2R - 43

REPORTS

DATE:

SEPT 2001

MAXIM
TECHNOLOGIES INC®

September 10, 2001

Mr. Wayne Price
New Mexico Oil Conservation Division
Environmental Bureau
2040 S. Pacheco
Santa Fe, NM 87505

RE: PCA JUNCTION FACILITY
GROUNDWATER INVESTIGATION
EDDY COUNTY, NEW MEXICO

Dear Mr. Price:

On behalf of Conoco Inc. (Conoco), Maxim Technologies, Inc. (Maxim) has prepared this letter report for your review and approval detailing the subsurface investigation performed during the week of May 7, 2001, at the PCA Junction facility. The purpose of the subsurface investigation was to ascertain the groundwater gradient and horizontal extent of groundwater impacts.

BACKGROUND

The PCA Junction facility is located approximately 20 miles northeast of Carlsbad, in Section 11, Township 20 South, Range 30 East, N.M.P.M., Eddy County, New Mexico. The facility was acquired by Conoco in November 2000 from LG&E Energy, Inc., of Hobbs, New Mexico. Based on environmental data generated by Maxim during the due diligence phase of the Conoco acquisition, groundwater impacts were noted at the above- referenced facility. The site equipment is fenced by barbed wire and chain link. The facility consists of two bermed condensate tanks, two methanol saddle tanks and associated incoming and outgoing gas piping. During the due diligence work (September 27, 2000), a total of three soil borings (B-1 through B-3) were advanced to depths ranging from 25 to 40 feet below ground surface (bgs). Groundwater was encountered between 22.33 and 23.35 feet bgs. Temporary monitoring wells were installed in the soil borings for the collection of screening groundwater samples.

Analysis of soil samples indicated that the 20-foot soil sample obtained from boring B-1 contained TPH concentrations (320 mg/kg) (Table 1) exceeding the New Mexico Oil Conservation Division (OCD) action level of 100 mg/kg, for a groundwater depth of less than 50 feet bgs.

Table 1 Analytical Test Results – Soil
Sample date: September 27, 2000

Boring No.	Sample Interval (ft bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH as gasoline (mg/kg)	TPH as diesel (mg/kg)	TPH as motor oil (mg/kg)
B-1	20	<0.25	0.65	<0.25	2.4	3.05	160	320	60
B-2	18-20	0.0095	0.025	<0.005	0.028	0.0625	3.3	<10	28
B-3	18-20	<0.005	<0.005	<0.005	<0.005	0	<1	<10	<10
OCD Action Levels		10				50	100	100	100

mg/kg – Milligrams per kilograms

Analysis of groundwater samples indicated that the concentrations of benzene, toluene and xylene in the sample from the temporary well in boring B-1 and the concentration of benzene in the sample obtained from the temporary well in boring B-2 exceeded OCD action levels. These results are presented in Table 2.

Table 2 Analytical Test Results – Ground water
Sample date: September 27, 2000

Temporary Well in Boring	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylene (µg/L)	TPH as gasoline (mg/L)	TPH as diesel (mg/L)	TPH as motor oil (mg/L)
B-1	1700	4700	260	2300	1.8	5.4	<1
B-2	340	370	45	380	3	<1	<1
B-3	<1	<1	<1	<1	0.19*	<1	<1
OCD Action Levels	10	750	750	620			

* The associated method blank contains the target analyte at a reportable level.
µg/L – micrograms per liter
mg/L – milligrams per liter

The OCD was notified of this impact by letter on December 2, 2000. The groundwater investigation and abatement are being carried out under NMAC rule 19, exemption 19D(g) (Wayne Price NMOCD, verbal communication to Clyde Yancey).

SUBSURFACE INVESTIGATION

During the week of May 7, 2001, Maxim installed three 2-inch diameter PVC monitor wells around the condensate tanks at the PCA Junction facility with a truck-mounted drill rig (Figure 1). The wells were installed and developed per NMOCD guidelines (Figure 1). Figures are presented in Attachment 1.

The borings for monitoring wells MW-1, MW-2 and MW-3 were continuously sampled during drilling and logged according to the Unified Soil Classification System. Soil samples collected at two-foot intervals were field screened with a photo-ionization detector (PID) to detect the presence of volatile organic vapors. Observations concerning soil types, lithologic changes, and the environmental condition of the encountered soils are presented in soil boring logs presented as Attachment 2. Soil samples were not submitted to the laboratory for analysis.

Table 3. Results of Photo-Ionization Detector (PID) Analysis of Soil Samples
PCA Junction Facility, Eddy County, New Mexico

MW-1		MW-2		MW-3	
Depth (bgs)	PID (ppm)	Depth (bgs)	PID (ppm)	Depth (bgs)	PID (ppm)
0 – 2	19	0 – 2	61	0 – 2	472
2 – 4	31.5	2 – 4	50	2 – 4	1720
4 – 6	43	4 – 6	58	4 – 10	1128
6 – 8	12.9	6 – 10	12		
		10 – 11	261	10 - 12	1505
8 – 15	36.1	11 – 15	755	12 – 15	986
15 – 17	14	15 – 16	35	15 – 16	151
17– 20	87.8	16 – 20	22.2	16 – 20	379
20 – 22	166	20 – 22	211.1	22 - 22	84.4
22 – 26	391	22 - 28	231.4	22 - 28	54.4

ppm – parts per million

Groundwater samples were collected from the three monitor wells on May 9, 2001, and analyzed for volatile organics compounds (EPA Method 8260B) (Table 4A); polynuclear aromatic hydrocarbons (EPA Method 8270C) (Table 4B), total dissolved solids, pH (EPA Method CFR 40 136.3); major cations/anions; and RCRA metals (Table 5) using EPA approved methods. The water samples are labeled in the analytical report as PCA-1, PCA-2, PCA-3 and PCA-4, with PCA-4 a duplicate of PCA-2. PCA-1, PCA-2, and PCA-3 have been renamed as MW-1, MW-2, and MW-3. A duplicate of the water sample from MW-2 is labeled in this report as QA-1. The analytical report is presented in Attachment 3.

Table 4. Results of Laboratory Analysis of Groundwater Samples for Volatile Organic Compounds (VOCs) by Method 8260B and Semivolatiles (SVOCs) by Method (8270C) PCA Junction, Eddy County, New Mexico.

	MW-1 (µg/L)	MW-2 (µg/L)	MW-3 (µg/L)	QA-1 (µg/L)	NM GW Standards (µg/L)
VOCs					
Benzene	1100	ND	ND	ND	10
n-Butylbenzene	2.3	ND	ND	ND	NA
sec-Butylbenzene	ND	ND	ND	ND	NA
Ethylbenzene	69	ND	ND	ND	750
Isopropyl benzene	5.4	ND	ND	ND	NA
p-isopropyltoluene	1.4	ND	ND	ND	NA
Naphthalene	2.1	ND	ND	ND	NA
n-Propylbenzene	6.2	ND	ND	ND	NA
Toluene	950	ND	ND	ND	750
1,2,4-Trimethylbenzene	67	ND	ND	ND	NA
1,3,5-Trimethylbenzene	51	ND	ND	ND	NA
o-Xylene	120	ND	ND	ND	620
m-Xylene and p-Xylene	520	ND	ND	ND	620
SVOCs					
Bis (2-Ethylhexyl) phthalate	ND	ND	ND	16 [B]	
Di-n-butyl phthalate	ND	ND	2.8 [J]	ND	
2-Methylphenol	31	ND	ND	ND	
3-Methylphenol & 4-Methylphenol	6.7 [J]	ND	ND	ND	
Phenol	14	ND	ND	ND	

µg/L Micrograms per liter
[B] The associated method blank contains the target analyte at a reportable level.
[J] Estimated result. Result is less than recovery limits.
ND Non detected
NA Not applicable

Table 5. Results of Laboratory Analysis of Groundwater Samples for Major Cations/Anions, Total Dissolved Solids, pH and RCRA Metals PCA Junction Facility, Eddy County, New Mexico.

	MW-1 (µg/L)	MW-2 (µg/L)	MW-3 (µg/L)	QA-1 (µg/L)	NM GW Standards (µg/L)
Arsenic	0.017	0.069	0.035	0.056	0.1
Barium	1.0	4.4	5.2	5.7	1.0
Calcium	1110	4460	2660	3140	NA
Cadmium	ND	ND	ND	ND	0.01
Chromium	ND	0.088 [B]	0.039 [B]	0.073 [B]	0.05
Magnesium	236	171	49.2	160	NA
Selenium	ND	ND	ND	ND	0.05
Silver	ND	0.0068 [B]	ND	0.0056 [B]	0.05
Sodium	166	101	17.2	91	NA
Lead	0.026 [B]	0.18	0.11	0.13	0.05
pH (liquid)	7.3	7.5	7.5	7.6	6-9
TDS	4050	4490	3180	4410	1000
Chloride	470	495	265	493	250
Sulfate	1990	1930	1410	2000	600
Nitrate	13.7	38	8	37.7	NA
Total Alkalinity	3230	7510	4230	6720	NA

µg/L Micrograms per liter
[B] The associated method blank contains the target analyte at a reportable level.
ND Non detected
NA Not applicable

Soil cuttings generated by the monitor well installation were containerized and will be disposed of at CRI in Hobbs, New Mexico. Purge water was disposed of into the condensate tanks.

RESULTS OF INVESTIGATIONS

The soil borings encountered poorly-graded sand with minor beds of caliche in the upper 20 feet of the soil column. Below 20 feet, red sand was encountered. Groundwater was encountered at approximately 21 feet bgs. Figure 1 is a map of the site showing the locations of the soil borings and monitor wells. The monitoring well top-of-casing elevations were determined with respect to an arbitrary datum of 100 feet at the top of the PVC casing in MW-1. Figure 2 is a potentiometric surface map showing the groundwater elevations in the wells. Table 6 shows the relative elevations of the well heads and the calculated groundwater elevation in each well.

Table 6. Groundwater Elevation Measurements - June 28, 2001

Well I.D.	Top of PVC Casing Elevation	Depth to Water June 28, 2001	Groundwater Elevation
MW-1	100	24.33	75.67
MW-2	99.07	22.36	76.71
MW-3	97.45	21.85	75.60

Figure 2 indicates that the groundwater flow direction is to the west-southwest with a gradient of 0.02 foot per foot using groundwater elevations in wells MW-2 and MW-3. The groundwater is unconfined.

Analytical data (Table 4) indicates that benzene, toluene, and xylene concentrations exceed New Mexico Groundwater Quality Standards in MW-1. Barium and lead exceed the standard in MW-2 and MW-3. Chromium is present in estimated amounts that exceed the standard of 0.05 mg/L (Table 5).

CONCLUSIONS

- Soil is impacted in the area surrounding monitor wells MW-1, MW-2 and MW-3, based on the results of the PID measurements.

- Groundwater concentrations of benzene, toluene, and total xylene are above New Mexico Groundwater Quality Standards in MW-1. Concentrations of benzene, toluene and xylene exceed the standards in temporary well B-1 and exceed the standard for benzene in B-2.

- The horizontal extent of site-related groundwater impacts have not been defined.

RECOMENDATIONS

Results of the subsurface investigation indicate that additional investigation of the soil and groundwater conditions at the facility is warranted. Maxim proposes to define the horizontal and vertical extent of the hydrocarbon impact using a combination of soil gas field screening and installation and sampling of monitoring wells.

The investigation program will entail installing up to 20 shallow borings (maximum 10 feet bgs) for the detection of VOCs within the atmosphere in the boring. The concentrations of organic vapors in the borings will be plotted on a map and contoured to determine the lateral boundary, if possible, of the petroleum-impacted groundwater.

The interpretation of the extent will be confirmed with installation and sampling of up to four monitoring wells. The objective of installing the wells is to identify the up gradient and down gradient boundaries of the plume, as well as the petroleum concentrations in groundwater within the body of the plume. The locations will be selected based on the results of the soil vapor map, subject to the limitations of the soil vapor data. The borings for the wells will be logged for sediment type or lithology and the drill cuttings will be tested with a PID to determine the presence of hydrocarbons.

Two of the wells will be located within the plume. One of the wells will be located outside the down gradient boundary of the plume, and one of the wells will be located in an up gradient background position. The proposed monitoring well locations may vary depending upon access and the location of underground utilities.

The monitoring wells will be completed as follows:

- At least 10 feet of well screen will be placed across the water table interface with 3 feet of the well screen above the water table and 7 feet of the well screen below the water table.

- An appropriately sized sand pack will be set in the annulus around the well screen from the bottom of the hole to 1 foot above the top of the well screen.

- A 4-foot bentonite plug will be placed above the gravel pack.

- The remainder of the hole will be grouted to the surface with cement containing 3-5% bentonite.
- A concrete pad will be placed at the surface around the well. The well will be installed with a suitable protective locking device.

The wells will be developed after construction using EPA-approved procedures.

After the wells are developed, groundwater from all monitor wells will be purged, sampled and analyzed for VOCs (EPA Method 8260); general chemistry, total dissolved solids, pH (EPA Method CFR 40 136.3); and New Mexico Water Quality Control Commission (WQCC) metals, all using EPA-approved methods. The quality assurance/quality control (QA/QC) procedure will consist of collecting and analyzing a duplicate sample from one of the new wells.

All wastes generated during the investigation will be disposed of at an OCD-approved facility.

We are prepared to initiate these actions as soon as we receive your approval to proceed. If you have any questions or comments regarding this report, please do not hesitate to contact Rob Sengebush or Clyde Yancey (Maxim) at 505-237-8440 or Neal Goates (Conoco) at 281-293-3822. We would appreciate your review and approval of the plan we have presented at your earliest convenience.

Sincerely,

MAXIM TECHNOLOGIES, INC.

RM Sengebush

Robert M. Sangebush, R.G.
Senior Project Manager

RMS for

Frank L. Lichnovsky
Geologist

Attachments

Cc: Neal Goates, Conoco Remediation Technology, Houston, Texas
Mark Bishop, Conoco NG&GP, Maljamar, New Mexico
Joyce Miley, Conoco NG&GP, Houston, Texas
Mike Stubblefield, OCD, Artesia, New Mexico

ATTACHMENT 1

FIGURES

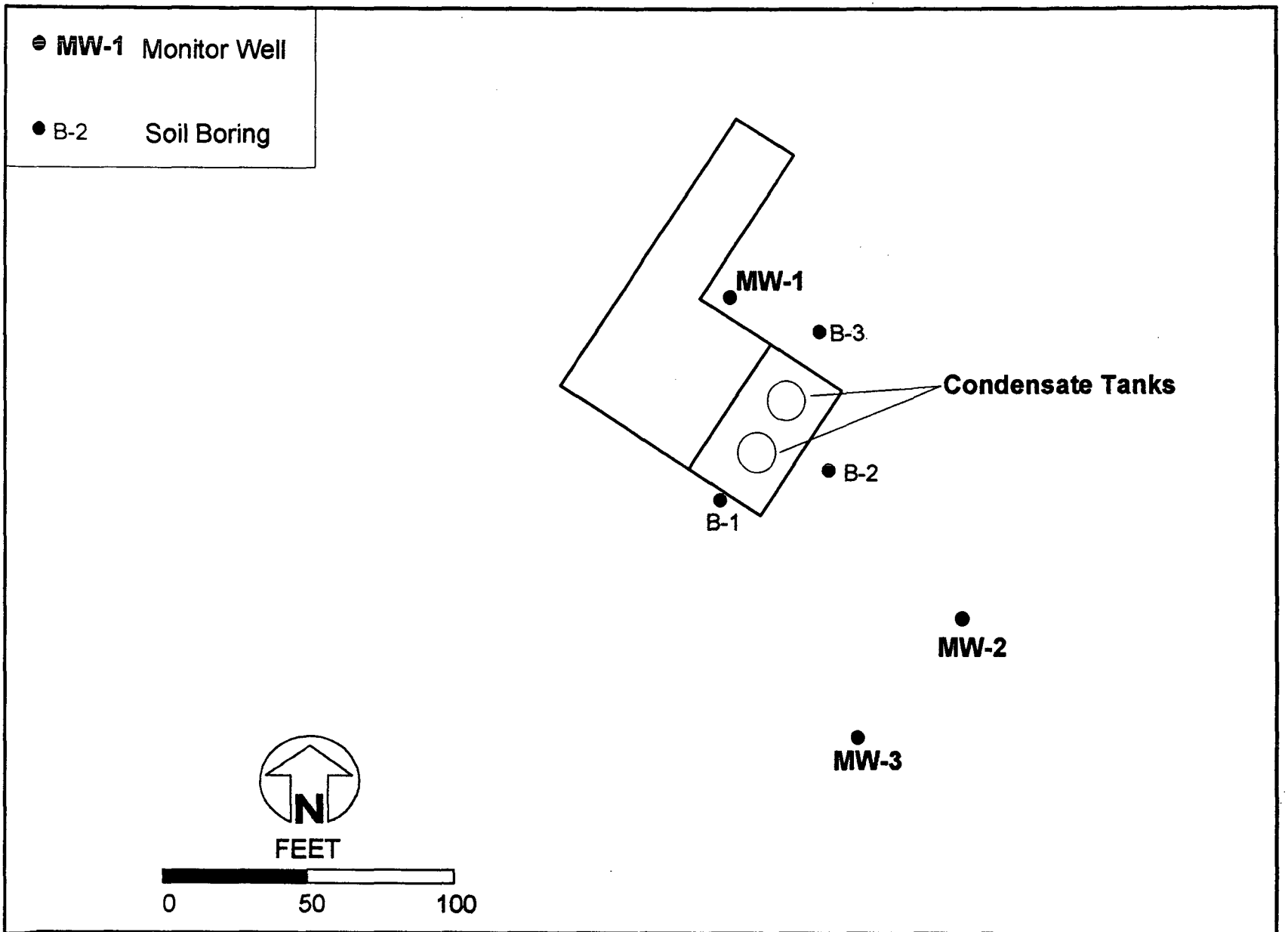

Figure 1. Site Map Showing Monitor Wells and Soil Borings

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Project No. 2007204	Drawing By: DWE	Date: 09/07/01	CONOCO PCA Junction
File Name:Figure 1.dsf	Checked By: DWE	Date: 09/07/01	Eddy County, New Mexico.

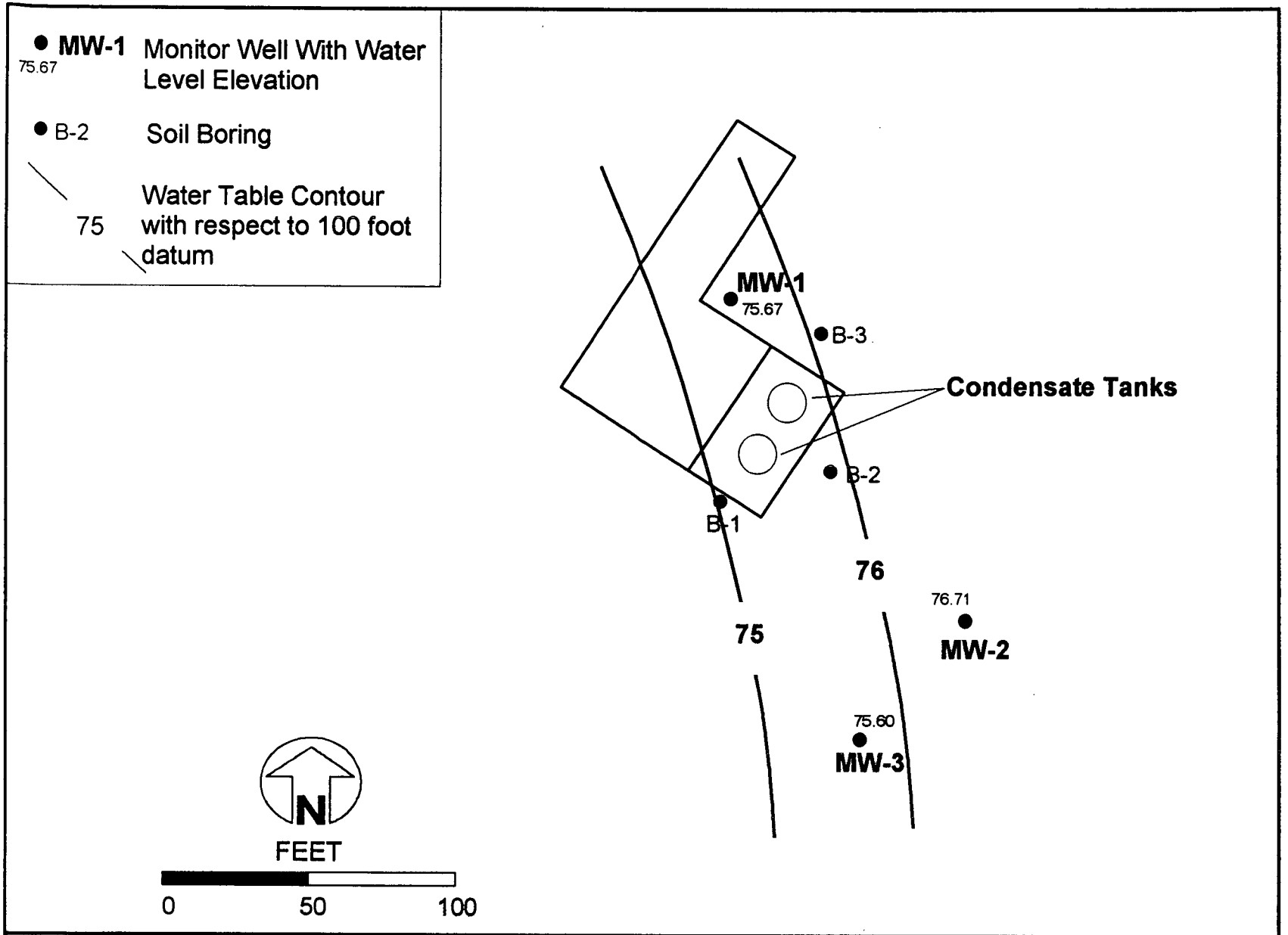

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Figure 2. Potentiometric Surface Map

Project No. 2007204	Drawing By: DWE	Date: 09/07/01	CONOCO PCA Junction
File Name:Figure 2.dsf	Checked By: DWE	Date: 09/07/01	Eddy County, New Mexico.

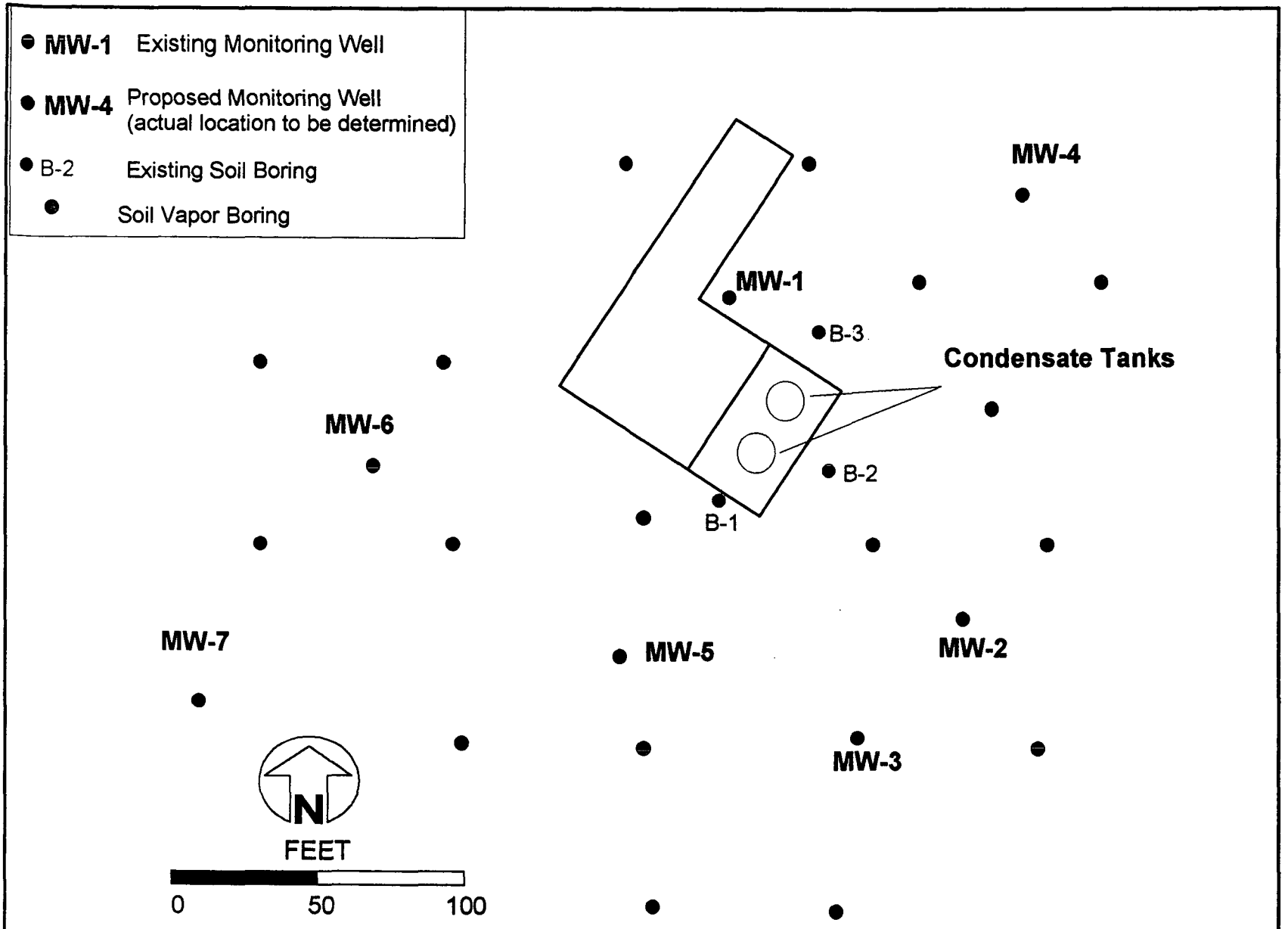

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Figure 3. Proposed Soil Vapor Borings and Monitoring Wells

Project No. 2007204	Drawing By: DWE	Date: 09/07/01	CONOCO PCA Junction
File Name:Figure 3.dsf	Checked By: DWE	Date: 09/07/01	Eddy County, New Mexico.

ATTACHMENT 2

SOIL BORING LOGS

SOIL BORING LOG

BORING/WELL #: MW-1
PROJECT NO.: 1690021-110
LOCATION: PCA Junction, Eddy County, NM
TOTAL DEPTH: 26.0'
SURFACE ELEVATION: 3218.0 (ft)
SCREEN:DIA: 2" (in) LENGTH: 10 (ft) SIZE: 2"
CASING:DIA: 2" (in) LENGTH: 18 (ft) TYPE: SCH 40
DRILLING METHOD(S): Air Rotary

CLIENT: Conoco Inc.
PROJECT: PCA Junction
WATER LEVEL: INITIAL: 23.25 ELEV. 3194.75 (ft)
BORE HOLE DIAMETER: 5" Air Rotary
DRILLING COMPANY: Scarborough Drilling
DATE DRILLED: 5/8/01
DRILLER: Scott Scarborough
OVERSIGHT: Frank Lichnovsky

DEPTH FEET	SOIL DESCRIPTION	DESCRIPTION INTERVAL	SAMPLE INTERVAL	% REC	OVM or Hnu(PPM)
0	SAND (SP), brown	0.0' to 8"			
	SAND with caliche (SP), white	8" to 3.0'	0.0' to 2.0'		19.0
	SAND (SP), brown	3.0' to 4.0'	2.0' to 4.0'		31.5
	Clayey SAND (SP-SC), moist	4.0' to 13.0'	4.0' to 6.0'		43.0
5			6.0' to 8.0'		129.0
					36.1
10					
	SAND (SP), red	13.0' to 21.0'			
15			15.0' to 17.0'		14.0
					87.8
20					
	CLAY (CL), red	21.0' to 22.0'	20.0' to 22.0'		166.0
	SAND (SP), red	22.0' to 26.0'	20.0' to 22.0'		391.0
	GWL - 23.23 ft				
25	Bottom of boring at 26 ft				

GRAPHIC LOG / WELL DESIGN: CAP; 18' of 2" DIA. PVC Casing; 10' - Slotted 2" DIA. Well Screen

SS - DRIVEN SPLIT SPOON
T - PRESSED SHELBY TUBE
C - ROCK CORE
CT - 5 FT CONTINUOUS SAMPLER
NR - NO READINGS TAKEN

HSA - HOLLOW STEM AUGER
CFA - CONTINUOUS FLIGHT AUGERS
MD - MUD DRILLING
AD - AIR DRILLING

WATER LEVEL
AT COMPLETION
AFTER HOURS
SOIL SAMPLE SUBMITTED TO LAB

BOTTOM CAP
SAND PACK
BENTONITE SEAL
FACTORY - SLOTTED WELL SCREEN
WELL CASING
BENTONITE/CEMENT GROUT SEAL

SOIL BORING LOG

BORING/WELL #: MW-2
CLIENT: Conoco, Inc.
PROJECT NO.: 1690021-110
PROJECT: PCA Junction
LOCATION: PCA Junction, Eddy County, NM
WATER LEVEL: INITIAL: 21.83 ELEV.: 3195.29 (ft)
TOTAL DEPTH: 28.0'
BORE HOLE DIAMETER: 5" Air Rotary
SURFACE ELEVATION: 3217.07 (ft)
DRILLING COMPANY: Scarborough Drilling
SCREEN:DIA: 2" (in) LENGTH: 10 (ft) SIZE: 2"
DATE DRILLED: 5/8/01
CASING:DIA: 2" (in) LENGTH: 18 (ft) TYPE: SCH 40
DRILLER: Scott Scarborough
DRILLING METHOD(S): Air Rotary
OVERSIGHT: Frank Lichnovsky

DEPTH FEET	SOIL DESCRIPTION	DESCRIPTION INTERVAL	SAMPLE INTERVAL	% REC	OVM or Hnu(PPM)
0	SAND with caliche (SP)	0.0' to 6.0'	0.0' to 2.0'		61.0
			2.0' to 4.0'		50.0
5			4.0' to 6.0'		58.0
	SAND (SP), brown, slightly moist	6.0' to 10.0'			12.0
					261.0
10	CLAY (CL), reddish brown	10.0' to 11.0'			
	SAND with caliche (SP)	11.0' to 15.0'			755.0
15	SAND (SP), brown to red, moist	15.0' to 28.0'			35.0
20	GWL - 21.83 ft		20.0' to 22.0'		22.2
25					211.1
	Bottom of boring at 28 ft				231.4

GRAPHIC LOG / WELL DESIGN: CAP; 8' of 2" DIA PVC Casing; 10' - Slotted Well Screen

SS - DRIVEN SPLIT SPOON
T - PRESSED SHELBY TUBE
C - ROCK CORE
CT - 5 FT CONTINUOUS SAMPLER
NR - NO READINGS TAKEN

HSA - HOLLOW STEM AUGER
CFA - CONTINUOUS FLIGHT AUGERS
MD - MUD DRILLING
AD - AIR DRILLING

WATER LEVEL
AT COMPLETION
AFTER HOURS
SOIL SAMPLE SUBMITTED TO LAB

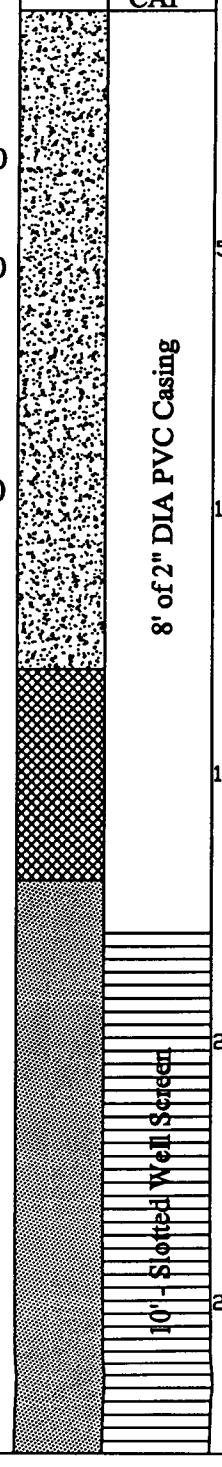
BOTTOM CAP
SAND PACK
BENTONITE SEAL
FACTORY - SLOTTED WELL SCREEN
WELL CASING
BENTONITE/CEMENT GROUT SEAL

SOIL BORING LOG

BORING/WELL #: MW-3
PROJECT NO.: 1690021-110
LOCATION: PCA Junction, Eddy County, NM
TOTAL DEPTH: 28.0'
SURFACE ELEVATION: 3215.45 (ft)
SCREEN:DIA: 2" (in) LENGTH: 10 (ft) SIZE: 2"
CASING:DIA: 2" (in) LENGTH: 18 (ft) TYPE: SCH 40
DRILLING METHOD(S): Air Rotary

CLIENT: Conoco, Inc.
PROJECT: PCA Junction
WATER LEVEL: INITIAL: 21.34 ELEV: 3194.11 (ft)
BORE HOLE DIAMETER: 5" Air Rotary
DRILLING COMPANY: Scarborough Drilling
DATE DRILLED: 5/8/01
DRILLER: Scott Scarborough
OVERSIGHT: Frank Lichnovsky

DEPTH FEET	SOIL DESCRIPTION	DESCRIPTION INTERVAL	SAMPLE INTERVAL	% REC	OVM or Hnu(PPM)
0	SAND, brown	0.0' to 4.0'	0.0' to 2.0'		472.0
			2.0' to 4.0'		1720.0
5	SAND with caliche (SP)	4.0' to 6.0'			1128.0
	SAND, brown	6.0' to 16.0'	10.0' to 12.0		1505.0
10					986.0
15					151.0
	SAND with caliche (SP)	16.0' to 20.0'			379.0
20	SAND (SP), red, wet		20.0' to 22.0		84.4
	GWL - 21.34 ft	20.0' to 28.0'			54.4
25	Bottom of boring at 28 ft				



SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE
RC - ROCK CORE
CT - 5 FT CONTINUOUS SAMPLER
NR - NO READINGS TAKEN

HSA - HOLLOW STEM AUGER
CFA - CONTINUOUS FLIGHT AUGERS
MD - MUD DRILLING
AD - AIR DRILLING

WATER LEVEL
AT COMPLETION
AFTER HOURS
SOIL SAMPLE SUBMITTED TO LAB

BOTTOM CAP
SAND PACK
BENTONITE SEAL

FACTORY - SLOTTED WELL SCREEN
WELL CASING
BENTONITE/CEMENT GROUT SEAL

ATTACHMENT 3

ANALYTICAL REPORT

SEVERN TRENT SERVICES

STL Tampa East
5910 Breckenridge Parkway
Suite H
Tampa, FL 33610-4236

Tel: 813 621 0784
Fax: 813 623 6021
www.stl-inc.com

ANALYTICAL REPORT

PROJECT NO. PCA Junction/NG00005

PCA Junction/NG00005

Lot #: B1E100149

Clyde Yancey

Maxium Technologies

SEVERN TRENT LABORATORIES, INC.

Florida Department of Health Certification No. E84059
Florida Department of Environmental Protection CompQAP 200029

Nancy Robertson
Project Manager

May 30, 2001

May 30, 2001

STL LOT NUMBER: **B1E100149**
PO/CONTRACT: 4500821617/PCA Junction/NG00005

Clyde Yancey
Maxium Technologies
10601 Lomas NE
Suite 106
Alberquerque, NM 87112-2197

Dear Clyde Yancey,

This report contains the analytical results for the five samples received under chain of custody by Severn Trent Laboratories (STL) on May 10, 2001. These samples are associated with your PCA Junction/NG00005 project.

All applicable quality control procedures met method-specified acceptance criteria except as noted on the following page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions, please feel free to call me at 813-621-0784.

LOT NUMBER B1E100149

We only reported NA, CA and MG in the original report. We added the RCRA metals and they are included in this report.

Affected Samples: 1, 2, 3, 4
Affected Method: Metals

The Method Blank for Selenium had an estimated result below the reporting limit.

Affected Samples: 4
Affected Method: 8270C

The original extract for the sample mentioned above was lost during the extraction phase and could not be analyzed. The sample was re extracted and analyzed after the EPA recommended holding time had exceeded.

Affected Samples: 1, 2, 3
Affected Method: 8270C

The Method Blank associated with QC batch number 1135521 had an estimated result for Bis (2-Ethylhexyl) phthalate below the reporting limit. Any batch samples with a positive result for this compound has been flagged with a "B".

Affected Samples: 1, 2, 3, 4
Affected Method: 8260B

The Method Blanks associated with QC batch numbers 1135303 and 1138295 had an estimated result for Methylene chloride below the reporting limit. Any batch samples with a positive result for this compound has been flagged with a "B".

Affected Samples: 3
Affected Method: 8260B

Method 8260B analyses for samples mentioned above, were reanalyzed due to "E" values. The "E" value indicates the concentration of that compound is out of the linear range of the calibration curve. A second run with a dilution factor was required for this compound only. Both sets of data are included in this report.

EXECUTIVE SUMMARY - Detection Highlights

B1E100149

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
PCA-2 05/09/01 10:30 001				
Arsenic	0.069	0.0050	mg/L	SW846 6010B
Lead	0.18	0.030	mg/L	SW846 6010B
Barium	4.4	1.0	mg/L	SW846 6010B
Chromium	0.088 B	0.10	mg/L	SW846 6010B
Silver	0.0068 B	0.010	mg/L	SW846 6010B
Calcium	4460	10.0	mg/L	SW846 6010B
Magnesium	171	1.0	mg/L	SW846 6010B
Sodium	101	1.0	mg/L	SW846 6010B
pH (liquid)	7.5	0.10	No Units	MCAWW 150.1
Total Dissolved Solids	4490	20.0	mg/L	MCAWW 160.1
Chloride	495	10.0	mg/L	MCAWW 300.0A
Sulfate	1930	100	mg/L	MCAWW 300.0A
Nitrate as N	38.0	5.0	mg/L	MCAWW 300.0A
Alkalinity as CaCO3 to pH 4.5	7510	5.0	mg/L	MCAWW 310.1
PCA-4 05/09/01 11:00 002				
Arsenic	0.056	0.0050	mg/L	SW846 6010B
Lead	0.13	0.030	mg/L	SW846 6010B
Barium	5.7	1.0	mg/L	SW846 6010B
Chromium	0.073 B	0.10	mg/L	SW846 6010B
Silver	0.0056 B	0.010	mg/L	SW846 6010B
Calcium	3140	10.0	mg/L	SW846 6010B
Magnesium	160	1.0	mg/L	SW846 6010B
Sodium	91.6	1.0	mg/L	SW846 6010B
bis(2-Ethylhexyl) phthalate	16 B	10	ug/L	SW846 8270C
pH (liquid)	7.6	0.10	No Units	MCAWW 150.1
Total Dissolved Solids	4410	20.0	mg/L	MCAWW 160.1
Chloride	493	10.0	mg/L	MCAWW 300.0A
Sulfate	2000	100	mg/L	MCAWW 300.0A
Nitrate as N	37.7	5.0	mg/L	MCAWW 300.0A
Alkalinity as CaCO3 to pH 4.5	6720	5.0	mg/L	MCAWW 310.1
PCA-1 05/09/01 10:30 003				
Arsenic	0.017	0.0050	mg/L	SW846 6010B
Lead	0.026 B	0.030	mg/L	SW846 6010B
Barium	1.0	0.10	mg/L	SW846 6010B
Calcium	1110	10.0	mg/L	SW846 6010B
Magnesium	236	1.0	mg/L	SW846 6010B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

B1E100149

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
PCA-1 05/09/01 10:30 003				
Sodium	166	1.0	mg/L	SW846 6010B
2-Methylphenol	31	10	ug/L	SW846 8270C
3-Methylphenol & 4-Methylphenol	6.7 J	20	ug/L	SW846 8270C
Phenol	14	10	ug/L	SW846 8270C
Benzene	310 E	1.0	ug/L	SW846 8260B
Benzene	1100	50	ug/L	SW846 8260B
n-Butylbenzene	2.3	1.0	ug/L	SW846 8260B
tert-Butylbenzene	0.84 J	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	19	1.0	ug/L	SW846 8260B
Ethylbenzene	70 E	1.0	ug/L	SW846 8260B
Ethylbenzene	69	50	ug/L	SW846 8260B
Isopropylbenzene	5.4	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	1.4	1.0	ug/L	SW846 8260B
Naphthalene	2.1	1.0	ug/L	SW846 8260B
n-Propylbenzene	6.2	1.0	ug/L	SW846 8260B
Toluene	380 E	1.0	ug/L	SW846 8260B
Toluene	1500 E	50	ug/L	SW846 8260B
Toluene	950	100	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	53 E	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	67	50	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	41 E	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	51	50	ug/L	SW846 8260B
o-Xylene	100 E	1.0	ug/L	SW846 8260B
o-Xylene	120	50	ug/L	SW846 8260B
m-Xylene & p-Xylene	230 E	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	520	50	ug/L	SW846 8260B
pH (liquid)	7.3	0.10	No Units	MCAWW 150.1
Total Dissolved Solids	4050	20.0	mg/L	MCAWW 160.1
Chloride	470	10.0	mg/L	MCAWW 300.0A
Sulfate	1990	100	mg/L	MCAWW 300.0A
Nitrate as N	13.7	5.0	mg/L	MCAWW 300.0A
Alkalinity as CaCO3 to pH 4.5	3230	5.0	mg/L	MCAWW 310.1
PCA-3 05/09/01 11:00 004				
Arsenic	0.035	0.0050	mg/L	SW846 6010B
Lead	0.11	0.030	mg/L	SW846 6010B
Barium	5.2	0.10	mg/L	SW846 6010B
Chromium	0.039 B	0.10	mg/L	SW846 6010B
Calcium	2660	10.0	mg/L	SW846 6010B
Magnesium	49.2	1.0	mg/L	SW846 6010B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

B1E100149

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
PCA-3 05/09/01 11:00 004				
Sodium	17.2	1.0	mg/L	SW846 6010B
Di-n-butyl phthalate	2.8 J	10	ug/L	SW846 8270C
pH (liquid)	7.5	0.10	No Units	MCAWW 150.1
Total Dissolved Solids	3180	20.0	mg/L	MCAWW 160.1
Chloride	265	10.0	mg/L	MCAWW 300.0A
Sulfate	1410	50.0	mg/L	MCAWW 300.0A
Nitrate as N	8.0	5.0	mg/L	MCAWW 300.0A
Alkalinity as CaCO3 to pH 4.5	4230	5.0	mg/L	MCAWW 310.1

METHODS SUMMARY

B1E100149

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
pH (Electrometric)	MCAWW 150.1	MCAWW 150.1
Alkalinity	MCAWW 310.1	MCAWW 310.1
Chloride	MCAWW 300.0A	MCAWW 300.0A
Filterable Residue (TDS)	MCAWW 160.1	MCAWW 160.1
Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3005A
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A	SW846 7470A
Nitrate as N	MCAWW 300.0A	MCAWW 300.0A
Semivolatile Organic Compounds by GC/MS	SW846 8270C	SW846 3510C
Sulfate	MCAWW 300.0A	MCAWW 300.0A
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3005A
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.

SAMPLE SUMMARY

B1E100149

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
EC5JW	001	PCA-2	05/09/01	10:30
EC5J5	002	PCA-4	05/09/01	11:00
EC5J6	003	PCA-1	05/09/01	10:30
EC5J7	004	PCA-3	05/09/01	11:00

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.

CONOCO INC.

Client Sample ID: PCA-2

GC/MS Volatiles

Lot-Sample #...: B1E100149-001 Work Order #...: EC5JW1AN Matrix.....: WATER
Date Sampled...: 05/09/01 Date Received..: 05/10/01
Prep Date.....: 05/17/01 Analysis Date..: 05/17/01
Prep Batch #...: 1138295
Dilution Factor: 1 Initial Wgt/Vol: 25 mL Final Wgt/Vol..: 25 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methyl tert-butyl ether	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromochloromethane	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	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	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L

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CONOCO INC.

Client Sample ID: PCA-2

GC/MS Volatiles

Lot-Sample #...: B1E100149-001 Work Order #...: EC5JW1AN Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	1.0	ug/L
n-Propylbenzene	ND	1.0	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
1,2,3-Trichlorobenzene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	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
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
o-Xylene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	99	(78 - 123)
1,2-Dichloroethane-d4	100	(72 - 139)
Toluene-d8	102	(74 - 137)
Dibromofluoromethane	105	(77 - 132)

CONOCO INC.

Client Sample ID: PCA-2

GC/MS Semivolatiles

Lot-Sample #...: B1E100149-001 Work Order #...: EC5JW1AF Matrix.....: WATER
Date Sampled...: 05/09/01 Date Received..: 05/10/01
Prep Date.....: 05/15/01 Analysis Date..: 05/21/01
Prep Batch #...: 1135521
Dilution Factor: 1 Initial Wgt/Vol: 980 mL Final Wgt/Vol..: 1 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Anthracene	ND	10	ug/L
Benzo(a)anthracene	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
bis(2-Chloroethoxy) methane	ND	10	ug/L
bis(2-Chloroethyl)-ether	ND	10	ug/L
bis(2-Chloroisopropyl) ether	ND	10	ug/L
bis(2-Ethylhexyl) phthalate	ND	10	ug/L
4-Bromophenyl phenyl ether	ND	10	ug/L
Butyl benzyl phthalate	ND	10	ug/L
Carbazole	ND	10	ug/L
4-Chloroaniline	ND	10	ug/L
4-Chloro-3-methylphenol	ND	10	ug/L
2-Chloronaphthalene	ND	10	ug/L
2-Chlorophenol	ND	10	ug/L
4-Chlorophenyl phenyl ether	ND	10	ug/L
Chrysene	ND	10	ug/L
Dibenz(a,h)anthracene	ND	10	ug/L
Dibenzofuran	ND	10	ug/L
Di-n-butyl phthalate	ND	10	ug/L
1,2-Dichlorobenzene	ND	10	ug/L
1,3-Dichlorobenzene	ND	10	ug/L
1,4-Dichlorobenzene	ND	10	ug/L
3,3'-Dichlorobenzidine	ND	50	ug/L
2,4-Dichlorophenol	ND	10	ug/L
Diethyl phthalate	ND	10	ug/L
2,4-Dimethylphenol	ND	10	ug/L
Dimethyl phthalate	ND	10	ug/L

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CONOCO INC.

Client Sample ID: PCA-2

GC/MS Semivolatiles

Lot-Sample #...: B1E100149-001 **Work Order #...:** EC5JW1AF **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
4,6-Dinitro-2-methylphenol	ND	50	ug/L
2,4-Dinitrophenol	ND	50	ug/L
2,4-Dinitrotoluene	ND	10	ug/L
2,6-Dinitrotoluene	ND	10	ug/L
Di-n-octyl phthalate	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Fluorene	ND	10	ug/L
Hexachlorobenzene	ND	10	ug/L
Hexachlorobutadiene	ND	10	ug/L
Hexachlorocyclopentadiene	ND	10	ug/L
Hexachloroethane	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
Isophorone	ND	10	ug/L
2-Methylnaphthalene	ND	10	ug/L
2-Methylphenol	ND	10	ug/L
3-Methylphenol & 4-Methylphenol	ND	20	ug/L
Naphthalene	ND	10	ug/L
2-Nitroaniline	ND	50	ug/L
3-Nitroaniline	ND	50	ug/L
4-Nitroaniline	ND	50	ug/L
Nitrobenzene	ND	10	ug/L
2-Nitrophenol	ND	10	ug/L
4-Nitrophenol	ND	50	ug/L
N-Nitrosodiphenylamine	ND	10	ug/L
N-Nitrosodi-n-propylamine	ND	10	ug/L
Pentachlorophenol	ND	50	ug/L
Phenanthrene	ND	10	ug/L
Phenol	ND	10	ug/L
Pyrene	ND	10	ug/L
1,2,4-Trichlorobenzene	ND	10	ug/L
2,4,5-Trichlorophenol	ND	10	ug/L
2,4,6-Trichlorophenol	ND	10	ug/L

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CONOCO INC.

Client Sample ID: PCA-2

GC/MS Semivolatiles

Lot-Sample #...: B1E100149-001 Work Order #...: EC5JW1AF Matrix.....: WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	52	(31 - 120)
2-Fluorobiphenyl	56	(30 - 120)
2-Fluorophenol	35	(10 - 120)
Nitrobenzene-d5	51	(29 - 120)
Phenol-d5	27	(10 - 120)
Terphenyl-d14	54	(40 - 127)

CONOCO INC.

Client Sample ID: PCA-2

TOTAL Metals

Lot-Sample #...: B1E100149-001 Matrix.....: WATER
Date Sampled...: 05/09/01 Date Received..: 05/10/01

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1141132						
Arsenic	0.069	0.0050	mg/L	SW846 6010B	05/21-05/22/01	EC5JW1AU
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Lead	0.18	0.030	mg/L	SW846 6010B	05/21-05/23/01	EC5JW1AV
		Dilution Factor: 10		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Selenium	ND	0.050	mg/L	SW846 6010B	05/21-05/23/01	EC5JW1AW
		Dilution Factor: 10		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Barium	4.4	1.0	mg/L	SW846 6010B	05/21-05/23/01	EC5JW1AP
		Dilution Factor: 10		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Cadmium	ND	0.0050	mg/L	SW846 6010B	05/21-05/22/01	EC5JW1AQ
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Chromium	0.088 B	0.10	mg/L	SW846 6010B	05/21-05/23/01	EC5JW1AR
		Dilution Factor: 10		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Silver	0.0068 B	0.010	mg/L	SW846 6010B	05/21-05/22/01	EC5JW1AT
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Calcium	4460	10.0	mg/L	SW846 6010B	05/21-05/23/01	EC5JW1AC
		Dilution Factor: 10		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Magnesium	171	1.0	mg/L	SW846 6010B	05/21-05/22/01	EC5JW1AD
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Sodium	101	1.0	mg/L	SW846 6010B	05/21-05/22/01	EC5JW1AE
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Prep Batch #...: 1150108						
Mercury	ND	0.20	ug/L	SW846 7470A	05/30/01	EC5JW1AX
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	

NOTE(S):

B Estimated result. Result is less than RL.

CONOCO INC.

Client Sample ID: PCA-2

General Chemistry

Lot-Sample #...: B1E100149-001 Work Order #...: EC5JW Matrix.....: WATER
Date Sampled...: 05/09/01 Date Received..: 05/10/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH (liquid)	7.5	0.10	No Units	MCAWW 150.1	05/10/01	1130378
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Alkalinity as CaCO3 to pH 4.5	7510	5.0	mg/L	MCAWW 310.1	05/21/01	1141531
		Dilution Factor: 1		Initial Wgt/Vol: 50	Final Wgt/Vol..: 0	
Chloride	495	10.0	mg/L	MCAWW 300.0A	05/10/01	1131286
		Dilution Factor: 10		Initial Wgt/Vol: 10 mL	Final Wgt/Vol..: 0	
Nitrate as N	38.0	5.0	mg/L	MCAWW 300.0A	05/10/01	1131288
		Dilution Factor: 10		Initial Wgt/Vol: 10 mL	Final Wgt/Vol..: 0	
Sulfate	1930	100	mg/L	MCAWW 300.0A	05/10-05/11/01	1131292
		Dilution Factor: 100		Initial Wgt/Vol: 10 mL	Final Wgt/Vol..: 0	
Total Dissolved Solids	4490	20.0	mg/L	MCAWW 160.1	05/14-05/15/01	1136178
		Dilution Factor: 2		Initial Wgt/Vol: 100 mL	Final Wgt/Vol..: 0	

CONOCO INC.

Client Sample ID: PCA-4

GC/MS Volatiles

Lot-Sample #...: B1E100149-002	Work Order #...: EC5J51AN	Matrix.....: WATER	
Date Sampled...: 05/09/01	Date Received..: 05/10/01		
Prep Date.....: 05/17/01	Analysis Date..: 05/17/01		
Prep Batch #...: 1138295			
Dilution Factor: 1	Initial Wgt/Vol: 25 mL	Final Wgt/Vol..: 25 mL	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methyl tert-butyl ether	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromochloromethane	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	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	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L

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CONOCO INC.

Client Sample ID: PCA-4

GC/MS Volatiles

Lot-Sample #...: B1E100149-002 Work Order #...: EC5J51AN Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	1.0	ug/L
n-Propylbenzene	ND	1.0	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
1,2,3-Trichlorobenzene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	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
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
o-Xylene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	99	(78 - 123)
1,2-Dichloroethane-d4	97	(72 - 139)
Toluene-d8	103	(74 - 137)
Dibromofluoromethane	103	(77 - 132)

CONOCO INC.

Client Sample ID: PCA-4

GC/MS Semivolatiles

Lot-Sample #...: B1E100149-002 Work Order #...: EC5J51AF Matrix.....: WATER
Date Sampled...: 05/09/01 Date Received..: 05/10/01
Prep Date.....: 05/15/01 Analysis Date..: 05/21/01
Prep Batch #...: 1135521
Dilution Factor: 1 Initial Wgt/Vol: 980 mL Final Wgt/Vol..: 1 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Anthracene	ND	10	ug/L
Benzo(a)anthracene	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
bis(2-Chloroethoxy) methane	ND	10	ug/L
bis(2-Chloroethyl)-ether	ND	10	ug/L
bis(2-Chloroisopropyl) ether	ND	10	ug/L
bis(2-Ethylhexyl) phthalate	**16 B**	**10**	**ug/L**
4-Bromophenyl phenyl ether	ND	10	ug/L
Butyl benzyl phthalate	ND	10	ug/L
Carbazole	ND	10	ug/L
4-Chloroaniline	ND	10	ug/L
4-Chloro-3-methylphenol	ND	10	ug/L
2-Chloronaphthalene	ND	10	ug/L
2-Chlorophenol	ND	10	ug/L
4-Chlorophenyl phenyl ether	ND	10	ug/L
Chrysene	ND	10	ug/L
Dibenz(a,h)anthracene	ND	10	ug/L
Dibenzofuran	ND	10	ug/L
Di-n-butyl phthalate	ND	10	ug/L
1,2-Dichlorobenzene	ND	10	ug/L
1,3-Dichlorobenzene	ND	10	ug/L
1,4-Dichlorobenzene	ND	10	ug/L
3,3'-Dichlorobenzidine	ND	50	ug/L
2,4-Dichlorophenol	ND	10	ug/L
Diethyl phthalate	ND	10	ug/L
2,4-Dimethylphenol	ND	10	ug/L
Dimethyl phthalate	ND	10	ug/L

(Continued on next page)

CONOCO INC.

Client Sample ID: PCA-4

GC/MS Semivolatiles

Lot-Sample #...: B1E100149-002 Work Order #...: EC5J51AF Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
4,6-Dinitro-2-methylphenol	ND	50	ug/L
2,4-Dinitrophenol	ND	50	ug/L
2,4-Dinitrotoluene	ND	10	ug/L
2,6-Dinitrotoluene	ND	10	ug/L
Di-n-octyl phthalate	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Fluorene	ND	10	ug/L
Hexachlorobenzene	ND	10	ug/L
Hexachlorobutadiene	ND	10	ug/L
Hexachlorocyclopentadiene	ND	10	ug/L
Hexachloroethane	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
Isophorone	ND	10	ug/L
2-Methylnaphthalene	ND	10	ug/L
2-Methylphenol	ND	10	ug/L
3-Methylphenol & 4-Methylphenol	ND	20	ug/L
Naphthalene	ND	10	ug/L
2-Nitroaniline	ND	50	ug/L
3-Nitroaniline	ND	50	ug/L
4-Nitroaniline	ND	50	ug/L
Nitrobenzene	ND	10	ug/L
2-Nitrophenol	ND	10	ug/L
4-Nitrophenol	ND	50	ug/L
N-Nitrosodiphenylamine	ND	10	ug/L
N-Nitrosodi-n-propylamine	ND	10	ug/L
Pentachlorophenol	ND	50	ug/L
Phenanthrene	ND	10	ug/L
Phenol	ND	10	ug/L
Pyrene	ND	10	ug/L
1,2,4-Trichlorobenzene	ND	10	ug/L
2,4,5-Trichlorophenol	ND	10	ug/L
2,4,6-Trichlorophenol	ND	10	ug/L

(Continued on next page)

CONOCO INC.

Client Sample ID: PCA-4

GC/MS Semivolatiles

Lot-Sample #...: B1E100149-002 Work Order #...: EC5J51AF Matrix.....: WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	55	(31 - 120)
2-Fluorobiphenyl	58	(30 - 120)
2-Fluorophenol	35	(10 - 120)
Nitrobenzene-d5	50	(29 - 120)
Phenol-d5	24	(10 - 120)
Terphenyl-d14	55	(40 - 127)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CONOCO INC.

Client Sample ID: PCA-4

TOTAL Metals

Lot-Sample #...: B1E100149-002 Matrix.....: WATER
Date Sampled...: 05/09/01 Date Received..: 05/10/01

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1141132						
Arsenic	0.056	0.0050	mg/L	SW846 6010B	05/21-05/22/01	EC5J51AU
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Lead	0.13	0.030	mg/L	SW846 6010B	05/21-05/22/01	EC5J51AV
		Dilution Factor: 10		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Selenium	ND	0.050	mg/L	SW846 6010B	05/21-05/22/01	EC5J51AW
		Dilution Factor: 10		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Barium	5.7	1.0	mg/L	SW846 6010B	05/21-05/22/01	EC5J51AP
		Dilution Factor: 10		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Cadmium	ND	0.0050	mg/L	SW846 6010B	05/21-05/22/01	EC5J51AQ
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Chromium	0.073 B	0.10	mg/L	SW846 6010B	05/21-05/22/01	EC5J51AR
		Dilution Factor: 10		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Silver	0.0056 B	0.010	mg/L	SW846 6010B	05/21-05/22/01	EC5J51AT
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Calcium	3140	10.0	mg/L	SW846 6010B	05/21-05/22/01	EC5J51AC
		Dilution Factor: 10		Initial Wgt/Vol:	Final Wgt/Vol..: 0	
Magnesium	160	1.0	mg/L	SW846 6010B	05/21-05/22/01	EC5J51AD
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol..: 0	
Sodium	91.6	1.0	mg/L	SW846 6010B	05/21-05/22/01	EC5J51AE
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol..: 0	
Prep Batch #...: 1150108						
Mercury	ND	0.20	ug/L	SW846 7470A	05/30/01	EC5J51AX
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	

NOTE(S):

B Estimated result. Result is less than RL.

CONOCO INC.

Client Sample ID: PCA-4

General Chemistry

Lot-Sample #...: B1E100149-002 Work Order #...: EC5J5 Matrix.....: WATER
Date Sampled...: 05/09/01 Date Received..: 05/10/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH (liquid)	7.6	0.10	No Units	MCAWW 150.1	05/10/01	1130378
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol..: 0	
Alkalinity as CaCO3 to pH 4.5	6720	5.0	mg/L	MCAWW 310.1	05/21/01	1141531
		Dilution Factor: 1		Initial Wgt/Vol: 50	Final Wgt/Vol..: 0	
Chloride	493	10.0	mg/L	MCAWW 300.0A	05/10/01	1131286
		Dilution Factor: 10		Initial Wgt/Vol: 10 mL	Final Wgt/Vol..: 0	
Nitrate as N	37.7	5.0	mg/L	MCAWW 300.0A	05/10/01	1131288
		Dilution Factor: 10		Initial Wgt/Vol: 10 mL	Final Wgt/Vol..: 0	
Sulfate	2000	100	mg/L	MCAWW 300.0A	05/10-05/11/01	1131292
		Dilution Factor: 100		Initial Wgt/Vol: 10 mL	Final Wgt/Vol..: 0	
Total Dissolved Solids	4410	20.0	mg/L	MCAWW 160.1	05/14-05/15/01	1136178
		Dilution Factor: 2		Initial Wgt/Vol: 100 mL	Final Wgt/Vol..: 0	

CONOCO INC.

Client Sample ID: PCA-1

GC/MS Volatiles

Lot-Sample #...: B1E100149-003 Work Order #...: EC5J61AN Matrix.....: WATER
Date Sampled...: 05/09/01 Date Received..: 05/10/01
Prep Date.....: 05/14/01 Analysis Date..: 05/15/01
Prep Batch #...: 1135303
Dilution Factor: 1 Initial Wgt/Vol: 25 mL Final Wgt/Vol..: 25 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methyl tert-butyl ether	ND	1.0	ug/L
Benzene	**310 E**	**1.0**	**ug/L**
Bromobenzene	ND	1.0	ug/L
Bromochloromethane	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
n-Butylbenzene	**2.3**	**1.0**	**ug/L**
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	**0.84 J**	**1.0**	**ug/L**
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	**19**	**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	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	**70 E**	**1.0**	**ug/L**
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	**5.4**	**1.0**	**ug/L**

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CONOCO INC.

Client Sample ID: PCA-1

GC/MS Volatiles

Lot-Sample #...: B1E100149-003 Work Order #...: EC5J61AN Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
p-Isopropyltoluene	1.4	1.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	2.1	1.0	ug/L
n-Propylbenzene	6.2	1.0	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	380 E	1.0	ug/L
1,2,3-Trichlorobenzene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	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
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,2,4-Trimethylbenzene	53 E	1.0	ug/L
1,3,5-Trimethylbenzene	41 E	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
o-Xylene	100 E	1.0	ug/L
m-Xylene & p-Xylene	230 E	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	90	(78 - 123)
1,2-Dichloroethane-d4	98	(72 - 139)
Toluene-d8	132	(74 - 137)
Dibromofluoromethane	96	(77 - 132)

NOTE(S):

E Estimated result. Result concentration exceeds the calibration range.

J Estimated result. Result is less than RL.

CONOCO INC.

Client Sample ID: PCA-1

GC/MS Volatiles

Lot-Sample #...: B1E100149-003	Work Order #...: EC5J62AN	Matrix.....: WATER	
Date Sampled...: 05/09/01	Date Received..: 05/10/01		
Prep Date.....: 05/14/01	Analysis Date..: 05/15/01		
Prep Batch #...: 1135303			
Dilution Factor: 50	Initial Wgt/Vol: 25 mL	Final Wgt/Vol..: 25 mL	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	1100	50	ug/L
Ethylbenzene	69	50	ug/L
Toluene	1500 E	50	ug/L
1,2,4-Trimethylbenzene	67	50	ug/L
1,3,5-Trimethylbenzene	51	50	ug/L
o-Xylene	120	50	ug/L
m-Xylene & p-Xylene	520	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	100	(78 - 123)
1,2-Dichloroethane-d4	95	(72 - 139)
Toluene-d8	107	(74 - 137)
Dibromofluoromethane	99	(77 - 132)

NOTE(S):

E Estimated result. Result concentration exceeds the calibration range.

CONOCO INC.

Client Sample ID: PCA-1

GC/MS Volatiles

Lot-Sample #...:	B1E100149-003	Work Order #...:	EC5J63AN	Matrix.....:	WATER
Date Sampled...:	05/09/01	Date Received..:	05/10/01		
Prep Date.....:	05/17/01	Analysis Date..:	05/17/01		
Prep Batch #...:	1138295				
Dilution Factor:	100	Initial Wgt/Vol:	25 mL	Final Wgt/Vol..:	25 mL
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Toluene	950	100	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	98	(78 - 123)
1,2-Dichloroethane-d4	94	(72 - 139)
Toluene-d8	105	(74 - 137)
Dibromofluoromethane	101	(77 - 132)

CONOCO INC.

Client Sample ID: PCA-1

GC/MS Semivolatiles

Lot-Sample #...: B1E100149-003 Work Order #...: EC5J61AF Matrix.....: WATER
Date Sampled...: 05/09/01 Date Received..: 05/10/01
Prep Date.....: 05/15/01 Analysis Date..: 05/21/01
Prep Batch #...: 1135521
Dilution Factor: 1 Initial Wgt/Vol: 980 mL Final Wgt/Vol..: 1 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Anthracene	ND	10	ug/L
Benzo(a)anthracene	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
bis(2-Chloroethoxy) methane	ND	10	ug/L
bis(2-Chloroethyl)- ether	ND	10	ug/L
bis(2-Chloroisopropyl) ether	ND	10	ug/L
bis(2-Ethylhexyl) phthalate	ND	10	ug/L
4-Bromophenyl phenyl ether	ND	10	ug/L
Butyl benzyl phthalate	ND	10	ug/L
Carbazole	ND	10	ug/L
4-Chloroaniline	ND	10	ug/L
4-Chloro-3-methylphenol	ND	10	ug/L
2-Chloronaphthalene	ND	10	ug/L
2-Chlorophenol	ND	10	ug/L
4-Chlorophenyl phenyl ether	ND	10	ug/L
Chrysene	ND	10	ug/L
Dibenz(a,h)anthracene	ND	10	ug/L
Dibenzofuran	ND	10	ug/L
Di-n-butyl phthalate	ND	10	ug/L
1,2-Dichlorobenzene	ND	10	ug/L
1,3-Dichlorobenzene	ND	10	ug/L
1,4-Dichlorobenzene	ND	10	ug/L
3,3'-Dichlorobenzidine	ND	50	ug/L
2,4-Dichlorophenol	ND	10	ug/L
Diethyl phthalate	ND	10	ug/L
2,4-Dimethylphenol	ND	10	ug/L
Dimethyl phthalate	ND	10	ug/L

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CONOCO INC.

Client Sample ID: PCA-1

GC/MS Semivolatiles

Lot-Sample #...: B1E100149-003 Work Order #...: EC5J61AF Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
4,6-Dinitro-2-methylphenol	ND	50	ug/L
2,4-Dinitrophenol	ND	50	ug/L
2,4-Dinitrotoluene	ND	10	ug/L
2,6-Dinitrotoluene	ND	10	ug/L
Di-n-octyl phthalate	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Fluorene	ND	10	ug/L
Hexachlorobenzene	ND	10	ug/L
Hexachlorobutadiene	ND	10	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
Hexachloroethane	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
Isophorone	ND	10	ug/L
2-Methylnaphthalene	ND	10	ug/L
2-Methylphenol	**31**	**10**	**ug/L**
3-Methylphenol & 4-Methylphenol	**6.7 J**	**20**	**ug/L**
Naphthalene	ND	10	ug/L
2-Nitroaniline	ND	50	ug/L
3-Nitroaniline	ND	50	ug/L
4-Nitroaniline	ND	50	ug/L
Nitrobenzene	ND	10	ug/L
2-Nitrophenol	ND	10	ug/L
4-Nitrophenol	ND	50	ug/L
N-Nitrosodiphenylamine	ND	10	ug/L
N-Nitrosodi-n-propyl-amine	ND	10	ug/L
Pentachlorophenol	ND	50	ug/L
Phenanthrene	ND	10	ug/L
Phenol	**14**	**10**	**ug/L**
Pyrene	ND	10	ug/L
1,2,4-Trichloro-benzene	ND	10	ug/L
2,4,5-Trichloro-phenol	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	10	ug/L

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CONOCO INC.

Client Sample ID: PCA-1

GC/MS Semivolatiles

Lot-Sample #...: B1E100149-003 Work Order #...: EC5J61AF Matrix.....: WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	59	(31 - 120)
2-Fluorobiphenyl	63	(30 - 120)
2-Fluorophenol	35	(10 - 120)
Nitrobenzene-d5	61	(29 - 120)
Phenol-d5	27	(10 - 120)
Terphenyl-d14	57	(40 - 127)

NOTE(S):

J Estimated result. Result is less than RL.

CONOCO INC.

Client Sample ID: PCA-1

TOTAL Metals

Lot-Sample #...: B1E100149-003 Matrix.....: WATER
Date Sampled...: 05/09/01 Date Received..: 05/10/01

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1141132						
Arsenic	0.017	0.0050	mg/L	SW846 6010B	05/21-05/22/01	EC5J61AU
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Lead	0.026 B	0.030	mg/L	SW846 6010B	05/21-05/22/01	EC5J61AV
		Dilution Factor: 10		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Selenium	ND	0.050	mg/L	SW846 6010B	05/21-05/22/01	EC5J61AW
		Dilution Factor: 10		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Barium	1.0	0.10	mg/L	SW846 6010B	05/21-05/22/01	EC5J61AP
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Cadmium	ND	0.0050	mg/L	SW846 6010B	05/21-05/22/01	EC5J61AQ
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Chromium	ND	0.10	mg/L	SW846 6010B	05/21-05/22/01	EC5J61AR
		Dilution Factor: 10		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Silver	ND	0.010	mg/L	SW846 6010B	05/21-05/22/01	EC5J61AT
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Calcium	1110	10.0	mg/L	SW846 6010B	05/21-05/22/01	EC5J61AC
		Dilution Factor: 10		Initial Wgt/Vol:	Final Wgt/Vol..: 0	
Magnesium	236	1.0	mg/L	SW846 6010B	05/21-05/22/01	EC5J61AD
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol..: 0	
Sodium	166	1.0	mg/L	SW846 6010B	05/21-05/22/01	EC5J61AE
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol..: 0	
Prep Batch #...: 1150108						
Mercury	ND	0.20	ug/L	SW846 7470A	05/30/01	EC5J61AX
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	

NOTE(S):

B Estimated result. Result is less than RL.

CONOCO INC.

Client Sample ID: PCA-1

General Chemistry

Lot-Sample #...: B1E100149-003 Work Order #...: EC5J6 Matrix.....: WATER
Date Sampled...: 05/09/01 Date Received..: 05/10/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH (liquid)	7.3	0.10	No Units	MCAWW 150.1	05/10/01	1130378
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol..: 0	
Alkalinity as CaCO3 to pH 4.5	3230	5.0	mg/L	MCAWW 310.1	05/21/01	1141531
		Dilution Factor: 1		Initial Wgt/Vol: 50	Final Wgt/Vol..: 0	
Chloride	470	10.0	mg/L	MCAWW 300.0A	05/10/01	1131286
		Dilution Factor: 10		Initial Wgt/Vol: 10 mL	Final Wgt/Vol..: 0	
Nitrate as N	13.7	5.0	mg/L	MCAWW 300.0A	05/10/01	1131288
		Dilution Factor: 10		Initial Wgt/Vol: 10 mL	Final Wgt/Vol..: 0	
Sulfate	1990	100	mg/L	MCAWW 300.0A	05/10-05/11/01	1131292
		Dilution Factor: 100		Initial Wgt/Vol: 10 mL	Final Wgt/Vol..: 0	
Total Dissolved Solids	4050	20.0	mg/L	MCAWW 160.1	05/14-05/15/01	1136178
		Dilution Factor: 2		Initial Wgt/Vol: 100 mL	Final Wgt/Vol..: 0	

CONOCO INC.

Client Sample ID: PCA-3

GC/MS Volatiles

Lot-Sample #...: B1E100149-004 Work Order #...: EC5J71AN Matrix.....: WATER
Date Sampled...: 05/09/01 Date Received..: 05/10/01
Prep Date.....: 05/14/01 Analysis Date..: 05/15/01
Prep Batch #...: 1135303
Dilution Factor: 1 Initial Wgt/Vol: 25 mL Final Wgt/Vol..: 25 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methyl tert-butyl ether	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromochloromethane	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	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	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L

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CONOCO INC.

Client Sample ID: PCA-3

GC/MS Volatiles

Lot-Sample #...: B1E100149-004 Work Order #...: EC5J71AN Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	1.0	ug/L
n-Propylbenzene	ND	1.0	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
1,2,3-Trichlorobenzene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	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
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
o-Xylene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	101	(78 - 123)
1,2-Dichloroethane-d4	98	(72 - 139)
Toluene-d8	106	(74 - 137)
Dibromofluoromethane	102	(77 - 132)

CONOCO INC.

Client Sample ID: PCA-3

GC/MS Semivolatiles

Lot-Sample #...: B1E100149-004 Work Order #...: EC5J71AF Matrix.....: WATER
Date Sampled...: 05/09/01 Date Received..: 05/10/01
Prep Date.....: 05/22/01 Analysis Date..: 05/23/01
Prep Batch #...: 1142394
Dilution Factor: 1 Initial Wgt/Vol: 980 mL Final Wgt/Vol..: 1 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Anthracene	ND	10	ug/L
Benzo(a)anthracene	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
bis(2-Chloroethoxy) methane	ND	10	ug/L
bis(2-Chloroethyl)-ether	ND	10	ug/L
bis(2-Chloroisopropyl) ether	ND	10	ug/L
bis(2-Ethylhexyl) phthalate	ND	10	ug/L
4-Bromophenyl phenyl ether	ND	10	ug/L
Butyl benzyl phthalate	ND	10	ug/L
Carbazole	ND	10	ug/L
4-Chloroaniline	ND	10	ug/L
4-Chloro-3-methylphenol	ND	10	ug/L
2-Chloronaphthalene	ND	10	ug/L
2-Chlorophenol	ND	10	ug/L
4-Chlorophenyl phenyl ether	ND	10	ug/L
Chrysene	ND	10	ug/L
Dibenz(a,h)anthracene	ND	10	ug/L
Dibenzofuran	ND	10	ug/L
Di-n-butyl phthalate	**2.8 J**	**10**	**ug/L**
1,2-Dichlorobenzene	ND	10	ug/L
1,3-Dichlorobenzene	ND	10	ug/L
1,4-Dichlorobenzene	ND	10	ug/L
3,3'-Dichlorobenzidine	ND	50	ug/L
2,4-Dichlorophenol	ND	10	ug/L
Diethyl phthalate	ND	10	ug/L
2,4-Dimethylphenol	ND	10	ug/L
Dimethyl phthalate	ND	10	ug/L

(Continued on next page)

CONOCO INC.

Client Sample ID: PCA-3

GC/MS Semivolatiles

Lot-Sample #...: B1E100149-004 Work Order #...: EC5J71AF Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
4,6-Dinitro-2-methylphenol	ND	50	ug/L
2,4-Dinitrophenol	ND	50	ug/L
2,4-Dinitrotoluene	ND	10	ug/L
2,6-Dinitrotoluene	ND	10	ug/L
Di-n-octyl phthalate	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Fluorene	ND	10	ug/L
Hexachlorobenzene	ND	10	ug/L
Hexachlorobutadiene	ND	10	ug/L
Hexachlorocyclopentadiene	ND	10	ug/L
Hexachloroethane	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
Isophorone	ND	10	ug/L
2-Methylnaphthalene	ND	10	ug/L
2-Methylphenol	ND	10	ug/L
3-Methylphenol & 4-Methylphenol	ND	20	ug/L
Naphthalene	ND	10	ug/L
2-Nitroaniline	ND	50	ug/L
3-Nitroaniline	ND	50	ug/L
4-Nitroaniline	ND	50	ug/L
Nitrobenzene	ND	10	ug/L
2-Nitrophenol	ND	10	ug/L
4-Nitrophenol	ND	50	ug/L
N-Nitrosodiphenylamine	ND	10	ug/L
N-Nitrosodi-n-propylamine	ND	10	ug/L
Pentachlorophenol	ND	50	ug/L
Phenanthrene	ND	10	ug/L
Phenol	ND	10	ug/L
Pyrene	ND	10	ug/L
1,2,4-Trichlorobenzene	ND	10	ug/L
2,4,5-Trichlorophenol	ND	10	ug/L
2,4,6-Trichlorophenol	ND	10	ug/L

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CONOCO INC.

Client Sample ID: PCA-3

GC/MS Semivolatiles

Lot-Sample #...: B1E100149-004 Work Order #...: EC5J71AF Matrix.....: WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	78	(31 - 120)
2-Fluorobiphenyl	62	(30 - 120)
2-Fluorophenol	43	(10 - 120)
Nitrobenzene-d5	65	(29 - 120)
Phenol-d5	31	(10 - 120)
Terphenyl-d14	66	(40 - 127)

NOTE(S):

J Estimated result. Result is less than RL.

CONOCO INC.

Client Sample ID: PCA-3

TOTAL Metals

Lot-Sample #...: B1E100149-004 Matrix.....: WATER
Date Sampled...: 05/09/01 Date Received..: 05/10/01

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1141132						
Arsenic	**0.035**	**0.0050**	**mg/L**	**SW846 6010B**	**05/21-05/22/01**	**EC5J71AV**
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Lead	**0.11**	**0.030**	**mg/L**	**SW846 6010B**	**05/21-05/22/01**	**EC5J71AW**
		Dilution Factor: 10		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Selenium	ND	0.050	mg/L	SW846 6010B	05/21-05/22/01	EC5J71AX
		Dilution Factor: 10		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Barium	**5.2**	**0.10**	**mg/L**	**SW846 6010B**	**05/21-05/22/01**	**EC5J71AQ**
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Cadmium	ND	0.0050	mg/L	SW846 6010B	05/21-05/22/01	EC5J71AR
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Chromium	**0.039 B**	**0.10**	**mg/L**	**SW846 6010B**	**05/21-05/22/01**	**EC5J71AT**
		Dilution Factor: 10		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Silver	ND	0.010	mg/L	SW846 6010B	05/21-05/22/01	EC5J71AU
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Calcium	**2660**	**10.0**	**mg/L**	**SW846 6010B**	**05/21-05/22/01**	**EC5J71AC**
		Dilution Factor: 10		Initial Wgt/Vol:	Final Wgt/Vol..: 0	
Magnesium	**49.2**	**1.0**	**mg/L**	**SW846 6010B**	**05/21-05/22/01**	**EC5J71AD**
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol..: 0	
Sodium	**17.2**	**1.0**	**mg/L**	**SW846 6010B**	**05/21-05/22/01**	**EC5J71AE**
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol..: 0	
Prep Batch #...: 1150108						
Mercury	ND	0.20	ug/L	SW846 7470A	05/30/01	EC5J71A0
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	

NOTE(S):

B Estimated result. Result is less than RL.

CONOCO INC.

Client Sample ID: PCA-3

General Chemistry

Lot-Sample #...: B1E100149-004 Work Order #...: EC5J7 Matrix.....: WATER
Date Sampled...: 05/09/01 Date Received..: 05/10/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH (liquid)	7.5	0.10	No Units	MCAWW 150.1	05/10/01	1130378
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol..: 0	
Alkalinity as CaCO3 to pH 4.5	4230	5.0	mg/L	MCAWW 310.1	05/21/01	1141531
		Dilution Factor: 1		Initial Wgt/Vol: 50	Final Wgt/Vol..: 0	
Chloride	265	10.0	mg/L	MCAWW 300.0A	05/10/01	1131286
		Dilution Factor: 10		Initial Wgt/Vol: 10 mL	Final Wgt/Vol..: 0	
Nitrate as N	8.0	5.0	mg/L	MCAWW 300.0A	05/10/01	1131288
		Dilution Factor: 10		Initial Wgt/Vol: 10 mL	Final Wgt/Vol..: 0	
Sulfate	1410	50.0	mg/L	MCAWW 300.0A	05/10-05/11/01	1131292
		Dilution Factor: 50		Initial Wgt/Vol: 10 mL	Final Wgt/Vol..: 0	
Total Dissolved Solids	3180	20.0	mg/L	MCAWW 160.1	05/14-05/15/01	1136178
		Dilution Factor: 2		Initial Wgt/Vol: 100 mL	Final Wgt/Vol..: 0	

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: B1E100149 Work Order #...: EDDWX1AA Matrix.....: WATER
MB Lot-Sample #: B1E150000-303

Prep Date.....: 05/14/01 Final Wgt/Vol..: 25 mL
Analysis Date..: 05/15/01 Prep Batch #...: 1135303
Dilution Factor: 1 Initial Wgt/Vol: 25 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Methyl tert-butyl ether	ND	1.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	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	1.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	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	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	**0.33 J**	**5.0**	**ug/L**	**SW846 8260B**
Naphthalene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: B1E100149 Work Order #...: EDDWX1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
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
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	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
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	90	(78 - 123)
1,2-Dichloroethane-d4	116	(72 - 139)
Toluene-d8	106	(74 - 137)
Dibromofluoromethane	110	(77 - 132)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: B1E100149 Work Order #...: EDLEF1AA Matrix.....: WATER
MB Lot-Sample #: B1E180000-295

Prep Date.....: 05/17/01 Final Wgt/Vol..: 25 mL
Analysis Date..: 05/17/01 Prep Batch #...: 1138295
Dilution Factor: 1 Initial Wgt/Vol: 25 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Methyl tert-butyl ether	ND	1.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	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	1.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	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	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	**0.36 J**	**5.0**	**ug/L**	**SW846 8260B**
Naphthalene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: B1E100149 Work Order #...: EDLEF1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
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
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	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
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	99	(78 - 123)
1,2-Dichloroethane-d4	107	(72 - 139)
Toluene-d8	101	(74 - 137)
Dibromofluoromethane	106	(77 - 132)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: B1E100149 Work Order #...: EDE781AA Matrix.....: WATER
MB Lot-Sample #: B1E150000-521

Prep Date.....: 05/15/01 Final Wgt/Vol..: 1 mL
Analysis Date..: 05/17/01 Prep Batch #...: 1135521
Dilution Factor: 1 Initial Wgt/Vol: 1000 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acenaphthene	ND	10	ug/L	SW846 8270C
Acenaphthylene	ND	10	ug/L	SW846 8270C
Anthracene	ND	10	ug/L	SW846 8270C
Benzo(a)anthracene	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(ghi)perylene	ND	10	ug/L	SW846 8270C
Benzo(a)pyrene	ND	10	ug/L	SW846 8270C
bis(2-Chloroethoxy) methane	ND	10	ug/L	SW846 8270C
bis(2-Chloroethyl)-ether	ND	10	ug/L	SW846 8270C
bis(2-Chloroisopropyl) ether	ND	10	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	**2.9 J**	**10**	**ug/L**	**SW846 8270C**
4-Bromophenyl phenyl ether	ND	10	ug/L	SW846 8270C
Butyl benzyl phthalate	ND	10	ug/L	SW846 8270C
Carbazole	ND	10	ug/L	SW846 8270C
4-Chloroaniline	ND	10	ug/L	SW846 8270C
4-Chloro-3-methylphenol	ND	10	ug/L	SW846 8270C
2-Chloronaphthalene	ND	10	ug/L	SW846 8270C
2-Chlorophenol	ND	10	ug/L	SW846 8270C
4-Chlorophenyl phenyl ether	ND	10	ug/L	SW846 8270C
Chrysene	ND	10	ug/L	SW846 8270C
Dibenz(a,h)anthracene	ND	10	ug/L	SW846 8270C
Dibenzofuran	ND	10	ug/L	SW846 8270C
Di-n-butyl phthalate	ND	10	ug/L	SW846 8270C
1,2-Dichlorobenzene	ND	10	ug/L	SW846 8270C
1,3-Dichlorobenzene	ND	10	ug/L	SW846 8270C
1,4-Dichlorobenzene	ND	10	ug/L	SW846 8270C
3,3'-Dichlorobenzidine	ND	50	ug/L	SW846 8270C
2,4-Dichlorophenol	ND	10	ug/L	SW846 8270C
Diethyl phthalate	ND	10	ug/L	SW846 8270C
2,4-Dimethylphenol	ND	10	ug/L	SW846 8270C
Dimethyl phthalate	ND	10	ug/L	SW846 8270C
4,6-Dinitro-2-methylphenol	ND	50	ug/L	SW846 8270C
2,4-Dinitrophenol	ND	50	ug/L	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: B1E100149 Work Order #...: EDE781AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2,4-Dinitrotoluene	ND	10	ug/L	SW846 8270C
2,6-Dinitrotoluene	ND	10	ug/L	SW846 8270C
Di-n-octyl phthalate	ND	10	ug/L	SW846 8270C
Fluoranthene	ND	10	ug/L	SW846 8270C
Fluorene	ND	10	ug/L	SW846 8270C
Hexachlorobenzene	ND	10	ug/L	SW846 8270C
Hexachlorobutadiene	ND	10	ug/L	SW846 8270C
Hexachlorocyclopenta-diene	ND	10	ug/L	SW846 8270C
Hexachloroethane	ND	10	ug/L	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	SW846 8270C
Isophorone	ND	10	ug/L	SW846 8270C
2-Methylnaphthalene	ND	10	ug/L	SW846 8270C
2-Methylphenol	ND	10	ug/L	SW846 8270C
3-Methylphenol & 4-Methylphenol	ND	20	ug/L	SW846 8270C
Naphthalene	ND	10	ug/L	SW846 8270C
2-Nitroaniline	ND	50	ug/L	SW846 8270C
3-Nitroaniline	ND	50	ug/L	SW846 8270C
4-Nitroaniline	ND	50	ug/L	SW846 8270C
Nitrobenzene	ND	10	ug/L	SW846 8270C
2-Nitrophenol	ND	10	ug/L	SW846 8270C
4-Nitrophenol	ND	50	ug/L	SW846 8270C
N-Nitrosodiphenylamine	ND	10	ug/L	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	10	ug/L	SW846 8270C
Pentachlorophenol	ND	50	ug/L	SW846 8270C
Phenanthrene	ND	10	ug/L	SW846 8270C
Phenol	ND	10	ug/L	SW846 8270C
Pyrene	ND	10	ug/L	SW846 8270C
1,2,4-Trichloro-benzene	ND	10	ug/L	SW846 8270C
2,4,5-Trichloro-phenol	ND	10	ug/L	SW846 8270C
2,4,6-Trichloro-phenol	ND	10	ug/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	58	(31 - 120)
2-Fluorobiphenyl	58	(30 - 120)
2-Fluorophenol	34	(10 - 120)
Nitrobenzene-d5	54	(29 - 120)
Phenol-d5	24	(10 - 120)
Terphenyl-d14	54	(40 - 127)

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: B1E100149 Work Order #...: EDE781AA Matrix.....: WATER

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: B1E100149
MB Lot-Sample #: B1E220000-394

Work Order #...: EDQVC1AA

Matrix.....: WATER

Prep Date.....: 05/22/01
Prep Batch #...: 1142394
Initial Wgt/Vol: 1000 mL

Final Wgt/Vol..: 1 mL

Analysis Date..: 05/23/01
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acenaphthene	ND	10	ug/L	SW846 8270C
Acenaphthylene	ND	10	ug/L	SW846 8270C
Anthracene	ND	10	ug/L	SW846 8270C
Benzo(a)anthracene	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(ghi)perylene	ND	10	ug/L	SW846 8270C
Benzo(a)pyrene	ND	10	ug/L	SW846 8270C
bis(2-Chloroethoxy) methane	ND	10	ug/L	SW846 8270C
bis(2-Chloroethyl)- ether	ND	10	ug/L	SW846 8270C
bis(2-Chloroisopropyl) ether	ND	10	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	ND	10	ug/L	SW846 8270C
4-Bromophenyl phenyl ether	ND	10	ug/L	SW846 8270C
Butyl benzyl phthalate	ND	10	ug/L	SW846 8270C
Carbazole	ND	10	ug/L	SW846 8270C
4-Chloroaniline	ND	10	ug/L	SW846 8270C
4-Chloro-3-methylphenol	ND	10	ug/L	SW846 8270C
2-Chloronaphthalene	ND	10	ug/L	SW846 8270C
2-Chlorophenol	ND	10	ug/L	SW846 8270C
4-Chlorophenyl phenyl ether	ND	10	ug/L	SW846 8270C
Chrysene	ND	10	ug/L	SW846 8270C
Dibenz(a,h)anthracene	ND	10	ug/L	SW846 8270C
Dibenzofuran	ND	10	ug/L	SW846 8270C
Di-n-butyl phthalate	ND	10	ug/L	SW846 8270C
1,2-Dichlorobenzene	ND	10	ug/L	SW846 8270C
1,3-Dichlorobenzene	ND	10	ug/L	SW846 8270C
1,4-Dichlorobenzene	ND	10	ug/L	SW846 8270C
3,3'-Dichlorobenzidine	ND	50	ug/L	SW846 8270C
2,4-Dichlorophenol	ND	10	ug/L	SW846 8270C
Diethyl phthalate	ND	10	ug/L	SW846 8270C
2,4-Dimethylphenol	ND	10	ug/L	SW846 8270C
Dimethyl phthalate	ND	10	ug/L	SW846 8270C
4,6-Dinitro- 2-methylphenol	ND	50	ug/L	SW846 8270C
2,4-Dinitrophenol	ND	50	ug/L	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: B1E100149 Work Order #...: EDQVC1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2,4-Dinitrotoluene	ND	10	ug/L	SW846 8270C
2,6-Dinitrotoluene	ND	10	ug/L	SW846 8270C
Di-n-octyl phthalate	ND	10	ug/L	SW846 8270C
Fluoranthene	ND	10	ug/L	SW846 8270C
Fluorene	ND	10	ug/L	SW846 8270C
Hexachlorobenzene	ND	10	ug/L	SW846 8270C
Hexachlorobutadiene	ND	10	ug/L	SW846 8270C
Hexachlorocyclopenta-diene	ND	10	ug/L	SW846 8270C
Hexachloroethane	ND	10	ug/L	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	SW846 8270C
Isophorone	ND	10	ug/L	SW846 8270C
2-Methylnaphthalene	ND	10	ug/L	SW846 8270C
2-Methylphenol	ND	10	ug/L	SW846 8270C
3-Methylphenol & 4-Methylphenol	ND	20	ug/L	SW846 8270C
Naphthalene	ND	10	ug/L	SW846 8270C
2-Nitroaniline	ND	50	ug/L	SW846 8270C
3-Nitroaniline	ND	50	ug/L	SW846 8270C
4-Nitroaniline	ND	50	ug/L	SW846 8270C
Nitrobenzene	ND	10	ug/L	SW846 8270C
2-Nitrophenol	ND	10	ug/L	SW846 8270C
4-Nitrophenol	ND	50	ug/L	SW846 8270C
N-Nitrosodiphenylamine	ND	10	ug/L	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	10	ug/L	SW846 8270C
Pentachlorophenol	ND	50	ug/L	SW846 8270C
Phenanthrene	ND	10	ug/L	SW846 8270C
Phenol	ND	10	ug/L	SW846 8270C
Pyrene	ND	10	ug/L	SW846 8270C
1,2,4-Trichloro-benzene	ND	10	ug/L	SW846 8270C
2,4,5-Trichloro-phenol	ND	10	ug/L	SW846 8270C
2,4,6-Trichloro-phenol	ND	10	ug/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	61	(31 - 120)
2-Fluorobiphenyl	64	(30 - 120)
2-Fluorophenol	62	(10 - 120)
Nitrobenzene-d5	65	(29 - 120)
Phenol-d5	63	(10 - 120)
Terphenyl-d14	66	(40 - 127)

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: B1E100149 Work Order #...: EDQVC1AA Matrix.....: WATER

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: B1E100149 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: B1E210000-132 Prep Batch #...: 1141132						
Arsenic	ND	0.0050	mg/L	SW846 6010B	05/21-05/22/01	EDM5H1AH
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Lead	ND	0.0030	mg/L	SW846 6010B	05/21-05/22/01	EDM5H1AK
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Selenium	**0.0035 B**	**0.0050**	**mg/L**	**SW846 6010B**	**05/21-05/22/01**	**EDM5H1AL**
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Barium	ND	0.10	mg/L	SW846 6010B	05/21-05/22/01	EDM5H1AA
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Cadmium	ND	0.0050	mg/L	SW846 6010B	05/21-05/22/01	EDM5H1CF
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Chromium	ND	0.010	mg/L	SW846 6010B	05/21-05/22/01	EDM5H1CG
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Silver	ND	0.010	mg/L	SW846 6010B	05/21-05/22/01	EDM5H1AE
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Calcium	ND	1.0	mg/L	SW846 6010B	05/21-05/22/01	EDM5H1CA
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Magnesium	ND	1.0	mg/L	SW846 6010B	05/21-05/22/01	EDM5H1CC
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Sodium	ND	1.0	mg/L	SW846 6010B	05/21-05/22/01	EDM5H1CD
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
MB Lot-Sample #: B1E300000-108 Prep Batch #...: 1150108						
Mercury	ND	0.20	ug/L	SW846 7470A	05/30/01	ED4QL1AA
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: B1E100149 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Alkalinity as CaCO3 to pH		Work Order #: EDN661AA		MB Lot-Sample #:	B1E210000-531	
	ND	5.0	mg/L	MCAWW 310.1	05/21/01	1141531
		Dilution Factor: 1		Initial Wgt/Vol: 50	Final Wgt/Vol..: 0	
Chloride		Work Order #: EC8CH1AA		MB Lot-Sample #:	B1E110000-286	
	ND	1.0	mg/L	MCAWW 300.0A	05/10/01	1131286
		Dilution Factor: 1		Initial Wgt/Vol: 10 mL	Final Wgt/Vol..: 0	
Nitrate as N		Work Order #: EC8CL1AA		MB Lot-Sample #:	B1E110000-288	
	ND	0.50	mg/L	MCAWW 300.0A	05/10/01	1131288
		Dilution Factor: 1		Initial Wgt/Vol: 10 mL	Final Wgt/Vol..: 0	
Sulfate		Work Order #: EC8CP1AA		MB Lot-Sample #:	B1E110000-292	
	ND	1.0	mg/L	MCAWW 300.0A	05/10/01	1131292
		Dilution Factor: 1		Initial Wgt/Vol: 10 mL	Final Wgt/Vol..: 0	
Total Dissolved Solids		Work Order #: EDFGR1AA		MB Lot-Sample #:	B1E160000-178	
	ND	10.0	mg/L	MCAWW 160.1	05/14-05/15/01	1136178
		Dilution Factor: 1		Initial Wgt/Vol: 100 mL	Final Wgt/Vol..: 0	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: B1E100149 Work Order #...: EDDWX1AE Matrix.....: WATER
LCS Lot-Sample#: B1E150000-303
Prep Date.....: 05/14/01 Analysis Date..: 05/15/01
Prep Batch #...: 1135303
Dilution Factor: 1 Final Wgt/Vol..: 25 mL
Initial Wgt/Vol: 25 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Benzene	**92**	**(72 - 120)**	**SW846 8260B**
Chlorobenzene	**90**	**(71 - 120)**	**SW846 8260B**
1,1-Dichloroethene	**112**	**(66 - 132)**	**SW846 8260B**
Toluene	**94**	**(70 - 120)**	**SW846 8260B**
Trichloroethene	**86**	**(69 - 120)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	113	(78 - 123)
1,2-Dichloroethane-d4	115	(72 - 139)
Toluene-d8	114	(74 - 137)
Dibromofluoromethane	111	(77 - 132)

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 #...: B1E100149 Work Order #...: EDLEF1AD Matrix.....: WATER
LCS Lot-Sample#: B1E180000-295
Prep Date.....: 05/17/01 Analysis Date..: 05/17/01
Prep Batch #...: 1138295
Dilution Factor: 1 Final Wgt/Vol..: 25 mL
Initial Wgt/Vol: 25 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Benzene	**106**	**(72 - 120)**	**SW846 8260B**
Chlorobenzene	**97**	**(71 - 120)**	**SW846 8260B**
1,1-Dichloroethene	**100**	**(66 - 132)**	**SW846 8260B**
Toluene	**103**	**(70 - 120)**	**SW846 8260B**
Trichloroethene	**115**	**(69 - 120)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	102	(78 - 123)
1,2-Dichloroethane-d4	102	(72 - 139)
Toluene-d8	105	(74 - 137)
Dibromofluoromethane	105	(77 - 132)

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 #...: B1E100149 Work Order #...: EDE781AC-LCS Matrix.....: WATER
LCS Lot-Sample#: B1E150000-521 EDE781AD-LCSD
Prep Date.....: 05/15/01 Analysis Date..: 05/17/01
Prep Batch #...: 1135521
Dilution Factor: 1 Final Wgt/Vol..: 1 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Acenaphthene	62	(41 - 120)			SW846 8270C
	56	(41 - 120)	11	(0-40)	SW846 8270C
4-Chloro-3-methylphenol	62	(41 - 120)			SW846 8270C
	57	(41 - 120)	8.2	(0-41)	SW846 8270C
2-Chlorophenol	59	(33 - 120)			SW846 8270C
	56	(33 - 120)	4.5	(0-56)	SW846 8270C
1,4-Dichlorobenzene	55	(30 - 120)			SW846 8270C
	56	(30 - 120)	1.7	(0-65)	SW846 8270C
2,4-Dinitrotoluene	68	(40 - 120)			SW846 8270C
	61	(40 - 120)	10	(0-41)	SW846 8270C
4-Nitrophenol	33	(10 - 120)			SW846 8270C
	30	(10 - 120)	9.4	(0-58)	SW846 8270C
N-Nitrosodi-n-propyl-amine	69	(37 - 120)			SW846 8270C
	64	(37 - 120)	6.8	(0-48)	SW846 8270C
Pentachlorophenol	80	(28 - 120)			SW846 8270C
	75	(28 - 120)	7.5	(0-52)	SW846 8270C
Phenol	34	(10 - 120)			SW846 8270C
	32	(10 - 120)	5.8	(0-60)	SW846 8270C
Pyrene	64	(41 - 120)			SW846 8270C
	69	(41 - 120)	8.3	(0-41)	SW846 8270C
1,2,4-Trichloro-benzene	67	(32 - 120)			SW846 8270C
	64	(32 - 120)	4.3	(0-50)	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	58	(31 - 120)
	54	(31 - 120)
2-Fluorobiphenyl	61	(30 - 120)
	54	(30 - 120)
2-Fluorophenol	37	(10 - 120)
	35	(10 - 120)
Nitrobenzene-d5	58	(29 - 120)
	55	(29 - 120)
Phenol-d5	26	(10 - 120)
	24	(10 - 120)
Terphenyl-d14	62	(40 - 127)

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: B1E100149 Work Order #...: EDE781AC-LCS Matrix.....: WATER
LCS Lot-Sample#: B1E150000-521 EDE781AD-LCSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
	66	(40 - 127)

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 #...: B1E100149 Work Order #...: EDQVC1AC-LCS Matrix.....: WATER
LCS Lot-Sample#: B1E220000-394 EDQVC1AD-LCSD
Prep Date.....: 05/22/01 Analysis Date..: 05/23/01
Prep Batch #...: 1142394
Dilution Factor: 1 Final Wgt/Vol..: 1 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Acenaphthene	74	(41 - 120)			SW846 8270C
	74	(41 - 120)	1.1	(0-40)	SW846 8270C
4-Chloro-3-methylphenol	72	(41 - 120)			SW846 8270C
	75	(41 - 120)	4.4	(0-41)	SW846 8270C
2-Chlorophenol	60	(33 - 120)			SW846 8270C
	72	(33 - 120)	17	(0-56)	SW846 8270C
1,4-Dichlorobenzene	58	(30 - 120)			SW846 8270C
	68	(30 - 120)	16	(0-65)	SW846 8270C
2,4-Dinitrotoluene	79	(40 - 120)			SW846 8270C
	82	(40 - 120)	3.4	(0-41)	SW846 8270C
4-Nitrophenol	85	(10 - 120)			SW846 8270C
	89	(10 - 120)	4.2	(0-58)	SW846 8270C
N-Nitrosodi-n-propyl-amine	71	(37 - 120)			SW846 8270C
	77	(37 - 120)	8.4	(0-48)	SW846 8270C
Pentachlorophenol	84	(28 - 120)			SW846 8270C
	86	(28 - 120)	1.6	(0-52)	SW846 8270C
Phenol	62	(10 - 120)			SW846 8270C
	71	(10 - 120)	13	(0-60)	SW846 8270C
Pyrene	76	(41 - 120)			SW846 8270C
	85	(41 - 120)	11	(0-41)	SW846 8270C
1,2,4-Trichloro-benzene	62	(32 - 120)			SW846 8270C
	71	(32 - 120)	13	(0-50)	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	64	(31 - 120)
	62	(31 - 120)
2-Fluorobiphenyl	62	(30 - 120)
	60	(30 - 120)
2-Fluorophenol	50	(10 - 120)
	57	(10 - 120)
Nitrobenzene-d5	56	(29 - 120)
	59	(29 - 120)
Phenol-d5	54	(10 - 120)
	57	(10 - 120)
Terphenyl-d14	74	(40 - 127)

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: B1E100149 **Work Order #...:** EDQVC1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: B1E220000-394 EDQVC1AD-LCSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
	77	(40 - 127)

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 #...: B1E100149 Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Arsenic	106	(85 - 115)			SW846 6010B	05/21-05/22/01	1141132
	105	(85 - 115)	0.32	(0-10)	SW846 6010B	05/21-05/22/01	1141132
		Dilution Factor: 1			Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Lead	106	(85 - 115)			SW846 6010B	05/21-05/22/01	1141132
	106	(85 - 115)	0.40	(0-10)	SW846 6010B	05/21-05/22/01	1141132
		Dilution Factor: 1			Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Selenium	104	(85 - 115)			SW846 6010B	05/21-05/22/01	1141132
	104	(85 - 115)	0.21	(0-10)	SW846 6010B	05/21-05/22/01	1141132
		Dilution Factor: 1			Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Barium	105	(85 - 115)			SW846 6010B	05/21-05/22/01	1141132
	105	(85 - 115)	0.06	(0-10)	SW846 6010B	05/21-05/22/01	1141132
		Dilution Factor: 1			Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Cadmium	109	(85 - 115)			SW846 6010B	05/21-05/22/01	1141132
	109	(85 - 115)	0.19	(0-10)	SW846 6010B	05/21-05/22/01	1141132
		Dilution Factor: 1			Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Chromium	106	(85 - 115)			SW846 6010B	05/21-05/22/01	1141132
	106	(85 - 115)	0.02	(0-11)	SW846 6010B	05/21-05/22/01	1141132
		Dilution Factor: 1			Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Silver	100	(85 - 115)			SW846 6010B	05/21-05/22/01	1141132
	99	(85 - 115)	0.45	(0-13)	SW846 6010B	05/21-05/22/01	1141132
		Dilution Factor: 1			Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Calcium	105	(85 - 115)			SW846 6010B	05/21-05/22/01	1141132
	105	(85 - 115)	0.14	(0-10)	SW846 6010B	05/21-05/22/01	1141132
		Dilution Factor: 1			Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Magnesium	101	(85 - 115)			SW846 6010B	05/21-05/22/01	1141132
	101	(85 - 115)	0.11	(0-10)	SW846 6010B	05/21-05/22/01	1141132
		Dilution Factor: 1			Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Sodium	107	(85 - 115)			SW846 6010B	05/21-05/22/01	1141132
	108	(85 - 115)	0.57	(0-11)	SW846 6010B	05/21-05/22/01	1141132
		Dilution Factor: 1			Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: B1E100149 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 EVALUATION REPORT

TOTAL Metals

Client Lot #...: B1E100149 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: B1E300000-108 **Prep Batch #...:** 1150108					
Mercury	101	(90 - 110)	SW846 7470A	05/30/01	ED4QL1AC
		Dilution Factor: 1	Initial Wgt/Vol: 0		Final Wgt/Vol..: 0

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Lot-Sample #...: B1E100149 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH (liquid)		WO#:EC6D21AA-LCS/EC6D21AC-LCSD LCS Lot-Sample#: B1E100000-378					
	100	(99 - 101)			MCAWW 150.1	05/10/01	1130378
	100	(99 - 101)	0.0	(0-20)	MCAWW 150.1	05/10/01	1130378
		Dilution Factor: 1			Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Alkalinity as CaCO3 to pH		WO#:EDN661AC-LCS/EDN661AD-LCSD LCS Lot-Sample#: B1E210000-531					
	99	(90 - 110)			MCAWW 310.1	05/21/01	1141531
	100	(90 - 110)	1.0	(0-20)	MCAWW 310.1	05/21/01	1141531
		Dilution Factor: 1			Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Chloride		WO#:EC8CH1AC-LCS/EC8CH1AD-LCSD LCS Lot-Sample#: B1E110000-286					
	96	(85 - 110)			MCAWW 300.0A	05/10/01	1131286
	96	(85 - 110)	0.41	(0-10)	MCAWW 300.0A	05/10/01	1131286
		Dilution Factor: 1			Initial Wgt/Vol: 10 mL	Final Wgt/Vol..: 0	
Nitrate as N		WO#:EC8CL1AC-LCS/EC8CL1AD-LCSD LCS Lot-Sample#: B1E110000-288					
	95	(90 - 110)			MCAWW 300.0A	05/10/01	1131288
	95	(90 - 110)	0.0	(0-11)	MCAWW 300.0A	05/10/01	1131288
		Dilution Factor: 1			Initial Wgt/Vol: 10 mL	Final Wgt/Vol..: 0	
Sulfate		WO#:EC8CP1AC-LCS/EC8CP1AD-LCSD LCS Lot-Sample#: B1E110000-292					
	101	(82 - 115)			MCAWW 300.0A	05/10/01	1131292
	101	(82 - 115)	0.0	(0-10)	MCAWW 300.0A	05/10/01	1131292
		Dilution Factor: 1			Initial Wgt/Vol: 10 mL	Final Wgt/Vol..: 0	
Total Dissolved Solids		WO#:EDFGR1AC-LCS/EDFGR1AD-LCSD LCS Lot-Sample#: B1E160000-178					
	99	(80 - 114)			MCAWW 160.1	05/14-05/15/01	1136178
	97	(80 - 114)	2.2	(0-10)	MCAWW 160.1	05/14-05/15/01	1136178
		Dilution Factor: 1			Initial Wgt/Vol: 100 mL	Final Wgt/Vol..: 0	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: B1E100149 Work Order #...: EC5NX1AC-MS Matrix.....: WATER
MS Lot-Sample #: B1E100167-001 EC5NX1AD-MSD
Date Sampled...: 05/09/01 Date Received..: 05/10/01
Prep Date.....: 05/14/01 Analysis Date..: 05/15/01
Prep Batch #...: 1135303
Dilution Factor: 1 Initial Wgt/Vol: 25 mL Final Wgt/Vol..: 25 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**81**	**(72 - 120)**			**SW846 8260B**
	91	**(72 - 120)**	**12**	**(0-30)**	**SW846 8260B**
Chlorobenzene	**82**	**(71 - 120)**			**SW846 8260B**
	90	**(71 - 120)**	**9.9**	**(0-35)**	**SW846 8260B**
1,1-Dichloroethene	**99**	**(66 - 132)**			**SW846 8260B**
	112	**(66 - 132)**	**13**	**(0-32)**	**SW846 8260B**
Toluene	**84**	**(70 - 120)**			**SW846 8260B**
	94	**(70 - 120)**	**11**	**(0-34)**	**SW846 8260B**
Trichloroethene	**73**	**(69 - 120)**			**SW846 8260B**
	84	**(69 - 120)**	**14**	**(0-32)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	109	(78 - 123)
	110	(78 - 123)
1,2-Dichloroethane-d4	106	(72 - 139)
	105	(72 - 139)
Toluene-d8	117	(74 - 137)
	116	(74 - 137)
Dibromofluoromethane	110	(77 - 132)
	108	(77 - 132)

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 #...: B1E100149 Work Order #...: EC8HF1AD-MS Matrix.....: WATER
MS Lot-Sample #: B1E110245-002 EC8HF1AE-MSD
Date Sampled...: 05/10/01 Date Received..: 05/11/01
Prep Date.....: 05/17/01 Analysis Date..: 05/17/01
Prep Batch #...: 1138295
Dilution Factor: 1 Initial Wgt/Vol: 25 mL Final Wgt/Vol..: 25 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**88**	**(72 - 120)**			**SW846 8260B**
	118	**(72 - 120)**	**29**	**(0-30)**	**SW846 8260B**
Chlorobenzene	**77**	**(71 - 120)**			**SW846 8260B**
	105	**(71 - 120)**	**31**	**(0-35)**	**SW846 8260B**
1,1-Dichloroethene	**87**	**(66 - 132)**			**SW846 8260B**
	136 a,p	**(66 - 132)**	**44**	**(0-32)**	**SW846 8260B**
Toluene	**88**	**(70 - 120)**			**SW846 8260B**
	115	**(70 - 120)**	**26**	**(0-34)**	**SW846 8260B**
Trichloroethene	**90**	**(69 - 120)**			**SW846 8260B**
	110	**(69 - 120)**	**20**	**(0-32)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	104	(78 - 123)
	111	(78 - 123)
1,2-Dichloroethane-d4	102	(72 - 139)
	110	(72 - 139)
Toluene-d8	106	(74 - 137)
	112	(74 - 137)
Dibromofluoromethane	106	(77 - 132)
	111	(77 - 132)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

p Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: B1E100149 Matrix.....: WATER
Date Sampled...: 05/16/01 Date Received..: 05/16/01

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: B1E170107-001 Prep Batch #...: 1141132							
Arsenic	110	(85 - 115)			SW846 6010B	05/21-05/22/01	EDHJT1CG
	109	(85 - 115)	0.74	(0-10)	SW846 6010B	05/21-05/22/01	EDHJT1CH
		Dilution Factor: 1			Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Lead	108	(85 - 115)			SW846 6010B	05/21-05/22/01	EDHJT1CL
	108	(85 - 115)	0.06	(0-10)	SW846 6010B	05/21-05/22/01	EDHJT1CM
		Dilution Factor: 1			Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Selenium	104	(85 - 115)			SW846 6010B	05/21-05/22/01	EDHJT1CN
	104	(85 - 115)	0.19	(0-10)	SW846 6010B	05/21-05/22/01	EDHJT1CP
		Dilution Factor: 1			Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Barium	106	(85 - 115)			SW846 6010B	05/21-05/22/01	EDHJT1A3
	106	(85 - 115)	0.18	(0-10)	SW846 6010B	05/21-05/22/01	EDHJT1A4
		Dilution Factor: 1			Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Cadmium	106	(85 - 115)			SW846 6010B	05/21-05/22/01	EDHJT1DH
	106	(85 - 115)	0.39	(0-10)	SW846 6010B	05/21-05/22/01	EDHJT1DJ
		Dilution Factor: 1			Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Chromium	105	(85 - 115)			SW846 6010B	05/21-05/22/01	EDHJT1DL
	105	(85 - 115)	0.45	(0-11)	SW846 6010B	05/21-05/22/01	EDHJT1DM
		Dilution Factor: 1			Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Silver	102	(85 - 115)			SW846 6010B	05/21-05/22/01	EDHJT1A9
	102	(85 - 115)	0.35	(0-13)	SW846 6010B	05/21-05/22/01	EDHJT1CA
		Dilution Factor: 1			Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Calcium	NC,MSB	(85 - 115)			SW846 6010B	05/21-05/22/01	EDHJT1C4
	NC,MSB	(85 - 115)		(0-10)	SW846 6010B	05/21-05/22/01	EDHJT1C5
		Dilution Factor: 1			Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Magnesium	90	(85 - 115)			SW846 6010B	05/21-05/22/01	EDHJT1C7
	94	(85 - 115)	0.85	(0-10)	SW846 6010B	05/21-05/22/01	EDHJT1C8
		Dilution Factor: 1			Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
Sodium	NC,MSB	(85 - 115)			SW846 6010B	05/21-05/22/01	EDHJT1DA
	NC,MSB	(85 - 115)		(0-11)	SW846 6010B	05/21-05/22/01	EDHJT1DC
		Dilution Factor: 1			Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

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 EVALUATION REPORT

General Chemistry

Client Lot #...: B1E100149 **Matrix.....:** WATER
Date Sampled...: 05/17/01 **Date Received..:** 05/18/01

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Alkalinity as CaCO3 to pH	WO#: EDKKM1A6-MS/EDKKM1A7-MSD					MS Lot-Sample #: B1E180116-001	
	101	(90 - 110)			MCAWW 310.1	05/21/01	1141531
	102	(90 - 110)	0.55	(0-20)	MCAWW 310.1	05/21/01	1141531
	Dilution Factor: 1		Initial Wgt/Vol: 0			Final Wgt/Vol..: 0	
Chloride	WO#: EC1NQ1AC-MS/EC1NQ1AD-MSD					MS Lot-Sample #: B1E080148-003	
	NC,MSB	(85 - 110)			MCAWW 300.0A	05/10-05/11/01	1131286
	NC,MSB	(85 - 110)		(0-10)	MCAWW 300.0A	05/10-05/11/01	1131286
	Dilution Factor: 1		Initial Wgt/Vol: 10 mL			Final Wgt/Vol..: 0	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

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 EVALUATION REPORT

TOTAL Metals

Client Lot #...: B1E100149 **Matrix.....:** WATER
Date Sampled...: 05/09/01 **Date Received..:** 05/10/01

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: B1E100149-001 **Prep Batch #...:** 1150108							
Mercury	93	(66 - 128)			SW846 7470A	05/30/01	EC5JW1A0
	93	(66 - 128)	0.17	(0-17)	SW846 7470A	05/30/01	EC5JW1A1

Dilution Factor: 1 Initial Wgt/Vol: 0 Final Wgt/Vol..: 0

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: B1E100149 Matrix.....: WATER
Date Sampled...: 05/17/01 Date Received..: 05/18/01

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Alkalinity as CaCO3 to pH	WO#: EDKKM1A6-MS/EDKKM1A7-MSD					MS Lot-Sample #: B1E180116-001	
	101	(90 - 110)			MCAWW 310.1	05/21/01	1141531
	102	(90 - 110)	0.55	(0-20)	MCAWW 310.1	05/21/01	1141531
	Dilution Factor: 1		Initial Wgt/Vol: 0			Final Wgt/Vol..: 0	
Chloride	WO#: EC1NQ1AC-MS/EC1NQ1AD-MSD					MS Lot-Sample #: B1E080148-003	
	NC,MSB	(85 - 110)			MCAWW 300.0A	05/10-05/11/01	1131286
	NC,MSB	(85 - 110)		(0-10)	MCAWW 300.0A	05/10-05/11/01	1131286
	Dilution Factor: 1		Initial Wgt/Vol: 10 mL			Final Wgt/Vol..: 0	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

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.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: B1E100149 **Work Order #...:** EC463-SMP **Matrix.....:** WATER
EC463-DUP
Date Sampled...: 05/09/01 **Date Received..:** 05/09/01
% Moisture.....: 100 **Dilution Factor:** **Initial Wgt/Vol:**

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH (liquid)						SD Lot-Sample #: B1E100111-001		
	7.4	7.4	No Units	0.0	(0-20)	MCAWW 150.1	05/10/01	1130378

Dilution Factor: 1 Initial Wgt/Vol: 0 Final Wgt/Vol..: 0

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: B1E100149 Work Order #...: EC5J7-SMP EC5J7-DUP Matrix.....: WATER

Date Sampled...: 05/09/01 Date Received..: 05/10/01

% Moisture.....: Dilution Factor: Initial Wgt/Vol:

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Dissolved Solids						SD Lot-Sample #: B1E100149-004		
	3180	3170	mg/L	0.13	(0-10)	MCAWW 160.1	05/14-05/15/01	1136178
			Dilution Factor: 2			Initial Wgt/Vol: 100 mL	Final Wgt/Vol..: 0	

SEVERN TRENT LABS

TAMPA LABORATORY
CONDITION UPON RECEIPT FORM

Client (name or ID): Marion Tech
Project name: PCA Junction
Date received: 05/10/01
Lot number:
Received by: Barbara Hartley
CUR completed by: B.H.

Cooler/Shipping Information:

Type: ☐ Cooler ☐ Box ☐ Other (describe) _____

Cooler temperature: Identify the cooler and document the temperature blank or ice water measurement

Cooler ID/Track #					
Temp (°C)	4°	4°			
Cooler ID/Track #					
Temp (°C)					

Other Information:

Any "NO" responses or discrepancies should be explained in the "Comments" section below. If an NCM was initiated, write the NCM number in the appropriate space.

CHECKLIST	YES	NO	NA	NCM #
1. Were custody seals on shipping container(s) intact? Check "NA" if hand delivered. If "Yes," check one: ☐ CUSTODY SEAL SAVED ☐ UNABLE TO SAVE CUSTODY SEAL	—			
2. Were custody papers properly included with samples?	/			
3. Were custody papers properly filled out (ink, signed, match labels)?	/			
4. Did all bottles arrive in good condition (unbroken)?	/			
5. Were all bottle labels complete (sample #, date, signed, analysis, preservatives)?	/			
6. Were correct bottles used for the tests indicated?	/			
7. Were proper sample preservation techniques indicated?	/			
8. Were samples received within holding times? If "No," NCM required.	/			
9. Were all VOA bottles checked for the presence of air bubbles? If air bubbles were found, indicate in comment section.	/			
10. Were samples in direct contact with wet ice? If "No," check one: ☐ NO ICE ☐ BLUE ICE	/			
11. Were the samples received with a temperature blank? **RECORD TEMPERATURE ABOVE** If "No," check one: ☐ Unable to determine temp ☐ Taken from ice/water near samples	/			
12. Was the cooler temperature less than 6°C?	/			
13. Were sample pHs checked and recorded by Sample control? *NOTE: VOA samples are checked by laboratory analysts.*	/			
14. Were samples accepted into the laboratory?	/			

Comments:

Metals ph < 2

Trip Blank need not checked off on COC

Sent conformation to see if Trip Blank is to be analyzed. No response. Did not analyze

Project Manager initials/date reviewed: 5-11-01 KR

[redacted]

Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

STL-4124 (0700)

Client	Project Manager	Date	Chain of Custody Number
Maxim Technologies	Clyde Yancey	5-9-01	054407
Address	**Telephone Number (Area Code)/Fax Number**	**Lab ~~Number~~**	**Page 1 of 2**
10601 Lomas NE, Suite 106	505-237-8440 237-8656	STL Tampa	
City / State / Zip Code	**Site Contact**	**Lab Contact**	
Albuquerque NM 87112	Frank Lichnovsky		
Project Name and Location (State)	**Carrier/Waybill Number**		
PCA Junction	8244 3409 5384		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B	8270C	6010	pH TDS Cl Alkalinity	Special Instructions/ Conditions of Receipt
PCA-1	[redacted]	[redacted]		X			3		1	3			X	X	X	X	
PCA-2	5-9-01	10:30		X			3		1	3			X	X	X	X	
[redacted]	[redacted]	[redacted]		X			3		1	3			X	X	X	X	
PCA-4	5-9-01	11:00		X			3		1	3			X	X	X	X	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Relinquished By	Date	Time	Received By	Date	Time
1.	[redacted]	5-9-01	1:30	Carol McNulty	5/10/01	1000
2.						
3.						

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

SEVERN TRENT SERVICES **Severn Trent Laboratories, Inc.**

STL-4124 (0700)

Client: Maxim Technologies	Project Manager: Clyde Yancey	Date: 5/9/01	Chain of Custody Number: 054408
Address: 10601 Lomas NE Suite 106	Telephone Number (Area Code)/Fax Number: 505-237 8440 237-8656	Lab Number: STL Tampa	Page 2 of 2
City: Albuquerque State: NM Zip Code: 87112	Site Contact: Frank Lichnovsky	Lab Contact:	
Project Name and Location (State): PCA Function	Carrier/Waybill Number: 8244 3409 5395		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNOS	HCl	NaOH	ZnAc/NaOH	Analysis: 8260 B	8270 C	6010	Ph TDS Cl SO4 N Alkalinity	Special Instructions/ Conditions of Receipt
PCA-1	5/9/01	10:30		X			3		1	3			X	X	X	X	
PCA-3		11:00		X			3		1	3			X	X	X	X	
Trip Blank	—	—		X													2 40ml. VOAs.
Did not analyze *																*	Trip Blank not requested [illegible], therefore Did not analyze [initials] 5-11-01

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ______ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other ______

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	5-9-01	1:30	1. Received By: Carol McNulty	5/10/01	1000
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy