrogen, nitrate (E353.2)
___ Nitrogen, nitrate plus nitrite (E353.2)
X Nitrogen, nitrite (E354.1)
___ Phosphorous, total or ortho (E365.3)
___ Sulfate (E375.4)
X Sulfide (~~E376.2~~) 9030
X TDS (E160.1)
___ pH (SW 9040 or 9045)
___ Percent moisture (D2216)

___ Gross alpha and gross beta radioactivity (SW 9310 or RICHRC5014)
___ Alpha-emitting radium isotopes (SW 9315)
___ Radium-228 (E904.0)
___ Uranium (E908.1 or RICHRC5058)

___ Other analyses:

Project No. 00C010231

Were analytical holding times met? Yes _____ No _____

If no, list analytical method and laboratory ID for samples that exceeded holding time:

Did surrogate recoveries meet QC acceptance criteria? Yes _____ No X

If no, list analytical method, laboratory ID, and surrogates that did not meet acceptance criteria:

8270C Four surrogates ~~stg~~ had % recovered slightly
sample (-009) left than control limits. (p. 2 and 95)
8082 One surrogate % R slightly greater than QC limits (p. 114)
sample CAFB-B (-007)

Did actual reporting limits meet project detection limits?

Organic analyses: Yes X No _____

If no, list analytical method, laboratory ID, and reason for non-conformance:

Reporting limits raised due to high-analyte levels

300 (SO_4) sample CAFB-G (-011) (p. 177); CAFB-F (-012) (p. 178);
CAFB-H (-013) (p. 179); CAFB-NH (-014) (p. 180)
353.2 (NO_3) sample CAFB-G (-011) (p. 177)

Inorganic analyses: Yes _____ No X

Reporting limits for GFAA metals and inorganic anions may be raised when: (1) sample concentrations exceed the instrument linear range and (2) target analytes are subject to matrix interferences. Reporting limits for ICP metals and mecury by CVAA are typically only raised when the sample concentration exceeds the instrument linear range.

Did ~~DCS~~ LCS meet QC acceptance criteria? Yes _____ No _____

If no, list analytical method, laboratory ID, and reason for non-conformance:

Project No. _____

Did SCS meet QC acceptance criteria? Yes _____ No _____

If no, list analytical method, laboratory ID, and reason for non-conformance:

Not applicable (N/A)

Were any target compounds found in the method, ~~trip, equipment, or ambient~~ blanks ~~above the RL?~~ Yes X No _____

If yes, list analytical method, laboratory ID, type of blank and compound:

8260B Methylene Chloride (p.189) (p.192)

6020 - total Pb, Se (p. 262)

6010B - total Al, Ba, Cu, Mn, Na, V, Zn, Be (p.263-264)
Na (p. 265)

~~9060~~ 9020 TOX (p. 285)

Did the MS/MSD meet QC acceptance criteria? Yes _____ No X

If no, list the analytical method, laboratory ID, and reason for non-conformance:

% recovery outside of control limits

6020 - Silver MS/MSD (p. 269) (p. 270)
300 SO_4 MSD (p. 286)

~~No MS/MSD results reported for~~
No MS/MSD results reported for method 8082 CAFB-U-MS/MSD (-004)
method ~~3532~~ 3532 (NO_3) CAFB-N-MS/MSD → also 160.1 (TDS) (-013)

Were the MS/MSD associated with samples in this project? Yes XXX XX No X

MS/MSD data are used to evaluate the effect of the sample matrix on the analytical process and should only be used in conjunction with other available laboratory QC information to evaluate precision and accuracy.

Additional comments:

QC DATA ASSOCIATION SUMMARY

D0C010231

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	SW846 9060		0081225	0081070
	WATER	SW846 6020		0062181	0062061
	WATER	SW846 9020B		0087406	0087185
	WATER	SW846 7470A		0062171	0062051
	WATER	SW846 8082		0062157	
	WATER	SW846 8081A		0062154	0068186
	WATER	SW846 8260B		0074355	0074155
	WATER	SW846 8270C		0062186	0062060
	WATER	SW846 6010B		0062169	0062049
	WATER	SW846 9012A		0073235	0073106
	WATER	SW846 8151A		0066375	0066143
	WATER	SW846 8280A		0069397	0069171
	WATER	SW846 8310		0064146	0064020
	WATER	SW846 9030B/9034		0068378	0068178
002	WATER	SW846 9060		0081225	0081070
	WATER	SW846 6020		0062181	0062061
	WATER	SW846 9020B		0087406	0087185
	WATER	SW846 7470A		0062171	0062051
	WATER	SW846 8082		0062157	
	WATER	SW846 8081A		0062154	0068186
	WATER	SW846 8260B		0074355	0074155
	WATER	SW846 8270C		0062186	0062060
	WATER	SW846 6010B		0062169	0062049
	WATER	SW846 9012A		0073235	0073106
	WATER	SW846 8151A		0066375	0066143
	WATER	SW846 8280A		0069397	0069171
	WATER	SW846 8310		0064146	0064020
	WATER	SW846 9030B/9034		0068378	0068178
003	WATER	SW846 9060		0081225	0081070
	WATER	SW846 6020		0062181	0062061
	WATER	SW846 9020B		0087406	0087185
	WATER	SW846 7470A		0062171	0062051
	WATER	SW846 8082		0062157	
	WATER	SW846 8081A		0062154	0068186
	WATER	SW846 8260B		0074355	0074155
	WATER	SW846 8270C		0062186	0062060
	WATER	SW846 6010B		0062169	0062049
	WATER	SW846 9012A		0073235	0073106
	WATER	SW846 8151A		0066375	0066143
	WATER	SW846 8280A		0069397	0069171
	WATER	SW846 8310		0064146	0064020
	WATER	SW846 9030B/9034		0068378	0068178

QC DATA ASSOCIATION SUMMARY

D0C010231

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
004	WATER	SW846 9060		0081225	0081070
	WATER	SW846 6020		0062181	0062061
	WATER	SW846 9020B		0087406	0087185
	WATER	SW846 7470A		0062171	0062051
	WATER	SW846 8082		0062157	
	WATER	SW846 8081A		0062154	0068186
	WATER	SW846 8260B		0074355	0074155
	WATER	SW846 8270C		0062186	0062060
	WATER	SW846 6010B		0062169	0062049
	WATER	SW846 9012A		0073235	0073106
	WATER	SW846 8151A		0066375	0066143
	WATER	SW846 8280A		0069397	0069171
	WATER	SW846 8310		0064146	0064020
	WATER	SW846 9030B/9034		0068378	0068178
005	WATER	SW846 8260B		0074355	0074155
006	WATER	SW846 9060		0081225	0081070
	WATER	SW846 6020		0067373	0067160
	WATER	SW846 9020B		0087406	0087185
	WATER	SW846 7470A		0064108	0064007
	WATER	SW846 8082		0064145	0064019
	WATER	SW846 8081A		0064144	0064017
	WATER	SW846 8260B		0074355	0074155
	WATER	SW846 8270C		0064119	
	WATER	SW846 6010B		0069318	0069107
	WATER	SW846 9012A		0073235	0073106
	WATER	SW846 8151A		0066375	0066143
	WATER	SW846 8280A		0069397	0069171
	WATER	SW846 8310		0064146	0064020
	WATER	SW846 9030B/9034		0068378	0068178
007	WATER	SW846 9060		0081225	0081070
	WATER	SW846 6020		0067373	0067160
	WATER	SW846 9020B		0087406	0087185
	WATER	SW846 7470A		0064108	0064007
	WATER	SW846 8082		0064145	0064019
	WATER	SW846 8081A		0064144	0064017
	WATER	SW846 8260B		0074355	0074155
	WATER	SW846 8270C		0068151	
	WATER	SW846 6010B		0069318	0069107
	WATER	SW846 9012A		0073235	0073106
	WATER	SW846 8151A		0066375	0066143
	WATER	SW846 8280A		0069397	0069171

(Continued on next page)

QC DATA ASSOCIATION SUMMARY

D0C010231

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
007	WATER	SW846 8310		0064146	0064020
	WATER	SW846 9030B/9034		0068378	0068178
008	WATER	SW846 9060		0081225	0081070
	WATER	SW846 6020		0067373	0067160
	WATER	SW846 9020B		0087406	0087185
	WATER	SW846 7470A		0064108	0064007
	WATER	SW846 8082		0064145	0064019
	WATER	SW846 8081A		0064144	0064017
	WATER	SW846 8260B		0074355	0074155
	WATER	SW846 8270C		0064119	
	WATER	SW846 6010B		0069318	0069107
	WATER	SW846 9012A		0073235	0073106
	WATER	SW846 8151A		0066375	0066143
	WATER	SW846 8280A		0069397	0069171
	WATER	SW846 8310		0064146	0064020
	WATER	SW846 9030B/9034		0068378	0068178
009	WATER	SW846 9060		0081225	0081070
	WATER	SW846 6020		0067373	0067160
	WATER	SW846 9020B		0087406	0087185
	WATER	SW846 7470A		0064108	0064007
	WATER	SW846 8082		0064145	0064019
	WATER	SW846 8081A		0064144	0064017
	WATER	SW846 8260B		0074355	0074155
	WATER	SW846 8270C		0064119	
	WATER	SW846 6010B		0069318	0069107
	WATER	SW846 9012A		0073235	0073106
	WATER	SW846 8151A		0066375	0066143
	WATER	SW846 8280A		0069397	0069171
	WATER	SW846 8310		0064146	0064020
	WATER	SW846 9030B/9034		0068378	0068178
010	WATER	SW846 8260B		0074355	0074155
011	WATER	MCAWW 160.1		0070353	0070148
	WATER	MCAWW 353.2		0067325	
	WATER	MCAWW 354.1		0068209	0068076
	WATER	MCAWW 300.0A		0082432	0082182
	WATER	SW846 6020		0067373	0067160
	WATER	SW846 7470A		0064108	0064007
	WATER	SW846 8082		0064145	0064019
	WATER	SW846 8081A		0064144	0064017
	WATER	SW846 8260B		0074355	0074155

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QC DATA ASSOCIATION SUMMARY

D0C010231

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
011	WATER	SW846 6010B		0069318	0069107
	WATER	SW846 9030B/9034		0068378	0068178
012	WATER	MCAWW 160.1		0070353	0070148
	WATER	MCAWW 353.2		0067325	
	WATER	MCAWW 354.1		0068209	0068076
	WATER	MCAWW 300.0A		0082432	0082182
	WATER	SW846 6020		0067373	0067160
	WATER	SW846 7470A		0064108	0064007
	WATER	SW846 8082		0064145	0064019
	WATER	SW846 8081A		0064144	0064017
	WATER	SW846 8260B		0074355	0074155
	WATER	SW846 6010B		0069318	0069107
	WATER	SW846 9030B/9034		0068378	0068178
013	WATER	MCAWW 160.1		0070353	0070148
	WATER	MCAWW 353.2		0067325	
	WATER	MCAWW 354.1		0068209	0068076
	WATER	MCAWW 300.0A		0082432	0082182
	WATER	SW846 6020		0067373	0067160
	WATER	SW846 7470A		0064108	0064007
	WATER	SW846 8082		0064145	0064019
	WATER	SW846 8081A		0064144	0064017
	WATER	SW846 8260B		0073343	0073168
	WATER	SW846 6010B		0069318	0069107
	WATER	SW846 9030B/9034		0068378	0068178
014	WATER	SW846 8260B		0073343	0073168
015	WATER	MCAWW 160.1		0070353	0070148
	WATER	MCAWW 353.2		0067325	
	WATER	MCAWW 354.1		0068209	0068076
	WATER	MCAWW 300.0A		0082432	0082182
	WATER	SW846 6020		0067373	0067160
	WATER	SW846 7470A		0064108	0064007
	WATER	SW846 8082		0064145	0064019
	WATER	SW846 8081A		0064144	0064017
	WATER	SW846 8260B		0073343	0073168
	WATER	SW846 6010B		0069318	0069107
	WATER	SW846 9030B/9034		0068378	0068178

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: D0C010231 **Work Order #...:** D9K1C102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: D0C130000-343 D9K1C103-LCSD
Prep Date.....: 03/09/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0073343 **Analysis Time..:** 15:50
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**98**	**(80 - 120)**			**SW846 8260B**
	99	**(80 - 120)**	**1.5**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**95**	**(80 - 120)**			**SW846 8260B**
	97	**(80 - 120)**	**2.3**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**100**	**(80 - 123)**			**SW846 8260B**
	99	**(80 - 123)**	**0.27**	**(0-20)**	**SW846 8260B**
Toluene	**103**	**(77 - 117)**			**SW846 8260B**
	105	**(77 - 117)**	**2.1**	**(0-20)**	**SW846 8260B**
Trichloroethene	**93**	**(84 - 124)**			**SW846 8260B**
	94	**(84 - 124)**	**1.8**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(82 - 122)
	93	(82 - 122)
1,2-Dichloroethane-d4	95	(78 - 123)
	93	(78 - 123)
4-Bromofluorobenzene	100	(80 - 120)
	101	(80 - 120)
Toluene-d8	104	(82 - 122)
	105	(82 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: D0C010231 **Work Order #...:** D9L5F102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: D0C140000-355 D9L5F103-LCSD
Prep Date.....: 03/09/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0074355 **Analysis Time..:** 09:54
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**94**	**(80 - 120)**			**SW846 8260B**
	91	**(80 - 120)**	**3.4**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**95**	**(80 - 120)**			**SW846 8260B**
	92	**(80 - 120)**	**3.9**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**110**	**(80 - 123)**			**SW846 8260B**
	110	**(80 - 123)**	**0.12**	**(0-20)**	**SW846 8260B**
Toluene	**98**	**(77 - 117)**			**SW846 8260B**
	94	**(77 - 117)**	**4.1**	**(0-20)**	**SW846 8260B**
Trichloroethene	**102**	**(84 - 124)**			**SW846 8260B**
	99	**(84 - 124)**	**2.9**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(82 - 122)
	96	(82 - 122)
1,2-Dichloroethane-d4	95	(78 - 123)
	92	(78 - 123)
4-Bromofluorobenzene	93	(80 - 120)
	94	(80 - 120)
Toluene-d8	100	(82 - 122)
	99	(82 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: D0C010231 **Work Order #...:** D9K1C102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: D0C130000-343 D9K1C103-LCSD
Prep Date.....: 03/09/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0073343 **Analysis Time..:** 15:50
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	**10.0**	**9.80**	**ug/L**	**98**		**SW846 8260B**
	10.0	**9.95**	**ug/L**	**99**	**1.5**	**SW846 8260B**
Chlorobenzene	**10.0**	**9.51**	**ug/L**	**95**		**SW846 8260B**
	10.0	**9.74**	**ug/L**	**97**	**2.3**	**SW846 8260B**
1,1-Dichloroethene	**10.0**	**9.96**	**ug/L**	**100**		**SW846 8260B**
	10.0	**9.93**	**ug/L**	**99**	**0.27**	**SW846 8260B**
Toluene	**10.0**	**10.3**	**ug/L**	**103**		**SW846 8260B**
	10.0	**10.5**	**ug/L**	**105**	**2.1**	**SW846 8260B**
Trichloroethene	**10.0**	**9.27**	**ug/L**	**93**		**SW846 8260B**
	10.0	**9.44**	**ug/L**	**94**	**1.8**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(82 - 122)
	93	(82 - 122)
.,2-Dichloroethane-d4	95	(78 - 123)
	93	(78 - 123)
4-Bromofluorobenzene	100	(80 - 120)
	101	(80 - 120)
Toluene-d8	104	(82 - 122)
	105	(82 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: D0C010231 **Work Order #...:** D9L5F102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: D0C140000-355 D9L5F103-LCSD
Prep Date.....: 03/09/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0074355 **Analysis Time..:** 09:54
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	**10.0**	**9.43**	**ug/L**	**94**		**SW846 8260B**
	10.0	**9.12**	**ug/L**	**91**	**3.4**	**SW846 8260B**
Chlorobenzene	**10.0**	**9.55**	**ug/L**	**95**		**SW846 8260B**
	10.0	**9.19**	**ug/L**	**92**	**3.9**	**SW846 8260B**
1,1-Dichloroethene	**10.0**	**11.0**	**ug/L**	**110**		**SW846 8260B**
	10.0	**11.0**	**ug/L**	**110**	**0.12**	**SW846 8260B**
Toluene	**10.0**	**9.84**	**ug/L**	**98**		**SW846 8260B**
	10.0	**9.44**	**ug/L**	**94**	**4.1**	**SW846 8260B**
Trichloroethene	**10.0**	**10.2**	**ug/L**	**102**		**SW846 8260B**
	10.0	**9.90**	**ug/L**	**99**	**2.9**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(82 - 122)
	96	(82 - 122)
.,2-Dichloroethane-d4	95	(78 - 123)
	92	(78 - 123)
4-Bromofluorobenzene	93	(80 - 120)
	94	(80 - 120)
Toluene-d8	100	(82 - 122)
	99	(82 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: D0C010231 **Work Order #...:** D9K1C101 **Matrix.....:** WATER
MB Lot-Sample #: D0C130000-343

Prep Date.....: 03/09/00 **Analysis Time..:** 16:38
Analysis Date..: 03/09/00 **Prep Batch #...:** 0073343
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Acetonitrile	ND	20	ug/L	SW846 8260B
Acrylonitrile	ND	20	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	2.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chloroprene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	2.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	2.0	ug/L	SW846 8260B
Allyl chloride	ND	2.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	2.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
1,2-Dichloroethene (total)	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	2.0	ug/L	SW846 8260B
2-Hexanone	ND	5.0	ug/L	SW846 8260B
Iodomethane	ND	1.0	ug/L	SW846 8260B
Isobutyl alcohol	ND	50	ug/L	SW846 8260B
Methacrylonitrile	ND	10	ug/L	SW846 8260B
Methylene chloride	**0.43 J**	**1.0**	**ug/L**	**SW846 8260B**
Methyl methacrylate	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
Propionitrile	ND	4.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: D0C010231 **Work Order #...:** D9K1C101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Vinyl acetate	ND	2.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	SW846 8260B
1,2-Dibromoethane (EDB)	ND	1.0	ug/L	SW846 8260B
2-Butanone (MEK)	ND	5.0	ug/L	SW846 8260B
Acrolein	ND	20	ug/L	SW846 8260B
Ethyl methacrylate	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(82 - 122)
1,2-Dichloroethane-d4	96	(78 - 123)
4-Bromofluorobenzene	103	(80 - 120)
Toluene-d8	105	(82 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

T2 - Confident identification - major ions and ratios largely agree.

US GEOLOGICAL SURVEY

Method Blank Report

GC/MS Volatiles

Lot-Sample #: D0C130000-343 B **Work Order #:** D9K1C101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Cyclotetrasiloxane, octamethyl	556-67-2	2.7 J T2	M	12.688	ug/L
Unknown		2.0 J	M	14.536	ug/L
1,2,4-trichlorobenzene		0.53	Q	15.66	ug/L

NOTE(S):

Q: Result was quantitated against the response factor of a calibration standard.

M: Result was measured against nearest internal standard assuming a response factor of 1.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: D0C010231 **Work Order #...:** D9L5F101 **Matrix.....:** WATER
MB Lot-Sample #: D0C140000-355

Prep Date.....: 03/09/00 **Analysis Time..:** 10:16
Analysis Date..: 03/09/00 **Prep Batch #...:** 0074355
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Acetonitrile	ND	20	ug/L	SW846 8260B
Acrylonitrile	ND	20	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	2.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chloroprene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	2.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	2.0	ug/L	SW846 8260B
Allyl chloride	ND	2.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	2.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
1,2-Dichloroethene (total)	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	2.0	ug/L	SW846 8260B
2-Hexanone	ND	5.0	ug/L	SW846 8260B
Iodomethane	ND	1.0	ug/L	SW846 8260B
Isobutyl alcohol	ND	50	ug/L	SW846 8260B
Methacrylonitrile	ND	10	ug/L	SW846 8260B
Methylene chloride	**0.62**	**1.0**	**ug/L**	**SW846 8260B**
Methyl methacrylate	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
Propionitrile	ND	4.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: D0C010231 **Work Order #...:** D9L5F101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Vinyl acetate	ND	2.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	SW846 8260B
1,2-Dibromoethane (EDB)	ND	1.0	ug/L	SW846 8260B
2-Butanone (MEK)	ND	5.0	ug/L	SW846 8260B
Acrolein	ND	20	ug/L	SW846 8260B
Ethyl methacrylate	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(82 - 122)
1,2-Dichloroethane-d4	97	(78 - 123)
4-Bromofluorobenzene	93	(80 - 120)
Toluene-d8	98	(82 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

US GEOLOGICAL SURVEY

Method Blank Report

GC/MS Volatiles

Lot-Sample #: D0C140000-355 B **Work Order #:** D9L5F101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: D0C010231 **Work Order #...:** D98W8114-MS **Matrix.....:** WATER
MS Lot-Sample #: D0C010231-013 D98W8115-MSD
Date Sampled...: 03/02/00 11:00 **Date Received..:** 03/03/00
Prep Date.....: 03/09/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0073343 **Analysis Time..:** 19:36
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**97**	**(80 - 120)**			**SW846 8260B**
	98	**(80 - 120)**	**1.3**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**95**	**(80 - 120)**			**SW846 8260B**
	97	**(80 - 120)**	**2.8**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**95**	**(80 - 123)**			**SW846 8260B**
	98	**(80 - 123)**	**3.1**	**(0-20)**	**SW846 8260B**
Toluene	**100**	**(77 - 117)**			**SW846 8260B**
	103	**(77 - 117)**	**2.6**	**(0-20)**	**SW846 8260B**
Trichloroethene	**93**	**(84 - 124)**			**SW846 8260B**
	94	**(84 - 124)**	**0.55**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(82 - 122)
	95	(82 - 122)
1,2-Dichloroethane-d4	100	(78 - 123)
	100	(78 - 123)
4-Bromofluorobenzene	103	(80 - 120)
	103	(80 - 120)
Toluene-d8	102	(82 - 122)
	104	(82 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: D0C010231 **Work Order #...:** D96CJ117-MS **Matrix.....:** WATER
MS Lot-Sample #: D0C010231-004 D96CJ118-MSD
Date Sampled...: 02/29/00 09:15 **Date Received..:** 03/01/00
Prep Date.....: 03/09/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0074355 **Analysis Time..:** 16:54
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**101**	**(80 - 120)**			**SW846 8260B**
	101	**(80 - 120)**	**0.37**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**102**	**(80 - 120)**			**SW846 8260B**
	101	**(80 - 120)**	**0.56**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**122**	**(80 - 123)**			**SW846 8260B**
	120	**(80 - 123)**	**1.0**	**(0-20)**	**SW846 8260B**
Toluene	**102**	**(77 - 117)**			**SW846 8260B**
	100	**(77 - 117)**	**1.6**	**(0-20)**	**SW846 8260B**
Trichloroethene	**112**	**(84 - 124)**			**SW846 8260B**
	112	**(84 - 124)**	**0.08**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
ibromofluoromethane	102	(82 - 122)
	102	(82 - 122)
1,2-Dichloroethane-d4	102	(78 - 123)
	105	(78 - 123)
4-Bromofluorobenzene	96	(80 - 120)
	97	(80 - 120)
Toluene-d8	97	(82 - 122)
	95	(82 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: D0C010231 **Work Order #...:** D98W8114-MS **Matrix.....:** WATER
MS Lot-Sample #: D0C010231-013 D98W8115-MSD
Date Sampled...: 03/02/00 11:00 **Date Received..:** 03/03/00
Prep Date.....: 03/09/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0073343 **Analysis Time..:** 19:36
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	**ND**	**10.0**	**9.70**	**ug/L**	**97**		**SW846 8260B**
	ND	**10.0**	**9.83**	**ug/L**	**98**	**1.3**	**SW846 8260B**
Chlorobenzene	**ND**	**10.0**	**9.45**	**ug/L**	**95**		**SW846 8260B**
	ND	**10.0**	**9.72**	**ug/L**	**97**	**2.8**	**SW846 8260B**
1,1-Dichloroethene	**ND**	**10.0**	**9.53**	**ug/L**	**95**		**SW846 8260B**
	ND	**10.0**	**9.84**	**ug/L**	**98**	**3.1**	**SW846 8260B**
Toluene	**ND**	**10.0**	**9.98**	**ug/L**	**100**		**SW846 8260B**
	ND	**10.0**	**10.3**	**ug/L**	**103**	**2.6**	**SW846 8260B**
Trichloroethene	**ND**	**10.0**	**9.30**	**ug/L**	**93**		**SW846 8260B**
	ND	**10.0**	**9.35**	**ug/L**	**94**	**0.55**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
`ibromofluoromethane	94	(82 - 122)
	95	(82 - 122)
1,2-Dichloroethane-d4	100	(78 - 123)
	100	(78 - 123)
4-Bromofluorobenzene	103	(80 - 120)
	103	(80 - 120)
Toluene-d8	102	(82 - 122)
	104	(82 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: D0C010231 Work Order #...: D96CJ117-MS Matrix.....: WATER
MS Lot-Sample #: D0C010231-004 D96CJ118-MSD
Date Sampled...: 02/29/00 09:15 Date Received..: 03/01/00
Prep Date.....: 03/09/00 Analysis Date..: 03/09/00
Prep Batch #...: 0074355 Analysis Time..: 16:54
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	ND	10.0	10.1	ug/L	101		SW846 8260B
	ND	10.0	10.1	ug/L	101	0.37	SW846 8260B
Chlorobenzene	ND	10.0	10.2	ug/L	102		SW846 8260B
	ND	10.0	10.1	ug/L	101	0.56	SW846 8260B
1,1-Dichloroethene	ND	10.0	12.2	ug/L	122		SW846 8260B
	ND	10.0	12.0	ug/L	120	1.0	SW846 8260B
Toluene	ND	10.0	10.2	ug/L	102		SW846 8260B
	ND	10.0	10.0	ug/L	100	1.6	SW846 8260B
Trichloroethene	ND	10.0	11.2	ug/L	112		SW846 8260B
	ND	10.0	11.2	ug/L	112	0.08	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(82 - 122)
	102	(82 - 122)
1,2-Dichloroethane-d4	102	(78 - 123)
	105	(78 - 123)
4-Bromofluorobenzene	96	(80 - 120)
	97	(80 - 120)
Toluene-d8	97	(82 - 122)
	95	(82 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: D0C010231 Work Order #...: D96RC102-LCS Matrix.....: WATER
LCS Lot-Sample#: D0C020000-186 D96RC103-LCSD
Prep Date.....: 03/02/00 Analysis Date..: 03/06/00
Prep Batch #...: 0062186 Analysis Time..: 18:10
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Phenol	**72**	**(53 - 100)**			**SW846 8270C**
	69	**(53 - 100)**	**4.8**	**(0-39)**	**SW846 8270C**
2-Chlorophenol	**75**	**(59 - 102)**			**SW846 8270C**
	71	**(59 - 102)**	**6.1**	**(0-31)**	**SW846 8270C**
1,4-Dichlorobenzene	**63**	**(43 - 100)**			**SW846 8270C**
	62	**(43 - 100)**	**2.8**	**(0-36)**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**74**	**(52 - 104)**			**SW846 8270C**
	72	**(52 - 104)**	**2.2**	**(0-28)**	**SW846 8270C**
1,2,4-Trichlorobenzene	**66**	**(44 - 100)**			**SW846 8270C**
	65	**(44 - 100)**	**3.0**	**(0-36)**	**SW846 8270C**
Acenaphthene	**72**	**(56 - 102)**			**SW846 8270C**
	72	**(56 - 102)**	**0.97**	**(0-31)**	**SW846 8270C**
4-Nitrophenol	**76**	**(31 - 131)**			**SW846 8270C**
	80	**(31 - 131)**	**5.8**	**(0-39)**	**SW846 8270C**
2,4-Dinitrotoluene	**74**	**(58 - 111)**			**SW846 8270C**
	74	**(58 - 111)**	**0.56**	**(0-27)**	**SW846 8270C**
Pentachlorophenol	**74**	**(40 - 108)**			**SW846 8270C**
	77	**(40 - 108)**	**3.9**	**(0-28)**	**SW846 8270C**
Pyrene	**79**	**(59 - 106)**			**SW846 8270C**
	76	**(59 - 106)**	**4.2**	**(0-24)**	**SW846 8270C**
4-Chloro-3-methylphenol	**76**	**(60 - 104)**			**SW846 8270C**
	78	**(60 - 104)**	**3.7**	**(0-35)**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	68	(53 - 101)
	67	(53 - 101)
Phenol-d5	69	(57 - 105)
	69	(57 - 105)
Nitrobenzene-d5	70	(56 - 106)
	72	(56 - 106)
2-Fluorobiphenyl	62	(44 - 99)
	63	(44 - 99)
2,4,6-Tribromophenol	72	(52 - 115)
	77	(52 - 115)
Terphenyl-d14	77	(62 - 112)
	76	(62 - 112)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: D0C010231 Work Order #...: D99AX102-LCS Matrix.....: WATER
LCS Lot-Sample#: D0C040000-119 D99AX103-LCSD
Prep Date.....: 03/04/00 Analysis Date..: 03/13/00
Prep Batch #...: 0064119 Analysis Time..: 13:49
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Phenol	**72**	**(53 - 100)**			**SW846 8270C**
	68	**(53 - 100)**	**5.0**	**(0-39)**	**SW846 8270C**
2-Chlorophenol	**76**	**(59 - 102)**			**SW846 8270C**
	70	**(59 - 102)**	**8.6**	**(0-31)**	**SW846 8270C**
1,4-Dichlorobenzene	**73**	**(43 - 100)**			**SW846 8270C**
	68	**(43 - 100)**	**6.4**	**(0-36)**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**77**	**(52 - 104)**			**SW846 8270C**
	71	**(52 - 104)**	**8.5**	**(0-28)**	**SW846 8270C**
1,2,4-Trichlorobenzene	**82**	**(44 - 100)**			**SW846 8270C**
	76	**(44 - 100)**	**6.7**	**(0-36)**	**SW846 8270C**
Acenaphthene	**77**	**(56 - 102)**			**SW846 8270C**
	71	**(56 - 102)**	**7.8**	**(0-31)**	**SW846 8270C**
4-Nitrophenol	**73**	**(31 - 131)**			**SW846 8270C**
	79	**(31 - 131)**	**7.2**	**(0-39)**	**SW846 8270C**
2,4-Dinitrotoluene	**80**	**(58 - 111)**			**SW846 8270C**
	73	**(58 - 111)**	**9.1**	**(0-27)**	**SW846 8270C**
Pentachlorophenol	**87**	**(40 - 108)**			**SW846 8270C**
	79	**(40 - 108)**	**8.8**	**(0-28)**	**SW846 8270C**
Pyrene	**78**	**(59 - 106)**			**SW846 8270C**
	71	**(59 - 106)**	**9.3**	**(0-24)**	**SW846 8270C**
4-Chloro-3-methylphenol	**81**	**(60 - 104)**			**SW846 8270C**
	77	**(60 - 104)**	**5.6**	**(0-35)**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	73	(53 - 101)
	70	(53 - 101)
Phenol-d5	72	(57 - 105)
	71	(57 - 105)
Nitrobenzene-d5	76	(56 - 106)
	71	(56 - 106)
2-Fluorobiphenyl	72	(44 - 99)
	66	(44 - 99)
2,4,6-Tribromophenol	93	(52 - 115)
	87	(52 - 115)
Terphenyl-d14	82	(62 - 112)
	75	(62 - 112)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: D0C010231 Work Order #...: D9CPR102-LCS Matrix.....: WATER
LCS Lot-Sample#: D0C080000-151 D9CPR103-LCSD
Prep Date.....: 03/08/00 Analysis Date..: 03/13/00
Prep Batch #...: 0068151 Analysis Time..: 12:19
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Phenol	**71**	**(53 - 100)**			**SW846 8270C**
	74	**(53 - 100)**	**4.3**	**(0-39)**	**SW846 8270C**
2-Chlorophenol	**72**	**(59 - 102)**			**SW846 8270C**
	75	**(59 - 102)**	**4.7**	**(0-31)**	**SW846 8270C**
1,4-Dichlorobenzene	**69**	**(43 - 100)**			**SW846 8270C**
	72	**(43 - 100)**	**3.9**	**(0-36)**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**71**	**(52 - 104)**			**SW846 8270C**
	73	**(52 - 104)**	**3.3**	**(0-28)**	**SW846 8270C**
1,2,4-Trichlorobenzene	**77**	**(44 - 100)**			**SW846 8270C**
	82	**(44 - 100)**	**5.6**	**(0-36)**	**SW846 8270C**
Acenaphthene	**73**	**(56 - 102)**			**SW846 8270C**
	78	**(56 - 102)**	**6.8**	**(0-31)**	**SW846 8270C**
4-Nitrophenol	**76**	**(31 - 131)**			**SW846 8270C**
	89	**(31 - 131)**	**15**	**(0-39)**	**SW846 8270C**
2,4-Dinitrotoluene	**73**	**(58 - 111)**			**SW846 8270C**
	78	**(58 - 111)**	**6.9**	**(0-27)**	**SW846 8270C**
Pentachlorophenol	**77**	**(40 - 108)**			**SW846 8270C**
	83	**(40 - 108)**	**8.4**	**(0-28)**	**SW846 8270C**
Pyrene	**70**	**(59 - 106)**			**SW846 8270C**
	73	**(59 - 106)**	**5.0**	**(0-24)**	**SW846 8270C**
4-Chloro-3-methylphenol	**77**	**(60 - 104)**			**SW846 8270C**
	80	**(60 - 104)**	**4.3**	**(0-35)**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	72	(53 - 101)
	76	(53 - 101)
Phenol-d5	73	(57 - 105)
	76	(57 - 105)
Nitrobenzene-d5	71	(56 - 106)
	74	(56 - 106)
2-Fluorobiphenyl	67	(44 - 99)
	75	(44 - 99)
2,4,6-Tribromophenol	88	(52 - 115)
	90	(52 - 115)
Terphenyl-d14	76	(62 - 112)
	77	(62 - 112)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: D0C010231 Work Order #...: D96RC102-LCS Matrix.....: WATER
LCS Lot-Sample#: D0C020000-186 D96RC103-LCSD
Prep Date.....: 03/02/00 Analysis Date..: 03/06/00
Prep Batch #...: 0062186 Analysis Time..: 18:10
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Phenol	150	108	ug/L	72		SW846 8270C
	150	103	ug/L	69	4.8	SW846 8270C
2-Chlorophenol	150	113	ug/L	75		SW846 8270C
	150	106	ug/L	71	6.1	SW846 8270C
1,4-Dichlorobenzene	100	63.5	ug/L	63		SW846 8270C
	100	61.7	ug/L	62	2.8	SW846 8270C
N-Nitrosodi-n-propyl-amine	100	73.7	ug/L	74		SW846 8270C
	100	72.0	ug/L	72	2.2	SW846 8270C
1,2,4-Trichlorobenzene	100	66.5	ug/L	66		SW846 8270C
	100	64.5	ug/L	65	3.0	SW846 8270C
Acenaphthene	100	72.4	ug/L	72		SW846 8270C
	100	71.7	ug/L	72	0.97	SW846 8270C
4-Nitrophenol	150	114	ug/L	76		SW846 8270C
	150	120	ug/L	80	5.8	SW846 8270C
2,4-Dinitrotoluene	100	73.9	ug/L	74		SW846 8270C
	100	74.3	ug/L	74	0.56	SW846 8270C
Pentachlorophenol	150	111	ug/L	74		SW846 8270C
	150	116	ug/L	77	3.9	SW846 8270C
Pyrene	100	78.8	ug/L	79		SW846 8270C
	100	75.5	ug/L	76	4.2	SW846 8270C
4-Chloro-3-methylphenol	150	113	ug/L	76		SW846 8270C
	150	118	ug/L	78	3.7	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	68	(53 - 101)
	67	(53 - 101)
Phenol-d5	69	(57 - 105)
	69	(57 - 105)
Nitrobenzene-d5	70	(56 - 106)
	72	(56 - 106)
2-Fluorobiphenyl	62	(44 - 99)
	63	(44 - 99)
2,4,6-Tribromophenol	72	(52 - 115)
	77	(52 - 115)
Terphenyl-d14	77	(62 - 112)
	76	(62 - 112)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: D0C010231
LCS Lot-Sample#: D0C040000-119
Prep Date.....: 03/04/00
Prep Batch #...: 0064119
Dilution Factor: 1

Work Order #...: D99AX102-LCS
D99AX103-LCSD
Analysis Date..: 03/13/00
Analysis Time..: 13:49

Matrix.....: WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Phenol	150	108	ug/L	72		SW846 8270C
	150	103	ug/L	68	5.0	SW846 8270C
2-Chlorophenol	150	115	ug/L	76		SW846 8270C
	150	105	ug/L	70	8.6	SW846 8270C
1,4-Dichlorobenzene	100	73.0	ug/L	73		SW846 8270C
	100	68.4	ug/L	68	6.4	SW846 8270C
N-Nitrosodi-n-propyl-amine	100	77.0	ug/L	77		SW846 8270C
	100	70.7	ug/L	71	8.5	SW846 8270C
1,2,4-Trichlorobenzene	100	81.6	ug/L	82		SW846 8270C
	100	76.3	ug/L	76	6.7	SW846 8270C
Acenaphthene	100	77.0	ug/L	77		SW846 8270C
	100	71.2	ug/L	71	7.8	SW846 8270C
4-Nitrophenol	150	110	ug/L	73		SW846 8270C
	150	118	ug/L	79	7.2	SW846 8270C
2,4-Dinitrotoluene	100	80.1	ug/L	80		SW846 8270C
	100	73.1	ug/L	73	9.1	SW846 8270C
Pentachlorophenol	150	130	ug/L	87		SW846 8270C
	150	119	ug/L	79	8.8	SW846 8270C
Pyrene	100	77.6	ug/L	78		SW846 8270C
	100	70.7	ug/L	71	9.3	SW846 8270C
4-Chloro-3-methylphenol	150	122	ug/L	81		SW846 8270C
	150	116	ug/L	77	5.6	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	73	(53 - 101)
	70	(53 - 101)
Phenol-d5	72	(57 - 105)
	71	(57 - 105)
Nitrobenzene-d5	76	(56 - 106)
	71	(56 - 106)
2-Fluorobiphenyl	72	(44 - 99)
	66	(44 - 99)
2,4,6-Tribromophenol	93	(52 - 115)
	87	(52 - 115)
Terphenyl-d14	82	(62 - 112)
	75	(62 - 112)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: D0C010231
LCS Lot-Sample#: D0C080000-151
Prep Date.....: 03/08/00
Prep Batch #...: 0068151
Dilution Factor: 1

Work Order #...: D9CPR102-LCS
D9CPR103-LCSD
Analysis Date..: 03/13/00
Analysis Time..: 12:19

Matrix.....: WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Phenol	**150**	**107**	**ug/L**	**71**		**SW846 8270C**
	150	**111**	**ug/L**	**74**	**4.3**	**SW846 8270C**
2-Chlorophenol	**150**	**108**	**ug/L**	**72**		**SW846 8270C**
	150	**113**	**ug/L**	**75**	**4.7**	**SW846 8270C**
1,4-Dichlorobenzene	**100**	**69.3**	**ug/L**	**69**		**SW846 8270C**
	100	**72.0**	**ug/L**	**72**	**3.9**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**100**	**71.0**	**ug/L**	**71**		**SW846 8270C**
	100	**73.3**	**ug/L**	**73**	**3.3**	**SW846 8270C**
1,2,4-Trichlorobenzene	**100**	**77.1**	**ug/L**	**77**		**SW846 8270C**
	100	**81.6**	**ug/L**	**82**	**5.6**	**SW846 8270C**
Acenaphthene	**100**	**72.5**	**ug/L**	**73**		**SW846 8270C**
	100	**77.6**	**ug/L**	**78**	**6.8**	**SW846 8270C**
4-Nitrophenol	**150**	**114**	**ug/L**	**76**		**SW846 8270C**
	150	**133**	**ug/L**	**89**	**15**	**SW846 8270C**
2,4-Dinitrotoluene	**100**	**73.0**	**ug/L**	**73**		**SW846 8270C**
	100	**78.2**	**ug/L**	**78**	**6.9**	**SW846 8270C**
Pentachlorophenol	**150**	**115**	**ug/L**	**77**		**SW846 8270C**
	150	**125**	**ug/L**	**83**	**8.4**	**SW846 8270C**
Pyrene	**100**	**69.9**	**ug/L**	**70**		**SW846 8270C**
	100	**73.4**	**ug/L**	**73**	**5.0**	**SW846 8270C**
4-Chloro-3-methylphenol	**150**	**115**	**ug/L**	**77**		**SW846 8270C**
	150	**120**	**ug/L**	**80**	**4.3**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	72	(53 - 101)
	76	(53 - 101)
Phenol-d5	73	(57 - 105)
	76	(57 - 105)
Nitrobenzene-d5	71	(56 - 106)
	74	(56 - 106)
2-Fluorobiphenyl	67	(44 - 99)
	75	(44 - 99)
2,4,6-Tribromophenol	88	(52 - 115)
	90	(52 - 115)
Terphenyl-d14	76	(62 - 112)
	77	(62 - 112)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D96RC101 **Matrix.....:** WATER
MB Lot-Sample #: D0C020000-186

Prep Date.....: 03/02/00 **Analysis Time..:** 17:40
Analysis Date..: 03/06/00 **Prep Batch #...:** 0062186
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Di-n-butyl phthalate	ND	10	ug/L	SW846 8270C
1,3-Dichlorobenzene	ND	10	ug/L	SW846 8270C
Acenaphthylene	ND	10	ug/L	SW846 8270C
Phenol	ND	10	ug/L	SW846 8270C
2-Chlorophenol	ND	10	ug/L	SW846 8270C
bis(2-Chloroethyl)-ether	ND	10	ug/L	SW846 8270C
bis(2-Chloroethoxy) methane	ND	10	ug/L	SW846 8270C
1,4-Dichlorobenzene	ND	10	ug/L	SW846 8270C
1,2-Dichlorobenzene	ND	10	ug/L	SW846 8270C
2-Methylphenol	ND	10	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	ND	10	ug/L	SW846 8270C
`,2'-oxybis(1-Chloropropa	ND	10	ug/L	SW846 8270C
-Methylphenol	ND	10	ug/L	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	10	ug/L	SW846 8270C
Hexachloroethane	ND	10	ug/L	SW846 8270C
Nitrobenzene	ND	10	ug/L	SW846 8270C
Isophorone	ND	10	ug/L	SW846 8270C
2-Nitrophenol	ND	10	ug/L	SW846 8270C
2,4-Dimethylphenol	ND	10	ug/L	SW846 8270C
2,4-Dichlorophenol	ND	10	ug/L	SW846 8270C
1,2,4-Trichlorobenzene	ND	10	ug/L	SW846 8270C
Naphthalene	ND	10	ug/L	SW846 8270C
4-Chloroaniline	ND	10	ug/L	SW846 8270C
Hexachlorobutadiene	ND	10	ug/L	SW846 8270C
2-Methylnaphthalene	ND	10	ug/L	SW846 8270C
Hexachlorocyclopenta-diene	ND	50	ug/L	SW846 8270C
2,4,5-Trichlorophenol	ND	10	ug/L	SW846 8270C
2,4,6-Trichlorophenol	ND	10	ug/L	SW846 8270C
2-Chloronaphthalene	ND	10	ug/L	SW846 8270C
Dimethyl phthalate	ND	10	ug/L	SW846 8270C
Acenaphthene	ND	10	ug/L	SW846 8270C
3-Nitroaniline	ND	50	ug/L	SW846 8270C
2,4-Dinitrophenol	ND	50	ug/L	SW846 8270C
4-Nitrophenol	ND	50	ug/L	SW846 8270C
Dibenzofuran	ND	10	ug/L	SW846 8270C
2,4-Dinitrotoluene	ND	10	ug/L	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D96RC101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2,6-Dinitrotoluene	ND	10	ug/L	SW846 8270C
Diethyl phthalate	ND	10	ug/L	SW846 8270C
4-Chlorophenyl phenyl ether	ND	10	ug/L	SW846 8270C
Fluorene	ND	10	ug/L	SW846 8270C
4-Nitroaniline	ND	50	ug/L	SW846 8270C
4,6-Dinitro-2-methylphenol	ND	50	ug/L	SW846 8270C
N-Nitrosodiphenylamine	ND	10	ug/L	SW846 8270C
4-Bromophenyl phenyl ether	ND	10	ug/L	SW846 8270C
Hexachlorobenzene	ND	10	ug/L	SW846 8270C
Pentachlorophenol	ND	50	ug/L	SW846 8270C
Phenanthrene	ND	10	ug/L	SW846 8270C
Anthracene	ND	10	ug/L	SW846 8270C
Fluoranthene	ND	10	ug/L	SW846 8270C
Pyrene	ND	10	ug/L	SW846 8270C
Butyl benzyl phthalate	ND	10	ug/L	SW846 8270C
3,3'-Dichlorobenzidine	ND	50	ug/L	SW846 8270C
enzo(a)anthracene	ND	10	ug/L	SW846 8270C
Chrysene	ND	10	ug/L	SW846 8270C
Di-n-octyl phthalate	ND	10	ug/L	SW846 8270C
Benzo(b)fluoranthene	ND	10	ug/L	SW846 8270C
Benzo(k)fluoranthene	ND	10	ug/L	SW846 8270C
Benzo(a)pyrene	ND	10	ug/L	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	SW846 8270C
Dibenz(a,h)anthracene	ND	10	ug/L	SW846 8270C
Benzo(ghi)perylene	ND	10	ug/L	SW846 8270C
4-Chloro-3-methylphenol	ND	10	ug/L	SW846 8270C
2-Nitroaniline	ND	50	ug/L	SW846 8270C
Acetophenone	ND	10	ug/L	SW846 8270C
2-Acetylaminofluorene	ND	100	ug/L	SW846 8270C
4-Aminobiphenyl	ND	50	ug/L	SW846 8270C
Aniline	ND	10	ug/L	SW846 8270C
Aramite	ND	20	ug/L	SW846 8270C
Benzyl alcohol	ND	10	ug/L	SW846 8270C
2-sec-Butyl-4,6-dinitro-phenol	ND	20	ug/L	SW846 8270C
2,6-Dichlorophenol	ND	10	ug/L	SW846 8270C
4-Dimethylaminoazobenzene	ND	20	ug/L	SW846 8270C
7,12-Dimethylbenz(a)-anthracene	ND	20	ug/L	SW846 8270C
3,3'-Dimethylbenzidine	ND	20	ug/L	SW846 8270C
alpha,alpha-Dimethylphene	ND	50	ug/L	SW846 8270C
1,3-Dinitrobenzene	ND	10	ug/L	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D96RC101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Diphenylamine	ND	10	ug/L	SW846 8270C
Ethyl methanesulfonate	ND	10	ug/L	SW846 8270C
Hexachloropropene	ND	100	ug/L	SW846 8270C
Isosafrole	ND	20	ug/L	SW846 8270C
Methapyrilene	ND	50	ug/L	SW846 8270C
3-Methylcholanthrene	ND	20	ug/L	SW846 8270C
Methyl methanesulfonate	ND	10	ug/L	SW846 8270C
3-Methylphenol	ND	10	ug/L	SW846 8270C
1,4-Naphthoquinone	ND	50	ug/L	SW846 8270C
1-Naphthylamine	ND	10	ug/L	SW846 8270C
2-Naphthylamine	ND	10	ug/L	SW846 8270C
N-Nitrosodi-n-butylamine	ND	10	ug/L	SW846 8270C
N-Nitrosodiethylamine	ND	10	ug/L	SW846 8270C
N-Nitrosodimethylamine	ND	10	ug/L	SW846 8270C
N-Nitrosomethylethylamine	ND	10	ug/L	SW846 8270C
N-Nitrosomorpholine	ND	10	ug/L	SW846 8270C
N-Nitrosopiperidine	ND	10	ug/L	SW846 8270C
N-Nitrosopyrrolidine	ND	10	ug/L	SW846 8270C
-Nitro-o-toluidine	ND	20	ug/L	SW846 8270C
ntachlorobenzene	ND	10	ug/L	SW846 8270C
Pentachloroethane	ND	50	ug/L	SW846 8270C
Pentachloronitrobenzene	ND	50	ug/L	SW846 8270C
Phenacetin	ND	20	ug/L	SW846 8270C
2-Picoline	ND	20	ug/L	SW846 8270C
Pronamide	ND	20	ug/L	SW846 8270C
Pyridine	ND	20	ug/L	SW846 8270C
Safrole	ND	20	ug/L	SW846 8270C
1,2,4,5-Tetrachloro-benzene	ND	10	ug/L	SW846 8270C
2,3,4,6-Tetrachlorophenol	ND	50	ug/L	SW846 8270C
2-Toluidine	ND	10	ug/L	SW846 8270C
1,3,5-Trinitrobenzene	ND	50	ug/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	69	(53 - 101)
Phenol-d5	72	(57 - 105)
Nitrobenzene-d5	72	(56 - 106)
2-Fluorobiphenyl	69	(44 - 99)
2,4,6-Tribromophenol	70	(52 - 115)
Terphenyl-d14	79	(62 - 112)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

US GEOLOGICAL SURVEY

Method Blank Report

GC/MS Semivolatiles

Lot-Sample #: D0C080000-151 B **Work Order #:** D9CPR101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
Cyclohexane	110-82-7	0.027 J M	1.3643	mg/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D99AX101 **Matrix.....:** WATER
MB Lot-Sample #: D0C040000-119

Prep Date.....: 03/04/00 **Analysis Time..:** 13:19
Analysis Date..: 03/13/00 **Prep Batch #...:** 0064119
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Di-n-butyl phthalate	ND	10	ug/L	SW846 8270C
1,3-Dichlorobenzene	ND	10	ug/L	SW846 8270C
Acenaphthylene	ND	10	ug/L	SW846 8270C
Phenol	ND	10	ug/L	SW846 8270C
2-Chlorophenol	ND	10	ug/L	SW846 8270C
bis(2-Chloroethyl)-ether	ND	10	ug/L	SW846 8270C
bis(2-Chloroethoxy) methane	ND	10	ug/L	SW846 8270C
1,4-Dichlorobenzene	ND	10	ug/L	SW846 8270C
1,2-Dichlorobenzene	ND	10	ug/L	SW846 8270C
2-Methylphenol	ND	10	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	ND	10	ug/L	SW846 8270C
',2'-oxybis(1-Chloropropa	ND	10	ug/L	SW846 8270C
Methylphenol	ND	10	ug/L	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	10	ug/L	SW846 8270C
Hexachloroethane	ND	10	ug/L	SW846 8270C
Nitrobenzene	ND	10	ug/L	SW846 8270C
Isophorone	ND	10	ug/L	SW846 8270C
2-Nitrophenol	ND	10	ug/L	SW846 8270C
2,4-Dimethylphenol	ND	10	ug/L	SW846 8270C
2,4-Dichlorophenol	ND	10	ug/L	SW846 8270C
1,2,4-Trichlorobenzene	ND	10	ug/L	SW846 8270C
Naphthalene	ND	10	ug/L	SW846 8270C
4-Chloroaniline	ND	10	ug/L	SW846 8270C
Hexachlorobutadiene	ND	10	ug/L	SW846 8270C
2-Methylnaphthalene	ND	10	ug/L	SW846 8270C
Hexachlorocyclopenta-diene	ND	50	ug/L	SW846 8270C
2,4,5-Trichlorophenol	ND	10	ug/L	SW846 8270C
2,4,6-Trichlorophenol	ND	10	ug/L	SW846 8270C
2-Chloronaphthalene	ND	10	ug/L	SW846 8270C
Dimethyl phthalate	ND	10	ug/L	SW846 8270C
Acenaphthene	ND	10	ug/L	SW846 8270C
3-Nitroaniline	ND	50	ug/L	SW846 8270C
2,4-Dinitrophenol	ND	50	ug/L	SW846 8270C
4-Nitrophenol	ND	50	ug/L	SW846 8270C
Dibenzofuran	ND	10	ug/L	SW846 8270C
2,4-Dinitrotoluene	ND	10	ug/L	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D99AX101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2,6-Dinitrotoluene	ND	10	ug/L	SW846 8270C
Diethyl phthalate	ND	10	ug/L	SW846 8270C
4-Chlorophenyl phenyl ether	ND	10	ug/L	SW846 8270C
Fluorene	ND	10	ug/L	SW846 8270C
4-Nitroaniline	ND	50	ug/L	SW846 8270C
4,6-Dinitro-2-methylphenol	ND	50	ug/L	SW846 8270C
N-Nitrosodiphenylamine	ND	10	ug/L	SW846 8270C
4-Bromophenyl phenyl ether	ND	10	ug/L	SW846 8270C
Hexachlorobenzene	ND	10	ug/L	SW846 8270C
Pentachlorophenol	ND	50	ug/L	SW846 8270C
Phenanthrene	ND	10	ug/L	SW846 8270C
Anthracene	ND	10	ug/L	SW846 8270C
Fluoranthene	ND	10	ug/L	SW846 8270C
Pyrene	ND	10	ug/L	SW846 8270C
Butyl benzyl phthalate	ND	10	ug/L	SW846 8270C
,3'-Dichlorobenzidine	ND	50	ug/L	SW846 8270C
enzo(a)anthracene	ND	10	ug/L	SW846 8270C
Chrysene	ND	10	ug/L	SW846 8270C
Di-n-octyl phthalate	ND	10	ug/L	SW846 8270C
Benzo(b)fluoranthene	ND	10	ug/L	SW846 8270C
Benzo(k)fluoranthene	ND	10	ug/L	SW846 8270C
Benzo(a)pyrene	ND	10	ug/L	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	SW846 8270C
Dibenz(a,h)anthracene	ND	10	ug/L	SW846 8270C
Benzo(ghi)perylene	ND	10	ug/L	SW846 8270C
4-Chloro-3-methylphenol	ND	10	ug/L	SW846 8270C
2-Nitroaniline	ND	50	ug/L	SW846 8270C
Acetophenone	ND	10	ug/L	SW846 8270C
2-Acetylaminofluorene	ND	100	ug/L	SW846 8270C
4-Aminobiphenyl	ND	50	ug/L	SW846 8270C
Aniline	ND	10	ug/L	SW846 8270C
Aramite	ND	20	ug/L	SW846 8270C
Benzyl alcohol	ND	10	ug/L	SW846 8270C
2-sec-Butyl-4,6-dinitro-phenol	ND	20	ug/L	SW846 8270C
2,6-Dichlorophenol	ND	10	ug/L	SW846 8270C
4-Dimethylaminoazobenzene	ND	20	ug/L	SW846 8270C
7,12-Dimethylbenz(a)-anthracene	ND	20	ug/L	SW846 8270C
3,3'-Dimethylbenzidine	ND	20	ug/L	SW846 8270C
alpha,alpha-Dimethylphene	ND	50	ug/L	SW846 8270C
1,3-Dinitrobenzene	ND	10	ug/L	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D99AX101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Diphenylamine	ND	10	ug/L	SW846 8270C
Ethyl methanesulfonate	ND	10	ug/L	SW846 8270C
Hexachloropropene	ND	100	ug/L	SW846 8270C
Isosafrole	ND	20	ug/L	SW846 8270C
Methapyrilene	ND	50	ug/L	SW846 8270C
3-Methylcholanthrene	ND	20	ug/L	SW846 8270C
Methyl methanesulfonate	ND	10	ug/L	SW846 8270C
3-Methylphenol	ND	10	ug/L	SW846 8270C
1,4-Naphthoquinone	ND	50	ug/L	SW846 8270C
1-Naphthylamine	ND	10	ug/L	SW846 8270C
2-Naphthylamine	ND	10	ug/L	SW846 8270C
N-Nitrosodi-n-butylamine	ND	10	ug/L	SW846 8270C
N-Nitrosodiethylamine	ND	10	ug/L	SW846 8270C
N-Nitrosodimethylamine	ND	10	ug/L	SW846 8270C
N-Nitrosomethylethylamine	ND	10	ug/L	SW846 8270C
N-Nitrosomorpholine	ND	10	ug/L	SW846 8270C
N-Nitrosopiperidine	ND	10	ug/L	SW846 8270C
N-Nitrosopyrrolidine	ND	10	ug/L	SW846 8270C
5-Nitro-o-toluidine	ND	20	ug/L	SW846 8270C
Pentachlorobenzene	ND	10	ug/L	SW846 8270C
Pentachloroethane	ND	50	ug/L	SW846 8270C
Pentachloronitrobenzene	ND	50	ug/L	SW846 8270C
Phenacetin	ND	20	ug/L	SW846 8270C
2-Picoline	ND	20	ug/L	SW846 8270C
Pronamide	ND	20	ug/L	SW846 8270C
Pyridine	ND	20	ug/L	SW846 8270C
Safrole	ND	20	ug/L	SW846 8270C
1,2,4,5-Tetrachloro-benzene	ND	10	ug/L	SW846 8270C
2,3,4,6-Tetrachlorophenol	ND	50	ug/L	SW846 8270C
2-Toluidine	ND	10	ug/L	SW846 8270C
1,3,5-Trinitrobenzene	ND	50	ug/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	72	(53 - 101)
Phenol-d5	71	(57 - 105)
Nitrobenzene-d5	72	(56 - 106)
2-Fluorobiphenyl	71	(44 - 99)
2,4,6-Tribromophenol	85	(52 - 115)
Terphenyl-d14	78	(62 - 112)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

US GEOLOGICAL SURVEY

Method Blank Report

GC/MS Semivolatiles

Lot-Sample #: D0C040000-119 B **Work Order #:** D99AX101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
Cyclohexane	110-82-7	0.023 J M	1.376	mg/L
Unknown		0.0067 J M	5.355	mg/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D9CPR101 **Matrix.....:** WATER
MB Lot-Sample #: D0C080000-151

Prep Date.....: 03/08/00 **Analysis Time..:** 11:48
Analysis Date..: 03/13/00 **Prep Batch #...:** 0068151
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Di-n-butyl phthalate	ND	10	ug/L	SW846 8270C
1,3-Dichlorobenzene	ND	10	ug/L	SW846 8270C
Acenaphthylene	ND	10	ug/L	SW846 8270C
Phenol	ND	10	ug/L	SW846 8270C
2-Chlorophenol	ND	10	ug/L	SW846 8270C
bis(2-Chloroethyl)-ether	ND	10	ug/L	SW846 8270C
bis(2-Chloroethoxy) methane	ND	10	ug/L	SW846 8270C
1,4-Dichlorobenzene	ND	10	ug/L	SW846 8270C
1,2-Dichlorobenzene	ND	10	ug/L	SW846 8270C
2-Methylphenol	ND	10	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	ND	10	ug/L	SW846 8270C
2,2'-oxybis(1-Chloropropa	ND	10	ug/L	SW846 8270C
-Methylphenol	ND	10	ug/L	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	10	ug/L	SW846 8270C
Hexachloroethane	ND	10	ug/L	SW846 8270C
Nitrobenzene	ND	10	ug/L	SW846 8270C
Isophorone	ND	10	ug/L	SW846 8270C
2-Nitrophenol	ND	10	ug/L	SW846 8270C
2,4-Dimethylphenol	ND	10	ug/L	SW846 8270C
2,4-Dichlorophenol	ND	10	ug/L	SW846 8270C
1,2,4-Trichlorobenzene	ND	10	ug/L	SW846 8270C
Naphthalene	ND	10	ug/L	SW846 8270C
4-Chloroaniline	ND	10	ug/L	SW846 8270C
Hexachlorobutadiene	ND	10	ug/L	SW846 8270C
2-Methylnaphthalene	ND	10	ug/L	SW846 8270C
Hexachlorocyclopenta-diene	ND	50	ug/L	SW846 8270C
2,4,5-Trichlorophenol	ND	10	ug/L	SW846 8270C
2,4,6-Trichlorophenol	ND	10	ug/L	SW846 8270C
2-Chloronaphthalene	ND	10	ug/L	SW846 8270C
Dimethyl phthalate	ND	10	ug/L	SW846 8270C
Acenaphthene	ND	10	ug/L	SW846 8270C
3-Nitroaniline	ND	50	ug/L	SW846 8270C
2,4-Dinitrophenol	ND	50	ug/L	SW846 8270C
4-Nitrophenol	ND	50	ug/L	SW846 8270C
Dibenzofuran	ND	10	ug/L	SW846 8270C
2,4-Dinitrotoluene	ND	10	ug/L	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D9CPR101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2,6-Dinitrotoluene	ND	10	ug/L	SW846 8270C
Diethyl phthalate	ND	10	ug/L	SW846 8270C
4-Chlorophenyl phenyl ether	ND	10	ug/L	SW846 8270C
Fluorene	ND	10	ug/L	SW846 8270C
4-Nitroaniline	ND	50	ug/L	SW846 8270C
4,6-Dinitro-2-methylphenol	ND	50	ug/L	SW846 8270C
N-Nitrosodiphenylamine	ND	10	ug/L	SW846 8270C
4-Bromophenyl phenyl ether	ND	10	ug/L	SW846 8270C
Hexachlorobenzene	ND	10	ug/L	SW846 8270C
Pentachlorophenol	ND	50	ug/L	SW846 8270C
Phenanthrene	ND	10	ug/L	SW846 8270C
Anthracene	ND	10	ug/L	SW846 8270C
Fluoranthene	ND	10	ug/L	SW846 8270C
Pyrene	ND	10	ug/L	SW846 8270C
Butyl benzyl phthalate	ND	10	ug/L	SW846 8270C
3,3'-Dichlorobenzidine	ND	50	ug/L	SW846 8270C
enzo(a)anthracene	ND	10	ug/L	SW846 8270C
Chrysene	ND	10	ug/L	SW846 8270C
Di-n-octyl phthalate	ND	10	ug/L	SW846 8270C
Benzo(b)fluoranthene	ND	10	ug/L	SW846 8270C
Benzo(k)fluoranthene	ND	10	ug/L	SW846 8270C
Benzo(a)pyrene	ND	10	ug/L	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	SW846 8270C
Dibenz(a,h)anthracene	ND	10	ug/L	SW846 8270C
Benzo(ghi)perylene	ND	10	ug/L	SW846 8270C
4-Chloro-3-methylphenol	ND	10	ug/L	SW846 8270C
2-Nitroaniline	ND	50	ug/L	SW846 8270C
Acetophenone	ND	10	ug/L	SW846 8270C
2-Acetylaminofluorene	ND	100	ug/L	SW846 8270C
4-Aminobiphenyl	ND	50	ug/L	SW846 8270C
Aniline	ND	10	ug/L	SW846 8270C
Aramite	ND	20	ug/L	SW846 8270C
Benzyl alcohol	ND	10	ug/L	SW846 8270C
2-sec-Butyl-4,6-dinitro-phenol	ND	20	ug/L	SW846 8270C
2,6-Dichlorophenol	ND	10	ug/L	SW846 8270C
4-Dimethylaminoazobenzene	ND	20	ug/L	SW846 8270C
7,12-Dimethylbenz(a)-anthracene	ND	20	ug/L	SW846 8270C
3,3'-Dimethylbenzidine	ND	20	ug/L	SW846 8270C
alpha,alpha-Dimethylphene	ND	50	ug/L	SW846 8270C
1,3-Dinitrobenzene	ND	10	ug/L	SW846 8270C

(Continued on next page)

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D9CPR101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Diphenylamine	ND	10	ug/L	SW846 8270C
Ethyl methanesulfonate	ND	10	ug/L	SW846 8270C
Hexachloropropene	ND	100	ug/L	SW846 8270C
Isosafrole	ND	20	ug/L	SW846 8270C
Methapyrilene	ND	50	ug/L	SW846 8270C
3-Methylcholanthrene	ND	20	ug/L	SW846 8270C
Methyl methanesulfonate	ND	10	ug/L	SW846 8270C
3-Methylphenol	ND	10	ug/L	SW846 8270C
1,4-Naphthoquinone	ND	50	ug/L	SW846 8270C
1-Naphthylamine	ND	10	ug/L	SW846 8270C
2-Naphthylamine	ND	10	ug/L	SW846 8270C
N-Nitrosodi-n-butylamine	ND	10	ug/L	SW846 8270C
N-Nitrosodiethylamine	ND	10	ug/L	SW846 8270C
N-Nitrosodimethylamine	ND	10	ug/L	SW846 8270C
N-Nitrosomethylethylamine	ND	10	ug/L	SW846 8270C
N-Nitrosomorpholine	ND	10	ug/L	SW846 8270C
N-Nitrosopiperidine	ND	10	ug/L	SW846 8270C
N-Nitrosopyrrolidine	ND	10	ug/L	SW846 8270C
˜-Nitro-o-toluidine	ND	20	ug/L	SW846 8270C
entachlorobenzene	ND	10	ug/L	SW846 8270C
Pentachloroethane	ND	50	ug/L	SW846 8270C
Pentachloronitrobenzene	ND	50	ug/L	SW846 8270C
Phenacetin	ND	20	ug/L	SW846 8270C
2-Picoline	ND	20	ug/L	SW846 8270C
Pronamide	ND	20	ug/L	SW846 8270C
Pyridine	ND	20	ug/L	SW846 8270C
Safrole	ND	20	ug/L	SW846 8270C
1,2,4,5-Tetrachloro-benzene	ND	10	ug/L	SW846 8270C
2,3,4,6-Tetrachlorophenol	ND	50	ug/L	SW846 8270C
2-Toluidine	ND	10	ug/L	SW846 8270C
1,3,5-Trinitrobenzene	ND	50	ug/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	70	(53 - 101)
Phenol-d5	69	(57 - 105)
Nitrobenzene-d5	68	(56 - 106)
2-Fluorobiphenyl	64	(44 - 99)
2,4,6-Tribromophenol	80	(52 - 115)
Terphenyl-d14	71	(62 - 112)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

US GEOLOGICAL SURVEY

Method Blank Report

GC/MS Semivolatiles

Lot-Sample #: D0C020000-186 B **Work Order #:** D96RC101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				mg/L

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: D0C010231 Work Order #...: D96CJ119-MS Matrix.....: WATER
MS Lot-Sample #: D0C010231-004 D96CJ11A-MSD
Date Sampled...: 02/29/00 09:15 Date Received..: 03/01/00
Prep Date.....: 03/02/00 Analysis Date..: 03/09/00
Prep Batch #...: 0062186 Analysis Time..: 12:12
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Phenol	**73**	**(53 - 100)**			**SW846 8270C**
	70	**(53 - 100)**	**4.6**	**(0-39)**	**SW846 8270C**
2-Chlorophenol	**72**	**(59 - 102)**			**SW846 8270C**
	67	**(59 - 102)**	**6.5**	**(0-31)**	**SW846 8270C**
1,4-Dichlorobenzene	**62**	**(43 - 100)**			**SW846 8270C**
	57	**(43 - 100)**	**9.1**	**(0-36)**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**77**	**(52 - 104)**			**SW846 8270C**
	75	**(52 - 104)**	**2.4**	**(0-28)**	**SW846 8270C**
1,2,4-Trichlorobenzene	**61**	**(44 - 100)**			**SW846 8270C**
	55	**(44 - 100)**	**10**	**(0-36)**	**SW846 8270C**
Acenaphthene	**72**	**(56 - 102)**			**SW846 8270C**
	70	**(56 - 102)**	**2.2**	**(0-31)**	**SW846 8270C**
-Nitrophenol	**76**	**(31 - 131)**			**SW846 8270C**
	74	**(31 - 131)**	**1.8**	**(0-39)**	**SW846 8270C**
2,4-Dinitrotoluene	**78**	**(58 - 111)**			**SW846 8270C**
	79	**(58 - 111)**	**1.0**	**(0-27)**	**SW846 8270C**
Pentachlorophenol	**65**	**(40 - 108)**			**SW846 8270C**
	64	**(40 - 108)**	**1.6**	**(0-28)**	**SW846 8270C**
Pyrene	**72**	**(59 - 106)**			**SW846 8270C**
	71	**(59 - 106)**	**0.88**	**(0-24)**	**SW846 8270C**
4-Chloro-3-methylphenol	**81**	**(60 - 104)**			**SW846 8270C**
	78	**(60 - 104)**	**3.5**	**(0-35)**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	69	(53 - 101)
	61	(53 - 101)
Phenol-d5	76	(57 - 105)
	67	(57 - 105)
Nitrobenzene-d5	78	(56 - 106)
	68	(56 - 106)
2-Fluorobiphenyl	65	(44 - 99)
	59	(44 - 99)
2,4,6-Tribromophenol	75	(52 - 115)
	71	(52 - 115)
Terphenyl-d14	75	(62 - 112)
	70	(62 - 112)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D96CJ119-MS **Matrix.....:** WATER
MS Lot-Sample #: D0C010231-004 D96CJ11A-MSD
Date Sampled...: 02/29/00 09:15 **Date Received..:** 03/01/00
Prep Date.....: 03/02/00 **Analysis Date..:** 03/09/00
Prep Batch #...: 0062186 **Analysis Time..:** 12:12
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Phenol	**ND**	**151**	**110**	**ug/L**	**73**		**SW846 8270C**
	ND	**155**	**108**	**ug/L**	**70**	**4.6**	**SW846 8270C**
2-Chlorophenol	**ND**	**151**	**108**	**ug/L**	**72**		**SW846 8270C**
	ND	**155**	**104**	**ug/L**	**67**	**6.5**	**SW846 8270C**
1,4-Dichlorobenzene	**ND**	**101**	**62.3**	**ug/L**	**62**		**SW846 8270C**
	ND	**104**	**58.5**	**ug/L**	**57**	**9.1**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**ND**	**101**	**77.3**	**ug/L**	**77**		**SW846 8270C**
	ND	**104**	**77.6**	**ug/L**	**75**	**2.4**	**SW846 8270C**
1,2,4-Trichlorobenzene	**ND**	**101**	**61.7**	**ug/L**	**61**		**SW846 8270C**
	ND	**104**	**57.3**	**ug/L**	**55**	**10**	**SW846 8270C**
Acenaphthene	**ND**	**101**	**72.2**	**ug/L**	**72**		**SW846 8270C**
	ND	**104**	**72.7**	**ug/L**	**70**	**2.2**	**SW846 8270C**
-Nitrophenol	**ND**	**151**	**114**	**ug/L**	**76**		**SW846 8270C**
	ND	**155**	**115**	**ug/L**	**74**	**1.8**	**SW846 8270C**
2,4-Dinitrotoluene	**ND**	**101**	**78.2**	**ug/L**	**78**		**SW846 8270C**
	ND	**104**	**81.3**	**ug/L**	**79**	**1.0**	**SW846 8270C**
Pentachlorophenol	**ND**	**151**	**98.5**	**ug/L**	**65**		**SW846 8270C**
	ND	**155**	**99.7**	**ug/L**	**64**	**1.6**	**SW846 8270C**
Pyrene	**ND**	**101**	**72.5**	**ug/L**	**72**		**SW846 8270C**
	ND	**104**	**74.0**	**ug/L**	**71**	**0.88**	**SW846 8270C**
4-Chloro-3-methylphenol	**ND**	**151**	**122**	**ug/L**	**81**		**SW846 8270C**
	ND	**155**	**121**	**ug/L**	**78**	**3.5**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	69	(53 - 101)
	61	(53 - 101)
Phenol-d5	76	(57 - 105)
	67	(57 - 105)
Nitrobenzene-d5	78	(56 - 106)
	68	(56 - 106)
2-Fluorobiphenyl	65	(44 - 99)
	59	(44 - 99)
2,4,6-Tribromophenol	75	(52 - 115)
	71	(52 - 115)
Terphenyl-d14	75	(62 - 112)
	70	(62 - 112)

OTE(S):

alculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D96KR102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: D0C020000-154 D96KR103-LCSD
Prep Date.....: 03/02/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0062154 **Analysis Time..:** 14:50
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Aldrin	**103**	**(61 - 117)**			**SW846 8081A**
	93	**(61 - 117)**	**10**	**(0-30)**	**SW846 8081A**
gamma-BHC (Lindane)	**115**	**(68 - 122)**			**SW846 8081A**
	104	**(68 - 122)**	**10**	**(0-30)**	**SW846 8081A**
4,4'-DDT	**105**	**(66 - 134)**			**SW846 8081A**
	99	**(66 - 134)**	**5.9**	**(0-30)**	**SW846 8081A**
Dieldrin	**114**	**(73 - 124)**			**SW846 8081A**
	110	**(73 - 124)**	**4.1**	**(0-30)**	**SW846 8081A**
Endrin	**109**	**(60 - 145)**			**SW846 8081A**
	104	**(60 - 145)**	**4.0**	**(0-30)**	**SW846 8081A**
Heptachlor	**116**	**(64 - 121)**			**SW846 8081A**
	94	**(64 - 121)**	**21**	**(0-30)**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	73	(39 - 143)
	110	(39 - 143)
Tetrachloro-m-xylene	100	(56 - 107)
	84	(56 - 107)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D99GE102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: D0C040000-144 D99GE103-LCSD
Prep Date.....: 03/04/00 **Analysis Date..:** 03/13/00
Prep Batch #...: 0064144 **Analysis Time..:** 21:23
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Aldrin	**86**	**(61 - 117)**			**SW846 8081A**
	106	**(61 - 117)**	**21**	**(0-30)**	**SW846 8081A**
gamma-BHC (Lindane)	**97**	**(68 - 122)**			**SW846 8081A**
	116	**(68 - 122)**	**18**	**(0-30)**	**SW846 8081A**
4,4'-DDT	**104**	**(66 - 134)**			**SW846 8081A**
	125	**(66 - 134)**	**19**	**(0-30)**	**SW846 8081A**
Dieldrin	**102**	**(73 - 124)**			**SW846 8081A**
	123	**(73 - 124)**	**19**	**(0-30)**	**SW846 8081A**
Endrin	**100**	**(60 - 145)**			**SW846 8081A**
	123	**(60 - 145)**	**20**	**(0-30)**	**SW846 8081A**
Heptachlor	**93**	**(64 - 121)**			**SW846 8081A**
	114	**(64 - 121)**	**21**	**(0-30)**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	104	(39 - 143)
	118	(39 - 143)
Tetrachloro-m-xylene	89	(56 - 107)
	102	(56 - 107)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D96KR102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: D0C020000-154 D96KR103-LCSD
Prep Date.....: 03/02/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0062154 **Analysis Time..:** 14:50
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Aldrin	**0.500**	**0.514**	**ug/L**	**103**		**SW846 8081A**
	0.500	**0.464**	**ug/L**	**93**	**10**	**SW846 8081A**
gamma-BHC (Lindane)	**0.500**	**0.576**	**ug/L**	**115**		**SW846 8081A**
	0.500	**0.520**	**ug/L**	**104**	**10**	**SW846 8081A**
4,4'-DDT	**0.500**	**0.525**	**ug/L**	**105**		**SW846 8081A**
	0.500	**0.495**	**ug/L**	**99**	**5.9**	**SW846 8081A**
Dieldrin	**0.500**	**0.571**	**ug/L**	**114**		**SW846 8081A**
	0.500	**0.548**	**ug/L**	**110**	**4.1**	**SW846 8081A**
Endrin	**0.500**	**0.543**	**ug/L**	**109**		**SW846 8081A**
	0.500	**0.522**	**ug/L**	**104**	**4.0**	**SW846 8081A**
Heptachlor	**0.500**	**0.581**	**ug/L**	**116**		**SW846 8081A**
	0.500	**0.470**	**ug/L**	**94**	**21**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
)ecachlorobiphenyl	73	(39 - 143)
	110	(39 - 143)
Tetrachloro-m-xylene	100	(56 - 107)
	84	(56 - 107)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D99GE102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: D0C040000-144 D99GE103-LCSD
Prep Date.....: 03/04/00 **Analysis Date..:** 03/13/00
Prep Batch #...: 0064144 **Analysis Time..:** 21:23
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Aldrin	**0.500**	**0.431**	**ug/L**	**86**		**SW846 8081A**
	0.500	**0.533**	**ug/L**	**106**	**21**	**SW846 8081A**
gamma-BHC (Lindane)	**0.500**	**0.486**	**ug/L**	**97**		**SW846 8081A**
	0.500	**0.581**	**ug/L**	**116**	**18**	**SW846 8081A**
4,4'-DDT	**0.500**	**0.518**	**ug/L**	**104**		**SW846 8081A**
	0.500	**0.624**	**ug/L**	**125**	**19**	**SW846 8081A**
Dieldrin	**0.500**	**0.509**	**ug/L**	**102**		**SW846 8081A**
	0.500	**0.615**	**ug/L**	**123**	**19**	**SW846 8081A**
Endrin	**0.500**	**0.502**	**ug/L**	**100**		**SW846 8081A**
	0.500	**0.617**	**ug/L**	**123**	**20**	**SW846 8081A**
Heptachlor	**0.500**	**0.463**	**ug/L**	**93**		**SW846 8081A**
	0.500	**0.571**	**ug/L**	**114**	**21**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	104	(39 - 143)
	118	(39 - 143)
Tetrachloro-m-xylene	89	(56 - 107)
	102	(56 - 107)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D99GE101 **Matrix.....:** WATER
MB Lot-Sample #: D0C040000-144

Prep Date.....: 03/04/00 **Analysis Time..:** 20:53
Analysis Date..: 03/13/00 **Prep Batch #...:** 0064144
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Diallate	ND	1.0	ug/L	SW846 8081A
Isodrin	ND	0.10	ug/L	SW846 8081A
Kepone	ND	1.0	ug/L	SW846 8081A
Aldrin	ND	0.050	ug/L	SW846 8081A
alpha-BHC	ND	0.050	ug/L	SW846 8081A
beta-BHC	ND	0.050	ug/L	SW846 8081A
delta-BHC	ND	0.050	ug/L	SW846 8081A
gamma-BHC (Lindane)	ND	0.050	ug/L	SW846 8081A
alpha-Chlordane	ND	0.050	ug/L	SW846 8081A
gamma-Chlordane	ND	0.050	ug/L	SW846 8081A
4,4'-DDD	ND	0.050	ug/L	SW846 8081A
4,4'-DDE	ND	0.050	ug/L	SW846 8081A
4,4'-DDT	ND	0.050	ug/L	SW846 8081A
Dieldrin	ND	0.050	ug/L	SW846 8081A
Endosulfan I	ND	0.050	ug/L	SW846 8081A
Endosulfan II	ND	0.050	ug/L	SW846 8081A
Endosulfan sulfate	ND	0.050	ug/L	SW846 8081A
Endrin	ND	0.050	ug/L	SW846 8081A
Endrin aldehyde	ND	0.050	ug/L	SW846 8081A
Heptachlor	ND	0.050	ug/L	SW846 8081A
Heptachlor epoxide	ND	0.050	ug/L	SW846 8081A
Methoxychlor	ND	0.10	ug/L	SW846 8081A
Toxaphene	ND	2.0	ug/L	SW846 8081A
Endrin ketone	ND	0.050	ug/L	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	110	(39 - 143)
Tetrachloro-m-xylene	91	(56 - 107)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D96KR101 **Matrix.....:** WATER
MB Lot-Sample #: D0C020000-154

Prep Date.....: 03/02/00 **Analysis Time..:** 14:20

Analysis Date..: 03/07/00 **Prep Batch #...:** 0062154
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Diallate	ND	1.0	ug/L	SW846 8081A
Isodrin	ND	0.10	ug/L	SW846 8081A
Kepone	ND	1.0	ug/L	SW846 8081A
Aldrin	ND	0.050	ug/L	SW846 8081A
alpha-BHC	ND	0.050	ug/L	SW846 8081A
beta-BHC	ND	0.050	ug/L	SW846 8081A
delta-BHC	ND	0.050	ug/L	SW846 8081A
gamma-BHC (Lindane)	ND	0.050	ug/L	SW846 8081A
alpha-Chlordane	ND	0.050	ug/L	SW846 8081A
gamma-Chlordane	ND	0.050	ug/L	SW846 8081A
4,4'-DDD	ND	0.050	ug/L	SW846 8081A
4,4'-DDE	ND	0.050	ug/L	SW846 8081A
4,4'-DDT	ND	0.050	ug/L	SW846 8081A
Dieldrin	ND	0.050	ug/L	SW846 8081A
Endosulfan I	ND	0.050	ug/L	SW846 8081A
Endosulfan II	ND	0.050	ug/L	SW846 8081A
Endosulfan sulfate	ND	0.050	ug/L	SW846 8081A
Endrin	ND	0.050	ug/L	SW846 8081A
Endrin aldehyde	ND	0.050	ug/L	SW846 8081A
Heptachlor	ND	0.050	ug/L	SW846 8081A
Heptachlor epoxide	ND	0.050	ug/L	SW846 8081A
Methoxychlor	ND	0.10	ug/L	SW846 8081A
Toxaphene	ND	2.0	ug/L	SW846 8081A
Endrin ketone	ND	0.050	ug/L	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	113	(39 - 143)
Tetrachloro-m-xylene	89	(56 - 107)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D96CJ11C-MS **Matrix.....:** WATER
MS Lot-Sample #: D0C010231-004 D96CJ11D-MSD
Date Sampled...: 02/29/00 09:15 **Date Received..:** 03/01/00
Prep Date.....: 03/02/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0062154 **Analysis Time..:** 22:14
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Aldrin	**99**	**(61 - 117)**			**SW846 8081A**
	95	**(61 - 117)**	**4.0**	**(0-30)**	**SW846 8081A**
gamma-BHC (Lindane)	**113**	**(68 - 122)**			**SW846 8081A**
	103	**(68 - 122)**	**9.4**	**(0-30)**	**SW846 8081A**
4,4'-DDT	**116**	**(66 - 134)**			**SW846 8081A**
	104	**(66 - 134)**	**10**	**(0-30)**	**SW846 8081A**
Dieldrin	**118**	**(73 - 124)**			**SW846 8081A**
	108	**(73 - 124)**	**8.7**	**(0-30)**	**SW846 8081A**
Endrin	**106**	**(60 - 145)**			**SW846 8081A**
	89	**(60 - 145)**	**17**	**(0-30)**	**SW846 8081A**
Heptachlor	**115**	**(64 - 121)**			**SW846 8081A**
	109	**(64 - 121)**	**5.6**	**(0-30)**	**SW846 8081A**

URROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	103	(39 - 143)
	100	(39 - 143)
Tetrachloro-m-xylene	91	(56 - 107)
	86	(56 - 107)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D98W8116-MS **Matrix.....:** WATER
MS Lot-Sample #: D0C010231-013 D98W8117-MSD
Date Sampled...: 03/02/00 11:00 **Date Received..:** 03/03/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/14/00
Prep Batch #...: 0064144 **Analysis Time..:** 06:15
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Aldrin	**96**	**(61 - 117)**			**SW846 8081A**
	100	**(61 - 117)**	**3.7**	**(0-30)**	**SW846 8081A**
gamma-BHC (Lindane)	**104**	**(68 - 122)**			**SW846 8081A**
	110	**(68 - 122)**	**5.5**	**(0-30)**	**SW846 8081A**
4,4'-DDT	**114**	**(66 - 134)**			**SW846 8081A**
	120	**(66 - 134)**	**5.3**	**(0-30)**	**SW846 8081A**
Dieldrin	**111**	**(73 - 124)**			**SW846 8081A**
	119	**(73 - 124)**	**7.0**	**(0-30)**	**SW846 8081A**
Endrin	**115**	**(60 - 145)**			**SW846 8081A**
	124	**(60 - 145)**	**7.0**	**(0-30)**	**SW846 8081A**
Heptachlor	**113**	**(64 - 121)**			**SW846 8081A**
	118	**(64 - 121)**	**5.0**	**(0-30)**	**SW846 8081A**

URROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	110	(39 - 143)
	111	(39 - 143)
Tetrachloro-m-xylene	90	(56 - 107)
	100	(56 - 107)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: D0C010231 Work Order #...: D96CJ11C-MS Matrix.....: WATER
MS Lot-Sample #: D0C010231-004 D96CJ11D-MSD
Date Sampled...: 02/29/00 09:15 Date Received..: 03/01/00
Prep Date.....: 03/02/00 Analysis Date..: 03/07/00
Prep Batch #...: 0062154 Analysis Time..: 22:14
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Aldrin	**ND**	**0.476**	**0.471**	**ug/L**	**99**		**SW846 8081A**
	ND	**0.505**	**0.480**	**ug/L**	**95**	**4.0**	**SW846 8081A**
gamma-BHC (Lindane)	**ND**	**0.476**	**0.539**	**ug/L**	**113**		**SW846 8081A**
	ND	**0.505**	**0.520**	**ug/L**	**103**	**9.4**	**SW846 8081A**
4,4'-DDT	**ND**	**0.476**	**0.550**	**ug/L**	**116**		**SW846 8081A**
	ND	**0.505**	**0.526**	**ug/L**	**104**	**10**	**SW846 8081A**
Dieldrin	**ND**	**0.476**	**0.561**	**ug/L**	**118**		**SW846 8081A**
	ND	**0.505**	**0.545**	**ug/L**	**108**	**8.7**	**SW846 8081A**
Endrin	**ND**	**0.476**	**0.504**	**ug/L**	**106**		**SW846 8081A**
	ND	**0.505**	**0.450**	**ug/L**	**89**	**17**	**SW846 8081A**
Heptachlor	**ND**	**0.476**	**0.550**	**ug/L**	**115**		**SW846 8081A**
	ND	**0.505**	**0.551**	**ug/L**	**109**	**5.6**	**SW846 8081A**

URROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	103	(39 - 143)
	100	(39 - 143)
Tetrachloro-m-xylene	91	(56 - 107)
	86	(56 - 107)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: D0C010231 Work Order #...: D98W8116-MS Matrix.....: WATER
MS Lot-Sample #: D0C010231-013 D98W8117-MSD
Date Sampled...: 03/02/00 11:00 Date Received..: 03/03/00
Prep Date.....: 03/04/00 Analysis Date..: 03/14/00
Prep Batch #...: 0064144 Analysis Time..: 06:15
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Aldrin	ND	0.508	0.489	ug/L	96		SW846 8081A
	ND	0.507	0.506	ug/L	100	3.7	SW846 8081A
gamma-BHC (Lindane)	ND	0.508	0.530	ug/L	104		SW846 8081A
	ND	0.507	0.559	ug/L	110	5.5	SW846 8081A
4,4'-DDT	ND	0.508	0.578	ug/L	114		SW846 8081A
	ND	0.507	0.608	ug/L	120	5.3	SW846 8081A
Dieldrin	ND	0.508	0.564	ug/L	111		SW846 8081A
	ND	0.507	0.604	ug/L	119	7.0	SW846 8081A
Endrin	ND	0.508	0.586	ug/L	115		SW846 8081A
	ND	0.507	0.627	ug/L	124	7.0	SW846 8081A
Heptachlor	ND	0.508	0.572	ug/L	113		SW846 8081A
	ND	0.507	0.600	ug/L	118	5.0	SW846 8081A

JRROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	110	(39 - 143)
	111	(39 - 143)
Tetrachloro-m-xylene	90	(56 - 107)
	100	(56 - 107)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D96LK102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: D0C020000-157 D96LK103-LCSD
Prep Date.....: 03/02/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0062157 **Analysis Time..:** 13:59
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Aroclor 1016	**118**	**(73 - 123)**			**SW846 8082**
	106	**(73 - 123)**	**11**	**(0-20)**	**SW846 8082**
Aroclor 1260	**117**	**(77 - 120)**			**SW846 8082**
	111	**(77 - 120)**	**5.9**	**(0-20)**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	113	(52 - 129)
	108	(52 - 129)
Tetrachloro-m-xylene	111	(54 - 113)
	93	(54 - 113)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D99GQ102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: D0C040000-145 D99GQ103-LCSD
Prep Date.....: 03/04/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0064145 **Analysis Time..:** 22:40
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Aroclor 1016	**107**	**(73 - 123)**			**SW846 8082**
	108	**(73 - 123)**	**1.4**	**(0-20)**	**SW846 8082**
Aroclor 1260	**110**	**(77 - 120)**			**SW846 8082**
	112	**(77 - 120)**	**1.6**	**(0-20)**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	115	(52 - 129)
	117	(52 - 129)
Tetrachloro-m-xylene	109	(54 - 113)
	109	(54 - 113)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D96LK102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: D0C020000-157 D96LK103-LCSD
Prep Date.....: 03/02/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0062157 **Analysis Time..:** 13:59
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Aroclor 1016	**2.00**	**2.36**	**ug/L**	**118**		**SW846 8082**
	2.00	**2.11**	**ug/L**	**106**	**11**	**SW846 8082**
Aroclor 1260	**2.00**	**2.35**	**ug/L**	**117**		**SW846 8082**
	2.00	**2.21**	**ug/L**	**111**	**5.9**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	113	(52 - 129)
	108	(52 - 129)
Tetrachloro-m-xylene	111	(54 - 113)
	93	(54 - 113)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D99GQ102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: D0C040000-145 D99GQ103-LCSD
Prep Date.....: 03/04/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0064145 **Analysis Time..:** 22:40
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Aroclor 1016	**2.00**	**2.13**	**ug/L**	**107**		**SW846 8082**
	2.00	**2.16**	**ug/L**	**108**	**1.4**	**SW846 8082**
Aroclor 1260	**2.00**	**2.20**	**ug/L**	**110**		**SW846 8082**
	2.00	**2.24**	**ug/L**	**112**	**1.6**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	115	(52 - 129)
	117	(52 - 129)
Tetrachloro-m-xylene	109	(54 - 113)
	109	(54 - 113)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D96LK101 **Matrix.....:** WATER
MB Lot-Sample #: D0C020000-157

Prep Date.....: 03/02/00 **Analysis Time..:** 13:32
Analysis Date..: 03/07/00 **Prep Batch #...:** 0062157
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aroclor 1016	ND	1.0	ug/L	SW846 8082
Aroclor 1221	ND	1.0	ug/L	SW846 8082
Aroclor 1232	ND	1.0	ug/L	SW846 8082
Aroclor 1242	ND	1.0	ug/L	SW846 8082
Aroclor 1248	ND	1.0	ug/L	SW846 8082
Aroclor 1254	ND	1.0	ug/L	SW846 8082
Aroclor 1260	ND	1.0	ug/L	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	104	(52 - 129)
Tetrachloro-m-xylene	95	(54 - 113)

NOTE(S):

ılculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: D0C010231
MB Lot-Sample #: D0C040000-145
Work Order #...: D99GQ101
Matrix.....: WATER
Prep Date.....: 03/04/00
Analysis Time..: 22:12
Analysis Date..: 03/07/00
Prep Batch #...: 0064145
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aroclor 1016	ND	1.0	ug/L	SW846 8082
Aroclor 1221	ND	1.0	ug/L	SW846 8082
Aroclor 1232	ND	1.0	ug/L	SW846 8082
Aroclor 1242	ND	1.0	ug/L	SW846 8082
Aroclor 1248	ND	1.0	ug/L	SW846 8082
Aroclor 1254	ND	1.0	ug/L	SW846 8082
Aroclor 1260	ND	1.0	ug/L	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	112	(52 - 129)
Tetrachloro-m-xylene	100	(54 - 113)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D98W8118-MS **Matrix.....:** WATER
MS Lot-Sample #: D0C010231-013 D98W8119-MSD
Date Sampled...: 03/02/00 11:00 **Date Received..:** 03/03/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/08/00
Prep Batch #...: 0064145 **Analysis Time..:** 02:47
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Aroclor 1016	**103**	**(73 - 123)**			**SW846 8082**
	109	**(73 - 123)**	**5.3**	**(0-20)**	**SW846 8082**
Aroclor 1260	**105**	**(77 - 120)**			**SW846 8082**
	108	**(77 - 120)**	**3.0**	**(0-20)**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	108	(52 - 129)
	110	(52 - 129)
Tetrachloro-m-xylene	109	(54 - 113)
	113	(54 - 113)

NOTE(S):

'alculations are performed before rounding to avoid round-off errors in calculated results.

,old print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D98W8118-MS **Matrix.....:** WATER
MS Lot-Sample #: D0C010231-013 D98W8119-MSD
Date Sampled...: 03/02/00 11:00 **Date Received..:** 03/03/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/08/00
Prep Batch #...: 0064145 **Analysis Time..:** 02:47
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Aroclor 1016	ND	2.06	2.12	ug/L	103		SW846 8082
	ND	2.00	2.18	ug/L	109	5.3	SW846 8082
Aroclor 1260	ND	2.06	2.15	ug/L	105		SW846 8082
	ND	2.00	2.16	ug/L	108	3.0	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	108	(52 - 129)
	110	(52 - 129)
Tetrachloro-m-xylene	109	(54 - 113)
	113	(54 - 113)

NOTE(S):

'alculations are performed before rounding to avoid round-off errors in calculated results.

.old print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D9A6G102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: D0C060000-375 D9A6G103-LCSD
Prep Date.....: 03/06/00 **Analysis Date..:** 03/15/00
Prep Batch #...: 0066375 **Analysis Time..:** 00:23
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
2,4-D	**78**	**(25 - 163)**			**SW846 8151A**
	85	**(25 - 163)**	**8.2**	**(0-30)**	**SW846 8151A**
2,4,5-T	**94**	**(25 - 162)**			**SW846 8151A**
	103	**(25 - 162)**	**8.7**	**(0-30)**	**SW846 8151A**
2,4,5-TP (Silvex)	**104**	**(25 - 158)**			**SW846 8151A**
	112	**(25 - 158)**	**7.9**	**(0-30)**	**SW846 8151A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	76	(43 - 139)
	82	(43 - 139)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D9A6G102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: D0C060000-375 D9A6G103-LCSD
Prep Date.....: 03/06/00 **Analysis Date..:** 03/15/00
Prep Batch #...: 0066375 **Analysis Time..:** 00:23
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
2,4-D	**8.00**	**6.28**	**ug/L**	**78**		**SW846 8151A**
	8.00	**6.82**	**ug/L**	**85**	**8.2**	**SW846 8151A**
2,4,5-T	**2.00**	**1.89**	**ug/L**	**94**		**SW846 8151A**
	2.00	**2.06**	**ug/L**	**103**	**8.7**	**SW846 8151A**
2,4,5-TP (Silvex)	**2.00**	**2.07**	**ug/L**	**104**		**SW846 8151A**
	2.00	**2.24**	**ug/L**	**112**	**7.9**	**SW846 8151A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	76	(43 - 139)
	82	(43 - 139)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: D0C010231 **Work Order #...:** D9A6G101 **Matrix.....:** WATER
MB Lot-Sample #: D0C060000-375

Prep Date.....: 03/06/00 **Analysis Time..:** 23:47
Analysis Date..: 03/14/00 **Prep Batch #...:** 0066375
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2,4-D	ND	4.0	ug/L	SW846 8151A
2,4,5-T	ND	1.0	ug/L	SW846 8151A
2,4,5-TP (Silvex)	ND	1.0	ug/L	SW846 8151A
Dinoseb	ND	0.60	ug/L	SW846 8151A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	90	(43 - 139)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: D0C010231 Work Order #...: D96CJ11G-MS Matrix.....: WATER
MS Lot-Sample #: D0C010231-004 D96CJ11H-MSD
Date Sampled...: 02/29/00 09:15 Date Received..: 03/01/00
Prep Date.....: 03/06/00 Analysis Date..: 03/15/00
Prep Batch #...: 0066375 Analysis Time..: 10:20
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
2,4-D	90	(25 - 163)			SW846 8151A
	91	(25 - 163)	1.2	(0-30)	SW846 8151A
2,4,5-T	109	(25 - 162)			SW846 8151A
	111	(25 - 162)	1.5	(0-30)	SW846 8151A
2,4,5-TP (Silvex)	113	(25 - 158)			SW846 8151A
	118	(25 - 158)	3.8	(0-30)	SW846 8151A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	86	(43 - 139)
	86	(43 - 139)

NOTE(S):

lculations are performed before rounding to avoid round-off errors in calculated results.

old print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: D0C010231 Work Order #...: D96CJ11G-MS Matrix.....: WATER
MS Lot-Sample #: D0C010231-004 D96CJ11H-MSD
Date Sampled...: 02/29/00 09:15 Date Received..: 03/01/00
Prep Date.....: 03/06/00 Analysis Date..: 03/15/00
Prep Batch #...: 0066375 Analysis Time..: 10:20
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
2,4-D	ND	8.25	7.44	ug/L	90		SW846 8151A
	ND	8.25	7.53	ug/L	91	1.2	SW846 8151A
2,4,5-T	ND	2.06	2.26	ug/L	109		SW846 8151A
	ND	2.06	2.29	ug/L	111	1.5	SW846 8151A
2,4,5-TP (Silvex)	ND	2.06	2.34	ug/L	113		SW846 8151A
	ND	2.06	2.43	ug/L	118	3.8	SW846 8151A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	86	(43 - 139)
	86	(43 - 139)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: D0C010231 Work Order #...: D99H2102-LCS Matrix.....: WATER
LCS Lot-Sample#: D0C040000-146 D99H2103-LCSD
Prep Date.....: 03/04/00 Analysis Date..: 03/07/00
Prep Batch #...: 0064146 Analysis Time..: 08:09
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzo(a)pyrene	**107**	**(58 - 124)**			**SW846 8310**
	100	**(58 - 124)**	**7.0**	**(0-22)**	**SW846 8310**
Fluorene	**98**	**(60 - 116)**			**SW846 8310**
	91	**(60 - 116)**	**7.7**	**(0-26)**	**SW846 8310**
Indeno(1,2,3-cd)pyrene	**109**	**(56 - 121)**			**SW846 8310**
	102	**(56 - 121)**	**6.2**	**(0-22)**	**SW846 8310**
Naphthalene	**93**	**(56 - 126)**			**SW846 8310**
	85	**(56 - 126)**	**9.5**	**(0-33)**	**SW846 8310**
Pyrene	**108**	**(69 - 118)**			**SW846 8310**
	98	**(69 - 118)**	**10**	**(0-28)**	**SW846 8310**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	98	(57 - 128)
	91	(57 - 128)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: D0C010231 **Work Order #...:** D99H2102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: D0C040000-146 D99H2103-LCSD
Prep Date.....: 03/04/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0064146 **Analysis Time..:** 08:09
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzo(a)pyrene	**4.00**	**4.30**	**ug/L**	**107**		**SW846 8310**
	4.00	**4.01**	**ug/L**	**100**	**7.0**	**SW846 8310**
Fluorene	**4.00**	**3.93**	**ug/L**	**98**		**SW846 8310**
	4.00	**3.64**	**ug/L**	**91**	**7.7**	**SW846 8310**
Indeno(1,2,3-cd)pyrene	**4.00**	**4.35**	**ug/L**	**109**		**SW846 8310**
	4.00	**4.09**	**ug/L**	**102**	**6.2**	**SW846 8310**
Naphthalene	**4.00**	**3.72**	**ug/L**	**93**		**SW846 8310**
	4.00	**3.38**	**ug/L**	**85**	**9.5**	**SW846 8310**
Pyrene	**4.00**	**4.34**	**ug/L**	**108**		**SW846 8310**
	4.00	**3.91**	**ug/L**	**98**	**10**	**SW846 8310**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	98	(57 - 128)
	91	(57 - 128)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METHOD BLANK REPORT

HPLC

Client Lot #...: D0C010231
MB Lot-Sample #: D0C040000-146
Work Order #...: D99H2101
Matrix.....: WATER
Prep Date.....: 03/04/00
Analysis Time..: 07:40
Analysis Date..: 03/07/00
Prep Batch #...: 0064146
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acenaphthene	ND	1.0	ug/L	SW846 8310
Acenaphthylene	ND	1.0	ug/L	SW846 8310
Anthracene	ND	0.10	ug/L	SW846 8310
Benzo(a)anthracene	ND	0.10	ug/L	SW846 8310
Benzo(a)pyrene	ND	0.10	ug/L	SW846 8310
Benzo(b)fluoranthene	ND	0.10	ug/L	SW846 8310
Benzo(ghi)perylene	ND	0.20	ug/L	SW846 8310
Benzo(k)fluoranthene	ND	0.10	ug/L	SW846 8310
Chrysene	ND	0.20	ug/L	SW846 8310
Dibenzo(a,h)anthracene	ND	0.20	ug/L	SW846 8310
Fluoranthene	ND	0.20	ug/L	SW846 8310
Fluorene	ND	0.20	ug/L	SW846 8310
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	SW846 8310
1-Methylnaphthalene	ND	1.0	ug/L	SW846 8310
?-Methylnaphthalene	ND	1.0	ug/L	SW846 8310
aphthalene	ND	1.0	ug/L	SW846 8310
Phenanthrene	ND	0.20	ug/L	SW846 8310
Pyrene	ND	0.20	ug/L	SW846 8310

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	88	(57 - 128)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: D0C010231 **Work Order #...:** D96CJ11J-MS **Matrix.....:** WATER
MS Lot-Sample #: D0C010231-004 D96CJ11K-MSD
Date Sampled...: 02/29/00 09:15 **Date Received..:** 03/01/00
Prep Date.....: 03/04/00 **Analysis Date..:** 03/07/00
Prep Batch #...: 0064146 **Analysis Time..:** 11:03
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzo(a)pyrene	**94**	**(58 - 124)**			**SW846 8310**
	100	**(58 - 124)**	**7.0**	**(0-22)**	**SW846 8310**
Fluorene	**85**	**(60 - 116)**			**SW846 8310**
	91	**(60 - 116)**	**6.9**	**(0-26)**	**SW846 8310**
Indeno(1,2,3-cd)pyrene	**97**	**(56 - 121)**			**SW846 8310**
	103	**(56 - 121)**	**5.7**	**(0-22)**	**SW846 8310**
Naphthalene	**77**	**(56 - 126)**			**SW846 8310**
	81	**(56 - 126)**	**5.1**	**(0-33)**	**SW846 8310**
Pyrene	**103**	**(69 - 118)**			**SW846 8310**
	102	**(69 - 118)**	**0.76**	**(0-28)**	**SW846 8310**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	79	(57 - 128)
	82	(57 - 128)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: D0C010231
MS Lot-Sample #: D0C010231-004
Date Sampled...: 02/29/00 09:15
Prep Date.....: 03/04/00
Prep Batch #...: 0064146
Dilution Factor: 1

Work Order #...: D96CJ11J-MS
D96CJ11K-MSD
Date Received..: 03/01/00
Analysis Date..: 03/07/00
Analysis Time..: 11:03

Matrix.....: WATER

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzo(a)pyrene	**ND**	**3.80**	**3.55**	**ug/L**	**94**		**SW846 8310**
	ND	**3.71**	**3.72**	**ug/L**	**100**	**7.0**	**SW846 8310**
Fluorene	**ND**	**3.80**	**3.23**	**ug/L**	**85**		**SW846 8310**
	ND	**3.71**	**3.39**	**ug/L**	**91**	**6.9**	**SW846 8310**
Indeno(1,2,3-cd)pyrene	**ND**	**3.80**	**3.70**	**ug/L**	**97**		**SW846 8310**
	ND	**3.71**	**3.82**	**ug/L**	**103**	**5.7**	**SW846 8310**
Naphthalene	**ND**	**3.80**	**2.93**	**ug/L**	**77**		**SW846 8310**
	ND	**3.71**	**3.02**	**ug/L**	**81**	**5.1**	**SW846 8310**
Pyrene	**ND**	**3.80**	**3.90**	**ug/L**	**103**		**SW846 8310**
	ND	**3.71**	**3.78**	**ug/L**	**102**	**0.76**	**SW846 8310**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	79	(57 - 128)
	82	(57 - 128)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #...: D0C010231 **Work Order #...:** D9FT8102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: G0C090000-397 D9FT8103-LCSD
Prep Date.....: 03/08/00 **Analysis Date..:** 03/10/00
Prep Batch #...: 0069397 **Analysis Time..:** 18:33
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
2,3,7,8-TCDD	**103**	**(50 - 150)**			**SW846 8280A**
	101	**(50 - 150)**	**2.7**	**(0-50)**	**SW846 8280A**
1,2,3,7,8-PeCDD	**96**	**(50 - 150)**			**SW846 8280A**
	85	**(50 - 150)**	**12**	**(0-50)**	**SW846 8280A**
1,2,3,6,7,8-HxCDD	**100**	**(50 - 150)**			**SW846 8280A**
	98	**(50 - 150)**	**2.0**	**(0-50)**	**SW846 8280A**
2,3,7,8-TCDF	**99**	**(50 - 150)**			**SW846 8280A**
	96	**(50 - 150)**	**2.6**	**(0-50)**	**SW846 8280A**
1,2,3,7,8-PeCDF	**108**	**(50 - 150)**			**SW846 8280A**
	96	**(50 - 150)**	**11**	**(0-50)**	**SW846 8280A**
1,2,3,6,7,8-HxCDF	**90**	**(50 - 150)**			**SW846 8280A**
	89	**(50 - 150)**	**0.81**	**(0-50)**	**SW846 8280A**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	146	(25 - 150)
	92	(25 - 150)
13C-2,3,7,8-TCDF	139	(25 - 150)
	87	(25 - 150)
13C-1,2,3,6,7,8-HxCDD	147	(25 - 150)
	93	(25 - 150)
13C-1,2,3,4,6,7,8-HpCDF	162 *	(25 - 150)
	77	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	98	(25 - 150)
	94	(25 - 150)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

* Surrogate recovery is outside stated control limits.

METHOD BLANK REPORT

Trace Level Organic Compounds

Client Lot #...: D0C010231
MB Lot-Sample #: G0C090000-397
Work Order #...: D9FT8101
Matrix.....: WATER
Prep Date.....: 03/08/00
Analysis Time..: 17:47
Analysis Date..: 03/10/00
Prep Batch #...: 0069397
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	0.16	ng/L	SW846 8280A
Total TCDD	ND	0.16	ng/L	SW846 8280A
Total PeCDD	ND	1.9	ng/L	SW846 8280A
Total HxCDD	ND	0.45	ng/L	SW846 8280A
Total TCDF	ND	1.0	ng/L	SW846 8280A
Total PeCDF	ND	0.64	ng/L	SW846 8280A
Total HxCDF	ND	0.26	ng/L	SW846 8280A

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	88	(25 - 150)
13C-2,3,7,8-TCDF	83	(25 - 150)
13C-1,2,3,6,7,8-HxCDD	76	(25 - 150)
13C-1,2,3,4,6,7,8-HpCDF	105	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	91	(25 - 150)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #...: D0C010231
MS Lot-Sample #: D0C010231-004
Date Sampled...: 02/29/00 09:15
Prep Date.....: 03/08/00
Prep Batch #...: 0069397
Dilution Factor: 1

Work Order #...: D96CJ14J-MS
D96CJ14K-MSD
Date Received..: 03/01/00
Analysis Date..: 03/10/00
Analysis Time..: 20:05

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
2,3,7,8-TCDD	**95**	**(50 - 150)**			**SW846 8280A**
	101	**(50 - 150)**	**5.5**	**(0-50)**	**SW846 8280A**
1,2,3,7,8-PeCDD	**81**	**(50 - 150)**			**SW846 8280A**
	90	**(50 - 150)**	**10**	**(0-50)**	**SW846 8280A**
1,2,3,6,7,8-HxCDD	**96**	**(50 - 150)**			**SW846 8280A**
	100	**(50 - 150)**	**3.6**	**(0-50)**	**SW846 8280A**
2,3,7,8-TCDF	**93**	**(50 - 150)**			**SW846 8280A**
	97	**(50 - 150)**	**4.6**	**(0-50)**	**SW846 8280A**
1,2,3,7,8-PeCDF	**107**	**(50 - 150)**			**SW846 8280A**
	104	**(50 - 150)**	**3.2**	**(0-50)**	**SW846 8280A**
1,2,3,6,7,8-HxCDF	**80**	**(50 - 150)**			**SW846 8280A**
	89	**(50 - 150)**	**9.7**	**(0-50)**	**SW846 8280A**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	33	(25 - 150)
	88	(25 - 150)
13C-2,3,7,8-TCDF	28	(25 - 150)
	81	(25 - 150)
13C-1,2,3,6,7,8-HxCDD	37	(25 - 150)
	93	(25 - 150)
13C-1,2,3,4,6,7,8-HpCDF	42	(25 - 150)
	100	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	86	(25 - 150)
	98	(25 - 150)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #...: D0C010231
MS Lot-Sample #: D0C010231-004
Date Sampled...: 02/29/00 09:15
Prep Date.....: 03/08/00
Prep Batch #...: 0069397
Dilution Factor: 1

Work Order #...: D96CJ14J-MS
D96CJ14K-MSD
Date Received..: 03/01/00
Analysis Date..: 03/10/00
Analysis Time..: 20:05

Matrix.....: WATER

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
2,3,7,8-TCDD	ND	26.1	24.9	ng/L	95		SW846 8280A
	ND	25.4	25.6	ng/L	101	5.5	SW846 8280A
1,2,3,7,8-PeCDD	ND	65.3	52.7	ng/L	81		SW846 8280A
	ND	63.4	56.9	ng/L	90	10	SW846 8280A
1,2,3,6,7,8-HxCDD	ND	65.3	62.8	ng/L	96		SW846 8280A
	ND	63.4	63.3	ng/L	100	3.6	SW846 8280A
2,3,7,8-TCDF	ND	26.1	24.2	ng/L	93		SW846 8280A
	ND	25.4	24.7	ng/L	97	4.6	SW846 8280A
1,2,3,7,8-PeCDF	ND	65.3	69.9	ng/L	107		SW846 8280A
	ND	63.4	65.8	ng/L	104	3.2	SW846 8280A
1,2,3,6,7,8-HxCDF	ND	65.3	52.5	ng/L	80		SW846 8280A
	ND	63.4	56.3	ng/L	89	9.7	SW846 8280A

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	33	(25 - 150)
	88	(25 - 150)
13C-2,3,7,8-TCDF	28	(25 - 150)
	81	(25 - 150)
13C-1,2,3,6,7,8-HxCDD	37	(25 - 150)
	93	(25 - 150)
13C-1,2,3,4,6,7,8-HpCDF	42	(25 - 150)
	100	(25 - 150)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	86	(25 - 150)
	98	(25 - 150)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: D0C010231 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Aluminum	98	(81 - 117)			SW846 6010B	03/04-03/09/00	0062169
	100	(81 - 117)	1.8	(0-20)	SW846 6010B	03/04-03/09/00	0062169
		Dilution Factor: 1					
Barium	104	(91 - 111)			SW846 6010B	03/04-03/09/00	0062169
	106	(91 - 111)	1.4	(0-20)	SW846 6010B	03/04-03/09/00	0062169
		Dilution Factor: 1					
Beryllium	110	(91 - 111)			SW846 6010B	03/04-03/09/00	0062169
	110	(91 - 111)	0.81	(0-20)	SW846 6010B	03/04-03/09/00	0062169
		Dilution Factor: 1					
Calcium	99	(87 - 110)			SW846 6010B	03/04-03/09/00	0062169
	101	(87 - 110)	1.5	(0-20)	SW846 6010B	03/04-03/09/00	0062169
		Dilution Factor: 1					
Cobalt	101	(87 - 110)			SW846 6010B	03/04-03/09/00	0062169
	102	(87 - 110)	1.6	(0-20)	SW846 6010B	03/04-03/09/00	0062169
		Dilution Factor: 1					
Copper	103	(90 - 110)			SW846 6010B	03/04-03/09/00	0062169
	105	(90 - 110)	1.9	(0-20)	SW846 6010B	03/04-03/09/00	0062169
		Dilution Factor: 1					
Iron	105	(88 - 110)			SW846 6010B	03/04-03/06/00	0062169
	106	(88 - 110)	1.2	(0-20)	SW846 6010B	03/04-03/06/00	0062169
		Dilution Factor: 1					
Potassium	100	(87 - 110)			SW846 6010B	03/04-03/06/00	0062169
	101	(87 - 110)	1.1	(0-20)	SW846 6010B	03/04-03/06/00	0062169
		Dilution Factor: 1					
Magnesium	105	(84 - 114)			SW846 6010B	03/04-03/09/00	0062169
	106	(84 - 114)	1.2	(0-20)	SW846 6010B	03/04-03/09/00	0062169
		Dilution Factor: 1					
Manganese	103	(90 - 110)			SW846 6010B	03/04-03/09/00	0062169
	104	(90 - 110)	1.4	(0-20)	SW846 6010B	03/04-03/09/00	0062169
		Dilution Factor: 1					

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: D0C010231 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Molybdenum	100	(87 - 110)			SW846 6010B	03/04-03/09/00	0062169
	102	(87 - 110)	1.2	(0-20)	SW846 6010B	03/04-03/09/00	0062169
		Dilution Factor: 1					
Sodium	100	(89 - 110)			SW846 6010B	03/04-03/06/00	0062169
	102	(89 - 110)	2.3	(0-20)	SW846 6010B	03/04-03/06/00	0062169
		Dilution Factor: 1					
Nickel	101	(89 - 110)			SW846 6010B	03/04-03/09/00	0062169
	102	(89 - 110)	1.7	(0-20)	SW846 6010B	03/04-03/09/00	0062169
		Dilution Factor: 1					
Tin	101	(87 - 110)			SW846 6010B	03/04-03/09/00	0062169
	102	(87 - 110)	0.91	(0-20)	SW846 6010B	03/04-03/09/00	0062169
		Dilution Factor: 1					
Vanadium	102	(88 - 113)			SW846 6010B	03/04-03/09/00	0062169
	103	(88 - 113)	1.0	(0-20)	SW846 6010B	03/04-03/09/00	0062169
		Dilution Factor: 1					
Zinc	96	(84 - 110)			SW846 6010B	03/04-03/09/00	0062169
	98	(84 - 110)	1.8	(0-20)	SW846 6010B	03/04-03/09/00	0062169
		Dilution Factor: 1					
Mercury	101	(78 - 118)			SW846 7470A	03/03/00	0062171
	101	(78 - 118)	0.59	(0-10)	SW846 7470A	03/03/00	0062171
		Dilution Factor: 1					
Silver	103	(85 - 114)			SW846 6020	03/04-03/09/00	0062181
	104	(85 - 114)	0.12	(0-20)	SW846 6020	03/04-03/09/00	0062181
		Dilution Factor: 1					
Arsenic	103	(86 - 114)			SW846 6020	03/04-03/09/00	0062181
	105	(86 - 114)	2.1	(0-20)	SW846 6020	03/04-03/09/00	0062181
		Dilution Factor: 1					
Cadmium	102	(84 - 114)			SW846 6020	03/04-03/09/00	0062181
	102	(84 - 114)	0.32	(0-20)	SW846 6020	03/04-03/09/00	0062181
		Dilution Factor: 1					

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: D0C010231 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Chromium	96	(82 - 116)			SW846 6020	03/04-03/09/00	0062181
	98	(82 - 116)	2.2	(0-20)	SW846 6020	03/04-03/09/00	0062181
		Dilution Factor: 1					
Lead	102	(85 - 116)			SW846 6020	03/04-03/09/00	0062181
	103	(85 - 116)	0.88	(0-20)	SW846 6020	03/04-03/09/00	0062181
		Dilution Factor: 1					
Antimony	98	(86 - 113)			SW846 6020	03/04-03/09/00	0062181
	103	(86 - 113)	4.5	(0-20)	SW846 6020	03/04-03/09/00	0062181
		Dilution Factor: 1					
Selenium	105	(84 - 114)			SW846 6020	03/04-03/09/00	0062181
	105	(84 - 114)	0.04	(0-20)	SW846 6020	03/04-03/09/00	0062181
		Dilution Factor: 1					
Thallium	101	(83 - 118)			SW846 6020	03/04-03/09/00	0062181
	101	(83 - 118)	0.76	(0-20)	SW846 6020	03/04-03/09/00	0062181
		Dilution Factor: 1					
Mercury	97	(78 - 118)			SW846 7470A	03/04/00	0064108
	102	(78 - 118)	4.8	(0-10)	SW846 7470A	03/04/00	0064108
		Dilution Factor: 1					
Silver	108	(85 - 114)			SW846 6020	03/08-03/17/00	0067373
	108	(85 - 114)	0.43	(0-20)	SW846 6020	03/08-03/17/00	0067373
		Dilution Factor: 1					
Arsenic	101	(86 - 114)			SW846 6020	03/08-03/17/00	0067373
	103	(86 - 114)	2.1	(0-20)	SW846 6020	03/08-03/17/00	0067373
		Dilution Factor: 1					
Cadmium	101	(84 - 114)			SW846 6020	03/08-03/17/00	0067373
	103	(84 - 114)	1.9	(0-20)	SW846 6020	03/08-03/17/00	0067373
		Dilution Factor: 1					
Chromium	100	(82 - 116)			SW846 6020	03/08-03/17/00	0067373
	102	(82 - 116)	2.4	(0-20)	SW846 6020	03/08-03/17/00	0067373
		Dilution Factor: 1					

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: D0C010231 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Lead	101	(85 - 116)			SW846 6020	03/08-03/17/00	0067373
	102	(85 - 116)	1.3	(0-20)	SW846 6020	03/08-03/17/00	0067373
		Dilution Factor: 1					
Antimony	97	(86 - 113)			SW846 6020	03/08-03/17/00	0067373
	99	(86 - 113)	1.7	(0-20)	SW846 6020	03/08-03/17/00	0067373
		Dilution Factor: 1					
Selenium	100	(84 - 114)			SW846 6020	03/08-03/17/00	0067373
	103	(84 - 114)	3.1	(0-20)	SW846 6020	03/08-03/17/00	0067373
		Dilution Factor: 1					
Thallium	102	(83 - 118)			SW846 6020	03/08-03/17/00	0067373
	102	(83 - 118)	0.42	(0-20)	SW846 6020	03/08-03/17/00	0067373
		Dilution Factor: 1					
Aluminum	104	(81 - 117)			SW846 6010B	03/10-03/21/00	0069318
	106	(81 - 117)	1.5	(0-20)	SW846 6010B	03/10-03/21/00	0069318
		Dilution Factor: 1					
Barium	106	(91 - 111)			SW846 6010B	03/10-03/21/00	0069318
	107	(91 - 111)	0.98	(0-20)	SW846 6010B	03/10-03/21/00	0069318
		Dilution Factor: 1					
Beryllium	108	(91 - 111)			SW846 6010B	03/10-03/21/00	0069318
	108	(91 - 111)	0.87	(0-20)	SW846 6010B	03/10-03/21/00	0069318
		Dilution Factor: 1					
Calcium	95	(87 - 110)			SW846 6010B	03/10-03/15/00	0069318
	94	(87 - 110)	1.8	(0-20)	SW846 6010B	03/10-03/15/00	0069318
		Dilution Factor: 1					
Cobalt	102	(87 - 110)			SW846 6010B	03/10-03/21/00	0069318
	102	(87 - 110)	0.45	(0-20)	SW846 6010B	03/10-03/21/00	0069318
		Dilution Factor: 1					
Copper	107	(90 - 110)			SW846 6010B	03/10-03/21/00	0069318
	108	(90 - 110)	1.3	(0-20)	SW846 6010B	03/10-03/21/00	0069318
		Dilution Factor: 1					

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: D0C010231 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Iron	105	(88 - 110)			SW846 6010B	03/10-03/15/00	0069318
	103	(88 - 110)	1.2	(0-20)	SW846 6010B	03/10-03/15/00	0069318
		Dilution Factor: 1					
Potassium	99	(87 - 110)			SW846 6010B	03/10-03/15/00	0069318
	97	(87 - 110)	2.0	(0-20)	SW846 6010B	03/10-03/15/00	0069318
		Dilution Factor: 1					
Magnesium	103	(84 - 114)			SW846 6010B	03/10-03/15/00	0069318
	102	(84 - 114)	1.1	(0-20)	SW846 6010B	03/10-03/15/00	0069318
		Dilution Factor: 1					
Manganese	104	(90 - 110)			SW846 6010B	03/10-03/21/00	0069318
	104	(90 - 110)	0.52	(0-20)	SW846 6010B	03/10-03/21/00	0069318
		Dilution Factor: 1					
Molybdenum	100	(87 - 110)			SW846 6010B	03/10-03/21/00	0069318
	100	(87 - 110)	0.33	(0-20)	SW846 6010B	03/10-03/21/00	0069318
		Dilution Factor: 1					
Sodium	100	(89 - 110)			SW846 6010B	03/10-03/15/00	0069318
	97	(89 - 110)	2.7	(0-20)	SW846 6010B	03/10-03/15/00	0069318
		Dilution Factor: 1					
Nickel	100	(89 - 110)			SW846 6010B	03/10-03/21/00	0069318
	101	(89 - 110)	0.59	(0-20)	SW846 6010B	03/10-03/21/00	0069318
		Dilution Factor: 1					
Tin	100	(87 - 110)			SW846 6010B	03/10-03/21/00	0069318
	99	(87 - 110)	1.2	(0-20)	SW846 6010B	03/10-03/21/00	0069318
		Dilution Factor: 1					
Vanadium	104	(88 - 113)			SW846 6010B	03/10-03/21/00	0069318
	105	(88 - 113)	0.51	(0-20)	SW846 6010B	03/10-03/21/00	0069318
		Dilution Factor: 1					
Zinc	97	(84 - 110)			SW846 6010B	03/10-03/21/00	0069318
	97	(84 - 110)	0.02	(0-20)	SW846 6010B	03/10-03/21/00	0069318
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Lot-Sample #...: D0C010231 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Aluminum	2000	1960	ug/L	98		SW846 6010B	03/04-03/09/00	0062169
	2000	2000	ug/L	100	1.8	SW846 6010B	03/04-03/09/00	0062169
			Dilution Factor: 1					
Barium	2000	2080	ug/L	104		SW846 6010B	03/04-03/09/00	0062169
	2000	2110	ug/L	106	1.4	SW846 6010B	03/04-03/09/00	0062169
			Dilution Factor: 1					
Beryllium	50.0	54.8	ug/L	110		SW846 6010B	03/04-03/09/00	0062169
	50.0	55.2	ug/L	110	0.81	SW846 6010B	03/04-03/09/00	0062169
			Dilution Factor: 1					
Calcium	50000	49600	ug/L	99		SW846 6010B	03/04-03/09/00	0062169
	50000	50300	ug/L	101	1.5	SW846 6010B	03/04-03/09/00	0062169
			Dilution Factor: 1					
Cobalt	500	503	ug/L	101		SW846 6010B	03/04-03/09/00	0062169
	500	511	ug/L	102	1.6	SW846 6010B	03/04-03/09/00	0062169
			Dilution Factor: 1					
Copper	250	258	ug/L	103		SW846 6010B	03/04-03/09/00	0062169
	250	263	ug/L	105	1.9	SW846 6010B	03/04-03/09/00	0062169
			Dilution Factor: 1					
Iron	1000	1050	ug/L	105		SW846 6010B	03/04-03/06/00	0062169
	1000	1060	ug/L	106	1.2	SW846 6010B	03/04-03/06/00	0062169
			Dilution Factor: 1					
Potassium	50000	49800	ug/L	100		SW846 6010B	03/04-03/06/00	0062169
	50000	50400	ug/L	101	1.1	SW846 6010B	03/04-03/06/00	0062169
			Dilution Factor: 1					
Magnesium	50000	52300	ug/L	105		SW846 6010B	03/04-03/09/00	0062169
	50000	53000	ug/L	106	1.2	SW846 6010B	03/04-03/09/00	0062169
			Dilution Factor: 1					
Manganese	500	513	ug/L	103		SW846 6010B	03/04-03/09/00	0062169
	500	521	ug/L	104	1.4	SW846 6010B	03/04-03/09/00	0062169
			Dilution Factor: 1					

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Lot-Sample #...: D0C010231 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Molybdenum	1000	1000	ug/L	100		SW846 6010B	03/04-03/09/00	0062169
	1000	1020	ug/L	102	1.2	SW846 6010B	03/04-03/09/00	0062169
			Dilution Factor: 1					
Sodium	50000	49800	ug/L	100		SW846 6010B	03/04-03/06/00	0062169
	50000	51000	ug/L	102	2.3	SW846 6010B	03/04-03/06/00	0062169
			Dilution Factor: 1					
Nickel	500	503	ug/L	101		SW846 6010B	03/04-03/09/00	0062169
	500	512	ug/L	102	1.7	SW846 6010B	03/04-03/09/00	0062169
			Dilution Factor: 1					
Tin	2000	2030	ug/L	101		SW846 6010B	03/04-03/09/00	0062169
	2000	2050	ug/L	102	0.91	SW846 6010B	03/04-03/09/00	0062169
			Dilution Factor: 1					
Vanadium	500	509	ug/L	102		SW846 6010B	03/04-03/09/00	0062169
	500	515	ug/L	103	1.0	SW846 6010B	03/04-03/09/00	0062169
			Dilution Factor: 1					
Zinc	500	480	ug/L	96		SW846 6010B	03/04-03/09/00	0062169
	500	488	ug/L	98	1.8	SW846 6010B	03/04-03/09/00	0062169
			Dilution Factor: 1					
Mercury	5.00	5.04	ug/L	101		SW846 7470A	03/03/00	0062171
	5.00	5.07	ug/L	101	0.59	SW846 7470A	03/03/00	0062171
			Dilution Factor: 1					
Silver	200	207	ug/L	103		SW846 6020	03/04-03/09/00	0062181
	200	207	ug/L	104	0.12	SW846 6020	03/04-03/09/00	0062181
			Dilution Factor: 1					
Arsenic	200	205	ug/L	103		SW846 6020	03/04-03/09/00	0062181
	200	210	ug/L	105	2.1	SW846 6020	03/04-03/09/00	0062181
			Dilution Factor: 1					
Cadmium	200	204	ug/L	102		SW846 6020	03/04-03/09/00	0062181
	200	204	ug/L	102	0.32	SW846 6020	03/04-03/09/00	0062181
			Dilution Factor: 1					

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Lot-Sample #...: D0C010231 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chromium	200	192	ug/L	96		SW846 6020	03/04-03/09/00	0062181
	200	196	ug/L	98	2.2	SW846 6020	03/04-03/09/00	0062181
			Dilution Factor: 1					
Lead	200	205	ug/L	102		SW846 6020	03/04-03/09/00	0062181
	200	207	ug/L	103	0.88	SW846 6020	03/04-03/09/00	0062181
			Dilution Factor: 1					
Antimony	200	197	ug/L	98		SW846 6020	03/04-03/09/00	0062181
	200	206	ug/L	103	4.5	SW846 6020	03/04-03/09/00	0062181
			Dilution Factor: 1					
Selenium	200	209	ug/L	105		SW846 6020	03/04-03/09/00	0062181
	200	209	ug/L	105	0.04	SW846 6020	03/04-03/09/00	0062181
			Dilution Factor: 1					
Thallium	200	201	ug/L	101		SW846 6020	03/04-03/09/00	0062181
	200	203	ug/L	101	0.76	SW846 6020	03/04-03/09/00	0062181
			Dilution Factor: 1					
Mercury	5.00	4.84	ug/L	97		SW846 7470A	03/04/00	0064108
	5.00	5.08	ug/L	102	4.8	SW846 7470A	03/04/00	0064108
			Dilution Factor: 1					
Silver	200	216	ug/L	108		SW846 6020	03/08-03/17/00	0067373
	200	217	ug/L	108	0.43	SW846 6020	03/08-03/17/00	0067373
			Dilution Factor: 1					
Arsenic	200	202	ug/L	101		SW846 6020	03/08-03/17/00	0067373
	200	206	ug/L	103	2.1	SW846 6020	03/08-03/17/00	0067373
			Dilution Factor: 1					
Cadmium	200	202	ug/L	101		SW846 6020	03/08-03/17/00	0067373
	200	206	ug/L	103	1.9	SW846 6020	03/08-03/17/00	0067373
			Dilution Factor: 1					
Chromium	200	199	ug/L	100		SW846 6020	03/08-03/17/00	0067373
	200	204	ug/L	102	2.4	SW846 6020	03/08-03/17/00	0067373
			Dilution Factor: 1					

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Lot-Sample #...: D0C010231 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Lead	200	202	ug/L	101		SW846 6020	03/08-03/17/00	0067373
	200	204	ug/L	102	1.3	SW846 6020	03/08-03/17/00	0067373
			Dilution Factor: 1					
Antimony	200	194	ug/L	97		SW846 6020	03/08-03/17/00	0067373
	200	197	ug/L	99	1.7	SW846 6020	03/08-03/17/00	0067373
			Dilution Factor: 1					
Selenium	200	201	ug/L	100		SW846 6020	03/08-03/17/00	0067373
	200	207	ug/L	103	3.1	SW846 6020	03/08-03/17/00	0067373
			Dilution Factor: 1					
Thallium	200	204	ug/L	102		SW846 6020	03/08-03/17/00	0067373
	200	205	ug/L	102	0.42	SW846 6020	03/08-03/17/00	0067373
			Dilution Factor: 1					
Aluminum	2000	2080	ug/L	104		SW846 6010B	03/10-03/21/00	0069318
	2000	2110	ug/L	106	1.5	SW846 6010B	03/10-03/21/00	0069318
			Dilution Factor: 1					
Barium	2000	2120	ug/L	106		SW846 6010B	03/10-03/21/00	0069318
	2000	2140	ug/L	107	0.98	SW846 6010B	03/10-03/21/00	0069318
			Dilution Factor: 1					
Beryllium	50.0	54.2	ug/L	108		SW846 6010B	03/10-03/21/00	0069318
	50.0	53.8	ug/L	108	0.87	SW846 6010B	03/10-03/21/00	0069318
			Dilution Factor: 1					
Calcium	50000	47700	ug/L	95		SW846 6010B	03/10-03/15/00	0069318
	50000	46900	ug/L	94	1.8	SW846 6010B	03/10-03/15/00	0069318
			Dilution Factor: 1					
Cobalt	500	509	ug/L	102		SW846 6010B	03/10-03/21/00	0069318
	500	512	ug/L	102	0.45	SW846 6010B	03/10-03/21/00	0069318
			Dilution Factor: 1					
Copper	250	267	ug/L	107		SW846 6010B	03/10-03/21/00	0069318
	250	271	ug/L	108	1.3	SW846 6010B	03/10-03/21/00	0069318
			Dilution Factor: 1					

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Lot-Sample #...: D0C010231 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Iron	1000	1050	ug/L	105		SW846 6010B	03/10-03/15/00	0069318
	1000	1030	ug/L	103	1.2	SW846 6010B	03/10-03/15/00	0069318
			Dilution Factor: 1					
Potassium	50000	49500	ug/L	99		SW846 6010B	03/10-03/15/00	0069318
	50000	48500	ug/L	97	2.0	SW846 6010B	03/10-03/15/00	0069318
			Dilution Factor: 1					
Magnesium	50000	51600	ug/L	103		SW846 6010B	03/10-03/15/00	0069318
	50000	51000	ug/L	102	1.1	SW846 6010B	03/10-03/15/00	0069318
			Dilution Factor: 1					
Manganese	500	519	ug/L	104		SW846 6010B	03/10-03/21/00	0069318
	500	522	ug/L	104	0.52	SW846 6010B	03/10-03/21/00	0069318
			Dilution Factor: 1					
Molybdenum	1000	999	ug/L	100		SW846 6010B	03/10-03/21/00	0069318
	1000	1000	ug/L	100	0.33	SW846 6010B	03/10-03/21/00	0069318
			Dilution Factor: 1					
Sodium	50000	49900	ug/L	100		SW846 6010B	03/10-03/15/00	0069318
	50000	48600	ug/L	97	2.7	SW846 6010B	03/10-03/15/00	0069318
			Dilution Factor: 1					
Nickel	500	501	ug/L	100		SW846 6010B	03/10-03/21/00	0069318
	500	504	ug/L	101	0.59	SW846 6010B	03/10-03/21/00	0069318
			Dilution Factor: 1					
Tin	2000	2010	ug/L	100		SW846 6010B	03/10-03/21/00	0069318
	2000	1990	ug/L	99	1.2	SW846 6010B	03/10-03/21/00	0069318
			Dilution Factor: 1					
Vanadium	500	522	ug/L	104		SW846 6010B	03/10-03/21/00	0069318
	500	524	ug/L	105	0.51	SW846 6010B	03/10-03/21/00	0069318
			Dilution Factor: 1					
Zinc	500	484	ug/L	97		SW846 6010B	03/10-03/21/00	0069318
	500	484	ug/L	97	0.02	SW846 6010B	03/10-03/21/00	0069318
			Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D0C010231 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: D0C070000-373 **Prep Batch #...:** 0067373						
Silver	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D9CEL106
		Dilution Factor: 1				
		Analysis Time..: 12:38				
Arsenic	ND	5.0	ug/L	SW846 6020	03/08-03/17/00	D9CEL102
		Dilution Factor: 1				
		Analysis Time..: 12:38				
Cadmium	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D9CEL103
		Dilution Factor: 1				
		Analysis Time..: 12:38				
Chromium	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D9CEL108
		Dilution Factor: 1				
		Analysis Time..: 12:38				
Lead	**0.18 B**	**1.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D9CEL104**
		Dilution Factor: 1				
		Analysis Time..: 12:38				
Antimony	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D9CEL101
		Dilution Factor: 1				
		Analysis Time..: 12:38				
Selenium	**0.48 B**	**5.0**	**ug/L**	**SW846 6020**	**03/08-03/17/00**	**D9CEL105**
		Dilution Factor: 1				
		Analysis Time..: 12:38				
Thallium	ND	1.0	ug/L	SW846 6020	03/08-03/17/00	D9CEL107
		Dilution Factor: 1				
		Analysis Time..: 12:38				
MB Lot-Sample #: D0C090000-318 **Prep Batch #...:** 0069318						
Aluminum	**42.8 B**	**100**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D9FCA10C**
		Dilution Factor: 1				
		Analysis Time..: 13:58				
Barium	**8.4 B**	**10.0**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D9FCA10D**
		Dilution Factor: 1				
		Analysis Time..: 13:58				

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D0C010231 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Beryllium	ND	2.0	ug/L	SW846 6010B	03/10-03/21/00	D9FCA10E
		Dilution Factor: 1				
		Analysis Time..: 13:58				
Calcium	ND	200	ug/L	SW846 6010B	03/10-03/15/00	D9FCA10F
		Dilution Factor: 1				
		Analysis Time..: 10:00				
Cobalt	ND	10.0	ug/L	SW846 6010B	03/10-03/21/00	D9FCA10G
		Dilution Factor: 1				
		Analysis Time..: 13:58				
Copper	**1.5 B**	**20.0**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D9FCA10H**
		Dilution Factor: 1				
		Analysis Time..: 13:58				
Iron	ND	100	ug/L	SW846 6010B	03/10-03/15/00	D9FCA101
		Dilution Factor: 1				
		Analysis Time..: 10:00				
Potassium	ND	5000	ug/L	SW846 6010B	03/10-03/15/00	D9FCA106
		Dilution Factor: 1				
		Analysis Time..: 10:00				
Magnesium	ND	200	ug/L	SW846 6010B	03/10-03/15/00	D9FCA102
		Dilution Factor: 1				
		Analysis Time..: 10:00				
Manganese	**2.1 B**	**10.0**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D9FCA103**
		Dilution Factor: 1				
		Analysis Time..: 13:58				
Molybdenum	ND	20.0	ug/L	SW846 6010B	03/10-03/21/00	D9FCA104
		Dilution Factor: 1				
		Analysis Time..: 13:58				
Sodium	**734 B**	**5000**	**ug/L**	**SW846 6010B**	**03/10-03/15/00**	**D9FCA107**
		Dilution Factor: 1				
		Analysis Time..: 10:00				
Nickel	ND	40.0	ug/L	SW846 6010B	03/10-03/21/00	D9FCA105
		Dilution Factor: 1				
		Analysis Time..: 13:58				
Tin	ND	100	ug/L	SW846 6010B	03/10-03/21/00	D9FCA108
		Dilution Factor: 1				
		Analysis Time..: 13:58				

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D0C010231 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Vanadium	**2.1 B**	**10.0**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D9FCA109**
		Dilution Factor: 1				
		Analysis Time..: 13:58				
Zinc	**3.3 B**	**20.0**	**ug/L**	**SW846 6010B**	**03/10-03/21/00**	**D9FCA10A**
		Dilution Factor: 1				
		Analysis Time..: 13:58				

MB Lot-Sample #: D0C020000-169 **Prep Batch #...:** 0062169

Aluminum	ND	100	ug/L	SW846 6010B	03/04-03/09/00	D96P610G
		Dilution Factor: 1				
		Analysis Time..: 14:54				
Barium	ND	10.0	ug/L	SW846 6010B	03/04-03/09/00	D96P610H
		Dilution Factor: 1				
		Analysis Time..: 14:54				
Beryllium	**1.2 B**	**2.0**	**ug/L**	**SW846 6010B**	**03/04-03/09/00**	**D96P6101**
		Dilution Factor: 1				
		Analysis Time..: 14:54				
Calcium	ND	200	ug/L	SW846 6010B	03/04-03/09/00	D96P6102
		Dilution Factor: 1				
		Analysis Time..: 14:54				
Cobalt	ND	10.0	ug/L	SW846 6010B	03/04-03/09/00	D96P6103
		Dilution Factor: 1				
		Analysis Time..: 14:54				
Copper	ND	20.0	ug/L	SW846 6010B	03/04-03/09/00	D96P6104
		Dilution Factor: 1				
		Analysis Time..: 14:54				
Iron	ND	100	ug/L	SW846 6010B	03/04-03/06/00	D96P6105
		Dilution Factor: 1				
		Analysis Time..: 10:11				
Potassium	ND	5000	ug/L	SW846 6010B	03/04-03/06/00	D96P6106
		Dilution Factor: 1				
		Analysis Time..: 10:11				
Magnesium	ND	200	ug/L	SW846 6010B	03/04-03/09/00	D96P6107
		Dilution Factor: 1				
		Analysis Time..: 14:54				

(Continued on next page)

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D0C010231 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Manganese	ND	10.0	ug/L	SW846 6010B	03/04-03/09/00	D96P6108
		Dilution Factor: 1				
		Analysis Time..: 14:54				
Molybdenum	ND	20.0	ug/L	SW846 6010B	03/04-03/09/00	D96P6109
		Dilution Factor: 1				
		Analysis Time..: 14:54				
Sodium	**1060 B**	**5000**	**ug/L**	**SW846 6010B**	**03/04-03/06/00**	**D96P610A**
		Dilution Factor: 1				
		Analysis Time..: 10:11				
Nickel	ND	40.0	ug/L	SW846 6010B	03/04-03/09/00	D96P610C
		Dilution Factor: 1				
		Analysis Time..: 14:54				
Tin	ND	100	ug/L	SW846 6010B	03/04-03/09/00	D96P610D
		Dilution Factor: 1				
		Analysis Time..: 14:54				
Vanadium	ND	10.0	ug/L	SW846 6010B	03/04-03/09/00	D96P610E
		Dilution Factor: 1				
		Analysis Time..: 14:54				
Zinc	ND	20.0	ug/L	SW846 6010B	03/04-03/09/00	D96P610F
		Dilution Factor: 1				
		Analysis Time..: 14:54				

MB Lot-Sample #: D0C020000-171 **Prep Batch #...:** 0062171

Mercury	ND	0.20	ug/L	SW846 7470A	03/03/00	D96Q4101
		Dilution Factor: 1				
		Analysis Time..: 12:48				

MB Lot-Sample #: D0C020000-181 **Prep Batch #...:** 0062181

Silver	ND	1.0	ug/L	SW846 6020	03/04-03/09/00	D96RE101
		Dilution Factor: 1				
		Analysis Time..: 10:56				
Arsenic	ND	5.0	ug/L	SW846 6020	03/04-03/09/00	D96RE102
		Dilution Factor: 1				
		Analysis Time..: 10:56				

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D0C010231 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cadmium	ND	1.0	ug/L	SW846 6020	03/04-03/09/00	D96RE103
		Dilution Factor: 1				
		Analysis Time..: 10:56				
Chromium	ND	1.0	ug/L	SW846 6020	03/04-03/09/00	D96RE104
		Dilution Factor: 1				
		Analysis Time..: 10:56				
Lead	ND	1.0	ug/L	SW846 6020	03/04-03/09/00	D96RE105
		Dilution Factor: 1				
		Analysis Time..: 10:56				
Antimony	ND	1.0	ug/L	SW846 6020	03/04-03/09/00	D96RE106
		Dilution Factor: 1				
		Analysis Time..: 10:56				
Selenium	ND	5.0	ug/L	SW846 6020	03/04-03/09/00	D96RE107
		Dilution Factor: 1				
		Analysis Time..: 10:56				
Thallium	ND	1.0	ug/L	SW846 6020	03/04-03/09/00	D96RE108
		Dilution Factor: 1				
		Analysis Time..: 10:56				

MB Lot-Sample #: D0C040000-108 **Prep Batch #...:** 0064108

Mercury	ND	0.20	ug/L	SW846 7470A	03/04/00	D997L101
		Dilution Factor: 1				
		Analysis Time..: 14:11				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D0C010231 **Matrix.....:** WATER
Date Sampled...: 02/29/00 09:15 **Date Received..:** 03/01/00

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: D0C010231-004 **Prep Batch #...:** 0062169							
Aluminum	96	(81 - 117)			SW846 6010B	03/04-03/09/00	D96CJ11N
	98	(81 - 117)	1.8	(0-20)	SW846 6010B	03/04-03/09/00	D96CJ11P
		Dilution Factor: 1					
		Analysis Time..: 16:35					
Barium	101	(91 - 111)			SW846 6010B	03/04-03/09/00	D96CJ11Q
	102	(91 - 111)	0.57	(0-20)	SW846 6010B	03/04-03/09/00	D96CJ11R
		Dilution Factor: 1					
		Analysis Time..: 16:35					
Beryllium	106	(91 - 111)			SW846 6010B	03/04-03/09/00	D96CJ11T
	107	(91 - 111)	1.3	(0-20)	SW846 6010B	03/04-03/09/00	D96CJ11U
		Dilution Factor: 1					
		Analysis Time..: 16:35					
Calcium	97	(87 - 110)			SW846 6010B	03/04-03/09/00	D96CJ11V
	100	(87 - 110)	1.5	(0-20)	SW846 6010B	03/04-03/09/00	D96CJ11W
		Dilution Factor: 1					
		Analysis Time..: 16:35					
Cobalt	98	(87 - 110)			SW846 6010B	03/04-03/09/00	D96CJ11X
	100	(87 - 110)	1.3	(0-20)	SW846 6010B	03/04-03/09/00	D96CJ120
		Dilution Factor: 1					
		Analysis Time..: 16:35					
Copper	103	(90 - 110)			SW846 6010B	03/04-03/09/00	D96CJ121
	103	(90 - 110)	0.52	(0-20)	SW846 6010B	03/04-03/09/00	D96CJ122
		Dilution Factor: 1					
		Analysis Time..: 16:35					
Iron	105	(88 - 110)			SW846 6010B	03/04-03/06/00	D96CJ123
	106	(88 - 110)	0.58	(0-20)	SW846 6010B	03/04-03/06/00	D96CJ124
		Dilution Factor: 1					
		Analysis Time..: 11:09					
Potassium	101	(87 - 110)			SW846 6010B	03/04-03/06/00	D96CJ125
	101	(87 - 110)	0.13	(0-20)	SW846 6010B	03/04-03/06/00	D96CJ126
		Dilution Factor: 1					
		Analysis Time..: 11:09					
Magnesium	104	(84 - 114)			SW846 6010B	03/04-03/09/00	D96CJ127
	105	(84 - 114)	0.94	(0-20)	SW846 6010B	03/04-03/09/00	D96CJ128
		Dilution Factor: 1					
		Analysis Time..: 16:35					

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D0C010231 **Matrix.....:** WATER
Date Sampled...: 02/29/00 09:15 **Date Received..:** 03/01/00

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Manganese	101	(90 - 110)			SW846 6010B	03/04-03/09/00	D96CJ129
	102	(90 - 110)	1.1	(0-20)	SW846 6010B	03/04-03/09/00	D96CJ12A
		Dilution Factor: 1					
		Analysis Time..: 16:35					
Molybdenum	99	(87 - 110)			SW846 6010B	03/04-03/09/00	D96CJ12C
	100	(87 - 110)	1.1	(0-20)	SW846 6010B	03/04-03/09/00	D96CJ12D
		Dilution Factor: 1					
		Analysis Time..: 16:35					
Sodium	102	(89 - 110)			SW846 6010B	03/04-03/06/00	D96CJ12E
	102	(89 - 110)	0.34	(0-20)	SW846 6010B	03/04-03/06/00	D96CJ12F
		Dilution Factor: 1					
		Analysis Time..: 11:09					
Nickel	101	(89 - 110)			SW846 6010B	03/04-03/09/00	D96CJ12G
	103	(89 - 110)	1.5	(0-20)	SW846 6010B	03/04-03/09/00	D96CJ12H
		Dilution Factor: 1					
		Analysis Time..: 16:35					
Tin	102	(87 - 110)			SW846 6010B	03/04-03/09/00	D96CJ12J
	103	(87 - 110)	1.6	(0-20)	SW846 6010B	03/04-03/09/00	D96CJ12K
		Dilution Factor: 1					
		Analysis Time..: 16:35					
Vanadium	98	(88 - 113)			SW846 6010B	03/04-03/09/00	D96CJ12L
	99	(88 - 113)	1.1	(0-20)	SW846 6010B	03/04-03/09/00	D96CJ12M
		Dilution Factor: 1					
		Analysis Time..: 16:35					
Zinc	95	(84 - 110)			SW846 6010B	03/04-03/09/00	D96CJ12N
	99	(84 - 110)	3.4	(0-20)	SW846 6010B	03/04-03/09/00	D96CJ12P
		Dilution Factor: 1					
		Analysis Time..: 16:35					

MS Lot-Sample #: D0C010231-004 **Prep Batch #...:** 0062171

Mercury	91	(78 - 118)			SW846 7470A	03/03/00	D96CJ139
	92	(78 - 118)	0.65	(0-10)	SW846 7470A	03/03/00	D96CJ13A
		Dilution Factor: 1					
		Analysis Time..: 13:08					

MS Lot-Sample #: D0C010231-004 **Prep Batch #...:** 0062181

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D0C010231
Date Sampled...: 02/29/00 09:15 **Date Received..:** 03/01/00

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Silver	19 N	(85 - 114)			SW846 6020	03/04-03/09/00	D96CJ12Q
	19 N	(85 - 114)	0.49	(0-20)	SW846 6020	03/04-03/09/00	D96CJ12R
		Dilution Factor: 1					
		Analysis Time..: 12:32					
Arsenic	104	(86 - 114)			SW846 6020	03/04-03/09/00	D96CJ12T
	104	(86 - 114)	0.43	(0-20)	SW846 6020	03/04-03/09/00	D96CJ12U
		Dilution Factor: 1					
		Analysis Time..: 12:32					
Cadmium	102	(84 - 114)			SW846 6020	03/04-03/09/00	D96CJ12V
	102	(84 - 114)	0.62	(0-20)	SW846 6020	03/04-03/09/00	D96CJ12W
		Dilution Factor: 1					
		Analysis Time..: 12:32					
Chromium	94	(82 - 116)			SW846 6020	03/04-03/09/00	D96CJ12X
	97	(82 - 116)	2.9	(0-20)	SW846 6020	03/04-03/09/00	D96CJ130
		Dilution Factor: 1					
		Analysis Time..: 12:32					
Lead	106	(85 - 116)			SW846 6020	03/04-03/09/00	D96CJ131
	105	(85 - 116)	1.0	(0-20)	SW846 6020	03/04-03/09/00	D96CJ132
		Dilution Factor: 1					
		Analysis Time..: 12:32					
Antimony	110	(86 - 113)			SW846 6020	03/04-03/09/00	D96CJ133
	110	(86 - 113)	0.61	(0-20)	SW846 6020	03/04-03/09/00	D96CJ134
		Dilution Factor: 1					
		Analysis Time..: 12:32					
Selenium	109	(84 - 114)			SW846 6020	03/04-03/09/00	D96CJ135
	107	(84 - 114)	1.7	(0-20)	SW846 6020	03/04-03/09/00	D96CJ136
		Dilution Factor: 1					
		Analysis Time..: 12:32					
Thallium	104	(83 - 118)			SW846 6020	03/04-03/09/00	D96CJ137
	105	(83 - 118)	0.45	(0-20)	SW846 6020	03/04-03/09/00	D96CJ138
		Dilution Factor: 1					
		Analysis Time..: 12:32					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D0C010231 **Matrix.....:** WATER
Date Sampled...: 03/02/00 11:00 **Date Received..:** 03/03/00

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: D0C010231-013 **Prep Batch #...:** 0064108							
Mercury	90	(78 - 118)			SW846 7470A	03/04/00	D98W812W
	89	(78 - 118)	1.1	(0-10)	SW846 7470A	03/04/00	D98W812X
		Dilution Factor: 1					
		Analysis Time..: 14:48					
MS Lot-Sample #: D0C010231-013 **Prep Batch #...:** 0067373							
Silver	24 N	(85 - 114)			SW846 6020	03/08-03/17/00	D98W812P
	24 N	(85 - 114)	3.4	(0-20)	SW846 6020	03/08-03/17/00	D98W812Q
		Dilution Factor: 1					
		Analysis Time..: 13:52					
Arsenic	102	(86 - 114)			SW846 6020	03/08-03/17/00	D98W812F
	104	(86 - 114)	1.5	(0-20)	SW846 6020	03/08-03/17/00	D98W812G
		Dilution Factor: 1					
		Analysis Time..: 13:52					
ıdmium	104	(84 - 114)			SW846 6020	03/08-03/17/00	D98W812H
	103	(84 - 114)	0.23	(0-20)	SW846 6020	03/08-03/17/00	D98W812J
		Dilution Factor: 1					
		Analysis Time..: 13:52					
Chromium	99	(82 - 116)			SW846 6020	03/08-03/17/00	D98W812U
	97	(82 - 116)	2.4	(0-20)	SW846 6020	03/08-03/17/00	D98W812V
		Dilution Factor: 1					
		Analysis Time..: 13:52					
Lead	105	(85 - 116)			SW846 6020	03/08-03/17/00	D98W812K
	106	(85 - 116)	1.2	(0-20)	SW846 6020	03/08-03/17/00	D98W812L
		Dilution Factor: 1					
		Analysis Time..: 13:52					
Antimony	108	(86 - 113)			SW846 6020	03/08-03/17/00	D98W812D
	107	(86 - 113)	1.1	(0-20)	SW846 6020	03/08-03/17/00	D98W812E
		Dilution Factor: 1					
		Analysis Time..: 13:52					
Selenium	102	(84 - 114)			SW846 6020	03/08-03/17/00	D98W812M
	103	(84 - 114)	1.5	(0-20)	SW846 6020	03/08-03/17/00	D98W812N
		Dilution Factor: 1					
		Analysis Time..: 13:52					

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D0C010231 **Matrix.....:** WATER
Date Sampled...: 03/02/00 11:00 **Date Received..:** 03/03/00

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	106	(83 - 118)			SW846 6020	03/08-03/17/00	D98W812R
	107	(83 - 118)	0.71	(0-20)	SW846 6020	03/08-03/17/00	D98W812T
		Dilution Factor: 1					
		Analysis Time..: 13:52					

MS Lot-Sample #: D0C010231-013 **Prep Batch #...:** 0069318

Aluminum	102	(81 - 117)			SW846 6010B	03/10-03/21/00	D98W811A
	102	(81 - 117)	0.64	(0-20)	SW846 6010B	03/10-03/21/00	D98W811C
		Dilution Factor: 1					
		Analysis Time..: 15:04					
Barium	105	(91 - 111)			SW846 6010B	03/10-03/21/00	D98W811D
	105	(91 - 111)	0.44	(0-20)	SW846 6010B	03/10-03/21/00	D98W811E
		Dilution Factor: 1					
		Analysis Time..: 15:04					
Beryllium	108	(91 - 111)			SW846 6010B	03/10-03/21/00	D98W811F
	108	(91 - 111)	0.29	(0-20)	SW846 6010B	03/10-03/21/00	D98W811G
		Dilution Factor: 1					
		Analysis Time..: 15:04					
Calcium	92	(87 - 110)			SW846 6010B	03/10-03/15/00	D98W811H
	94	(87 - 110)	0.88	(0-20)	SW846 6010B	03/10-03/15/00	D98W811J
		Dilution Factor: 1					
		Analysis Time..: 10:48					
Cobalt	101	(87 - 110)			SW846 6010B	03/10-03/21/00	D98W811K
	101	(87 - 110)	0.16	(0-20)	SW846 6010B	03/10-03/21/00	D98W811L
		Dilution Factor: 1					
		Analysis Time..: 15:04					
Copper	107	(90 - 110)			SW846 6010B	03/10-03/21/00	D98W811M
	107	(90 - 110)	0.56	(0-20)	SW846 6010B	03/10-03/21/00	D98W811N
		Dilution Factor: 1					
		Analysis Time..: 15:04					
Iron	104	(88 - 110)			SW846 6010B	03/10-03/15/00	D98W811P
	104	(88 - 110)	0.50	(0-20)	SW846 6010B	03/10-03/15/00	D98W811Q
		Dilution Factor: 1					
		Analysis Time..: 10:48					
Potassium	100	(87 - 110)			SW846 6010B	03/10-03/15/00	D98W8122
	101	(87 - 110)	1.4	(0-20)	SW846 6010B	03/10-03/15/00	D98W8123
		Dilution Factor: 1					
		Analysis Time..: 10:48					

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D0C010231 **Matrix.....:** WATER
Date Sampled...: 03/02/00 11:00 **Date Received..:** 03/03/00

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium	103	(84 - 114)			SW846 6010B	03/10-03/15/00	D98W811R
	105	(84 - 114)	1.0	(0-20)	SW846 6010B	03/10-03/15/00	D98W811T
		Dilution Factor: 1					
		Analysis Time..: 10:48					
Manganese	102	(90 - 110)			SW846 6010B	03/10-03/21/00	D98W811U
	103	(90 - 110)	0.13	(0-20)	SW846 6010B	03/10-03/21/00	D98W811V
		Dilution Factor: 1					
		Analysis Time..: 15:04					
Molybdenum	100	(87 - 110)			SW846 6010B	03/10-03/21/00	D98W811W
	100	(87 - 110)	0.10	(0-20)	SW846 6010B	03/10-03/21/00	D98W811X
		Dilution Factor: 1					
		Analysis Time..: 15:04					
Sodium	99	(89 - 110)			SW846 6010B	03/10-03/15/00	D98W8124
	101	(89 - 110)	1.2	(0-20)	SW846 6010B	03/10-03/15/00	D98W8125
		Dilution Factor: 1					
		Analysis Time..: 10:48					
Nickel	100	(89 - 110)			SW846 6010B	03/10-03/21/00	D98W8120
	100	(89 - 110)	0.49	(0-20)	SW846 6010B	03/10-03/21/00	D98W8121
		Dilution Factor: 1					
		Analysis Time..: 15:04					
Tin	101	(87 - 110)			SW846 6010B	03/10-03/21/00	D98W8126
	101	(87 - 110)	0.06	(0-20)	SW846 6010B	03/10-03/21/00	D98W8127
		Dilution Factor: 1					
		Analysis Time..: 15:04					
Vanadium	103	(88 - 113)			SW846 6010B	03/10-03/21/00	D98W8128
	103	(88 - 113)	0.10	(0-20)	SW846 6010B	03/10-03/21/00	D98W8129
		Dilution Factor: 1					
		Analysis Time..: 15:04					
Zinc	95	(84 - 110)			SW846 6010B	03/10-03/21/00	D98W812A
	94	(84 - 110)	0.27	(0-20)	SW846 6010B	03/10-03/21/00	D98W812C
		Dilution Factor: 1					
		Analysis Time..: 15:04					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D0C010231 **Matrix.....:** WATER
Date Sampled...: 02/29/00 09:15 **Date Received..:** 03/01/00

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: D0C010231-004 **Prep Batch #...:** 0062169									
Aluminum									
	112	2000	2030	ug/L	96		SW846 6010B	03/04-03/09/00	D96CJ11N
	112	2000	2070	ug/L	98	1.8	SW846 6010B	03/04-03/09/00	D96CJ11P
			Dilution Factor: 1						
			Analysis Time..: 16:35						
Barium									
	27.7	2000	2060	ug/L	101		SW846 6010B	03/04-03/09/00	D96CJ11Q
	27.7	2000	2070	ug/L	102	0.57	SW846 6010B	03/04-03/09/00	D96CJ11R
			Dilution Factor: 1						
			Analysis Time..: 16:35						
Beryllium									
	1.5	50.0	54.4	ug/L	106		SW846 6010B	03/04-03/09/00	D96CJ11T
	1.5	50.0	55.1	ug/L	107	1.3	SW846 6010B	03/04-03/09/00	D96CJ11U
			Dilution Factor: 1						
			Analysis Time..: 16:35						
.alcium									
	43400	50000	91900	ug/L	97		SW846 6010B	03/04-03/09/00	D96CJ11V
	43400	50000	93300	ug/L	100	1.5	SW846 6010B	03/04-03/09/00	D96CJ11W
			Dilution Factor: 1						
			Analysis Time..: 16:35						
Cobalt									
	ND	500	492	ug/L	98		SW846 6010B	03/04-03/09/00	D96CJ11X
	ND	500	499	ug/L	100	1.3	SW846 6010B	03/04-03/09/00	D96CJ120
			Dilution Factor: 1						
			Analysis Time..: 16:35						
Copper									
	ND	250	257	ug/L	103		SW846 6010B	03/04-03/09/00	D96CJ121
	ND	250	258	ug/L	103	0.52	SW846 6010B	03/04-03/09/00	D96CJ122
			Dilution Factor: 1						
			Analysis Time..: 16:35						
Iron									
	23.6	1000	1070	ug/L	105		SW846 6010B	03/04-03/06/00	D96CJ123
	23.6	1000	1080	ug/L	106	0.58	SW846 6010B	03/04-03/06/00	D96CJ124
			Dilution Factor: 1						
			Analysis Time..: 11:09						

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D0C010231 **Matrix.....:** WATER
Date Sampled...: 02/29/00 09:15 **Date Received..:** 03/01/00

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Potassium									
	6630	50000	56900	ug/L	101		SW846 6010B	03/04-03/06/00	D96CJ125
	6630	50000	57000	ug/L	101	0.13	SW846 6010B	03/04-03/06/00	D96CJ126
			Dilution Factor: 1						
			Analysis Time..: 11:09						
Magnesium									
	38700	50000	90600	ug/L	104		SW846 6010B	03/04-03/09/00	D96CJ127
	38700	50000	91400	ug/L	105	0.94	SW846 6010B	03/04-03/09/00	D96CJ128
			Dilution Factor: 1						
			Analysis Time..: 16:35						
Manganese									
	ND	500	503	ug/L	101		SW846 6010B	03/04-03/09/00	D96CJ129
	ND	500	509	ug/L	102	1.1	SW846 6010B	03/04-03/09/00	D96CJ12A
			Dilution Factor: 1						
			Analysis Time..: 16:35						
Molybdenum									
	ND	1000	994	ug/L	99		SW846 6010B	03/04-03/09/00	D96CJ12C
	ND	1000	1000	ug/L	100	1.1	SW846 6010B	03/04-03/09/00	D96CJ12D
			Dilution Factor: 1						
			Analysis Time..: 16:35						
Sodium									
	52900	50000	104000	ug/L	102		SW846 6010B	03/04-03/06/00	D96CJ12E
	52900	50000	104000	ug/L	102	0.34	SW846 6010B	03/04-03/06/00	D96CJ12F
			Dilution Factor: 1						
			Analysis Time..: 11:09						
Nickel									
	ND	500	507	ug/L	101		SW846 6010B	03/04-03/09/00	D96CJ12G
	ND	500	515	ug/L	103	1.5	SW846 6010B	03/04-03/09/00	D96CJ12H
			Dilution Factor: 1						
			Analysis Time..: 16:35						
Tin									
	ND	2000	2040	ug/L	102		SW846 6010B	03/04-03/09/00	D96CJ12J
	ND	2000	2070	ug/L	103	1.6	SW846 6010B	03/04-03/09/00	D96CJ12K
			Dilution Factor: 1						
			Analysis Time..: 16:35						
Vanadium									
	25.0	500	513	ug/L	98		SW846 6010B	03/04-03/09/00	D96CJ12L
	25.0	500	519	ug/L	99	1.1	SW846 6010B	03/04-03/09/00	D96CJ12M
			Dilution Factor: 1						
			Analysis Time..: 16:35						

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D0C010231 **Matrix.....:** WATER
Date Sampled...: 02/29/00 09:15 **Date Received..:** 03/01/00

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc									
	ND	500	477	ug/L	95		SW846 6010B	03/04-03/09/00	D96CJ12N
	ND	500	493	ug/L	99	3.4	SW846 6010B	03/04-03/09/00	D96CJ12P
			Dilution Factor: 1						
			Analysis Time..: 16:35						

MS Lot-Sample #: D0C010231-004 **Prep Batch #...:** 0062171

Mercury									
	ND	5.00	4.56	ug/L	91		SW846 7470A	03/03/00	D96CJ139
	ND	5.00	4.59	ug/L	92	0.65	SW846 7470A	03/03/00	D96CJ13A
			Dilution Factor: 1						
			Analysis Time..: 13:08						

MS Lot-Sample #: D0C010231-004 **Prep Batch #...:** 0062181

Silver									
	ND	200	38.4 N	ug/L	19		SW846 6020	03/04-03/09/00	D96CJ12Q
	ND	200	38.2 N	ug/L	19	0.49	SW846 6020	03/04-03/09/00	D96CJ12R
			Dilution Factor: 1						
			Analysis Time..: 12:32						
Arsenic									
	5.7	200	214	ug/L	104		SW846 6020	03/04-03/09/00	D96CJ12T
	5.7	200	214	ug/L	104	0.43	SW846 6020	03/04-03/09/00	D96CJ12U
			Dilution Factor: 1						
			Analysis Time..: 12:32						
Cadmium									
	ND	200	203	ug/L	102		SW846 6020	03/04-03/09/00	D96CJ12V
	ND	200	204	ug/L	102	0.62	SW846 6020	03/04-03/09/00	D96CJ12W
			Dilution Factor: 1						
			Analysis Time..: 12:32						
Chromium									
	0.91	200	188	ug/L	94		SW846 6020	03/04-03/09/00	D96CJ12X
	0.91	200	194	ug/L	97	2.9	SW846 6020	03/04-03/09/00	D96CJ130
			Dilution Factor: 1						
			Analysis Time..: 12:32						
Lead									
	0.12	200	211	ug/L	106		SW846 6020	03/04-03/09/00	D96CJ131
	0.12	200	209	ug/L	105	1.0	SW846 6020	03/04-03/09/00	D96CJ132
			Dilution Factor: 1						
			Analysis Time..: 12:32						

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D0C010231 **Matrix.....:** WATER
Date Sampled...: 02/29/00 09:15 **Date Received..:** 03/01/00

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony									
	ND	200	221	ug/L	110		SW846 6020	03/04-03/09/00	D96CJ133
	ND	200	219	ug/L	110	0.61	SW846 6020	03/04-03/09/00	D96CJ134
			Dilution Factor: 1						
			Analysis Time..: 12:32						
Selenium									
	9.9	200	227	ug/L	109		SW846 6020	03/04-03/09/00	D96CJ135
	9.9	200	224	ug/L	107	1.7	SW846 6020	03/04-03/09/00	D96CJ136
			Dilution Factor: 1						
			Analysis Time..: 12:32						
Thallium									
	ND	200	209	ug/L	104		SW846 6020	03/04-03/09/00	D96CJ137
	ND	200	210	ug/L	105	0.45	SW846 6020	03/04-03/09/00	D96CJ138
			Dilution Factor: 1						
			Analysis Time..: 12:32						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D0C010231 **Matrix.....:** WATER
Date Sampled...: 03/02/00 11:00 **Date Received..:** 03/03/00

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT		UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: D0C010231-013 **Prep Batch #...:** 0064108										
Mercury										
	ND	5.00	4.49		ug/L	90		SW846 7470A	03/04/00	D98W812W
	ND	5.00	4.44		ug/L	89	1.1	SW846 7470A	03/04/00	D98W812X
			Dilution Factor: 1							
			Analysis Time..: 14:48							
MS Lot-Sample #: D0C010231-013 **Prep Batch #...:** 0067373										
Silver										
	ND	200	47.1	N	ug/L	24		SW846 6020	03/08-03/17/00	D98W812P
	ND	200	48.8	N	ug/L	24	3.4	SW846 6020	03/08-03/17/00	D98W812Q
			Dilution Factor: 1							
			Analysis Time..: 13:52							
Arsenic										
	4.0	200	208		ug/L	102		SW846 6020	03/08-03/17/00	D98W812F
	4.0	200	211		ug/L	104	1.5	SW846 6020	03/08-03/17/00	D98W812G
			Dilution Factor: 1							
			Analysis Time..: 13:52							
Cadmium										
	ND	200	207		ug/L	104		SW846 6020	03/08-03/17/00	D98W812H
	ND	200	207		ug/L	103	0.23	SW846 6020	03/08-03/17/00	D98W812J
			Dilution Factor: 1							
			Analysis Time..: 13:52							
Chromium										
	2.4	200	201		ug/L	99		SW846 6020	03/08-03/17/00	D98W812U
	2.4	200	196		ug/L	97	2.4	SW846 6020	03/08-03/17/00	D98W812V
			Dilution Factor: 1							
			Analysis Time..: 13:52							
Lead										
	0.54	200	210		ug/L	105		SW846 6020	03/08-03/17/00	D98W812K
	0.54	200	213		ug/L	106	1.2	SW846 6020	03/08-03/17/00	D98W812L
			Dilution Factor: 1							
			Analysis Time..: 13:52							
Antimony										
	ND	200	216		ug/L	108		SW846 6020	03/08-03/17/00	D98W812D
	ND	200	214		ug/L	107	1.1	SW846 6020	03/08-03/17/00	D98W812E
			Dilution Factor: 1							
			Analysis Time..: 13:52							

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D0C010231 **Matrix.....:** WATER
Date Sampled...: 03/02/00 11:00 **Date Received..:** 03/03/00

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium									
	6.6	200	210	ug/L	102		SW846 6020	03/08-03/17/00	D98W812M
	6.6	200	213	ug/L	103	1.5	SW846 6020	03/08-03/17/00	D98W812N
			Dilution Factor: 1						
			Analysis Time..: 13:52						
Thallium									
	0.073	200	212	ug/L	106		SW846 6020	03/08-03/17/00	D98W812R
	0.073	200	214	ug/L	107	0.71	SW846 6020	03/08-03/17/00	D98W812T
			Dilution Factor: 1						
			Analysis Time..: 13:52						

MS Lot-Sample #: D0C010231-013 **Prep Batch #...:** 0069318

Aluminum									
	86.3	2000	2120	ug/L	102		SW846 6010B	03/10-03/21/00	D98W811A
	86.3	2000	2130	ug/L	102	0.64	SW846 6010B	03/10-03/21/00	D98W811C
			Dilution Factor: 1						
			Analysis Time..: 15:04						
arium									
	30.3	2000	2120	ug/L	105		SW846 6010B	03/10-03/21/00	D98W811D
	30.3	2000	2130	ug/L	105	0.44	SW846 6010B	03/10-03/21/00	D98W811E
			Dilution Factor: 1						
			Analysis Time..: 15:04						
Beryllium									
	ND	50.0	54.1	ug/L	108		SW846 6010B	03/10-03/21/00	D98W811F
	ND	50.0	54.2	ug/L	108	0.29	SW846 6010B	03/10-03/21/00	D98W811G
			Dilution Factor: 1						
			Analysis Time..: 15:04						
Calcium									
	38500	50000	84500	ug/L	92		SW846 6010B	03/10-03/15/00	D98W811H
	38500	50000	85200	ug/L	94	0.88	SW846 6010B	03/10-03/15/00	D98W811J
			Dilution Factor: 1						
			Analysis Time..: 10:48						
Cobalt									
	ND	500	504	ug/L	101		SW846 6010B	03/10-03/21/00	D98W811K
	ND	500	505	ug/L	101	0.16	SW846 6010B	03/10-03/21/00	D98W811L
			Dilution Factor: 1						
			Analysis Time..: 15:04						

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D0C010231 **Matrix.....:** WATER
Date Sampled...: 03/02/00 11:00 **Date Received..:** 03/03/00

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper									
	1.1	250	268	ug/L	107		SW846 6010B	03/10-03/21/00	D98W811M
	1.1	250	269	ug/L	107	0.56	SW846 6010B	03/10-03/21/00	D98W811N
			Dilution Factor: 1						
			Analysis Time..: 15:04						
Iron									
	67.0	1000	1100	ug/L	104		SW846 6010B	03/10-03/15/00	D98W811P
	67.0	1000	1110	ug/L	104	0.50	SW846 6010B	03/10-03/15/00	D98W811Q
			Dilution Factor: 1						
			Analysis Time..: 10:48						
Potassium									
	6720	50000	56500	ug/L	100		SW846 6010B	03/10-03/15/00	D98W8122
	6720	50000	57300	ug/L	101	1.4	SW846 6010B	03/10-03/15/00	D98W8123
			Dilution Factor: 1						
			Analysis Time..: 10:48						
Magnesium									
	38000	50000	89400	ug/L	103		SW846 6010B	03/10-03/15/00	D98W811R
	38000	50000	90300	ug/L	105	1.0	SW846 6010B	03/10-03/15/00	D98W811T
			Dilution Factor: 1						
			Analysis Time..: 10:48						
Manganese									
	2.2	500	515	ug/L	102		SW846 6010B	03/10-03/21/00	D98W811U
	2.2	500	515	ug/L	103	0.13	SW846 6010B	03/10-03/21/00	D98W811V
			Dilution Factor: 1						
			Analysis Time..: 15:04						
Molybdenum									
	ND	1000	995	ug/L	100		SW846 6010B	03/10-03/21/00	D98W811W
	ND	1000	996	ug/L	100	0.10	SW846 6010B	03/10-03/21/00	D98W811X
			Dilution Factor: 1						
			Analysis Time..: 15:04						
Sodium									
	53300	50000	103000	ug/L	99		SW846 6010B	03/10-03/15/00	D98W8124
	53300	50000	104000	ug/L	101	1.2	SW846 6010B	03/10-03/15/00	D98W8125
			Dilution Factor: 1						
			Analysis Time..: 10:48						
Nickel									
	ND	500	499	ug/L	100		SW846 6010B	03/10-03/21/00	D98W8120
	ND	500	502	ug/L	100	0.49	SW846 6010B	03/10-03/21/00	D98W8121
			Dilution Factor: 1						
			Analysis Time..: 15:04						

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D0C010231 **Matrix.....:** WATER
Date Sampled...: 03/02/00 11:00 **Date Received..:** 03/03/00

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Tin									
	ND	2000	2030	ug/L	101		SW846 6010B	03/10-03/21/00	D98W8126
	ND	2000	2030	ug/L	101	0.06	SW846 6010B	03/10-03/21/00	D98W8127
			Dilution Factor: 1						
			Analysis Time..: 15:04						
Vanadium									
	21.6	500	536	ug/L	103		SW846 6010B	03/10-03/21/00	D98W8128
	21.6	500	537	ug/L	103	0.10	SW846 6010B	03/10-03/21/00	D98W8129
			Dilution Factor: 1						
			Analysis Time..: 15:04						
Zinc									
	28.0	500	501	ug/L	95		SW846 6010B	03/10-03/21/00	D98W812A
	28.0	500	500	ug/L	94	0.27	SW846 6010B	03/10-03/21/00	D98W812C
			Dilution Factor: 1						
			Analysis Time..: 15:04						

NOTE(S):

lculations are performed before rounding to avoid round-off errors in calculated results.

. Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Lot-Sample #...: D0C010231 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		WO#:D9JPR102-LCS/D9JPR103-LCSD LCS Lot-Sample#: D0C130000-235					
	98	(90 - 110)			SW846 9012A	03/09-03/10/00	0073235
	98	(90 - 110)	0.30	(0-18)	SW846 9012A	03/09-03/10/00	0073235
		Dilution Factor: 1					
Nitrate		WO#:D9C7M102-LCS/D9C7M103-LCSD LCS Lot-Sample#: D0C070000-325					
	97	(86 - 113)			MCAWW 353.2	03/04/00	0067325
	98	(86 - 113)	0.51	(0-15)	MCAWW 353.2	03/04/00	0067325
		Dilution Factor: 1					
Nitrite		WO#:D9D2D102-LCS/D9D2D103-LCSD LCS Lot-Sample#: D0C080000-209					
	97	(90 - 110)			MCAWW 354.1	03/04/00	0068209
	98	(90 - 110)	0.51	(0-10)	MCAWW 354.1	03/04/00	0068209
		Dilution Factor: 1					
Sulfate		WO#:DA024102-LCS/DA024103-LCSD LCS Lot-Sample#: D0C220000-432					
	90	(90 - 110)			MCAWW 300.0A	03/22/00	0082432
	94	(90 - 110)	4.4	(0-10)	MCAWW 300.0A	03/22/00	0082432
		Dilution Factor: 1					
Total Dissolved Solids		WO#:D9HA8102-LCS/D9HA8103-LCSD LCS Lot-Sample#: D0C100000-353					
	98	(86 - 106)			MCAWW 160.1	03/08/00	0070353
	96	(86 - 106)	1.8	(0-20)	MCAWW 160.1	03/08/00	0070353
		Dilution Factor: 1					
Total Organic Halogens		WO#:DA4QE102-LCS/DA4QE103-LCSD LCS Lot-Sample#: D0C270000-406					
	113	(79 - 115)			SW846 9020B	03/22/00	0087406
	96	(79 - 115)	16	(0-18)	SW846 9020B	03/22/00	0087406
		Dilution Factor: 1					
Total Organic Carbon		WO#:D9VT7102-LCS/D9VT7103-LCSD LCS Lot-Sample#: D0C210000-225					
	103	(90 - 110)			SW846 9060	03/20/00	0081225
	105	(90 - 110)	1.8	(0-10)	SW846 9060	03/20/00	0081225
		Dilution Factor: 1					
Total Sulfide		WO#:D9E3R102-LCS/D9E3R103-LCSD LCS Lot-Sample#: D0C080000-378					
	97	(70 - 130)			SW846 9030B/9034	03/07/00	0068378
	97	(70 - 130)	0.53	(0-20)	SW846 9030B/9034	03/07/00	0068378
		Dilution Factor: 1					

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Lot-Sample #...: D0C010231 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Lot-Sample #...: D0C010231 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		WO#:D9JPR102-LCS/D9JPR103-LCSD					LCS Lot-Sample#: D0C130000-235	
	0.200	0.196	mg/L	98		SW846 9012A	03/09-03/10/00	0073235
	0.200	0.195	mg/L	98	0.30	SW846 9012A	03/09-03/10/00	0073235
		Dilution Factor: 1						
Nitrate		WO#:D9C7M102-LCS/D9C7M103-LCSD					LCS Lot-Sample#: D0C070000-325	
	0.0400	0.0388	mg/L	97		MCAWW 353.2	03/04/00	0067325
	0.0400	0.0390	mg/L	98	0.51	MCAWW 353.2	03/04/00	0067325
		Dilution Factor: 1						
Nitrite		WO#:D9D2D102-LCS/D9D2D103-LCSD					LCS Lot-Sample#: D0C080000-209	
	0.0400	0.0388	mg/L	97		MCAWW 354.1	03/04/00	0068209
	0.0400	0.0390	mg/L	98	0.51	MCAWW 354.1	03/04/00	0068209
		Dilution Factor: 1						
Sulfate		WO#:DA024102-LCS/DA024103-LCSD					LCS Lot-Sample#: D0C220000-432	
	25.0	22.6	mg/L	90		MCAWW 300.0A	03/22/00	0082432
	25.0	23.6	mg/L	94	4.4	MCAWW 300.0A	03/22/00	0082432
		Dilution Factor: 1						
Total Dissolved Solids		WO#:D9HA8102-LCS/D9HA8103-LCSD					LCS Lot-Sample#: D0C100000-353	
	810	792	mg/L	98		MCAWW 160.1	03/08/00	0070353
	810	778	mg/L	96	1.8	MCAWW 160.1	03/08/00	0070353
		Dilution Factor: 1						
Total Organic Halogens		WO#:DA4QE102-LCS/DA4QE103-LCSD					LCS Lot-Sample#: D0C270000-406	
	100	113	ug/L	113		SW846 9020B	03/22/00	0087406
	100	96.0	ug/L	96	16	SW846 9020B	03/22/00	0087406
		Dilution Factor: 1						
Total Organic Carbon		WO#:D9VT7102-LCS/D9VT7103-LCSD					LCS Lot-Sample#: D0C210000-225	
	25.0	25.7	mg/L	103		SW846 9060	03/20/00	0081225
	25.0	26.2	mg/L	105	1.8	SW846 9060	03/20/00	0081225
		Dilution Factor: 1						
Total Sulfide		WO#:D9E3R102-LCS/D9E3R103-LCSD					LCS Lot-Sample#: D0C080000-378	
	23.0	22.4	mg/L	97		SW846 9030B/9034	03/07/00	0068378
	23.0	22.3	mg/L	97	0.53	SW846 9030B/9034	03/07/00	0068378
		Dilution Factor: 1						

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Lot-Sample #...: D0C010231 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: D0C010231 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		Work Order #: D9JPR101		MB Lot-Sample #:	D0C130000-235	
	ND	0.010	mg/L	SW846 9012A	03/09-03/10/00	0073235
		Dilution Factor: 1				
		Analysis Time..: 12:00				
Nitrate		Work Order #: D9C7M101		MB Lot-Sample #:	D0C070000-325	
	ND	0.10	mg/L	MCAWW 353.2	03/04/00	0067325
		Dilution Factor: 1				
		Analysis Time..: 11:00				
Nitrite		Work Order #: D9D2D101		MB Lot-Sample #:	D0C080000-209	
	ND	0.010	mg/L	MCAWW 354.1	03/04/00	0068209
		Dilution Factor: 1				
		Analysis Time..: 11:00				
Sulfate		Work Order #: DA024101		MB Lot-Sample #:	D0C220000-432	
	ND	5.0	mg/L	MCAWW 300.0A	03/22/00	0082432
		Dilution Factor: 1				
		Analysis Time..: 14:56				
Total Dissolved Solids		Work Order #: D9HA8101		MB Lot-Sample #:	D0C100000-353	
	ND	10.0	mg/L	MCAWW 160.1	03/08/00	0070353
		Dilution Factor: 1				
		Analysis Time..: 15:00				
Total Organic Halogens		Work Order #: DA4QE101		MB Lot-Sample #:	D0C270000-406	
	4.4 B	**30.0**	**ug/L**	**SW846 9020B**	**03/22/00**	**0087406**
		Dilution Factor: 1				
		Analysis Time..: 12:00				
Total Organic Carbon		Work Order #: D9VT7101		MB Lot-Sample #:	D0C210000-225	
	ND	1.0	mg/L	SW846 9060	03/20/00	0081225
		Dilution Factor: 1				
		Analysis Time..: 12:00				
Total Sulfide		Work Order #: D9E3R101		MB Lot-Sample #:	D0C080000-378	
	ND	4.0	mg/L	SW846 9030B/9034	03/07/00	0068378
		Dilution Factor: 1				
		Analysis Time..: 10:00				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: D0C010231 **Matrix.....:** WATER
Date Sampled...: 03/03/00 12:14 **Date Received..:** 03/04/00

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			WO#: D96CJ13C-MS/D96CJ13D-MSD			MS Lot-Sample #: D0C010231-004	
	97	(90 - 110)			SW846 9012A	03/09-03/10/00	0073235
	94	(90 - 110)	3.4	(0-18)	SW846 9012A	03/09-03/10/00	0073235
		Dilution Factor: 1					
		Analysis Time..: 12:00					
Nitrite			WO#: D98W8136-MS/D98W8137-MSD			MS Lot-Sample #: D0C010231-013	
	107	(90 - 110)			MCAWW 354.1	03/04/00	0068209
	106	(90 - 110)	0.94	(0-10)	MCAWW 354.1	03/04/00	0068209
		Dilution Factor: 1					
		Analysis Time..: 11:00					
Sulfate			WO#: D98W8132-MS/D98W8133-MSD			MS Lot-Sample #: D0C010231-013	
	105 I	(90 - 110)			MCAWW 300.0A	03/22/00	0082432
	106 I	(90 - 110)	0.31	(0-10)	MCAWW 300.0A	03/22/00	0082432
		Dilution Factor: 1					
		Analysis Time..: 21:06					
Sulfate			WO#: D99A411C-MS/D99A411D-MSD			MS Lot-Sample #: D0C040129-001	
	92 I	(90 - 110)			MCAWW 300.0A	03/22/00	0082432
	85 N,I	(90 - 110)	3.0	(0-10)	MCAWW 300.0A	03/22/00	0082432
		Dilution Factor: 1					
		Analysis Time..: 15:19					
Total Organic Halogens			WO#: D96CJ13E-MS/D96CJ13F-MSD			MS Lot-Sample #: D0C010231-004	
	90	(79 - 115)			SW846 9020B	03/22/00	0087406
	94	(79 - 115)	3.7	(0-18)	SW846 9020B	03/22/00	0087406
		Dilution Factor: 1					
		Analysis Time..: 12:00					
Total Organic Carbon			WO#: D96CJ13J-MS/D96CJ13K-MSD			MS Lot-Sample #: D0C010231-004	
	108	(90 - 110)			SW846 9060	03/20/00	0081225
	109	(90 - 110)	0.77	(0-10)	SW846 9060	03/20/00	0081225
		Dilution Factor: 1					
		Analysis Time..: 12:00					
Total Sulfide			WO#: D96CJ13G-MS/D96CJ13H-MSD			MS Lot-Sample #: D0C010231-004	
	98	(70 - 130)			SW846 9030B/9034	03/07/00	0068378
	98	(70 - 130)	0.13	(0-20)	SW846 9030B/9034	03/07/00	0068378
		Dilution Factor: 1					
		Analysis Time..: 10:00					

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: D0C010231 **Matrix.....:** WATER
Date Sampled...: 03/03/00 12:14 **Date Received..:** 03/04/00

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Sulfide			WO#: D98W8130-MS/D98W8131-MSD			MS Lot-Sample #: D0C010231-013	
	98	(70 - 130)			SW846 9030B/9034	03/07/00	0068378
	97	(70 - 130)	0.35	(0-20)	SW846 9030B/9034	03/07/00	0068378
		Dilution Factor: 1					
		Analysis Time..: 10:00					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

I Estimated result. Result concentration exceeds the calibration range.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: D0C010231 **Matrix.....:** WATER
Date Sampled...: 03/03/00 12:14 **Date Received..:** 03/04/00

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			WO#: D96CJ13C-MS/D96CJ13D-MSD				MS Lot-Sample #: D0C010231-004		
	ND	0.100	0.0972	mg/L	97		SW846 9012A	03/09-03/10/00	0073235
	ND	0.100	0.0939	mg/L	94	3.4	SW846 9012A	03/09-03/10/00	0073235
			Dilution Factor: 1						
			Analysis Time..: 12:00						
Nitrite			WO#: D98W8136-MS/D98W8137-MSD				MS Lot-Sample #: D0C010231-013		
	ND	0.100	0.107	mg/L	107		MCAWW 354.1	03/04/00	0068209
	ND	0.100	0.106	mg/L	106	0.94	MCAWW 354.1	03/04/00	0068209
			Dilution Factor: 1						
			Analysis Time..: 11:00						
Sulfate			WO#: D98W8132-MS/D98W8133-MSD				MS Lot-Sample #: D0C010231-013		
	121	125	252 I	mg/L	105		MCAWW 300.0A	03/22/00	0082432
	121	125	253 I	mg/L	106	0.31	MCAWW 300.0A	03/22/00	0082432
			Dilution Factor: 1						
			Analysis Time..: 21:06						
Sulfate			WO#: D99A411C-MS/D99A411D-MSD				MS Lot-Sample #: D0C040129-001		
	3400	2500	5700 I	mg/L	92		MCAWW 300.0A	03/22/00	0082432
	3400	2500	5530 N,I	mg/L	85	3.0	MCAWW 300.0A	03/22/00	0082432
			Dilution Factor: 1						
			Analysis Time..: 15:19						
Total Organic Halogens			WO#: D96CJ13E-MS/D96CJ13F-MSD				MS Lot-Sample #: D0C010231-004		
	3.0	100	93.2	ug/L	90		SW846 9020B	03/22/00	0087406
	3.0	100	96.7	ug/L	94	3.7	SW846 9020B	03/22/00	0087406
			Dilution Factor: 1						
			Analysis Time..: 12:00						
Total Organic Carbon			WO#: D96CJ13J-MS/D96CJ13K-MSD				MS Lot-Sample #: D0C010231-004		
	ND	25.0	26.9	mg/L	108		SW846 9060	03/20/00	0081225
	ND	25.0	27.1	mg/L	109	0.77	SW846 9060	03/20/00	0081225
			Dilution Factor: 1						
			Analysis Time..: 12:00						
Total Sulfide			WO#: D96CJ13G-MS/D96CJ13H-MSD				MS Lot-Sample #: D0C010231-004		
	ND	22.6	22.4	mg/L	98		SW846 9030B/9	03/07/00	0068378
	ND	22.6	22.4	mg/L	98	0.13	SW846 9030B/9	03/07/00	0068378
			Dilution Factor: 1						
			Analysis Time..: 10:00						

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: D0C010231 **Matrix.....:** WATER
Date Sampled...: 03/03/00 12:14 **Date Received..:** 03/04/00

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Sulfide			WO#: D98W8130-MS/D98W8131-MSD				MS Lot-Sample #: D0C010231-013		
	0.34	22.6	22.5	mg/L	98		SW846 9030B/9	03/07/00	0068378
	0.34	22.6	22.4	mg/L	97	0.35	SW846 9030B/9	03/07/00	0068378
			Dilution Factor: 1						
			Analysis Time..: 10:00						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

I Estimated result. Result concentration exceeds the calibration range.

N Spiked analyte recovery is outside stated control limits.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: D0C010231 **Work Order #...:** D98VK-SMP D98VK-DUP **Matrix.....:** WATER

Date Sampled...: 03/02/00 13:10 **Date Received..:** 03/03/00

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Dissolved Solids						SD Lot-Sample #:	D0C010231-011	
	696	723	mg/L	3.8	(0-20)	MCAWW 160.1	03/08/00	0070353

Dilution Factor: 1

Analysis Time..: 15:00

U.S. GEOLOGICAL SURVEY, WATER RESOURCES DIVISION, NEW MEXICO DISTRICT
ANALYTICAL REQUEST/CHAIN OF CUSTODY

25228 3.3

Project Name & Number	PACKING AND SHIPPING DETAILS	
Cannon Air Force Base, Ground Water Sampling 463536004	Packed and Sealed for Shipping by: Fred Gebhardt	Seal Number: 135605
Sampling Location: Landfill-5, Cannon Air Force Base, NM	Delivered to Shipper by: Fred Gebhardt	Airbill Number: 8121 5768 1096
Team Leader: Project chief -- Fred Gebhardt	Sampling Status: ☐ Done ☒ Continuing	

Sample Date	Sample Time	Field Sample Number	Sample Type	No. of Containers	Analytical Methods (Parameters)	Remarks
FEB. 29/2000	0920	CAFB - 44	Ground-water	16	All Apx-IX: SW8260B, SW8270C, SW8280, SW8310, SW8081, SW8082, SW8151, Total-METALS: SW6010 (Al,Ba,Be, Ca, Co, Cu, Fe, Mg, Mn, Mo, Ni, K, Na, Sn, V, Zn), SW6020-ICP-MS (Sb, Ag, Cd, As, Cr, Pb, Se, Tl), SW7470 (Hg), SW9012, SW9030, SW9060 ,SW9020	Environmental Sample

Additional Comments: VOC ARE IN SMALL COOLER, AIRBILL #8121 5768 1085

CHAIN OF CUSTODY RECORD				LABORATORY LOG-IN OF SAMPLE SHIPPING CONTAINER	
Relinquished by (signed)	Received by (signed)	Date	Time	Analytical Laboratory	Seal Intact upon Receipt: ☒ Yes ☐ No
Fredrick S. Gebhardt	FEDERAL EXPRESS	2/29/00	1600	Quanterra Environmental 4955 Yarrow Street Arvada, CO 80002 ph: (303) 736-0184 Attention: Karen Kuoppala	Condition of Contents: OK
	Jeff Mott	3-1-00	800		Contents Temperature: 3.3
					Laboratory Project Number

U.S. GEOLOGICAL SURVEY, WATER RESOURCES DIVISION, NEW MEXICO DISTRICT
ANALYTICAL REQUEST/CHAIN OF CUSTODY

1.2

25 228

Project Name & Number	PACKING AND SHIPPING DETAILS	
Cannon Air Force Base, Ground Water Sampling 463536004	Packed and Sealed for Shipping by: Fred Gebhardt	Seal Number: 135603
Sampling Location: Landfill-5, Cannon Air Force Base, NM	Delivered to Shipper by: Fred Gebhardt	Airbill Number: 8121 5768 1094
Team Leader: Project chief -- Fred Gebhardt	Sampling Status: ☐ Done ☒ Continuing	

Sample Date	Sample Time	Field Sample Number	Sample Type	No. of Containers	Analytical Methods (Parameters)	Remarks
FEB 29/2000	1130	CAFB-5	Ground-water	16	All Apx-IX: SW8260B, SW8270C, SW8280, SW8310, SW8081, SW8082, SW8151, Total-METALS: SW6010 (Al,Ba,Be, Ca, Co, Cu, Fe, Mg, Mn, Mo, Ni, K, Na, Sn, V, Zn), SW6020-ICP-MS (Sb, Ag, Cd, As, Cr, Pb, Se, Tl), SW7470 (Hg), SW9012, SW9030, SW9060 ,SW9020	Environmental Sample

2

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Additional Comments: VOC ARE IN SMALL COOLER, AIRBILL # 8121 5768 1085

CHAIN OF CUSTODY RECORD				LABORATORY LOG-IN OF SAMPLE SHIPPING CONTAINER	
Relinquished by (signed)	Received by (signed)	Date	Time	Analytical Laboratory	Seal Intact upon Receipt: ☒ Yes ☐ No
Fredrick S. Gebhardt	FEDERAL EXPRESS	2/29/00	1600	Quanterra Environmental 4955 Yarrow Street Arvada, CO 80002 ph: (303) 736-0184 Attention: Karen Kuoppala	Condition of Contents: O/K
	Jeff Mott	3-1-00	800		Contents Temperature: 1.2
					Laboratory Project Number

U.S. GEOLOGICAL SURVEY, WATER RESOURCES DIVISION, NEW MEXICO DISTRICT
ANALYTICAL REQUEST/CHAIN OF CUSTODY

25228 0.8

Project Name & Number	PACKING AND SHIPPING DETAILS	
Cannon Air Force Base, Ground Water Sampling 463536004	Packed and Sealed for Shipping by: Fred Gebhardt	Seal Number: 135604
Sampling Location: Landfill-5, Cannon Air Force Base, NM	Delivered to Shipper by: Fred Gebhardt	Airbill Number: 8121 5768 1096
Team Leader: Project chief -- Fred Gebhardt	Sampling Status: ☐ Done ☒ Continuing	

Sample Date	Sample Time	Field Sample Number	Sample Type	No. of Containers	Analytical Methods (Parameters)	Remarks
FEB 29/2000	1335	CAFB - T	Ground-water	16	All Apx-IX: SW8260B, SW8270C, SW8280, SW8310, SW8081, SW8082, SW8151, Total-METALS: SW6010 (Al,Ba,Be, Ca, Co, Cu, Fe, Mg, Mn, Mo, Ni, K, Na, Sn, V, Zn), SW6020-ICP-MS (Sb, Ag, Cd, As, Cr, Pb, Se, Tl), SW7470 (Hg), SW9012, SW9030, SW9060 ,SW9020	Environmental Sample

3

Additional Comments: VOC ARE IN SMALL COOLER, AIRBILL # 8121 5768 1085

CHAIN OF CUSTODY RECORD				LABORATORY LOG-IN OF SAMPLE SHIPPING CONTAINER	
Relinquished by (signed)	Received by (signed)	Date	Time	Analytical Laboratory	Seal Intact upon Receipt: ☒ Yes ☐ No
Fredrick G. Gebhardt	FEDERAL EXPRESS	2/29/00	1600	Quanterra Environmental 4955 Yarrow Street Arvada, CO 80002 ph: (303) 736-0184 Attention: Karen Kuoppala	Condition of Contents: 0.8
	Jeff Mott	3-1-00	800		Contents Temperature: OK
					Laboratory Project Number

U.S. GEOLOGICAL SURVEY, WATER RESOURCES DIVISION, NEW MEXICO DISTRICT
ANALYTICAL REQUEST/CHAIN OF CUSTODY

25228 0.8

Project Name & Number	PACKING AND SHIPPING DETAILS	
Cannon Air Force Base, Ground Water Sampling 463536004	Packed and Sealed for Shipping by: Fred Gebhardt	Seal Number: 135602
Sampling Location: Landfill-5, Cannon Air Force Base, NM	Delivered to Shipper by: Fred Gebhardt	Airbill Number: 8121 5768 1096
Team Leader: Project chief -- Fred Gebhardt	Sampling Status: ☐ Done ☒ Continuing	

Sample Date	Sample Time	Field Sample Number	Sample Type	No. of Containers	Analytical Methods (Parameters)	Remarks
FEB. 29/2000	0915	CAFB - 4	Ground-water	16	All Apx-IX: SW8260B, SW8270C, SW8280, SW8310, SW8081, SW8082, SW8151, Total-METALS: SW6010 (Al,Ba,Be, Ca, Co, Cu, Fe, Mg, Mn, Mo, Ni, K, Na, Sn, V, Zn), SW6020-ICP-MS (Sb, Ag, Cd, As, Cr, Pb, Se, Tl), SW7470 (Hg), SW9012, SW9030, SW9060 ,SW9020	Environmental Sample

4

II-162

Additional Comments: VOC ARE IN SMALL COOLER, AIRBILL # 8121 5768 1085

CHAIN OF CUSTODY RECORD				LABORATORY LOG-IN OF SAMPLE SHIPPING CONTAINER	
Relinquished by (signed)	Received by (signed)	Date	Time	Analytical Laboratory	Seal Intact upon Receipt: ☒ Yes ☐ No
Fredrick G. Gebhardt	FEDERAL EXPRESS	2/29/00	1600	Quanterra Environmental 4955 Yarrow Street Arvada, CO 80002 ph: (303) 736-0184 Attention: Karen Kuoppala	Condition of Contents: OK
	Jeff Mott	3-1-00	800		Contents Temperature: 0.9
					Laboratory Project Number

U.S. GEOLOGICAL SURVEY, WATER RESOURCES DIVISION, NEW MEXICO DISTRICT
ANALYTICAL REQUEST/CHAIN OF CUSTODY

25226

4.8

Project Name & Number	PACKING AND SHIPPING DETAILS	
Cannon Air Force Base, Ground Water Sampling 463536004	Packed and Sealed for Shipping by: Fred Gebhardt	Seal Number: 135606
Sampling Location: Landfill-5, Cannon Air Force Base, NM	Delivered to Shipper by: Fred Gebhardt	Airbill Number: 8121 5768 1096
Team Leader: Project chief -- Fred Gebhardt	Sampling Status: ☐ Done ☒ Continuing	

Sample Date	Sample Time	Field Sample Number	Sample Type	No. of Containers	Analytical Methods (Parameters)	Remarks
FEB. 29/2000	0915	CAFB-4-MS	Ground-water	16	All Apx-IX: SW8260B, SW8270C, SW8280, SW8310, SW8081, SW8082, SW8151, Total-METALS: SW6010 (Al,Ba,Be, Ca, Co, Cu, Fe, Mg, Mn, Mo, Ni, K, Na, Sn, V, Zn), SW6020-ICP-MS (Sb, Ag, Cd, As, Cr, Pb, Se, Tl), SW7470 (Hg), SW9012, SW9030, SW9060 ,SW9020	~~Environmental Sample~~ MATRIX SPIKE

Additional Comments: VOC ARE IN SMALL COOLER, AIRBILL # 8121 5768 1085

CHAIN OF CUSTODY RECORD				LABORATORY LOG-IN OF SAMPLE SHIPPING CONTAINER	
Relinquished by (signed)	Received by (signed)	Date	Time	Analytical Laboratory	Seal Intact upon Receipt: ☒ Yes ☐ No
Fredrick E. Gebhardt	FEDERAL EXPRESS	2/29/00	1600	Quanterra Environmental 4955 Yarrow Street Arvada, CO 80002 ph: (303) 736-0184 Attention: Karen Kuoppala	Condition of Contents: OK
	Jeff Mott	3-1-00	800		Contents Temperature: 4.8
					Laboratory Project Number

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U.S. GEOLOGICAL SURVEY, WATER RESOURCES DIVISION, NEW MEXICO DISTRICT
ANALYTICAL REQUEST/CHAIN OF CUSTODY

5.0

25228

Project Name & Number: Cannon Air Force Base, Ground Water Sampling 463536004	PACKING AND SHIPPING DETAILS
	Packed and Sealed for Shipping by: Fred Gebhardt — Seal Number: 135601
Sampling Location: Landfill-5, Cannon Air Force Base, NM	Delivered to Shipper by: Fred Gebhardt — Airbill Number: 8121 5768 1096
Team Leader: Project chief -- Fred Gebhardt	Sampling Status: ☐ Done ☒ Continuing

Sample Date	Sample Time	Field Sample Number	Sample Type	No. of Containers	Analytical Methods (Parameters)	Remarks
FEB. 29/2000	0915	CAFB-4-MSD	Ground-water	16	All Apx-IX: SW8260B, SW8270C, SW8280, SW8310, SW8081, SW8082, SW8151, Total-METALS: SW6010 (Al,Ba,Be, Ca, Co, Cu, Fe, Mg, Mn, Mo, Ni, K, Na, Sn, V, Zn), SW6020-ICP-MS (Sb, Ag, Cd, As, Cr, Pb, Se, Tl), SW7470 (Hg), SW9012, SW9030, SW9060 ,SW9020	~~Environmental Sample~~ MATRIX SPIKE DUP.

4 MSD

Additional Comments: VOC ARE IN SMALL COOLER, AIRBILL #8121 5768 1085

CHAIN OF CUSTODY RECORD				LABORATORY LOG-IN OF SAMPLE SHIPPING CONTAINER	
Relinquished by (signed)	Received by (signed)	Date	Time	Analytical Laboratory	Seal Intact upon Receipt: ☒ Yes ☐ No
Fredrick S. Gebhardt	FEDERAL EXPRESS	2/29/00	1600	Quanterra Environmental 4955 Yarrow Street Arvada, CO 80002 ph: (303) 736-0184 Attention: Karen Kuoppala	Condition of Contents: OK
	Jeff Mott	3-1-00	800		Contents Temperature: 5.0
					Laboratory Project Number

U.S. GEOLOGICAL SURVEY, WATER RESOURCES DIVISION, NEW MEXICO DISTRICT
ANALYTICAL REQUEST/CHAIN OF CUSTODY

5.7

28228

Project Name & Number	PACKING AND SHIPPING DETAILS	
Cannon Air Force Base, Ground Water Sampling 463536004	Packed and Sealed for Shipping by: Fred Gebhardt	Seal Number: 135607
Sampling Location: Landfill-5, Cannon Air Force Base, NM	Delivered to Shipper by: Fred Gebhardt	Airbill Number: 8121576810 85
Team Leader: Project chief -- Fred Gebhardt	Sampling Status: ☐ Done ☒ Continuing	

Sample Date	Sample Time	Field Sample Number	Sample Type	No. of Containers	Analytical Methods (Parameters)	Remarks
2000		~~CAFB-U~~	~~Ground water~~	~~16~~	All Apx-IX: SW8260B, SW8270C, SW8280, SW8310, SW8081, SW8082, SW8151, Total METALS: SW6010 (Al,Ba,Be, Ca, Co, Cu, Fe, Mg, Mn, Mo, Ni, K, Na, Sn, V, Zn), SW6020-ICP-MS (Sb, Ag, Cd, As, Cr, Pb, Se, Tl), SW7470 (Hg), SW9012, SW9030, SW9060, SW9020	~~Environmental Sample~~
		~~CAFB-U-MS~~	~~"~~	~~"~~	~~"~~	
		~~CAFB-U-MSD~~	~~"~~	~~"~~	~~"~~	
		~~CAFB-UU~~	~~"~~	~~"~~	~~"~~	
FEB. 29/2000		CAFB-U-TB	ULTRA PURE WATER	3	SW8260B (ONLY)	TRIP BLANK

5

Additional Comments: VOC FROM WELLS CAFB U, U-MS, U-MSD, UU, S

CHAIN OF CUSTODY RECORD				LABORATORY LOG-IN OF SAMPLE SHIPPING CONTAINER	
Relinquished by (signed)	Received by (signed)	Date	Time	Analytical Laboratory	Seal Intact upon Receipt: ☒ Yes ☐ No
Fredrick E. Gebhardt	FEDERAL EXPRESS	2/29/00	1600	Quanterra Environmental 4955 Yarrow Street Arvada, CO 80002 ph: (303) 736-0184 Attention: Karen Kuoppala	Condition of Contents: OK
	Jeff Mott	3-1-00	800		Contents Temperature: 5.7
					Laboratory Project Number

U.S. GEOLOGICAL SURVEY, WATER RESOURCES DIVISION, NEW MEXICO DISTRICT
ANALYTICAL REQUEST/CHAIN OF CUSTODY

25228

0.8

Project Name & Number: Cannon Air Force Base, Ground Water Sampling 463536004	PACKING AND SHIPPING DETAILS
Sampling Location: Landfill-5, Cannon Air Force Base, NM	Packed and Sealed for Shipping by: Fred Gebhardt — Seal Number: 135630
Team Leader: Project chief -- Fred Gebhardt	Delivered to Shipper by: Fred Gebhardt — Airbill Number: 8121576800 01
	Sampling Status: ☐ Done ☒ Continuing

Sample Date	Sample Time	Field Sample Number	Sample Type	No. of Containers	Analytical Methods (Parameters)	Remarks
MAR 1, 2000	1445	CAFB-Q	Ground-water	16	All Apx-IX: SW8260B, SW8270C, SW8280, SW8310, SW8081, SW8082, SW8151, Total-METALS: SW6010 (Al,Ba,Be, Ca, Co, Cu, Fe, Mg, Mn, Mo, Ni, K, Na, Sn, V, Zn), SW6020-ICP-MS (Sb, Ag, Cd, As, Cr, Pb, Se, Tl), SW7470 (Hg), SW9012, SW9030, SW9060 ,SW9020	Environmental Sample

Additional Comments: This cooler also contains VOC's for samples CAFB-B, CAFB-C, & CAFB-D.

CHAIN OF CUSTODY RECORD				LABORATORY LOG-IN OF SAMPLE SHIPPING CONTAINER	
Relinquished by (signed)	Received by (signed)	Date	Time	Analytical Laboratory	Seal Intact upon Receipt: ☒ Yes ☐ No
[signature]	to Fex Ex	3/1/00	1600	Quanterra Environmental 4955 Yarrow Street Arvada, CO 80002 ph: (303) 736-0184 Attention: Karen Kuoppala	Condition of Contents: OK
	[signature]	3-2-00	9:00		Contents Temperature: 0.8
					Laboratory Project Number:

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U.S. GEOLOGICAL SURVEY, WATER RESOURCES DIVISION, NEW MEXICO DISTRICT
ANALYTICAL REQUEST/CHAIN OF CUSTODY

25228 51

Project Name & Number: Cannon Air Force Base, Ground Water Sampling 463536004	PACKING AND SHIPPING DETAILS
Sampling Location: Landfill-5, Cannon Air Force Base, NM	Packed and Sealed for Shipping by: Fred Gebhardt — Seal Number: 135629
Team Leader: Project chief -- Fred Gebhardt	Delivered to Shipper by: Fred Gebhardt — Airbill Number: NA
	Sampling Status: ☐ Done ☒ Continuing

Sample Date	Sample Time	Field Sample Number	Sample Type	No. of Containers	Analytical Methods (Parameters)	Remarks
MAR 1, 2000	1230	CAFB - B	Ground-water	16	All Apx-IX: SW8260B, SW8270C, SW8280, SW8310, SW8081, SW8082, SW8151, Total-METALS: SW6010 (Al,Ba,Be, Ca, Co, Cu, Fe, Mg, Mn, Mo, Ni, K, Na, Sn, V, Zn), SW6020-ICP-MS (Sb, Ag, Cd, As, Cr, Pb, Se, Tl), SW7470 (Hg), SW9012, SW9030, SW9060 ,SW9020	Environmental Sample

7

II-167

Additional Comments: VOC's are in cooler w/ seal no. 135630

CHAIN OF CUSTODY RECORD				LABORATORY LOG-IN OF SAMPLE SHIPPING CONTAINER	
Relinquished by (signed)	Received by (signed)	Date	Time	Analytical Laboratory	Seal Intact upon Receipt: ☒ Yes ☐ No
[signature]	to Fed Ex	3/1/00	1600	Quanterra Environmental 4955 Yarrow Street Arvada, CO 80002 ph: (303) 736-0184 Attention: Karen Kuoppala	Condition of Contents: ok
	Jeff Mott	3-2-00	9:00		Contents Temperature: 5.1
					Laboratory Project Number

U.S. GEOLOGICAL SURVEY, WATER RESOURCES DIVISION, NEW MEXICO DISTRICT
ANALYTICAL REQUEST/CHAIN OF CUSTODY

25228

2.1

Project Name & Number: Cannon Air Force Base, Ground Water Sampling 463536004	PACKING AND SHIPPING DETAILS
Sampling Location: Landfill-5, Cannon Air Force Base, NM	Packed and Sealed for Shipping by: Fred Gebhardt — Seal Number: 135627
Team Leader: Project chief -- Fred Gebhardt	Delivered to Shipper by: Fred Gebhardt — Airbill Number: NA
	Sampling Status: ☐ Done ☒ Continuing

Sample Date	Sample Time	Field Sample Number	Sample Type	No. of Containers	Analytical Methods (Parameters)	Remarks
MAR. 1/2000	1045	CAFB - C	Ground-water	16	All Apx-IX: SW8260B, SW8270C, SW8280, SW8310, SW8081, SW8082, SW8151, Total-METALS: SW6010 (Al,Ba,Be, Ca, Co, Cu, Fe, Mg, Mn, Mo, Ni, K, Na, Sn, V, Zn), SW6020-ICP-MS (Sb, Ag, Cd, As, Cr, Pb, Se, Tl), SW7470 (Hg), SW9012, SW9030, SW9060 ,SW9020	Environmental Sample

Additional Comments: VOC's are in cooler w/ seal no. 135630

CHAIN OF CUSTODY RECORD				LABORATORY LOG-IN OF SAMPLE SHIPPING CONTAINER	
Relinquished by (signed)	Received by (signed)	Date	Time	Analytical Laboratory	Seal Intact upon Receipt: ☒ Yes ☐ No
RAP Wilson	to Fed Ex	3/1/00	1600	Quanterra Environmental 4955 Yarrow Street Arvada, CO 80002 ph: (303) 736-0184 Attention: Karen Kuoppala	Condition of Contents: OK
	Jeff Mott	3-2-00	9:00		Contents Temperature: 2.1
					Laboratory Project Number

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U.S. GEOLOGICAL SURVEY, WATER RESOURCES DIVISION, NEW MEXICO DISTRICT
ANALYTICAL REQUEST/CHAIN OF CUSTODY

4.9

25228

Project Name & Number: Cannon Air Force Base, Ground Water Sampling 463536004	PACKING AND SHIPPING DETAILS
Sampling Location: Landfill-5, Cannon Air Force Base, NM	Packed and Sealed for Shipping by: Fred Gebhardt — Seal Number: 135628
Team Leader: Project chief -- Fred Gebhardt	Delivered to Shipper by: Fred Gebhardt — Airbill Number: NA
	Sampling Status: ☐ Done ☒ Continuing

Sample Date	Sample Time	Field Sample Number	Sample Type	No. of Containers	Analytical Methods (Parameters)	Remarks
MAR. 1/2000	0900	CAFB-D	Ground-water	16	All Apx-IX: SW8260B, SW8270C, SW8280, SW8310, SW8081, SW8082, SW8151, Total-METALS: SW6010 (Al,Ba,Be, Ca, Co, Cu, Fe, Mg, Mn, Mo, Ni, K, Na, Sn, V, Zn), SW6020-ICP-MS (Sb, Ag, Cd, As, Cr, Pb, Se, Tl), SW7470 (Hg), SW9012, SW9030, SW9060 ,SW9020	Environmental Sample

9

II-169

Additional Comments: VOCs are in cooler w/ seal no. 135630

CHAIN OF CUSTODY RECORD				LABORATORY LOG-IN OF SAMPLE SHIPPING CONTAINER	
Relinquished by (signed)	Received by (signed)	Date	Time	Analytical Laboratory	Seal Intact upon Receipt: ☒ Yes ☐ No
Ralph Wilcox III	to Fed Ex.	3/1/00	1600	Quanterra Environmental 4955 Yarrow Street Arvada, CO 80002 ph: (303) 736-0184 Attention: Karen Kuoppala	Condition of Contents: Lid Broken
	Jeff Mott	3-2-00	9:00		Contents Temperature: 4.9
					Laboratory Project Number

U.S. GEOLOGICAL SURVEY, WATER RESOURCES DIVISION, NEW MEXICO DISTRICT
ANALYTICAL REQUEST/CHAIN OF CUSTODY

DOC010231

Project Name & Number	PACKING AND SHIPPING DETAILS	
Cannon Air Force Base, Ground Water Sampling 463536004	Packed and Sealed for Shipping by: Fredrick E. Gebhardt	Seal Number: 135609
Sampling Location: Sewage Lagoons, (wells E, F, G, H) Cannon Air Force Base, New Mexico	Delivered to Shipper by: Fredrick E. Gebhardt	Airbill Number: 8121 5768 0012
Team Leader: Project chief - Fredrick E. Gebhardt	Sampling Status: [X] Done [ ] Continuing	

Sample Date	Sample Time	Field Sample Number	Sample Type	No. of Containers	Analytical Methods (Parameters)	Remarks
MAR 2/2000	1310	CAFB-G	GROUND-WATER	9	All Apx-IX: SW8260B, SW8081, SW8082, SW6010 -Total (Al, Ba, Be, Ca, Co, Cu, Fe, Mg, Mn, Mo, Ni, K, Na, Sn, V, Zn), SW6020-ICP-MS (Sb, Ag, Cd, As, Cr, Pb, Se, Tl), SW7470 (Hg), NITRATE-E353.2, NIRITE-E354.1, SULFATE-E300, TDS-E160.1, SULFIDE-SW9030	ENVIRONMENTAL SAMPLE
"	1430	CAFB-F	"	"	"	"

Additional Comments: VOC ARE IN COOLER #1, COOLER WITH AIRBILL

CHAIN OF CUSTODY RECORD				LABORATORY LOG-IN OF SAMPLE SHIPPING CONTAINER	
Relinquished by (signed)	Received by (signed)	Date	Time	Analytical Laboratory	Seal Intact upon Receipt: [X] Yes [ ] No
Fredrick E. Gebhardt	FEDERAL EXPRESS	3/2/00	1600	Quanterra Environmental 4955 Yarrow Street Arvada, CO 80002 ph: (303) 786-0184 Attention: Karen Kuoppala	Condition of Contents: OK
	J. M. Mott	3-3-00	930		Contents Temperature: -1.6
					Laboratory Project Number

11

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III-170

U.S. GEOLOGICAL SURVEY, WATER RESOURCES DIVISION, NEW MEXICO DISTRICT
ANALYTICAL REQUEST/CHAIN OF CUSTODY

DOC010231

1.0

Project Name & Number: Cannon Air Force Base, Ground Water Sampling 463536004	PACKING AND SHIPPING DETAILS
	Packed and Sealed for Shipping by: Fredrick E. Gebhardt — Seal Number: 135610
Sampling Location: Sewage Lagoons, (wells E, F, G, H) Cannon Air Force Base, New Mexico	Delivered to Shipper by: Fredrick E. Gebhardt — Airbill Number: 8121 5768 0012
Team Leader: Project chief - Fredrick E. Gebhardt	Sampling Status: [X] Done [ ] Continuing

Sample Date	Sample Time	Field Sample Number	Sample Type	No. of Containers	Analytical Methods (Parameters)	Remarks
13 MAR. 2/2000	1100	CAFB-H	GROUND-WATER	9	All Apx-IX: SW8260B, SW8081, SW8082, SW6010 -Total (Al, Ba, Be, Ca, Co, Cu, Fe, Mg, Mn, Mo, Ni, K, Na, Sn, V, Zn), SW6020-ICP-MS (Sb, Ag, Cd, As, Cr, Pb, Se, Tl), SW7470 (Hg), NITRATE-E353.2, NIRITE-E354.1, SULFATE-E300, TDS-E160.1, SULFIDE-SW9030	ENVIRONMENTAL SAMPLE
13 MS	"	CAFB-H-MS	"	"	"	MATRIX SPIKE
17 II	"	0945	CAFB-H-TB	ULTRA PURE WATER	3	SW8260B (ONLY)	TRIP BLANK

Additional Comments: THIS COOLER ALSO HAS THE VOC FROM THE TWO OTHER COOLERS CAFB H-MSD, HH F, & G

CHAIN OF CUSTODY RECORD				LABORATORY LOG-IN OF SAMPLE SHIPPING CONTAINER	
Relinquished by (signed)	Received by (signed)	Date	Time	Analytical Laboratory	Seal Intact upon Receipt: [X] Yes [ ] No
Fredrick E. Gebhardt	FEDERAL EXPRESS	3/2/00	1600	Quanterra Environmental 4955 Yarrow Street Arvada, CO 80002 ph: (303) 786-0184 Attention: Karen Kuoppala	Condition of Contents: OK
	Jeff Mott	3-3-00	830		Contents Temperature: 1.0
					Laboratory Project Number

U.S. GEOLOGICAL SURVEY, WATER RESOURCES DIVISION, NEW MEXICO DISTRICT
ANALYTICAL REQUEST/CHAIN OF CUSTODY

3.3

DOC010231

Project Name & Number	PACKING AND SHIPPING DETAILS	
Cannon Air Force Base, Ground Water Sampling 463536004	Packed and Sealed for Shipping by: Fredrick E. Gebhardt	Seal Number: 135608
Sampling Location: Sewage Lagoons, (wells E, F, G, H) Cannon Air Force Base, New Mexico	Delivered to Shipper by: Fredrick E. Gebhardt	Airbill Number: 8121 5768 0012
Team Leader: Project chief - Fredrick E. Gebhardt	Sampling Status: [X] Done [ ] Continuing	

Sample Date	Sample Time	Field Sample Number	Sample Type	No. of Containers	Analytical Methods (Parameters)	Remarks
MAR 2/2000	1105	CAFB-HH	GROUND-WATER	9	All Apx-IX: SW8260B, SW8081, SW8082, SW6010 -Total (Al, Ba, Be, Ca, Co, Cu, Fe, Mg, Mn, Mo, Ni, K, Na, Sn, V, Zn), SW6020-ICP-MS (Sb, Ag, Cd, As, Cr, Pb, Se, Tl), SW7470 (Hg), NITRATE-E353.2, NIRITE-E354.1, SULFATE-E300, TDS-E160.1, SULFIDE-SW9030	ENVIRONMENTAL SAMPLE
"	1100	CAFB-H-MSD	"	"	"	MATRIX SPIKE DUP

15

13 ~~10~~

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Additional Comments: VOC. ARE IN COOLER #1, COOLER WITH AIRBILL.

CHAIN OF CUSTODY RECORD				LABORATORY LOG-IN OF SAMPLE SHIPPING CONTAINER	
Relinquished by (signed)	Received by (signed)	Date	Time	Analytical Laboratory	Seal Intact upon Receipt: [X] Yes [ ] No
Fredrick E. Gebhardt	FEDERAL EXPRESS	3/2/00	1600	Quanterra Environmental 4955 Yarrow Street Arvada, CO 80002 ph: (303) 786-0184 Attention: Karen Kuoppala	Condition of Contents: OK
	Jeff Mott	3-3-00	830		Contents Temperature: 3.3
					Laboratory Project Number

Sample Receiving Checklist

Lot #: 00C010231 Date/Time Received: 3-1-00 8:00

npany Name & Sampling Site: USGS CANNON AFB

*Cooler #(s):	1	2	3	4	5	6	7	8
Temperatures:	3.3	1.2	0.8	0.8	4.8	5.0	5.7	

Unpacking & Labeling Check Points:

N/A	Yes	No		Initials
	☒	☐	1. Cooler seals intact.	
	☒	☐	2. Chain of custody present.	
	☐	☒	3. Bottles broken and/or are leaking, comment if yes.	
			PHOTOGRAPH BROKEN BOTTLES	
	☒	☐	4. Containers labeled, comment if no.	
	☒	☐	5. pH of all samples checked and meet requirements, note exceptions.	
	☒	☐	6. Chain of custody includes "received by" and "relinquished" by signatures, dates, and times.	
	☐	☒	7. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.	
	☒	☐	8. Chain of custody agrees with bottle count, comment if no.	
	☒	☐	9. Chain of custody agrees with labels, comment if no.	
☐	☒	☐	10. VOA samples filled completely, comment if no.	
	☒	☐	11. VOA bottles preserved, check for labels.	
	☐	☒	12. Did samples require preservation with sodium thiosulfate?	
☒	☐	☐	13. If yes to #12, did the samples contain residual chlorine?	
☒	☐	☐	14. Sediment present in "D," dissolved, bottles.	
	☐	☒	15. Are analyses with short holding times requested?	
☒	☐	☐	16. Is extra sample volume provided for MS, MSD or matrix duplicates?	
	☐	☒	17. Multiphase samples present? If yes, comment below.	
	☐	☒	18. Any subsampling for volatiles? If yes, list samples.	
			PHOTOGRAPH MULTIPHASE SAMPLES	
☒	☐	☐	19. Clear picture taken, labeled, and stapled to project folder.	
☒	☐	☐	20. Subcontract COC signed and sent with samples to bottle prep?	
	☐	☐	21. Was sample labeling double checked by a second person?	

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR)

Sample Receiving Checklist

Lot #: 00C010231 Date/Time Received: 3-2-00 9:00

Company Name & Sampling Site: USGS CANNON AFB

*Cooler #(s): 1 2 3 4

Temperatures: 0.8 5.1 2.1 4.9

Unpacking & Labeling Check Points:

N/A	Yes	No		Initials
	☒	☐	1. Cooler seals intact.	JM
	☒	☐	2. Chain of custody present.	
	☐	☒	3. Bottles broken and/or are leaking, comment if yes. BROKEN LID	
			PHOTOGRAPH BROKEN BOTTLES	
	☒	☐	4. Containers labeled, comment if no.	
	☒	☐	5. pH of all samples checked and meet requirements, note exceptions.	
	☒	☐	6. Chain of custody includes "received by" and "relinquished" by signatures, dates, and times.	
	☐	☒	7. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.	
	☒	☐	8. Chain of custody agrees with bottle count, comment if no.	
	☒	☐	9. Chain of custody agrees with labels, comment if no.	
☐	☐	☐	10. VOA samples filled completely, comment if no.	
	☒	☐	11. VOA bottles preserved, check for labels.	
	☐	☒	12. Did samples require preservation with sodium thiosulfate?	
☒	☐	☐	13. If yes to #12, did the samples contain residual chlorine?	
☒	☐	☐	14. Sediment present in "D," dissolved, bottles.	
	☐	☒	15. Are analyses with short holding times requested?	
☒	☐	☐	16. Is extra sample volume provided for MS, MSD or matrix duplicates?	
	☐	☒	17. Multiphase samples present? If yes, comment below.	
	☐	☒	18. Any subsampling for volatiles? If yes, list samples.	
			PHOTOGRAPH MULTIPHASE SAMPLES	
☐	☐	☒	19. Clear picture taken, labeled, and stapled to project folder.	
☒	☐	☐	20. Subcontract COC signed and sent with samples to bottle prep?	
	☐	☐	21. Was sample labeling double checked by a second person?	

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR)

Sample Receiving Checklist

Lot #: D0C010231 Date/Time Received: 3-3-00 830

mpany Name & Sampling Site: USGS CANNON AFB

*Cooler #(s): _____ _____ _____ _____ _____ _____ _____ _____

Temperatures: _____ _____ _____ _____ _____ _____ _____ _____

Unpacking & Labeling Check Points:

N/A	Yes	No		Initials
	☒	☐	1. Cooler seals intact.	
	☒	☐	2. Chain of custody present.	
	☐	☒	3. Bottles broken and/or are leaking, comment if yes.	
			PHOTOGRAPH BROKEN BOTTLES	
	☒	☐	4. Containers labeled, comment if no.	
	☒	☐	5. pH of all samples checked and meet requirements, note exceptions.	
	☒	☐	6. Chain of custody includes "received by" and "relinquished" by signatures, dates, and times.	
	☐	☒	7. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.	
	☒	☐	8. Chain of custody agrees with bottle count, comment if no.	
	☒	☐	9. Chain of custody agrees with labels, comment if no.	
☐	☒	☐	10. VOA samples filled completely, comment if no.	
	☒	☐	11. VOA bottles preserved, check for labels.	
	☐	☒	12. Did samples require preservation with sodium thiosulfate?	
☒	☐	☐	13. If yes to #12, did the samples contain residual chlorine?	
☒	☐	☐	14. Sediment present in "D," dissolved, bottles.	
	☒	☐	15. Are analyses with short holding times requested?	
☐	☒	☐	16. Is extra sample volume provided for MS, MSD or matrix duplicates?	
	☐	☒	17. Multiphase samples present? If yes, comment below.	
	☐	☒	18. Any subsampling for volatiles? If yes, list samples.	
			PHOTOGRAPH MULTIPHASE SAMPLES	
☒	☐	☐	19. Clear picture taken, labeled, and stapled to project folder.	
☒	☐	☐	20. Subcontract COC signed and sent with samples to bottle prep?	
	☐	☐	21. Was sample labeling double checked by a second person?	

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR)

Quanterra - Denver
Condition Upon Receipt Anomaly Report (CUR)

Client: USGS CANNON AFB

Date/Time: 3-2-00 1510

Lot No: DOCD10231

Initiated by: dm

Affected Samples

COC# 135628

Client ID	Lab ID	Analyses Requested
CAFB-0	-009	Pest

CONDITION/ANOMALY/VARIANCE (CHECK ALL THAT APPLY):

☐COOLERS
- ☐Not Received, No Chain of Custody (COC)
- ☐Not Received but COC(s) Available
- ☐Leaking
- ☐Other: _____

☐ TEMPERATURE (greater than 6° C)
- ☐Cooler Temp _____
- ☐Temperature Blank _____

☐CONTAINERS
- ☐Leaking
- ☒Broken
- ☐Extra
- ☐Without Labels
- ☐VOA Vials with Headspace _____ mm
- ☐Other: _____

☐CUSTODY SEALS (COOLER(S)/CONTAINER(S)
- ☐None
- ☐ Not Intact
- ☐Other: _____

☐CHAIN OF CUSTODY (COCs)
- ☐Not relinquished by Client: No date/time Relinq.
- ☐ Incomplete Information
- ☐Other: _____

☐ CONTAINER LABELS
- ☐Not the same ID/info as in COC
- ☐ Incomplete
- ☐ID COLLECTION ☐Time ☐Date ☐PRESERVATIVE
- ☐ Markings/Info smeared or illegible
- ☐Torn
- ☐Other: _____

☐ SAMPLES
- ☐Samples NOT RECEIVED but listed on COC ——
- ☐Samples received but NOT LISTED on COC
- ☐Logged based on Label Information
- ☐Logged based on info from other samples on COC
- ☐ Logged according to Work Plan
- ☐Logged on HOLD UNTIL FURTHER NOTICE
- ☐ Other: _____

☐will be noted on COC Client to send samples with new COC

- ☐ Mislabeled as to tests, preservatives, etc.
- ☐Holding time expired
- ☐ Improper container used
- ☐Not preserved / Improper preservative used
- ☐ Improper pH _____ Lab to preserve sample
- ☐ Insufficient quantities for analysis

Comments: lid broken Sample gone, 2x1Lit Amber for BNA/Herb extra.

Corrective Action:
- ☐ Client Informed: verbally on: _____ By: _____ : In writing on: _____ By: _____
- ☐ Sample(s) processed "as is". _____
- ☐ Sample(s) on hold until: _____ If released, notify: _____

Sample Control Supervisor Review: Jeff Mott Date: 3-2-00

Project Management Review: [signature] Date: 03-02-00

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

N:\QA\Forms\Sample Receiving\ Condition Upon Receipt Report 1/4/99 version

DODEC LABORATORY DATA REVIEW WORKSHEET

1.0 GENERAL INFORMATION

Data reviewer: Richard Daddow
Date of review: April 16, 2000
Sample project number: DOC160177
Project name: NM Cannon AFB 4635-36004
Sample collection date: March 15, 2000
Sample matrix and number: 2- water

Type and number of samples in project:

COPY FOR YOUR INFORMATION

Type	Number
Environmental	1
Trip blank	1
Equipment blank	
Ambient blank	
MS/MSD	
Other:	

INVOICE: OK
See attached copy

2.0 DATA REPORT

Date of Analytical Results Report: April 12, 2000 → One bound and unbound copy of analytical report.
Number of volumes in Raw Data Report: 1 vol. and CD
Raw Data Report reviewed? Yes _____ No X → only CD sent.

Were all analyses requested on the COC form performed by the laboratory?
Yes X No _____

If no, list canceled analyses and reason for non-performance:

Were the samples properly preserved upon receipt by the laboratory?
Yes X No _____

If no, list laboratory ID for samples that were not properly preserved.

3.0 ANALYTICAL METHODS

Analytical methods used in this project Project No. ~~D000~~ D0C160177

X	VOC by GC/MS (SW 8240, SW 8260, E524, E624) Appendix IX
	Halogenated VOC by GC (SW ~~8010~~)
	Aromatic VOC by GC (SW 8020)
	SVOC by GC/MS (SW 8270)
	PAH by HPLC (SW 8310)
X	Organochlorine pesticides and PCB (SW ~~8080~~) 8081, 8082
	Organophosphorous pesticides (SW 8140)
	Chlorinated herbicides (SW 8150)
	Dioxins and Furans (SW 8280)
	Explosives (SW 8330)
	TOC (E415.1 or SW 9060)
	TPH (E418.1)
	Oil and Grease (E413.2)
	TOX (SW 9020)
X	ICP screen for metals (SW 6010) – Total
X	ICP/MS screen for metals (SW 6020) – Total – 8 metals
	Trace ICP screen for metals (SW 6010 modified)
	Antimony by GFAA (SW 7041)
	Arsenic by GFAA (SW 7060)
	Chromium (SW 7191 or 7196)
	Lead by GFAA (SW 7421)
	Mercury by CVAA (SW 7470 or 7471)
	Selenium by GFAA (SW 7740)
	Thallium by GFAA (SW 7841)
	Inorganic anions (E300.0)
	Alkalinity (E310.1)
	Cyanide, total and amenable (SW 9010/9012)
	Nitrogen, ammonia (E350.1)
	Nitrogen, TKN (E351.2)
X	Nitrogen, nitrate (E353.2)
	Nitrogen, nitrate plus nitrite (E353.2)
X	Nitrogen, nitrite (E354.1)
	Phosphorous, total or ortho (E365.3)
	Sulfate (E375.4)
X	Sulfide (E376.2) 9030
X	TDS (E160.1)
	pH (SW 9040 or 9045)
	Percent moisture (D2216)
	Gross alpha and gross beta radioactivity (SW 9310 or RICHRC5014)
	Alpha-emitting radium isotopes (SW 9315)
	Radium-228 (E904.0)
	Uranium (E908.1 or RICHRC5058)
	Other analyses:

Project No. DOC160177

Were analytical holding times met? Yes X No ____

If no, list analytical method and laboratory ID for samples that exceeded holding time:

Did surrogate recoveries meet QC acceptance criteria? Yes X No ____

If no, list analytical method, laboratory ID, and surrogates that did not meet acceptance criteria:

Did actual reporting limits meet project detection limits?

Organic analyses: Yes X No ____

If no, list analytical method, laboratory ID, and reason for non-conformance:

Reporting limits raised due to high-analyte levels

300 (SO_4) sample: CAFB-E (-001) (p. 17)

Inorganic analyses: Yes ____ No X

Reporting limits for GFAA metals and inorganic anions may be raised when: (1) sample concentrations exceed the instrument linear range and (2) target analytes are subject to matrix interferences. Reporting limits for ICP metals and mecury by CVAA are typically only raised when the sample concentration exceeds the instrument linear range.

Did ~~DCS~~ LCS meet QC acceptance criteria? Yes ____ No X

If no, list analytical method, laboratory ID, and reason for non-conformance:

% recoveries outside of control limits

6020 Se LCSD (p. 32)

Project No. ~~DOC01~~ DOC160677

Did SCS meet QC acceptance criteria? Yes _____ No _____

If no, list analytical method, laboratory ID, and reason for non-conformance:

Not applicable (N/A)

Were any target compounds found in the method, ~~trip, equipment, or ambient~~ blanks ~~above the RL?~~ Yes X No _____

If yes, list analytical method, laboratory ID, type of blank and compound:

8260B Methylene Chloride (p. 21)

6010 Al, Ca, Fe, K, Na (p. 38-39)

Did the MS/MSD meet QC acceptance criteria? Yes _____ No X

If no, list the analytical method, laboratory ID, and reason for non-conformance:

% recoveries outside of control limits

6020 Se MSD (p. 45)
6010 Na MSD (p. 47)
300 SO4 MS (p. 54)

No MS/MSD results reported for methods: 8082, 8081
353.2 (NO_3), Sulfide (9030)

Were the MS/MSD associated with samples in this project? Yes _____ No XXXX

MS/MSD data are used to evaluate the effect of the sample matrix on the analytical process and should only be used in conjunction with other available laboratory QC information to evaluate precision and accuracy.

Additional comments:

QC DATA ASSOCIATION SUMMARY

D0C160177

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	MCAWW 160.1		0081187	0081054
	WATER	MCAWW 353.2		0080242	
	WATER	MCAWW 354.1		0077121	0077016
	WATER	MCAWW 300.0A		0086114	0086008
	WATER	SW846 6020		0089302	0089123
	WATER	SW846 7470A		0080215	0080093
	WATER	SW846 8082		0077157	
	WATER	SW846 8081A		0077150	
	WATER	SW846 8260B		0084336	0084143
	WATER	SW846 6010B		0089412	0089205
	WATER	SW846 9030B/9034		0083288	
002	WATER	SW846 8260B		0084336	0084143

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: D0C160177 **Work Order #...:** DA2T3102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: D0C240000-336 DA2T3103-LCSD
Prep Date.....: 03/23/00 **Analysis Date..:** 03/23/00
Prep Batch #...: 0084336 **Analysis Time..:** 16:15
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**107**	**(80 - 120)**			**SW846 8260B**
	106	**(80 - 120)**	**1.5**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**102**	**(80 - 120)**			**SW846 8260B**
	102	**(80 - 120)**	**0.31**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**113**	**(80 - 123)**			**SW846 8260B**
	109	**(80 - 123)**	**3.2**	**(0-20)**	**SW846 8260B**
Toluene	**107**	**(77 - 117)**			**SW846 8260B**
	107	**(77 - 117)**	**0.46**	**(0-20)**	**SW846 8260B**
Trichloroethene	**108**	**(84 - 124)**			**SW846 8260B**
	105	**(84 - 124)**	**3.2**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(82 - 122)
	92	(82 - 122)
,2-Dichloroethane-d4	94	(78 - 123)
	94	(78 - 123)
4-Bromofluorobenzene	100	(80 - 120)
	100	(80 - 120)
Toluene-d8	103	(82 - 122)
	103	(82 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: D0C160177 Work Order #...: DA2T3102-LCS Matrix.....: WATER
LCS Lot-Sample#: D0C240000-336 DA2T3103-LCSD
Prep Date.....: 03/23/00 Analysis Date..: 03/23/00
Prep Batch #...: 0084336 Analysis Time..: 16:15
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	**10.0**	**10.7**	**ug/L**	**107**		**SW846 8260B**
	10.0	**10.6**	**ug/L**	**106**	**1.5**	**SW846 8260B**
Chlorobenzene	**10.0**	**10.2**	**ug/L**	**102**		**SW846 8260B**
	10.0	**10.2**	**ug/L**	**102**	**0.31**	**SW846 8260B**
1,1-Dichloroethene	**10.0**	**11.3**	**ug/L**	**113**		**SW846 8260B**
	10.0	**10.9**	**ug/L**	**109**	**3.2**	**SW846 8260B**
Toluene	**10.0**	**10.7**	**ug/L**	**107**		**SW846 8260B**
	10.0	**10.7**	**ug/L**	**107**	**0.46**	**SW846 8260B**
Trichloroethene	**10.0**	**10.8**	**ug/L**	**108**		**SW846 8260B**
	10.0	**10.5**	**ug/L**	**105**	**3.2**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(82 - 122)
	92	(82 - 122)
,2-Dichloroethane-d4	94	(78 - 123)
	94	(78 - 123)
4-Bromofluorobenzene	100	(80 - 120)
	100	(80 - 120)
Toluene-d8	103	(82 - 122)
	103	(82 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: D0C160177 **Work Order #...:** DA2T3101 **Matrix.....:** WATER
MB Lot-Sample #: D0C240000-336

Prep Date.....: 03/23/00 **Analysis Time..:** 17:03

Analysis Date..: 03/23/00 **Prep Batch #...:** 0084336
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Acetonitrile	ND	20	ug/L	SW846 8260B
Acrylonitrile	ND	20	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	2.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chloroprene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	2.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	2.0	ug/L	SW846 8260B
Allyl chloride	ND	2.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	2.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
1,2-Dichloroethene (total)	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	2.0	ug/L	SW846 8260B
2-Hexanone	ND	5.0	ug/L	SW846 8260B
Iodomethane	ND	1.0	ug/L	SW846 8260B
Isobutyl alcohol	ND	50	ug/L	SW846 8260B
Methacrylonitrile	ND	10	ug/L	SW846 8260B
Methylene chloride	**0.30 J**	**1.0**	**ug/L**	**SW846 8260B**
Methyl methacrylate	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
Propionitrile	ND	4.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: D0C160177 **Work Order #...:** DA2T3101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Vinyl acetate	ND	2.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	SW846 8260B
1,2-Dibromoethane (EDB)	ND	1.0	ug/L	SW846 8260B
2-Butanone (MEK)	ND	5.0	ug/L	SW846 8260B
Acrolein	ND	20	ug/L	SW846 8260B
Ethyl methacrylate	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(82 - 122)
1,2-Dichloroethane-d4	93	(78 - 123)
4-Bromofluorobenzene	97	(80 - 120)
Toluene-d8	105	(82 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

T2 - Confident identification - major ions and ratios largely agree.

US GEOLOGICAL SURVEY

Method Blank Report

GC/MS Volatiles

Lot-Sample #: D0C240000-336 B **Work Order #:** DA2T3101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
Cyclotetrasiloxane, octamethyl	556-67-2	2.1 J T2 M	12.651	ug/L
Unknown		2.8 J M	14.517	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: D0C160177 **Work Order #...:** D9NXL12L-MS **Matrix.....:** WATER
MS Lot-Sample #: D0C160155-001 D9NXL12M-MSD
Date Sampled...: 03/15/00 07:16 **Date Received..:** 03/16/00
Prep Date.....: 03/23/00 **Analysis Date..:** 03/23/00
Prep Batch #...: 0084336 **Analysis Time..:** 22:24
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**106**	**(80 - 120)**			**SW846 8260B**
	105	**(80 - 120)**	**0.37**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**98**	**(80 - 120)**			**SW846 8260B**
	102	**(80 - 120)**	**3.5**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**106**	**(80 - 123)**			**SW846 8260B**
	105	**(80 - 123)**	**0.93**	**(0-20)**	**SW846 8260B**
Toluene	**100**	**(77 - 117)**			**SW846 8260B**
	104	**(77 - 117)**	**4.1**	**(0-20)**	**SW846 8260B**
Trichloroethene	**106**	**(84 - 124)**			**SW846 8260B**
	104	**(84 - 124)**	**2.7**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(82 - 122)
	96	(82 - 122)
1,2-Dichloroethane-d4	98	(78 - 123)
	100	(78 - 123)
4-Bromofluorobenzene	102	(80 - 120)
	103	(80 - 120)
Toluene-d8	101	(82 - 122)
	104	(82 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: D0C160177 **Work Order #...:** D9NXL12L-MS **Matrix.....:** WATER
MS Lot-Sample #: D0C160155-001 D9NXL12M-MSD
Date Sampled...: 03/15/00 07:16 **Date Received..:** 03/16/00
Prep Date.....: 03/23/00 **Analysis Date..:** 03/23/00
Prep Batch #...: 0084336 **Analysis Time..:** 22:24
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	**ND**	**10.0**	**10.6**	**ug/L**	**106**		**SW846 8260B**
	ND	**10.0**	**10.5**	**ug/L**	**105**	**0.37**	**SW846 8260B**
Chlorobenzene	**ND**	**10.0**	**9.85**	**ug/L**	**98**		**SW846 8260B**
	ND	**10.0**	**10.2**	**ug/L**	**102**	**3.5**	**SW846 8260B**
1,1-Dichloroethene	**ND**	**10.0**	**10.6**	**ug/L**	**106**		**SW846 8260B**
	ND	**10.0**	**10.5**	**ug/L**	**105**	**0.93**	**SW846 8260B**
Toluene	**ND**	**10.0**	**10.0**	**ug/L**	**100**		**SW846 8260B**
	ND	**10.0**	**10.4**	**ug/L**	**104**	**4.1**	**SW846 8260B**
Trichloroethene	**ND**	**10.0**	**10.6**	**ug/L**	**106**		**SW846 8260B**
	ND	**10.0**	**10.4**	**ug/L**	**104**	**2.7**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
bromofluoromethane	94	(82 - 122)
	96	(82 - 122)
1,2-Dichloroethane-d4	98	(78 - 123)
	100	(78 - 123)
4-Bromofluorobenzene	102	(80 - 120)
	103	(80 - 120)
Toluene-d8	101	(82 - 122)
	104	(82 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: D0C160177 Work Order #...: D9Q9D102-LCS Matrix.....: WATER
LCS Lot-Sample#: D0C170000-150 D9Q9D103-LCSD
Prep Date.....: 03/17/00 Analysis Date..: 03/21/00
Prep Batch #...: 0077150 Analysis Time..: 12:00
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Aldrin	**107**	**(61 - 117)**			**SW846 8081A**
	99	**(61 - 117)**	**7.6**	**(0-30)**	**SW846 8081A**
gamma-BHC (Lindane)	**116**	**(68 - 122)**			**SW846 8081A**
	108	**(68 - 122)**	**7.4**	**(0-30)**	**SW846 8081A**
4,4'-DDT	**118**	**(66 - 134)**			**SW846 8081A**
	108	**(66 - 134)**	**8.8**	**(0-30)**	**SW846 8081A**
Dieldrin	**118**	**(73 - 124)**			**SW846 8081A**
	111	**(73 - 124)**	**6.5**	**(0-30)**	**SW846 8081A**
Endrin	**108**	**(60 - 145)**			**SW846 8081A**
	99	**(60 - 145)**	**8.7**	**(0-30)**	**SW846 8081A**
Heptachlor	**109**	**(64 - 121)**			**SW846 8081A**
	101	**(64 - 121)**	**7.0**	**(0-30)**	**SW846 8081A**

URROGATE	PERCENT RECOVERY	RECOVERY LIMITS
ecachlorobiphenyl	124	(39 - 143)
	114	(39 - 143)
Tetrachloro-m-xylene	97	(56 - 107)
	93	(56 - 107)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: D0C160177 **Work Order #...:** D9Q9D102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: D0C170000-150 D9Q9D103-LCSD
Prep Date.....: 03/17/00 **Analysis Date..:** 03/21/00
Prep Batch #...: 0077150 **Analysis Time..:** 12:00
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Aldrin	**0.500**	**0.537**	**ug/L**	**107**		**SW846 8081A**
	0.500	**0.497**	**ug/L**	**99**	**7.6**	**SW846 8081A**
gamma-BHC (Lindane)	**0.500**	**0.580**	**ug/L**	**116**		**SW846 8081A**
	0.500	**0.538**	**ug/L**	**108**	**7.4**	**SW846 8081A**
4,4'-DDT	**0.500**	**0.589**	**ug/L**	**118**		**SW846 8081A**
	0.500	**0.540**	**ug/L**	**108**	**8.8**	**SW846 8081A**
Dieldrin	**0.500**	**0.590**	**ug/L**	**118**		**SW846 8081A**
	0.500	**0.553**	**ug/L**	**111**	**6.5**	**SW846 8081A**
Endrin	**0.500**	**0.541**	**ug/L**	**108**		**SW846 8081A**
	0.500	**0.496**	**ug/L**	**99**	**8.7**	**SW846 8081A**
Heptachlor	**0.500**	**0.544**	**ug/L**	**109**		**SW846 8081A**
	0.500	**0.507**	**ug/L**	**101**	**7.0**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	124	(39 - 143)
	114	(39 - 143)
Tetrachloro-m-xylene	97	(56 - 107)
	93	(56 - 107)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: D0C160177 **Work Order #...:** D9Q9D101 **Matrix.....:** WATER
MB Lot-Sample #: D0C170000-150

Prep Date.....: 03/17/00 **Analysis Time..:** 11:30

Analysis Date..: 03/21/00 **Prep Batch #...:** 0077150
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Diallate	ND	1.0	ug/L	SW846 8081A
Isodrin	ND	0.10	ug/L	SW846 8081A
Kepone	ND	1.0	ug/L	SW846 8081A
Aldrin	ND	0.050	ug/L	SW846 8081A
alpha-BHC	ND	0.050	ug/L	SW846 8081A
beta-BHC	ND	0.050	ug/L	SW846 8081A
delta-BHC	ND	0.050	ug/L	SW846 8081A
gamma-BHC (Lindane)	ND	0.050	ug/L	SW846 8081A
alpha-Chlordane	ND	0.050	ug/L	SW846 8081A
gamma-Chlordane	ND	0.050	ug/L	SW846 8081A
4,4'-DDD	ND	0.050	ug/L	SW846 8081A
4,4'-DDE	ND	0.050	ug/L	SW846 8081A
4,4'-DDT	ND	0.050	ug/L	SW846 8081A
Dieldrin	ND	0.050	ug/L	SW846 8081A
Endosulfan I	ND	0.050	ug/L	SW846 8081A
Endosulfan II	ND	0.050	ug/L	SW846 8081A
Endosulfan sulfate	ND	0.050	ug/L	SW846 8081A
Endrin	ND	0.050	ug/L	SW846 8081A
Endrin aldehyde	ND	0.050	ug/L	SW846 8081A
Heptachlor	ND	0.050	ug/L	SW846 8081A
Heptachlor epoxide	ND	0.050	ug/L	SW846 8081A
Methoxychlor	ND	0.10	ug/L	SW846 8081A
Toxaphene	ND	2.0	ug/L	SW846 8081A
Endrin ketone	ND	0.050	ug/L	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	120	(39 - 143)
Tetrachloro-m-xylene	102	(56 - 107)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: D0C160177 Work Order #...: D9Q9P102-LCS Matrix.....: WATER
LCS Lot-Sample#: D0C170000-157 D9Q9P103-LCSD
Prep Date.....: 03/17/00 Analysis Date..: 03/20/00
Prep Batch #...: 0077157 Analysis Time..: 17:01
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Aroclor 1016	88	(73 - 123)			SW846 8082
	88	(73 - 123)	0.63	(0-20)	SW846 8082
Aroclor 1260	91	(77 - 120)			SW846 8082
	87	(77 - 120)	4.6	(0-20)	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	95	(52 - 129)
	90	(52 - 129)
Tetrachloro-m-xylene	104	(54 - 113)
	101	(54 - 113)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: D0C160177 **Work Order #...:** D9Q9P102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: D0C170000-157 D9Q9P103-LCSD
Prep Date.....: 03/17/00 **Analysis Date..:** 03/20/00
Prep Batch #...: 0077157 **Analysis Time..:** 17:01
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Aroclor 1016	**2.00**	**1.76**	**ug/L**	**88**		**SW846 8082**
	2.00	**1.75**	**ug/L**	**88**	**0.63**	**SW846 8082**
Aroclor 1260	**2.00**	**1.82**	**ug/L**	**91**		**SW846 8082**
	2.00	**1.73**	**ug/L**	**87**	**4.6**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	95	(52 - 129)
	90	(52 - 129)
Tetrachloro-m-xylene	104	(54 - 113)
	101	(54 - 113)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

ɔld print denotes control parameters

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: D0C160177
MB Lot-Sample #: D0C170000-157

Work Order #...: D9Q9P101

Matrix.....: WATER

Prep Date.....: 03/17/00

Analysis Time..: 16:33

Analysis Date..: 03/20/00
Dilution Factor: 1

Prep Batch #...: 0077157

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aroclor 1016	ND	1.0	ug/L	SW846 8082
Aroclor 1221	ND	1.0	ug/L	SW846 8082
Aroclor 1232	ND	1.0	ug/L	SW846 8082
Aroclor 1242	ND	1.0	ug/L	SW846 8082
Aroclor 1248	ND	1.0	ug/L	SW846 8082
Aroclor 1254	ND	1.0	ug/L	SW846 8082
Aroclor 1260	ND	1.0	ug/L	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	92	(52 - 129)
Tetrachloro-m-xylene	105	(54 - 113)

NOTE(S):

'culations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: D0C160177 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Mercury	99	(78 - 118)			SW846 7470A	03/20-03/21/00	0080215
	98	(78 - 118)	0.81	(0-10)	SW846 7470A	03/20-03/21/00	0080215
		Dilution Factor: 1					
Antimony	98	(86 - 113)			SW846 6020	03/29-03/31/00	0089302
	101	(86 - 113)	3.9	(0-20)	SW846 6020	03/29-03/31/00	0089302
		Dilution Factor: 1					
Arsenic	105	(86 - 114)			SW846 6020	03/29-03/31/00	0089302
	108	(86 - 114)	2.4	(0-20)	SW846 6020	03/29-03/31/00	0089302
		Dilution Factor: 1					
Cadmium	104	(84 - 114)			SW846 6020	03/29-03/31/00	0089302
	106	(84 - 114)	1.7	(0-20)	SW846 6020	03/29-03/31/00	0089302
		Dilution Factor: 1					
Chromium	108	(82 - 116)			SW846 6020	03/29-03/31/00	0089302
	107	(82 - 116)	0.45	(0-20)	SW846 6020	03/29-03/31/00	0089302
		Dilution Factor: 1					
Lead	108	(85 - 116)			SW846 6020	03/29-03/31/00	0089302
	112	(85 - 116)	3.5	(0-20)	SW846 6020	03/29-03/31/00	0089302
		Dilution Factor: 1					
Selenium	108	(84 - 114)			SW846 6020	03/29-03/31/00	0089302
	115 N	(84 - 114)	5.9	(0-20)	SW846 6020	03/29-03/31/00	0089302
		Dilution Factor: 1					
Silver	105	(85 - 114)			SW846 6020	03/29-03/31/00	0089302
	108	(85 - 114)	3.1	(0-20)	SW846 6020	03/29-03/31/00	0089302
		Dilution Factor: 1					
Thallium	106	(83 - 118)			SW846 6020	03/29-03/31/00	0089302
	111	(83 - 118)	4.3	(0-20)	SW846 6020	03/29-03/31/00	0089302
		Dilution Factor: 1					
Aluminum	94	(89 - 109)			SW846 6010B	03/30-04/04/00	0089412
	93	(89 - 109)	0.50	(0-20)	SW846 6010B	03/30-04/04/00	0089412
		Dilution Factor: 1					

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: D0C160177 Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Barium	96	(92 - 115)			SW846 6010B	03/30-04/04/00	0089412
	95	(92 - 115)	0.41	(0-20)	SW846 6010B	03/30-04/04/00	0089412
		Dilution Factor: 1					
Beryllium	100	(91 - 117)			SW846 6010B	03/30-04/04/00	0089412
	100	(91 - 117)	0.78	(0-20)	SW846 6010B	03/30-04/04/00	0089412
		Dilution Factor: 1					
Calcium	96	(88 - 108)			SW846 6010B	03/30-04/04/00	0089412
	97	(88 - 108)	1.2	(0-20)	SW846 6010B	03/30-04/04/00	0089412
		Dilution Factor: 1					
Cobalt	94	(86 - 112)			SW846 6010B	03/30-04/04/00	0089412
	95	(86 - 112)	0.63	(0-20)	SW846 6010B	03/30-04/04/00	0089412
		Dilution Factor: 1					
Copper	99	(93 - 113)			SW846 6010B	03/30-04/04/00	0089412
	99	(93 - 113)	0.05	(0-20)	SW846 6010B	03/30-04/04/00	0089412
		Dilution Factor: 1					
Iron	104	(92 - 114)			SW846 6010B	03/30-04/03/00	0089412
	103	(92 - 114)	0.59	(0-20)	SW846 6010B	03/30-04/03/00	0089412
		Dilution Factor: 1					
Magnesium	102	(93 - 113)			SW846 6010B	03/30-04/04/00	0089412
	103	(93 - 113)	0.85	(0-20)	SW846 6010B	03/30-04/04/00	0089412
		Dilution Factor: 1					
Manganese	96	(89 - 114)			SW846 6010B	03/30-04/04/00	0089412
	96	(89 - 114)	0.53	(0-20)	SW846 6010B	03/30-04/04/00	0089412
		Dilution Factor: 1					
Molybdenum	96	(87 - 112)			SW846 6010B	03/30-04/04/00	0089412
	96	(87 - 112)	0.63	(0-20)	SW846 6010B	03/30-04/04/00	0089412
		Dilution Factor: 1					
Nickel	95	(89 - 109)			SW846 6010B	03/30-04/04/00	0089412
	95	(89 - 109)	0.07	(0-20)	SW846 6010B	03/30-04/04/00	0089412
		Dilution Factor: 1					

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: D0C160177 Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Potassium	99	(87 - 110)			SW846 6010B	03/30-04/03/00	0089412
	100	(87 - 110)	0.53	(0-20)	SW846 6010B	03/30-04/03/00	0089412
		Dilution Factor: 1					
Sodium	106	(91 - 111)			SW846 6010B	03/30-04/03/00	0089412
	106	(91 - 111)	0.40	(0-20)	SW846 6010B	03/30-04/03/00	0089412
		Dilution Factor: 1					
Tin	97	(88 - 111)			SW846 6010B	03/30-04/04/00	0089412
	98	(88 - 111)	1.3	(0-20)	SW846 6010B	03/30-04/04/00	0089412
		Dilution Factor: 1					
Vanadium	95	(88 - 115)			SW846 6010B	03/30-04/04/00	0089412
	95	(88 - 115)	0.26	(0-20)	SW846 6010B	03/30-04/04/00	0089412
		Dilution Factor: 1					
Zinc	90	(83 - 111)			SW846 6010B	03/30-04/04/00	0089412
	92	(83 - 111)	1.5	(0-20)	SW846 6010B	03/30-04/04/00	0089412
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Lot-Sample #...: D0C160177 Matrix.....: WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Mercury	5.00	4.94	ug/L	99		SW846 7470A	03/20-03/21/00	0080215
	5.00	4.90	ug/L	98	0.81	SW846 7470A	03/20-03/21/00	0080215
			Dilution Factor: 1					
Antimony	200	195	ug/L	98		SW846 6020	03/29-03/31/00	0089302
	200	203	ug/L	101	3.9	SW846 6020	03/29-03/31/00	0089302
			Dilution Factor: 1					
Arsenic	200	210	ug/L	105		SW846 6020	03/29-03/31/00	0089302
	200	215	ug/L	108	2.4	SW846 6020	03/29-03/31/00	0089302
			Dilution Factor: 1					
Cadmium	200	208	ug/L	104		SW846 6020	03/29-03/31/00	0089302
	200	212	ug/L	106	1.7	SW846 6020	03/29-03/31/00	0089302
			Dilution Factor: 1					
Chromium	200	216	ug/L	108		SW846 6020	03/29-03/31/00	0089302
	200	215	ug/L	107	0.45	SW846 6020	03/29-03/31/00	0089302
			Dilution Factor: 1					
Lead	200	216	ug/L	108		SW846 6020	03/29-03/31/00	0089302
	200	223	ug/L	112	3.5	SW846 6020	03/29-03/31/00	0089302
			Dilution Factor: 1					
Selenium	200	216	ug/L	108		SW846 6020	03/29-03/31/00	0089302
	200	230 N	ug/L	115	5.9	SW846 6020	03/29-03/31/00	0089302
			Dilution Factor: 1					
Silver	200	209	ug/L	105		SW846 6020	03/29-03/31/00	0089302
	200	216	ug/L	108	3.1	SW846 6020	03/29-03/31/00	0089302
			Dilution Factor: 1					
Thallium	200	212	ug/L	106		SW846 6020	03/29-03/31/00	0089302
	200	222	ug/L	111	4.3	SW846 6020	03/29-03/31/00	0089302
			Dilution Factor: 1					
Aluminum	2000	1880	ug/L	94		SW846 6010B	03/30-04/04/00	0089412
	2000	1870	ug/L	93	0.50	SW846 6010B	03/30-04/04/00	0089412
			Dilution Factor: 1					

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Lot-Sample #...: D0C160177 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Barium	2000	1910	ug/L	96		SW846 6010B	03/30-04/04/00	0089412
	2000	1910	ug/L	95	0.41	SW846 6010B	03/30-04/04/00	0089412
			Dilution Factor: 1					
Beryllium	50.0	49.8	ug/L	100		SW846 6010B	03/30-04/04/00	0089412
	50.0	50.2	ug/L	100	0.78	SW846 6010B	03/30-04/04/00	0089412
			Dilution Factor: 1					
Calcium	50000	47900	ug/L	96		SW846 6010B	03/30-04/04/00	0089412
	50000	48600	ug/L	97	1.2	SW846 6010B	03/30-04/04/00	0089412
			Dilution Factor: 1					
Cobalt	500	471	ug/L	94		SW846 6010B	03/30-04/04/00	0089412
	500	474	ug/L	95	0.63	SW846 6010B	03/30-04/04/00	0089412
			Dilution Factor: 1					
Copper	250	247	ug/L	99		SW846 6010B	03/30-04/04/00	0089412
	250	246	ug/L	99	0.05	SW846 6010B	03/30-04/04/00	0089412
			Dilution Factor: 1					
Iron	1000	1040	ug/L	104		SW846 6010B	03/30-04/03/00	0089412
	1000	1030	ug/L	103	0.59	SW846 6010B	03/30-04/03/00	0089412
			Dilution Factor: 1					
Magnesium	50000	50800	ug/L	102		SW846 6010B	03/30-04/04/00	0089412
	50000	51300	ug/L	103	0.85	SW846 6010B	03/30-04/04/00	0089412
			Dilution Factor: 1					
Manganese	500	479	ug/L	96		SW846 6010B	03/30-04/04/00	0089412
	500	482	ug/L	96	0.53	SW846 6010B	03/30-04/04/00	0089412
			Dilution Factor: 1					
Molybdenum	1000	958	ug/L	96		SW846 6010B	03/30-04/04/00	0089412
	1000	964	ug/L	96	0.63	SW846 6010B	03/30-04/04/00	0089412
			Dilution Factor: 1					
Nickel	500	476	ug/L	95		SW846 6010B	03/30-04/04/00	0089412
	500	477	ug/L	95	0.07	SW846 6010B	03/30-04/04/00	0089412
			Dilution Factor: 1					

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Lot-Sample #...: D0C160177 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Potassium	50000	49700	ug/L	99		SW846 6010B	03/30-04/03/00	0089412
	50000	50000	ug/L	100	0.53	SW846 6010B	03/30-04/03/00	0089412
			Dilution Factor: 1					
Sodium	50000	53100	ug/L	106		SW846 6010B	03/30-04/03/00	0089412
	50000	52800	ug/L	106	0.40	SW846 6010B	03/30-04/03/00	0089412
			Dilution Factor: 1					
Tin	2000	1940	ug/L	97		SW846 6010B	03/30-04/04/00	0089412
	2000	1970	ug/L	98	1.3	SW846 6010B	03/30-04/04/00	0089412
			Dilution Factor: 1					
Vanadium	500	475	ug/L	95		SW846 6010B	03/30-04/04/00	0089412
	500	477	ug/L	95	0.26	SW846 6010B	03/30-04/04/00	0089412
			Dilution Factor: 1					
Zinc	500	452	ug/L	90		SW846 6010B	03/30-04/04/00	0089412
	500	459	ug/L	92	1.5	SW846 6010B	03/30-04/04/00	0089412
			Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D0C160177 **Matrix.....:** WATER

MB Lot-Sample #: D0C290000-412 **Prep Batch #...:** 0089412

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Aluminum	**41.3 B**	**100**	**ug/L**	**SW846 6010B**	**03/30-04/04/00**	**DA7PD10E**
		Dilution Factor: 1				
		Analysis Time..: 16:37				
Barium	ND	10.0	ug/L	SW846 6010B	03/30-04/04/00	DA7PD10F
		Dilution Factor: 1				
		Analysis Time..: 16:37				
Beryllium	ND	2.0	ug/L	SW846 6010B	03/30-04/04/00	DA7PD10G
		Dilution Factor: 1				
		Analysis Time..: 16:37				
Calcium	**11.6 B**	**200**	**ug/L**	**SW846 6010B**	**03/30-04/04/00**	**DA7PD10H**
		Dilution Factor: 1				
		Analysis Time..: 16:37				
Cobalt	ND	10.0	ug/L	SW846 6010B	03/30-04/04/00	DA7PD10J
		Dilution Factor: 1				
		Analysis Time..: 16:37				
Copper	ND	20.0	ug/L	SW846 6010B	03/30-04/04/00	DA7PD10K
		Dilution Factor: 1				
		Analysis Time..: 16:37				
Iron	**16.3**	**100**	**ug/L**	**SW846 6010B**	**03/30-04/03/00**	**DA7PD104**
		Dilution Factor: 1				
		Analysis Time..: 13:46				
Magnesium	ND	200	ug/L	SW846 6010B	03/30-04/04/00	DA7PD105
		Dilution Factor: 1				
		Analysis Time..: 16:37				
Manganese	ND	10.0	ug/L	SW846 6010B	03/30-04/04/00	DA7PD101
		Dilution Factor: 1				
		Analysis Time..: 16:37				
Molybdenum	ND	20.0	ug/L	SW846 6010B	03/30-04/04/00	DA7PD106
		Dilution Factor: 1				
		Analysis Time..: 16:37				
Nickel	ND	40.0	ug/L	SW846 6010B	03/30-04/04/00	DA7PD107
		Dilution Factor: 1				
		Analysis Time..: 16:37				

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D0C160177 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Potassium	**376 B**	**5000**	**ug/L**	**SW846 6010B**	**03/30-04/03/00**	**DA7PD108**
		Dilution Factor: 1				
		Analysis Time..: 13:46				
Sodium	**1970 B**	**5000**	**ug/L**	**SW846 6010B**	**03/30-04/03/00**	**DA7PD109**
		Dilution Factor: 1				
		Analysis Time..: 13:46				
Tin	ND	100	ug/L	SW846 6010B	03/30-04/04/00	DA7PD10A
		Dilution Factor: 1				
		Analysis Time..: 16:37				
Vanadium	ND	10.0	ug/L	SW846 6010B	03/30-04/04/00	DA7PD10C
		Dilution Factor: 1				
		Analysis Time..: 16:37				
Zinc	ND	20.0	ug/L	SW846 6010B	03/30-04/04/00	DA7PD10D
		Dilution Factor: 1				
		Analysis Time..: 16:37				

MB Lot-Sample #: D0C290000-302 **Prep Batch #...:** 0089302

Antimony	ND	1.0	ug/L	SW846 6020	03/29-03/31/00	DA746107
		Dilution Factor: 1				
		Analysis Time..: 12:57				
Arsenic	ND	5.0	ug/L	SW846 6020	03/29-03/31/00	DA746108
		Dilution Factor: 1				
		Analysis Time..: 12:57				
Cadmium	ND	1.0	ug/L	SW846 6020	03/29-03/31/00	DA74610C
		Dilution Factor: 1				
		Analysis Time..: 12:57				
Chromium	ND	1.0	ug/L	SW846 6020	03/29-03/31/00	DA74610D
		Dilution Factor: 1				
		Analysis Time..: 12:57				
Lead	ND	1.0	ug/L	SW846 6020	03/29-03/31/00	DA746101
		Dilution Factor: 1				
		Analysis Time..: 12:57				
Selenium	ND	5.0	ug/L	SW846 6020	03/29-03/31/00	DA74611E
		Dilution Factor: 1				
		Analysis Time..: 12:57				

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D0C160177 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Silver	ND	1.0	ug/L	SW846 6020	03/29-03/31/00	DA746104
		Dilution Factor: 1				
		Analysis Time..: 12:57				
Thallium	ND	1.0	ug/L	SW846 6020	03/29-03/31/00	DA746105
		Dilution Factor: 1				
		Analysis Time..: 12:57				

MB Lot-Sample #: D0C200000-215 **Prep Batch #...:** 0080215

Mercury	ND	0.20	ug/L	SW846 7470A	03/20-03/21/00	D9TKE101
		Dilution Factor: 1				
		Analysis Time..: 17:04				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D0C160177 **Matrix.....:** WATER
Date Sampled...: 03/13/00 08:50 **Date Received..:** 03/15/00

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: D0C150289-013 **Prep Batch #...:** 0080215							
Mercury	98	(78 - 118)			SW846 7470A	03/20-03/21/00	D9NCD109
	95	(78 - 118)	3.1	(0-10)	SW846 7470A	03/20-03/21/00	D9NCD10A

Dilution Factor: 1
Analysis Time..: 17:22

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D0C160177 **Matrix.....:** WATER
Date Sampled...: 03/15/00 11:30 **Date Received..:** 03/16/00

MS Lot-Sample #: D0C160222-002 **Prep Batch #...:** 0089302

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony									
	ND	200	191	ug/L	95		SW846 6020	03/29-03/31/00	D9PH5110
	ND	200	187	ug/L	93	1.9	SW846 6020	03/29-03/31/00	D9PH5111
			Dilution Factor: 1						
			Analysis Time..: 13:42						
Arsenic									
	ND	200	211	ug/L	106		SW846 6020	03/29-03/31/00	D9PH5112
	ND	200	217	ug/L	109	2.7	SW846 6020	03/29-03/31/00	D9PH5113
			Dilution Factor: 1						
			Analysis Time..: 13:42						
Cadmium									
	ND	200	210	ug/L	105		SW846 6020	03/29-03/31/00	D9PH5118
	ND	200	212	ug/L	106	0.64	SW846 6020	03/29-03/31/00	D9PH5119
			Dilution Factor: 1						
			Analysis Time..: 13:42						
romium									
	2.5	200	215	ug/L	106		SW846 6020	03/29-03/31/00	D9PH511A
	2.5	200	223	ug/L	110	3.4	SW846 6020	03/29-03/31/00	D9PH511C
			Dilution Factor: 1						
			Analysis Time..: 13:42						
Lead									
	0.39	200	221	ug/L	110		SW846 6020	03/29-03/31/00	D9PH510K
	0.39	200	226	ug/L	113	2.3	SW846 6020	03/29-03/31/00	D9PH510L
			Dilution Factor: 1						
			Analysis Time..: 13:42						
Selenium									
	ND	200	215	ug/L	108		SW846 6020	03/29-03/31/00	D9PH511J
	ND	200	229 N	ug/L	115	6.4	SW846 6020	03/29-03/31/00	D9PH511K
			Dilution Factor: 1						
			Analysis Time..: 13:42						
Silver									
	ND	200	208	ug/L	104		SW846 6020	03/29-03/31/00	D9PH510R
	ND	200	217	ug/L	108	4.2	SW846 6020	03/29-03/31/00	D9PH510T
			Dilution Factor: 1						
			Analysis Time..: 13:42						

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D0C160177 **Matrix.....:** WATER
Date Sampled...: 03/15/00 11:30 **Date Received..:** 03/16/00

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium									
	ND	200	218	ug/L	109		SW846 6020	03/29-03/31/00	D9PH510U
	ND	200	224	ug/L	112	2.8	SW846 6020	03/29-03/31/00	D9PH510V

Dilution Factor: 1
Analysis Time..: 13:42

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D0C160177 **Matrix.....:** WATER
Date Sampled...: 03/13/00 08:50 **Date Received..:** 03/15/00

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: D0C150289-013 **Prep Batch #...:** 0080215									
Mercury									
	ND	5.00	4.91	ug/L	98		SW846 7470A	03/20-03/21/00	D9NCD109
	ND	5.00	4.76	ug/L	95	3.1	SW846 7470A	03/20-03/21/00	D9NCD10A

Dilution Factor: 1
Analysis Time..: 17:22

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D0C160177 **Matrix.....:** WATER
Date Sampled...: 03/15/00 11:30 **Date Received..:** 03/16/00

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: D0C160222-002 **Prep Batch #...:** 0089302							
Antimony	95	(86 - 113)			SW846 6020	03/29-03/31/00	D9PH5110
	93	(86 - 113)	1.9	(0-20)	SW846 6020	03/29-03/31/00	D9PH5111
		Dilution Factor: 1					
		Analysis Time..: 13:42					
Arsenic	106	(86 - 114)			SW846 6020	03/29-03/31/00	D9PH5112
	109	(86 - 114)	2.7	(0-20)	SW846 6020	03/29-03/31/00	D9PH5113
		Dilution Factor: 1					
		Analysis Time..: 13:42					
Cadmium	105	(84 - 114)			SW846 6020	03/29-03/31/00	D9PH5118
	106	(84 - 114)	0.64	(0-20)	SW846 6020	03/29-03/31/00	D9PH5119
		Dilution Factor: 1					
		Analysis Time..: 13:42					
Chromium	106	(82 - 116)			SW846 6020	03/29-03/31/00	D9PH511A
	110	(82 - 116)	3.4	(0-20)	SW846 6020	03/29-03/31/00	D9PH511C
		Dilution Factor: 1					
		Analysis Time..: 13:42					
Lead	110	(85 - 116)			SW846 6020	03/29-03/31/00	D9PH510K
	113	(85 - 116)	2.3	(0-20)	SW846 6020	03/29-03/31/00	D9PH510L
		Dilution Factor: 1					
		Analysis Time..: 13:42					
Selenium	108	(84 - 114)			SW846 6020	03/29-03/31/00	D9PH511J
	115 N	(84 - 114)	6.4	(0-20)	SW846 6020	03/29-03/31/00	D9PH511K
		Dilution Factor: 1					
		Analysis Time..: 13:42					
Silver	104	(85 - 114)			SW846 6020	03/29-03/31/00	D9PH510R
	108	(85 - 114)	4.2	(0-20)	SW846 6020	03/29-03/31/00	D9PH510T
		Dilution Factor: 1					
		Analysis Time..: 13:42					
Thallium	109	(83 - 118)			SW846 6020	03/29-03/31/00	D9PH510U
	112	(83 - 118)	2.8	(0-20)	SW846 6020	03/29-03/31/00	D9PH510V
		Dilution Factor: 1					
		Analysis Time..: 13:42					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D0C160177 **Matrix.....:** WATER
Date Sampled...: 03/21/00 11:53 **Date Received..:** 03/21/00

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: D0C210228-001 **Prep Batch #...:** 0089412							
Aluminum	97	(89 - 109)			SW846 6010B	03/30-04/04/00	D9WMN117
	97	(89 - 109)	0.14	(0-20)	SW846 6010B	03/30-04/04/00	D9WMN118
		Dilution Factor: 1					
		Analysis Time..: 17:09					
Barium	97	(92 - 115)			SW846 6010B	03/30-04/04/00	D9WMN11A
	97	(92 - 115)	0.14	(0-20)	SW846 6010B	03/30-04/04/00	D9WMN11C
		Dilution Factor: 1					
		Analysis Time..: 17:09					
Beryllium	98	(91 - 117)			SW846 6010B	03/30-04/04/00	D9WMN11E
	99	(91 - 117)	1.0	(0-20)	SW846 6010B	03/30-04/04/00	D9WMN11F
		Dilution Factor: 1					
		Analysis Time..: 17:09					
Calcium	NC,MSB	(88 - 108)			SW846 6010B	03/30-04/04/00	D9WMN11H
	NC,MSB	(88 - 108)		(0-20)	SW846 6010B	03/30-04/04/00	D9WMN11J
		Dilution Factor: 1					
		Analysis Time..: 17:09					
Cobalt	93	(86 - 112)			SW846 6010B	03/30-04/04/00	D9WMN11L
	94	(86 - 112)	0.92	(0-20)	SW846 6010B	03/30-04/04/00	D9WMN11M
		Dilution Factor: 1					
		Analysis Time..: 17:09					
Copper	102	(93 - 113)			SW846 6010B	03/30-04/04/00	D9WMN11P
	102	(93 - 113)	0.05	(0-20)	SW846 6010B	03/30-04/04/00	D9WMN11Q
		Dilution Factor: 1					
		Analysis Time..: 17:09					
Iron	106	(92 - 114)			SW846 6010B	03/30-04/03/00	D9WMN10A
	104	(92 - 114)	1.9	(0-20)	SW846 6010B	03/30-04/03/00	D9WMN10C
		Dilution Factor: 1					
		Analysis Time..: 14:05					
Magnesium	101	(93 - 113)			SW846 6010B	03/30-04/04/00	D9WMN10E
	104	(93 - 113)	0.74	(0-20)	SW846 6010B	03/30-04/04/00	D9WMN10F
		Dilution Factor: 1					
		Analysis Time..: 17:09					
Manganese	95	(89 - 114)			SW846 6010B	03/30-04/04/00	D9WMN107
	96	(89 - 114)	0.72	(0-20)	SW846 6010B	03/30-04/04/00	D9WMN108
		Dilution Factor: 1					
		Analysis Time..: 17:09					

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D0C160177 **Matrix.....:** WATER
Date Sampled...: 03/21/00 11:53 **Date Received..:** 03/21/00

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Molybdenum	97	(87 - 112)			SW846 6010B	03/30-04/04/00	D9WMN10H
	98	(87 - 112)	0.86	(0-20)	SW846 6010B	03/30-04/04/00	D9WMN10J
		Dilution Factor: 1					
		Analysis Time..: 17:09					
Nickel	93	(89 - 109)			SW846 6010B	03/30-04/04/00	D9WMN10L
	94	(89 - 109)	0.44	(0-20)	SW846 6010B	03/30-04/04/00	D9WMN10M
		Dilution Factor: 1					
		Analysis Time..: 17:09					
Potassium	106	(87 - 110)			SW846 6010B	03/30-04/03/00	D9WMN10P
	108	(87 - 110)	1.4	(0-20)	SW846 6010B	03/30-04/03/00	D9WMN10Q
		Dilution Factor: 1					
		Analysis Time..: 14:05					
Sodium	111	(91 - 111)			SW846 6010B	03/30-04/03/00	D9WMN10T
	114 N	(91 - 111)	1.0	(0-20)	SW846 6010B	03/30-04/03/00	D9WMN10U
		Dilution Factor: 1					
		Analysis Time..: 14:05					
.n	99	(88 - 111)			SW846 6010B	03/30-04/04/00	D9WMN10W
	100	(88 - 111)	1.3	(0-20)	SW846 6010B	03/30-04/04/00	D9WMN10X
		Dilution Factor: 1					
		Analysis Time..: 17:09					
Vanadium	95	(88 - 115)			SW846 6010B	03/30-04/04/00	D9WMN111
	96	(88 - 115)	0.70	(0-20)	SW846 6010B	03/30-04/04/00	D9WMN112
		Dilution Factor: 1					
		Analysis Time..: 17:09					
Zinc	89	(83 - 111)			SW846 6010B	03/30-04/04/00	D9WMN114
	91	(83 - 111)	1.3	(0-20)	SW846 6010B	03/30-04/04/00	D9WMN115
		Dilution Factor: 1					
		Analysis Time..: 17:09					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D0C160177 **Matrix.....:** WATER
Date **Sampled...:** 03/21/00 11:53 **Date Received..:** 03/21/00

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: D0C210228-001 **Prep Batch #...:** 0089412									
Aluminum									
	84.8	2000	2030	ug/L	97		SW846 6010B	03/30-04/04/00	D9WMN117
	84.8	2000	2030	ug/L	97	0.14	SW846 6010B	03/30-04/04/00	D9WMN118
			Dilution Factor: 1						
			Analysis Time..: 17:09						
Barium									
	17.1	2000	1960	ug/L	97		SW846 6010B	03/30-04/04/00	D9WMN11A
	17.1	2000	1970	ug/L	97	0.14	SW846 6010B	03/30-04/04/00	D9WMN11C
			Dilution Factor: 1						
			Analysis Time..: 17:09						
Beryllium									
	ND	50.0	49.0	ug/L	98		SW846 6010B	03/30-04/04/00	D9WMN11E
	ND	50.0	49.5	ug/L	99	1.0	SW846 6010B	03/30-04/04/00	D9WMN11F
			Dilution Factor: 1						
			Analysis Time..: 17:09						
ılcium									
	264000	50000	306000	ug/L			SW846 6010B	03/30-04/04/00	D9WMN11H
			Qualifiers: NC,MSB						
	264000	50000	310000	ug/L			SW846 6010B	03/30-04/04/00	D9WMN11J
			Qualifiers: NC,MSB						
			Dilution Factor: 1						
			Analysis Time..: 17:09						
Cobalt									
	ND	500	466	ug/L	93		SW846 6010B	03/30-04/04/00	D9WMN11L
	ND	500	470	ug/L	94	0.92	SW846 6010B	03/30-04/04/00	D9WMN11M
			Dilution Factor: 1						
			Analysis Time..: 17:09						
Copper									
	ND	250	256	ug/L	102		SW846 6010B	03/30-04/04/00	D9WMN11P
	ND	250	256	ug/L	102	0.05	SW846 6010B	03/30-04/04/00	D9WMN11Q
			Dilution Factor: 1						
			Analysis Time..: 17:09						
Iron									
	48.3	1000	1110	ug/L	106		SW846 6010B	03/30-04/03/00	D9WMN10A
	48.3	1000	1090	ug/L	104	1.9	SW846 6010B	03/30-04/03/00	D9WMN10C
			Dilution Factor: 1						
			Analysis Time..: 14:05						

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D0C160177 **Matrix.....:** WATER
Date Sampled...: 03/21/00 11:53 **Date Received..:** 03/21/00

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium									
	139000	50000	190000	ug/L	101		SW846 6010B	03/30-04/04/00	D9WMN10E
	139000	50000	191000	ug/L	104	0.74	SW846 6010B	03/30-04/04/00	D9WMN10F
			Dilution Factor: 1						
			Analysis Time..: 17:09						
Manganese									
	ND	500	475	ug/L	95		SW846 6010B	03/30-04/04/00	D9WMN107
	ND	500	478	ug/L	96	0.72	SW846 6010B	03/30-04/04/00	D9WMN108
			Dilution Factor: 1						
			Analysis Time..: 17:09						
Molybdenum									
	ND	1000	967	ug/L	97		SW846 6010B	03/30-04/04/00	D9WMN10H
	ND	1000	975	ug/L	98	0.86	SW846 6010B	03/30-04/04/00	D9WMN10J
			Dilution Factor: 1						
			Analysis Time..: 17:09						
Nickel									
	ND	500	466	ug/L	93		SW846 6010B	03/30-04/04/00	D9WMN10L
	ND	500	468	ug/L	94	0.44	SW846 6010B	03/30-04/04/00	D9WMN10M
			Dilution Factor: 1						
			Analysis Time..: 17:09						
Potassium									
	2980	50000	56100	ug/L	106		SW846 6010B	03/30-04/03/00	D9WMN10P
	2980	50000	56800	ug/L	108	1.4	SW846 6010B	03/30-04/03/00	D9WMN10Q
			Dilution Factor: 1						
			Analysis Time..: 14:05						
Sodium									
	91600	50000	147000	ug/L	111		SW846 6010B	03/30-04/03/00	D9WMN10T
	91600	50000	149000 N	ug/L	114	1.0	SW846 6010B	03/30-04/03/00	D9WMN10U
			Dilution Factor: 1						
			Analysis Time..: 14:05						
Tin									
	ND	2000	1980	ug/L	99		SW846 6010B	03/30-04/04/00	D9WMN10W
	ND	2000	2000	ug/L	100	1.3	SW846 6010B	03/30-04/04/00	D9WMN10X
			Dilution Factor: 1						
			Analysis Time..: 17:09						
Vanadium									
	ND	500	477	ug/L	95		SW846 6010B	03/30-04/04/00	D9WMN111
	ND	500	481	ug/L	96	0.70	SW846 6010B	03/30-04/04/00	D9WMN112
			Dilution Factor: 1						
			Analysis Time..: 17:09						

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D0C160177 **Matrix.....:** WATER
Date Sampled...: 03/21/00 11:53 **Date Received..:** 03/21/00

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc									
	4.7	500	452	ug/L	89		SW846 6010B	03/30-04/04/00	D9WMN114
	4.7	500	458	ug/L	91	1.3	SW846 6010B	03/30-04/04/00	D9WMN115

Dilution Factor: 1
Analysis Time..: 17:09

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Lot-Sample #...: D0C160177 Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrite		WO#:D9Q35102-LCS/D9Q35103-LCSD LCS Lot-Sample#: D0C170000-121					
	92	(90 - 110)			MCAWW 354.1	03/16/00	0077121
	93	(90 - 110)	0.53	(0-10)	MCAWW 354.1	03/16/00	0077121
		Dilution Factor: 1					
Sulfate		WO#:DA3XK102-LCS/DA3XK103-LCSD LCS Lot-Sample#: D0C260000-114					
	94	(90 - 110)			MCAWW 300.0A	03/23-03/24/00	0086114
	94	(90 - 110)	0.38	(0-10)	MCAWW 300.0A	03/23-03/24/00	0086114
		Dilution Factor: 1					
Total Dissolved Solids		WO#:D9VM6102-LCS/D9VM6103-LCSD LCS Lot-Sample#: D0C210000-187					
	98	(86 - 106)			MCAWW 160.1	03/20/00	0081187
	98	(86 - 106)	0.52	(0-20)	MCAWW 160.1	03/20/00	0081187
		Dilution Factor: 1					
Total Sulfide		WO#:DA128102-LCS/DA128103-LCSD LCS Lot-Sample#: D0C230000-288					
	87	(70 - 130)			SW846 9030B/9034	03/21/00	0083288
	87	(70 - 130)	0.31	(0-20)	SW846 9030B/9034	03/21/00	0083288
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Lot-Sample #...: D0C160177 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrite		WO#:D9Q35102-LCS/D9Q35103-LCSD				LCS Lot-Sample#: D0C170000-121		
	0.0400	0.0370	mg/L	92		MCAWW 354.1	03/16/00	0077121
	0.0400	0.0372	mg/L	93	0.53	MCAWW 354.1	03/16/00	0077121
		Dilution Factor: 1						
Sulfate		WO#:DA3XK102-LCS/DA3XK103-LCSD				LCS Lot-Sample#: D0C260000-114		
	25.0	23.5	mg/L	94		MCAWW 300.0A	03/23-03/24/00	0086114
	25.0	23.6	mg/L	94	0.38	MCAWW 300.0A	03/23-03/24/00	0086114
		Dilution Factor: 1						
Total Dissolved Solids		WO#:D9VM6102-LCS/D9VM6103-LCSD				LCS Lot-Sample#: D0C210000-187		
	583	570	mg/L	98		MCAWW 160.1	03/20/00	0081187
	583	573	mg/L	98	0.52	MCAWW 160.1	03/20/00	0081187
		Dilution Factor: 1						
Total Sulfide		WO#:DA128102-LCS/DA128103-LCSD				LCS Lot-Sample#: D0C230000-288		
	21.9	19.1	mg/L	87		SW846 9030B/9034	03/21/00	0083288
	21.9	19.0	mg/L	87	0.31	SW846 9030B/9034	03/21/00	0083288
		Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: D0C160177 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrite		Work Order #: D9Q35101		MB Lot-Sample #:	D0C170000-121	
	ND	0.010	mg/L	MCAWW 354.1	03/16/00	0077121
		Dilution Factor: 1				
		Analysis Time..: 13:00				
Sulfate		Work Order #: DA3XK101		MB Lot-Sample #:	D0C260000-114	
	ND	5.0	mg/L	MCAWW 300.0A	03/23-03/24/00	0086114
		Dilution Factor: 1				
		Analysis Time..: 01:18				
Total Dissolved Solids		Work Order #: D9VM6101		MB Lot-Sample #:	D0C210000-187	
	ND	10.0	mg/L	MCAWW 160.1	03/20/00	0081187
		Dilution Factor: 1				
		Analysis Time..: 11:00				
Total Sulfide		Work Order #: DA128101		MB Lot-Sample #:	D0C230000-288	
	ND	4.0	mg/L	SW846 9030B/9034	03/21/00	0083288
		Dilution Factor: 1				
		Analysis Time..: 13:00				

TE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: D0C160177 **Matrix.....:** WATER
Date Sampled...: 03/14/00 09:20 **Date Received..:** 03/15/00

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrite		WO#: D9P5J114-MS/D9P5J115-MSD				MS Lot-Sample #: D0C160177-001	
	92	(90 - 110)			MCAWW 354.1	03/16/00	0077121
	95	(90 - 110)	3.1	(0-10)	MCAWW 354.1	03/16/00	0077121
		Dilution Factor: 1					
		Analysis Time..: 13:00					
Sulfate		WO#: D9M6410D-MS/D9M6410E-MSD				MS Lot-Sample #: D0C150149-001	
	89 N	(90 - 110)			MCAWW 300.0A	03/23-03/24/00	0086114
	90	(90 - 110)	1.6	(0-10)	MCAWW 300.0A	03/23-03/24/00	0086114
		Dilution Factor: 1					
		Analysis Time..: 01:42					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: D0C160177 **Matrix.....:** WATER
Date Sampled...: 03/14/00 09:20 **Date Received..:** 03/15/00

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrite			WO#: D9P5J114-MS/D9P5J115-MSD				MS Lot-Sample #: D0C160177-001		
	ND	0.100	0.0922	mg/L	92		MCAWW 354.1	03/16/00	0077121
	ND	0.100	0.0951	mg/L	95	3.1	MCAWW 354.1	03/16/00	0077121
			Dilution Factor: 1						
			Analysis Time..: 13:00						
Sulfate			WO#: D9M6410D-MS/D9M6410E-MSD				MS Lot-Sample #: D0C150149-001		
	0.97	25.0	23.2 N	mg/L	89		MCAWW 300.0A	03/23-03/24/00	0086114
	0.97	25.0	23.6	mg/L	90	1.6	MCAWW 300.0A	03/23-03/24/00	0086114
			Dilution Factor: 1						
			Analysis Time..: 01:42						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: D0C160177 **Work Order #...:** D9NXL-SMP D9NXL-DUP **Matrix.....:** WATER

Date Sampled...: 03/15/00 07:16 **Date Received..:** 03/16/00

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Dissolved Solids						SD Lot-Sample #:	D0C160155-001	
	933	938	mg/L	0.53	(0-20)	MCAWW 160.1	03/20/00	0081187

Dilution Factor: 1

Analysis Time..: 11:00

U.S. GEOLOGICAL SURVEY, WATER RE JRCES DIVISION, NEW MEXICO DISTRICT
ANALYTICAL REQUEST/CHAIN OF CUSTODY

25228

Project Name & Number Cannon Air Force Base, Ground Water Sampling 463536004	PACKING AND SHIPPING DETAILS Packed and Sealed for Shipping by Fredrick E. Gebhardt
	Seal Number 031967
Sampling Location Sewage Lagoons, (wells E, ~~F, G, H~~) Cannon Air Force Base, New Mexico	Delivered to Shipper by Fredrick E. Gebhardt
	Airbill Number 8121 5767 9821
Team Leader Project chief - Fredrick E. Gebhardt	Sampling Status ☒ Done ☐ Continuing

Sample Date	Sample Time	Field Sample Number	Sample Type	No. of Containers	Analytical Methods (Parameters)	Remarks
3/15/2000	1445	CAFB- E	GROUND-WATER	9	All Apx-IX: SW8260B, SW8081, SW8082, SW6010 -Total (Al, Ba, Be, Ca, Co, Cu, Fe, Mg, Mn, Mo, Ni, K, Na, Sn, V, Zn), SW6020-ICP-MS (Sb, Ag, Cd, As, Cr, Pb, Se, Tl), SW7470 (Hg), NITRATE-E353.2, NIRITE-E354.1, SULFATE-E300, TDS-E160.1, SULFIDE-SW9030	ENVIRONMENTAL SAMPLE
3/15/2000	1330	CAFB-E-TB	ULTRA PURE WATER	3	SW8260B	TRIP BLANK

Additional Comments

CHAIN OF CUSTODY RECORD				LABORATORY LOG-IN OF SAMPLE SHIPPING CONTAINER	
Relinquished by (signed)	Received by (signed)	Date	Time	Analytical Laboratory	Seal Intact upon Receipt ☐ Yes ☐ No
Fredrick E. Gebhardt	FEDERAL EXPRESS	3/15/00	1600	Quanterra Environmental 4955 Yarrow Street Arvada, CO 80002 ph: (303) 786-0184 Attention: Karen Kuoppala	Condition of Contents
	Atmospheric	3/16/00	0930		Contents Temperature
					Laboratory Project Number

Quanterra - Denver

Sample Receiving Checklist

Lot #: D0C160177 Date/Time Received: 3-16-00 0930

Company Name & Sampling Site: USGS/Sewage Lagoons (wells E) Cannon Air Force Base

*Cooler #(s):

Temperatures: 2.8

Unpacking & Labeling Check Points:

N/A	Yes	No		Initials
	☑	☐	1. Cooler seals intact.	CUT
	☑	☐	2. Chain of custody present.	
	☐	☑	3. Bottles broken and/or are leaking, comment if yes.	
			PHOTOGRAPH BROKEN BOTTLES	
	☑	☐	4. Containers labeled, comment if no.	
	☑	☐	5. pH of all samples checked and meet requirements, note exceptions.	
	☑	☐	6. Chain of custody includes "received by" and "relinquished" by signatures, dates, and times.	
	☐	☑	7. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.	
	☑	☐	8. Chain of custody agrees with bottle count, comment if no.	
	☑	☐	9. Chain of custody agrees with labels, comment if no.	
☐	☑	☐	10. VOA samples filled completely, comment if no.	
☐	☑	☐	11. VOA bottles preserved, check for labels.	
	☐	☑	12. Did samples require preservation with sodium thiosulfate?	
☑	☐	☐	13. If yes to #12, did the samples contain residual chlorine?	
☑	☐	☐	14. Sediment present in "D," dissolved, bottles.	
	☑	☐	15. Are analyses with short holding times requested?	
☑	☐	☐	16. Is extra sample volume provided for MS, MSD or matrix duplicates?	
	☐	☑	17. Multiphase samples present? If yes, comment below.	
	☐	☑	18. Any subsampling for volatiles? If yes, list samples.	
			PHOTOGRAPH MULTIPHASE SAMPLES	
☑	☐	☐	19. Clear picture taken, labeled, and stapled to project folder.	
☑	☐	☐	20. Subcontract COC signed and sent with samples to bottle prep?	
	☑	☐	21. Was sample labeling double checked by a second person?	

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR)

APPENDIX III

Field Data

Sample container and preservation requirements
Landfill 5

Parameters and methods	Bottle Size and Type	Preservatives
Appendix-IX, Volatile Organic Compounds SW8260B	Three 40 ml glass vials	200 uL 50 % Hydrochloric Acid, Chilled to maintain 4 degrees Celsius
Appendix-IX, Semivolatile Organic Compounds SW8270C	Two 32 oz. glass (amber)	None, Chilled to maintain 4 degrees Celsius
Appendix-IX, Pesticides and PCB's SW8081A/8082	Two 32 oz. glass	None, Chilled to maintain 4 degrees Celsius
Appendix-IX, Dioxins and Furans SW8280	Two 32 oz. glass (amber)	None, Chilled to maintain 4 degrees Celsius
Polynuclear Aromatic Hydrocarbons SW8310	Two 32 oz. glass (amber)	None, Chilled to maintain 4 degrees Celsius
Appendix-IX, Herbicides SW8151A	32 oz. glass	None, Chilled to maintain 4 degrees Celsius
Appendix-IX, Total Metals: 16 metals by SW6010B, 8 metals by SW6020, and mercury by SW7470A	16 oz. polyethylene	10 mL 20% Nitric Acid, pH<2
Cyanide, SW9012A	8 oz. polyethylene	2 mL 50% Sodium Hydroxide, pH>12, Chilled to maintain 4 degrees Celsius
Sulfide, SW9030B/9030	8 oz. polyethylene	1 mL 1N Zinc Acetate, plus 1 mL 50% Sodium Hydroxide, pH>9, Chilled to maintain 4 degrees Celsius
Total Organic Carbon (TOC) SW9060	16 oz. glass	2 mL 50% Sulfuric Acid, pH<2, Chilled to maintain 4 degrees Celsius
Total Organic Halogen, (TOX), SW9020B	8 oz. glass (amber)	1 mL 50% Sulfuric Acid, pH<2, Chilled to maintain 4 degrees Celsius

Sample container and preservation requirements
Sewage Lagoon

Parameters and methods	Bottle Size and Type	Preservatives
Appendix-IX, Volatile Organic Compounds SW8260b	Three 40 ml glass vials	200 uL 50 % Hydrochloric Acid, Chilled to maintain 4 degrees Celsius
Appendix-IX, Pesticides and PCB's SW8081A/8082	Two 32 oz. glass	None, Chilled to maintain 4 degrees Celsius
Appendix-IX, Total Metals: 16 metals by SW6010B, 8 by SW6020, and mercury by SW7470A	16 oz. polyethylene	10 mL 20% Nitric Acid, pH<2
Nitrate, MCAWW353.2	16 oz. glass	2 mL 50% Sulfuric Acid, pH<2, Chilled to maintain 4 degrees Celsius
Nitrite , MCAWW354.1 Sulfate, MCAWW300.0A Total dissolved solids (TDS), MCAWW160.1	32 oz. polyethylene	None, Chilled to maintain 4 degrees Celsius
Sulfide, SW9030B/9034	8 oz. polyethylene	1 mL 1N Zinc Acetate, plus 1 mL 50% Sodium Hydroxide, pH>9, Chilled to maintain 4 degrees Celsius

2/28/00 CAFB

1250 FRED GEBHARDT + RK DEWEES ARRIVE AT WELL Q LANDFILL 5 BACKGROUND WELL ON CANNON AFB.

WILL BEGIN CALIBRATING METERS

— pH METER - ORION MODEL 250A S/N 012941
CALIBRATE W/ 7.0 + 10 ~~STD~~ BUFFERS
CALIBRATION READINGS 7.06 + 10.19 SLOPE 101.9

— CONDUCTANCE METER - ORION MODEL 126 S/N 51449005
CALIBRATE WITH 757 + 1000 STD
CALIBRATION READINGS 759 + 998

* WILL START COLLECTING DISSOLVED O_2 READINGS DURING PURGING.

D.O. METER YSI MODEL 57 - W391827

1304 WATER LEVEL FROM TOC WELL Q 284.78 HNU READING = 0

1335 PUMP IS NOT PUMPING WATER. PULLED PUMP CHECKED IT OUT AT SURFACE SEEMS OK. HOWEVER WHEN BACK IN WELL, NO WATER. INTAKE MAY BE OUT OF WATER. CALLED ABQ TO POSSIBLY FIND OUT DEPTH OF INTAKE.

1420 PULLED PUMP AGAIN, THIS TIME MEASURED IT. BOTTOM OF INTAKE IS SITTING AT TOP OF WATER TABLE. CALLED BENNETT PUMPS AND ORDERED EXTRA TUBING. WILL SPLICE HOSE ~~THE~~ ON THE TOP.

1500 FRED HEADS TO CAFB ENVIRONMENTAL, RK OFF TO CLOVIS TO PICK UP N_2

2/29/00 CAFB

0730 FRED GEBHARDT & RK DEWEES ARRIVE AT WELL U, LANDFILL 5. WILL CALIBRATE METERS & PREPARE TO START PURGING.

- PH METER - ORION MODEL 250A S/N 012941
  CALIBRATE W/ 7.0 + 10.0 BUFFERS
  CALIBRATION READINGS 7.05 + 10.18 SLOPE 99.8
- CONDUCTANCE METER - ORION MODEL 126 S/N 51449003
  CALIBRATE W/ 757 + 1000 STDS
  CALIBRATION READINGS 759 + 999

D.O METER YSI MODEL 57 - W391827

P - 657
T - 16.0
C - 8.49
I - 8.6
DO - 6.2

0745 WATER LEVEL WELL U 291.05 TOC HNU READING = 0
0755 BEGIN PURGING

TIME	VOL(GAL)	TEMP(C°)	pH	COND µS/cm	DO
0755	<0.5	14.5	8.18	7.70	—
0801	5	16.7	8.80	7.59	6.2
0807	10	17.2	8.91	7.56	6.5
0818	20	17.3	8.69	7.62	7.0
0830	30	17.4	8.38	7.64	7.1
0843	40	17.4	8.30	7.64	6.8
0854	50	17.5	8.31	7.66	6.5
0908	60	17.4	8.37	7.65	6.8

COLLECTED CAFB-U-TB TRIP BLANK

0915 COLLECTED SAMPLES CAFB-U, CAFB-U-MS, CAFB-U-MSD AND DUPLICATE SAMPLE CAFB-UU @ 0920

2/29/00 CAFB

P-668
T-15
C-8.34
I-8.2
DO 7.7

1020 ARRIVE AT WELL S LANDFILL 5.
WL 291.77 TOC. HNU READING = 0

TIME	VOL (GAL)	TEMP (C°)	pH	COND (µm/s)	D.O.
1023	< 0.5	13.7	7.74	765	—
1028	5	17.0	7.83	765	7.7
1033	10	17.7	7.99	760	7.8
1044	20	17.6	8.09	757	8.5
1054	30	17.6	7.98	757	8.7
1104	40	17.8	8.06	757	8.5
1114	50	17.7	8.08	756	8.6
1124	60	17.7	8.09	757	8.5

1130 COLLECTED SAMPLE CAFB-S

1158 ARRIVED AT WELL I, LFS. WL 292.12 TOC
HNU READING = 0

TIME	VOL (GAL)	TEMP (C°)	pH	COND (µm/s)	DO

* NO WATER BEING PUMPED. ONLY APROX. 1 FOOT OF WATER IN SCREEN. INTAKE SITTING ABOVE WATER TABLE. WILL DISCUSS OPTIONS WITH CAFB ENVIRONMENTAL, TOMORROW.

2/29/00 CAFB

FED X PICKUP # 25

P - 658
T - 17.5
C - 8.23
I - 29.1
DO - 6.0

1215 ARRIVE AT WELL T, LF5. WL 291.16
HNU READING = 0.

TIME	VOL (GAL)	TEMP (C°)	pH	COND (µM/s)	DO
1219	<0.5	17.7	7.41	788	—
1225	5.0	18.0	7.97	786	6.0
1230	10	18.1	8.07	795	6.4
1240	20	18.1	8.08	797	6.9
1249	30	18.2	8.10	799	7.0
1259	40	18.2	8.14	806	7.1
1308	50	18.2	8.21	807	7.4
1317	60	18.2	8.13	807	7.3
1326	70	18.2	8.12	808	7.2

1335 COLLECTED SAMPLE CAFB-T

1400 FINISHED SAMPLING FOR THE DAY. WILL NOW HEAD BACK TO MOTEL AND BACK SAMPLES FOR FED X PICK UP.

3/1/00 CAFB

0730 FRED GEBHARDT + RK DEWEES ARRIVE @ WELL D ON LFS. WILL PREPARE TO PURGE WELL + CALIBRATE METERS.

- pH METER - ORION MODEL 250A S/N 012941
  CALIBRATE W/ 7.0 + 10.0 BUFFERS
  CALIBRATION READINGS 7.06 + 10.20 SLOPE 100.3
- CONDUCTANCE METER - ORION 126 S/N 51449005
  CALIBRATE WITH 757 + 1000 STD.
  CALIBRATION READINGS 759 + 997

WATER LEVEL 290.12 TOC HNU READING = 0

P - 661
T - 15
C - 8.73
I - 8.7
DO - 6.4

TIME	VOL (GAL)	TEMP (C°)	pH	COND (µm/s)	DO
0751	<0.5	10.9	8.67	531	—
0756	5.0	15.8	8.15	576	6.4
0803	10	16.9	7.98	573	5.0
0814	20	16.9	8.12	573	4.8
0824	30	17.0	8.12	573	4.7
0835	40	17.2	8.18	573	4.4
0845	50	17.0	8.15	574	4.2
0855	60	17.1	8.14	574	4.1

0900 COLLECTED SAMPLE CAFB-D

* 0815 TRIP BLANK CAFB-D-TB

3/1/00 CAFB

0930 ARRIVE AT WELL CAFB-C, WATER LEVEL 294.24
HNU READING = 0

P- 660
T- 16.0
C- 8.53
I- 8.50
DO- 5.5

TIME	VOL (GAL)	TEMP (C°)	pH	COND (µm/s)	DO
0939	< 0.5	15.3	8.34	618	—
0944	5.0	16.9	8.28	589	5.5
0950	10.0	17.4	8.31	589	4.5
1000	20	17.6	8.27	587	4.3
1011	30	17.6	8.23	589	4.3
1020	40	17.7	8.34	594	4.4
1030	50	17.7	8.30	596	4.5
1039	60	17.7	8.29	596	4.5

1045 COLLECTED SAMPLE CAFB-C
1105 ARRIVE AT WELL CAFB-B WATER LEVEL 292.45.

P-659
T-16
C-8.52
I-8.5
DO-4.9

TIME	VOL (GAL)	TEMP (C°)	pH	COND (µm/s)	DO
1118	< 0.5	15.6	8.80	767	—
1122	5	17.3	8.15	783	4.9
1127	10	17.7	8.12	783	3.7
1136	20	17.9	8.11	784	3.9
1150	30	17.9	8.08	780	3.9
1158	40	18.0	8.00	774	5.7
1208	50	18.0	8.24	773	3.9
1217	60	18.1	8.28	775	5.0
1226	70	18.0	8.29	773	5.9

1230 COLLECTED SAMPLE CAFB-B

3/1/00 CAFB

1240 RALPH WILCOX ARRIVES AT CAFB-B

1250 FRED OFF SITE, HEADED TO CAFB ENVIRONMENTAL.

1400 Spliced 9' of tubing onto upper end of dedicated Bennett pump tubing in well CAFB-Q. Note taking by Wilcox. Began purging w/ compressed N_2 gas.

CAFB-Q

time	vol.	temp.	pH	cond.	D.O.
1403	< 1 gal	18.6°C	—	699 µS/cm	—
1408	5	18.2	7.94	730	7.8 mg/L
1413	10	18.1	8.10	734	7.3
1424	20	17.9	8.19	731	7.56
1433	30	18.0	8.21	731	7.7
1438	35	17.9		731	7.35

P-657
T - 18½
C - 8.05
I - 8.0
D.O. - 7.8

slightly turbid <100 NTU

clear water <10 NTU

1445 Collected environmental ground-water sample CAFB-Q.

* TOTAL LENGTH OF PUMP & HOSE IS APPROX. 293 feet

3/2/00 CAFB

0750 FRED GEBHARDT + RK DEWEES ARRIVE AT BACKGROUND WELL FOR SEWAGE LAGOONS CAFB. WELL E, WILL PREPARE TO START PURGING, AND CALIBRATE METERS.

- pH METER - ORION MODEL 250A S/N 012941
  CALIBRATE W/ 7.00 + 10.00 BUFFERS
  CALBRATION READINGS 7.05 + 10.18 SLOPE 101.0
- CONDUCTANCE METER - ORION MODEL 126 S/N 51449005
  CALIBRATE W/ 757 + 1000 STD.
  CALIBRATION READINGS 760 + 992
- DO METER YSI MODEL 55/12 FT S/N 99J0723

0809 WATER LEVEL CAFB-E 291.65 TOC, HNU READING = 0

0830 PUMP NOT WORKING, RALPH WILCOX ARRIVES ON SITE.

* PULLED PUMP, AIR INTAKE LINE RUSTED + LOOSE. TOTAL LENGTH OF HOSE - PUMP - INTAKE LINE 299 feet. WILL TRY TO MAKE REPAIRS ON PUMP.

0906 LOWERED PUMP BACK IN WELL, STILL NOT WORKING. ~~WILL~~ PULLED PUMP AGAIN. WILL NOW REMOVE PUMP + REBUILD IT. WILL SAMPLE CAFB-E LATER.

0928 ARRIVE AT WELL CAFB-H. HNU READING = 0
WATER LEVEL 290.68
WILL NOW BE USING D.O. METER YSI MODEL 57 W391827.

0945 COLLECTED TRIP BLANK CAFB-H-TB

3/2/00 CAFB

P - 652
T - 16
C - 8.42
I - 8.7
DO - 6.0

CAFB-H SEWAGE LAGOONS.

TIME	VOL (GAL)	TEMP (C°)	pH	COND. (µM/S)	DO.
0936	<0.5	16.0	8.75	736	—
0942	5.0	16.3	8.30	725	6.0
0947	10	16.5	8.21	722	5.3
0957	20	16.6	8.11	722	5.4
1008	30	16.7	8.08	727	5.4
1018	40	16.7	8.19	734	5.8
1028	50	16.8	8.23	729	6.5
1039	60	16.7	8.19	7.20	6.5
1049	70	16.8	8.20	7.18	6.5

1100 ~~1055~~ COLLECTED SAMPLE CAFB-H, ALSO COLLECTED MATRIX SPIKE, MATRIX SPIKE DUP. AND COLLECTED DUPLICATE SAMPLE CAFB-HH, W/ TIME OF 1105.

1129 ARRIVE AT WELL CAFB-G, SEWAGE LAGOON. WL 291.08.

P - 651
T - 16
C - 8.41
I - 8.1
DO - 6.7

TIME	VOL (GAL)	TEMP (C°)	pH	COND (µM/S)	DO
1133	<0.5	13.6	7.70	1144	—
1139	5.0	15.1	8.06	844	6.7
1144	10.0	16.0	8.08	1013	5.8
1157	20.0	16.8	8.03	1011	5.5
1207	30	16.9	8.09	1018	5.4
1217	40	17.2	8.12	1053	6.0
1227	50	17.1	8.09	1080	6.0
1243	60	17.3	7.88	1102	6.4
1252	70	17.2	7.84	1113	6.0
1303	80	17.2	7.88	1118	6.0

3/2/00 CAFB

1310 COLLECTED SAMPLE CAFB-G

1318 ARRIVE AT WELL CAFB-F, SEWAGE LAGOONS

WATER LEVEL 288.72.

P-651
T-16
C-8.41
I-8.3
DO-6.8

TIME	VOL (GAL)	TEMP (C°)	pH	COND	DO
1321	< 0.5	15.5	8.65	752	—
1327	5.0	16.4	8.24	754	6.8
1334	10	16.8	8.17	751	6.5
1344	20	17.0	8.20	750	6.6
1354	30	17.1	8.16	750	6.7
1404	40	17.1	8.20	752	6.9
1414	50	17.2	8.20	754	6.8
1424	60	17.2	8.21	755	6.8

1430 COLLECTED SAMPLE CAFB-F.

3/15/00 CAFB

1205 FRED GEBHARDT & RK DEWEES ARRIVE AT WELL E BACKGROUND WELL TO SEWAGE LAGOONS ON CAFB.

* REFER TO 3/2/00 FOR INFORMATION ON WELL E, IN REFERANCE TO SAMPLING NOT COMPLETED UNTIL TODAY.

WILL PULL HOSE SYSTEM FROM WELL & INSTALL THE REBUILT PUMP. WILL ALSO ADD SEVEN FEET OF HOSE LENGTH TO THE TOP OF HOSE SYSTEM. MAKING THE TOTAL LENGTH OF HOSES 306 FEET FROM TOC.

WILL ALSO CALIBRATE METERS

- pH METER - ORION MODEL 250 A S/N 012941
  CALIBRATE W/ 7.00 & 10.0 BUFFERS
  CALIBRATION READINGS 7.05 + 10.15 SLOPE 100.8
- CONDUCTANCE METER - ORION MODEL 126 S/N 51449005
  CALIBRATE W/ 757 & 1000 STD READINGS 760 & 991
- DO METER YSI MODEL 55 S/N 99J0723

1235 WATER LEVEL - 291.84

1300 PUMP IN WELL, WILL START PURGING.

P-651
T-20.0
C-7.73
I-7.5
DO-5.7

TIME	VOL (GAL)	TEMP (C°)	pH	COND	DO
1305	<0.5	21.4	7.72	710	—
1314	5.0	19.2	7.85	726	5.7
1322	10.0	18.4	7.89	727	5.7
1338	20.0	18.1	7.82	8.13	6.7
1353	30.0	18.2	7.85	786	7.1