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US EPA RECORDS CENTER REGION 5
444928

NAVISTAR®

February 22, 1993

Mr. Ken M. Theisen
Environmental Scientist
U.S. EPA Region V
230 S. Dearborn Street
Chicago, IL 60604

Re: Former Farmall Plant - Results of Investigation

Dear Mr. Theisen:

Per your request to Ms. Edith M. Ardiente, Director of Environmental Affairs for Navistar, enclosed is a copy of the report entitled "Soils and Geohydrologic Investigation, Farmall, Rock Island, Illinois" dated August 11, 1989.

If you have any questions, please call Ms. Ardiente at 312/836-3051.

Sincerely,

Steven K. Covey

Steven K. Covey
Associate General Counsel

Enclosure
farmall.ema

INTERNATIONAL

PILKO & ASSOCIATES, INC.
Business / Environmental / Real Estate Consultants

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HOUSTON, TEXAS 77008
(713) 861-1417
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August 11, 1989

FEDERAL EXPRESS

Jeanette Zeldin, Esq.
Navistar International Transportation Corp.
401 N. Michigan Ave.
Chicago, IL 60611

SUBJECT: Farmall Soils/Groundwater Investigation

As we discussed, attached are two copies of the final report on the Farmall, Rock Island, facility. This report documents all the field and laboratory activities conducted at the Farmall site between May, 1988, and June, 1989. Pilko & Associates, Inc. believes the most significant results developed in this study involve the widespread presence of oil (Total Petroleum Hydrocarbons) at the site. Field investigations and laboratory analyses indicated the presence of organic compounds and metal concentrations above background concentrations at several locations. However, the distribution and concentrations are not indicative of a total site condition but are discreet and isolated occurrences. The Toxicity Characteristic Leaching Procedure (TCLP) analysis of selected soil samples indicates that most of the organics and metals have a low potential for leaching.

All sampling efforts indicated the presence of extensive biological activity at or near the water table. This activity may account for partial reduction of marginal detected organics in some samples and may eventually result in self-cleaning of the site.

Pilko & Associates does not believe that the contaminates encountered would prohibit the transfer of the property assuming normal safeguards are maintained with regard to future site development.

Additional copies of the attachments will be sent to you upon receipt of the covers. If you have any questions or would like further information, please call me at (713) 861-1417.

For PILKO & ASSOCIATES, INC.

John W. Buchanan, P.E., CPG

JWB:sme (1050.7605)
Attachment

SOILS AND GEOHYDROLOGIC INVESTIGATION

FARMALL, ROCK ISLAND, ILLINOIS

Prepared For

NAVISTAR INTERNATIONAL TRANSPORTATION CORP.

For PILKO & ASSOCIATES, INC.

John W. Buchanan

Robert. J. Schuttler

August, 1989
(1050.7605)

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A.

INTRODUCTION AND SUMMARY

During 1988 and 1989, Pilko & Associates, Inc. performed a series of soils and hydrologic investigations for Navistar International Transportation Corp. at the Farmall site in Rock Island, Illinois. The purpose of the investigation was to collect soil and groundwater samples for analysis to determine if contamination was present from past activities at the site. Soil sample depths varied from 5 to 20 feet below surface depending on the area to be tested. Groundwater monitoring well depths penetrated at least five feet into a shallow, water-bearing horizon.

The property under consideration consists of approximately 20 acres currently owned by Navistar and 60 acres that were sold to the City of Rock Island, Illinois. The City of Rock Island has, in turn, sold the 60-acre parcel to L.R. Christenson Company, who is renovating the building for leasing. At present, there are several tenants at the facility which is now called the Quad City Industrial Complex (QCIC). At present, the 20-acre parcel is not occupied, but the 60-acre parcel is undergoing renovation by the QCIC.

A total of 13 soil borings and 9 monitor wells were completed. In order to evaluate potential contamination at the site, selected soil samples and all monitoring well groundwater samples were analyzed for Priority Pollutant organic and inorganic compounds. Organic concentrations in selected soil samples were determined by the Toxicity Characteristic Leaching Procedure (TCLP) to determine if detected organics could readily leach into the shallow groundwater horizon. In addition, selected soil and groundwater samples were analyzed for Total Petroleum Hydrocarbons (TPH).

Pilko & Associates, Inc. believes the most significant results developed in this study involve the widespread presence of TPH in the form of oil at the site. Field investigations and laboratory analyses indicated the presence of organic compounds and metal concentrations above background concentrations at several locations. Analyses of soil samples indicate that detected compounds have concentrated at or near the shallow water table. The area with highest concentration of compounds in the soil is the western area. Groundwater analyses indicates the presence of organic compounds randomly distributed across the site with the highest number of constituents occurring at the west center and east edges of the property. The southern edge of the property is furthest from the river and adjacent to the railroad property. The eastern edge of the property is the upstream side of the property. The shallow water horizontal gradient approximately parallels Sylvan Slough and dips from east to west. Inorganic analyses of the groundwater indicate a more uniform distribution with cadmium, lead, and selenium concentrations generally above Environmental Protection Agency (EPA) Drinking Water Standards (DWS).

Pilko & Associates believes the presence of organic compounds and above-normal concentrations of metals in the soil is not a current threat to health or the environment due to the depth of burial and low potential for leaching. In addition, the presence of extensive biological activity at the well bores indicates that some natural remediation is occurring.

B.

FIELD INVESTIGATION

An environmental assessment, consisting of soil borings and monitoring well installations, was conducted for Navistar International Transportation Corp. at the Farmall facility located in Rock Island, Illinois. This facility had historically operated as a farm implement manufacturing plant. The drilling, soil sampling, and well installations were performed by Professional Service Industries, Inc. (PSI) of Hillside and Champaign, Illinois, with field supervision provided by Pilko & Associates, Inc.

RECONNAISSANCE

A field and aerial photographic reconnaissance were performed to determine present and past utilization of the site and to select sampling locations. The aerial photographs, beginning with 1938, indicate that the western half of the site has been backfilled with random fill to allow for expansion of the facilities. Aerial photographs and old plot plans indicated a filled-in quarry on the northeast corner of the site and a burn pit at the north center of the property. Offsite activities along the railroad showed at least two round houses north and east of the western fill area.

SAMPLE LOCATIONS

During the initial field and photographic reconnaissance, eight soil boring and eight monitoring well locations were selected based on property configuration, current facility location, past property use, and surface indications. When monitoring well MW-1 was drilled, shale was encountered near the surface and the hole was dry. It was,

therefore, decided to renumber the hole as SB-9, for soil boring, and to move to the west and re-drill MW-1. The actual drilling program resulted in nine soil borings, and eight monitoring wells. Well MW-1, at the new location, was also a dry hole, and was therefore not completed as a monitoring well, but retains the designation for numerical sequence. In May of 1989, a second field investigation was performed to delineate suspected contaminated areas, to provide additional soil samples for organic analysis by Toxicity Characteristic Leaching Procedure (TCLP), and further define the stratigraphy and hydrologic characterization of the site. Locations of the soil borings and monitoring wells are indicated in Figure 1, and the rationale for selections is given in Table B-1.

TABLE B-1

SUMMARY OF SAMPLE SELECTION

Sample Location No.	Rationale for Selection
SB-1	Sample soils in filled Quarry area
SB-2 to SB-4	Sample fill in vicinity of old burn pits, SB-3 also sampled soil where underground tanks had been recently removed
SB-5	At location where hydrocarbons had been identified during excavation for transmission pole foundation
SB-6 to SB-8	Soil samples of fill in west fill area

SB-9	Originally, MW-1 hole was dry, soil sample of shale bedrock
SB-10	Stratigraphic identification of limestone/shale and soil control data point
SB-11	Stratigraphic control and control data point at SB-7
SB-12	Control data point for concentrations at SB-5
MW-1	Upgradient well, hole was dry due to shale bedrock near the surface
MW-2	Upgradient well with respect to river
MW-3 and MW-4	River side wells
MW-5	Upgradient and close to rail facilities
MW-6	Downgradient of railroad facilities
MW-7 and MW-8	West landfill area wells
MW-9	Control data point to check groundwater and soil at SB-7 area
MW-10	Control data point to check groundwater and soil at SB-5/MW-5 area

This investigation consisted of collecting soil samples at five-foot intervals from each of the boring locations. Selected samples were

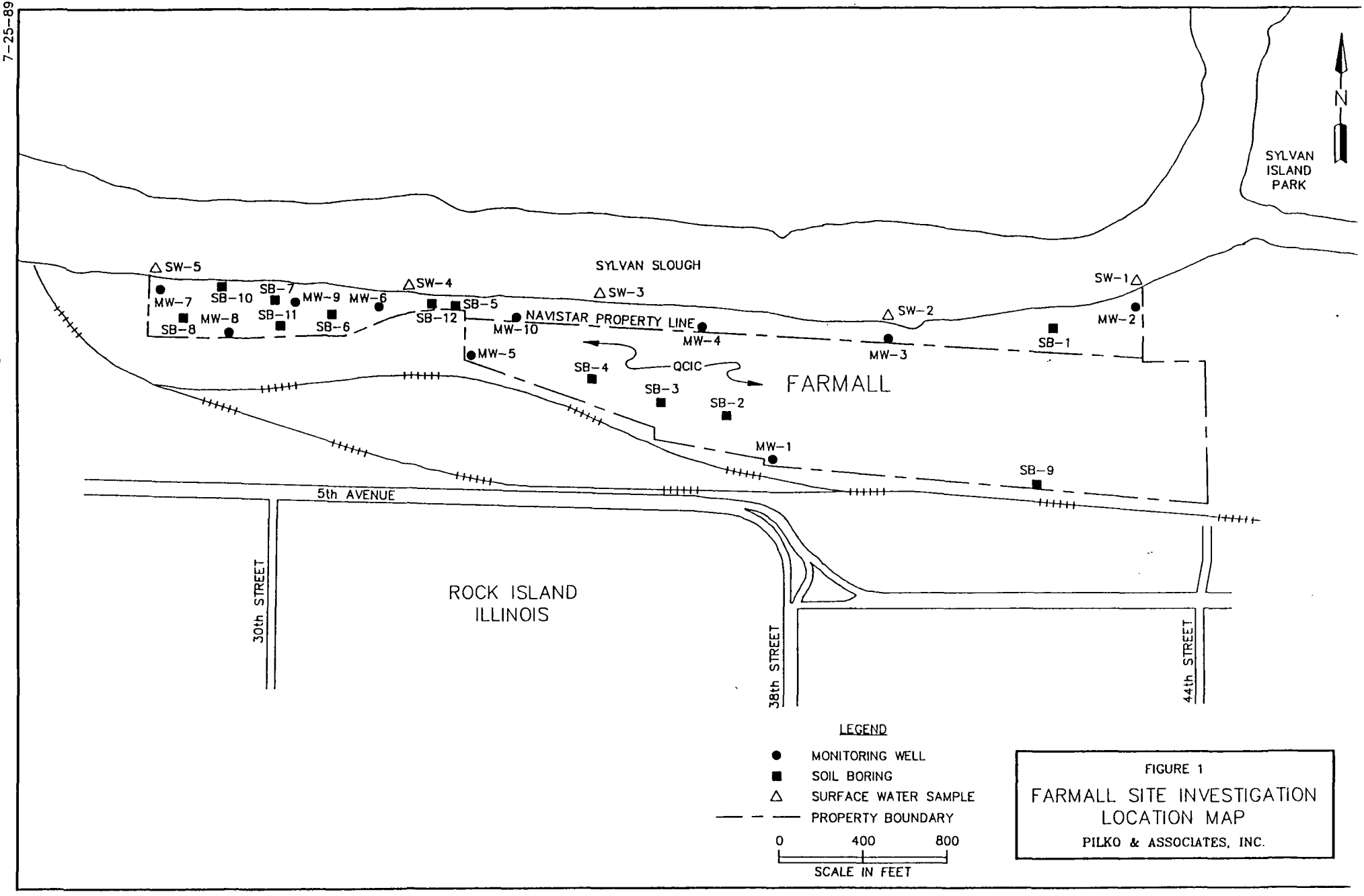

FIGURE 1

FARMALL SITE INVESTIGATION LOCATION MAP

PILKO & ASSOCIATES, INC.

then retained for laboratory analyses. Soil boring depths varied from 25 to 35 feet, and were drilled to determine the level of shallow groundwater, identify fill material, and depth to bedrock. Ten groundwater monitoring/sampling wells were drilled, with nine completed in a water-bearing horizon. Depth of the wells varied from 25 to 30 feet, and were completed with two-inch PVC slotted (0.010-inch slot) screen and riser pipe. Soil samples were taken at five-foot intervals at the well locations for stratigraphic identification and soil sample analysis. Descriptions of the soils encountered at all the boring locations, together with the well installation details, are presented as attachments (Attachment 1, Boring Logs and Well Completions).

SAMPLING PROCEDURES

The groundwater monitoring/sampling wells and soil borings were drilled with a truck-mounted rig utilizing hollow-stem augers and the soil samples were obtained with a split-spoon sampler. After sampling at each location was completed, the borehole was backfilled to the surface with cuttings and bentonite grout.

The water sampling well borings were drilled at least ten feet into the water-bearing horizon. Each well was completed with a two-inch diameter, ten-foot-long slotted PVC screen (0.01-inch slot) followed by two-inch diameter riser pipe to aboveground surface. To secure the monitoring well casing and provide a seal, sand was placed in the borehole annular space to a height of approximately two feet above the screen, followed by a two-foot-thick layer of bentonite pellets and then bentonite/cement grout to the ground surface. At the ground surface, each well was completed with a six-inch diameter protective casing with a lockable cap. To minimize the potential for cross-contamination between each sampling location, the sampling

equipment, utensils, etc., were steam cleaned, rinsed with hexane and acetone, and then air dried.

As each sample was obtained, it was placed in a pre-cleaned container and marked with an assigned identification number. The sample was then logged on a chain-of-custody form and placed in an ice-filled transport container. Water samples were collected with a Teflon bailer after the wells had been purged of three volumes and allowed to recover. Where wells displayed slow recovery (i.e. more than two hours), they were bailed dry and samples collected after a two-hour recovery period.

In addition to the soil borings and monitoring well installations, a surface soil sample effort was undertaken in January, 1989. Fourteen shallow (i.e. six-inch depth) surface sediment samples were obtained by excavation with a shovel. As each sample was collected, it was placed in a sealable container and allowed to warm. After a period of one hour, the head space was then checked with a portable organic vapor analyzer (OVA) to determine if organic vapor was present. None of the samples collected indicated detectable organic vapors above 0.1 parts per million.

C.

GEOLOGY AND HYDROLOGY

The Farmall site is located on predominantly man-placed fill overlying either Pleistocene to recent-aged alluvium or Devonian-aged shale and limestone. Surface drainage enters the plant storm system which flows to Sylvan Slough, or flows directly to the Slough.

The western portion of the site has from 15 to 20 feet of fill in place. This fill was placed during the late 1950s to early 1960s. Prior to 1951, this area was often inundated by high waters from Sylvan Slough. Below the fill is a minimum of ten feet of river deposited sands and gravels that overlie the limestone or shale. The developed eastern portion of the site has from 10 to 13 feet of fill along the southeast property line, and from 20 to 30 feet of fill on the southwest and towards the slough. This fill overlies either a stiff grey shale or hard limestone. The shale and limestone belong to the Cedar Valley Formation of Devonian Age. The Cedar Valley is described as a fine- to medium-grained, fossiliferous limestone. The Cedar Valley overlies the Wapsipinicous Formation which is a pure, hard, light gray to brownish grey, fine-grained to lithographic limestone and dolomitic limestone. These Devonian limestones, and the underlying Silurian Age dolomite and limestone are all part of the Hunton Megagroup.

Fill material at the site consists of black sands and cinders that may have originated at the onsite foundry. This foundry was in operation until 1967.

Groundwater in the area is encountered at 15 to 20 feet below existing grade, except along the southeast portion of the site where the tight, dry, grey shale and limestone bedrock is encountered. As shown in Figure 2, the hydraulic gradient in the shallow water horizon during

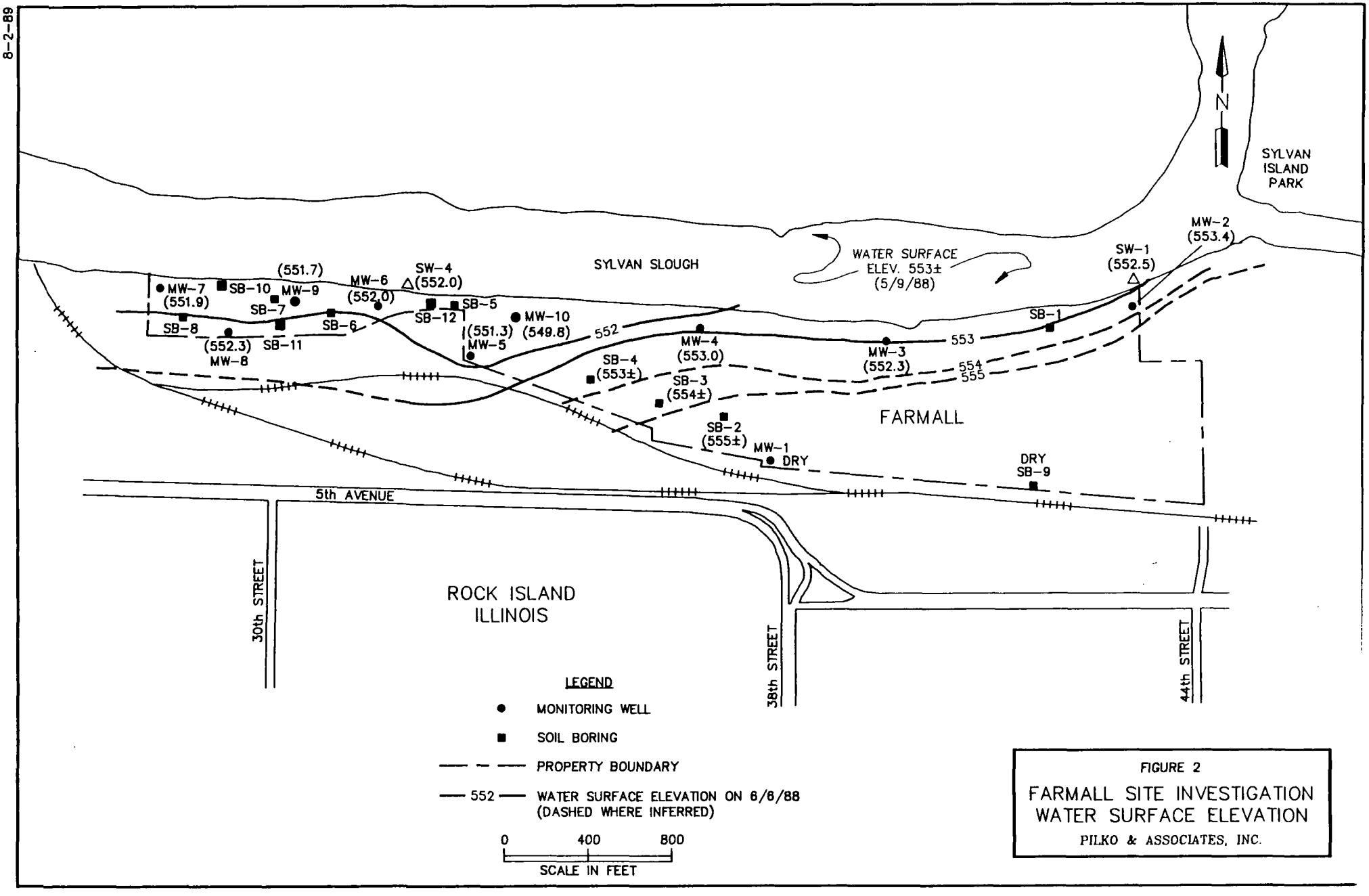

FIGURE 2

FARMALL SITE INVESTIGATION
WATER SURFACE ELEVATION

PILKO & ASSOCIATES, INC.

8-2-89

the field investigation was toward the west and is partially controlled by the water level in Sylvan Slough. During high flow periods, the site probably receives recharge from the slough, and in low flow conditions, site groundwater slowly discharges to the slough or downstream to the Mississippi River.

Water surface elevations determined in May, 1989, at locations SW-1 and SW-4, indicate the slough to have a gradient of .0005 feet per foot and the groundwater to have an average gradient of .003 feet per foot. Table C-1 summarizes the surface and groundwater elevations on May 18, 1989. As can be seen, the groundwater at MW-2 and MW-6 is approximately one foot higher than the corresponding slough water surface.

TABLE C-1

WATER SURFACE ELEVATIONS
05/14/89
(in feet MSL)

LOCATION	ELEVATION
MW-2	553.4
SW-1	552.6
MW-3	553.0
MW-4	553.0
MW-5	551.9
MW-6	552.0
SW-4	552.0
MW-7	551.9
MW-8	552.3
MW-9	551.7
MW-10	549.8

Table C-2 displays the changes in the groundwater level from three separate measuring events. As can be seen, the levels along the east portion of the site has fluctuated within one foot over a year, while the western area has fluctuated over two to two and one-half feet. All elevations are set on an assumed plant grade of 578.00 feet (MSL). The variation in groundwater levels in the western area

indicates that the groundwater surface level is under greater control by recharge from rainfall than the slough.

TABLE C-2

GROUNDWATER ELEVATIONS
(in feet)

LOCATION	05/09/88	01/26/89	05/14/89
MW-2	554.0	553.83	553.43
MW-3	553.70	552.27	552.97
MW-4	553.80	552.95	552.99
MW-5	552.50	550.15	551.87
MW-6	553.60	550.72	552.00
MW-7	552.50	551.07	551.94
MW-8	553.1	549.46	552.26
MW-9			551.68
MW-10			549.80

AREA WATER USE

The City of Rock Island and adjacent towns obtain water primarily from surface sources. Local farming and the smaller towns utilize groundwater from depths of 600 feet in the Galena-Plattville Limestone, or from depths of 1,000 feet in St. Peter Sands, both of Ordovician Age. Some minor pumpage may come from the Silurian dolomitic limestones, 200 to 400 feet below plant grade. An inactive water well is adjacent to the Releasing Corp. office in the western portion of the site. Data indicates that the well was completed in the Silurian dolomitic limestones at a depth of 188 feet.

During the May, 1989, field investigation, this well was plugged by tremieing a concrete/bentonite grout mixture down the open borehole until the grout backfilled to surface.

D.

LABORATORY ANALYSES

METHODOLOGY

This investigation included both soil and groundwater sample collection and analyses. Soil samples were obtained at 14 locations, with a total of 34 individual samples collected. Of these 34 samples, 27 were extracted and analyzed. Ten groundwater monitoring wells were drilled. Of these, one was not completed due to shallow bedrock and no groundwater was present. However, a soil sample of the shale bedrock was collected and analyzed. The nine completed wells were sampled and analyzed. Soil and groundwater samples were analyzed for constituents on EPA's Priority Pollutant List which includes volatiles, base-neutral extractables, acid extractables, pesticides, PCBs, metals, and cyanide. Selected water and soil samples were analyzed for Total Petroleum Hydrocarbons (TPH). In addition, selected soil samples were analyzed by the Toxicity Characteristic Leaching Procedure (TCLP).

Methods utilized for analyses of soil and water samples are as follows:

COMPOUND	SAMPLE	METHOD
Volatiles	Soil	8240
	Water	624
Base-Neutral	Soil	8270
	Water	625
Acid Extractables	Soil	8270
	Water	625

Pesticides/PCBs	Soil	SW8080
	Water	608

The methodology for metals is SW 846 Third Edition 3050 (digestion of all metals, except mercury). Results of the laboratory analyses are included in Attachment 2.

The May, 1988, field sampling consisted of soil sample collection from boring MW-1 and SB-1 to SB-9. All soil samples were analyzed for Priority Pollutant Organics, the eight Primary Drinking Water Standard (DWS) metals, nickel, and cyanide.

Soil samples were also analyzed for TPH. Seven groundwater samples were collected and analyzed for Priority Pollutant Organics, DWS metals, nickel, and cyanide. As a result of the analysis in May, 1988, a second round of groundwater samples were collected in January, 1989. These groundwater samples were analyzed for Priority Pollutant Organics, TPH, cyanide, cadmium, nickel, lead, and zinc.

During the second groundwater sampling event, 14 surface soil samples were collected at depths of 6 to 10 inches below ground level. Each sample was placed in a sealable container and allowed to heat up to 70°F. After heating, the head space in each container was checked in the field with a portable Organic Vapor Analyzer (OVA) to determine if organic vapor was present in the soil. There were no detected vapors above 0.1 parts per million.

From the data developed as a result of these two sampling events, it was recommended to conduct additional soils and groundwater sampling to define the characteristics and potential extent of contamination. This investigation consisted of drilling three additional soil borings (SB-10 to SB-12) and two additional monitoring wells (MW-9 and MW-10) in May, 1989. In addition to the soils and groundwater study, samples of surface water from Sylvan Slough were collected adjacent to

the property. These surface water samples were collected by extending a sampler five feet out from the bank and collecting a water sample approximately halfway between the water surface and the soil/water interface.

QUALITY ASSURANCE/QUALITY CONTROL

Analyses of soil and water samples were performed by Professional Service Industries, Inc. (PSI) in Deer Park, Texas. Field sampling and collection procedures are discussed in Section B, Field Investigation. The samples were collected by a Pilko & Associates field representative. At the end of each sampling effort, the samples were transferred to PSI's laboratory, together with completed chain-of-custody records. Procedures utilized by PSI are in accordance with procedures set forth in U.S. EPA Region IV, *Standard Operating Procedures and Quality Assurance Manual*, revised 1986. A copy of PSI's *Quality Assurance Report* is attached (Attachment 3, Laboratory Quality Control).

SUMMARY OF RESULTS

Soils

The laboratory testing program was established to identify the presence of any priority pollutants in the soil and shallow groundwater horizon at the site. Table D-1 summarizes the total quantity by major compound group and location of the constituents for along with the depth of sampling. In the soils, the most common volatile organic compounds are benzene, toluene, ethylbenzene, and Xylene (BTEX). The highest concentrations of these compounds were encountered at depths of 10 to 15 feet in two locations, SB-3 and SB-7. Base neutral and acid extractable organics also were highest at

TABLE D-1

SOILS
GENERAL SUMMARY
(in ppm)

SAMPLE LOCATION	DEPTH	VOLATILES	BASE NEUTRAL/ ACID EXTRACTABLES	PESTICIDES	PCBs	METALS
SB - 1	5'	0.8	5.6	-	-	249.1
SB - 1	20'	*	*	-	-	98.5
SB - 2	6'	*	*	-	-	331.8
SB - 2	15'	0.3	-	-	-	202.3
SB - 3	10'	2.6	-	-	-	423.3
SB - 3	15'	5.8	1.9	-	-	272.6
SB - 4	5'	*	-	-	-	317.7
SB - 4	25'	*	-	-	-	139.4
SB - 5	5'	-	-	-	-	383.8
SB - 5	15'	0.5	4399.9	-	-	270.1
SB - 6	5'	*	-	-	-	131.8
SB - 6	10'	-	-	-	-	327.2
SB - 7	11'	10.5	128.7	-	-	4065.6
SB - 7	12'	1.9	22.2	-	-	547.4
SB - 7	15'	2.3	68.0	-	-	2204.1
SB - 8	10'	*	*	-	-	1076.1
SB - 8	15'	-	1.1	-	-	164.3
SB - 8	26'	*	-	-	-	118.9
SB - 9	10'	0.6	4.2	-	-	112.5
SB - 10	10[4]	-	-			
SB - 10	15'	-	-			
SB - 11	10'	-	*			
SB - 12	10'	*	271.0			
SB - 12	15[4]	*	-			
MW - 1	10'	1.0	1.6	-	-	273.7
MW - 9[4]	10'	1.9	-			
MW - 10	10'	-	0.98			
MW - 10	15'	-	-			

NOTE: 1. Asterisk (*) indicates chemicals detected, but below reporting levels.

2. Dash (-) indicates quantities below detection limit.

3. Blank area indicates compounds not analyzed for.

4. Analysis by TCLP method.

the 10 to 15-foot depth primarily at two locations, SB-5 and SB-7. No pesticides or PCBs were detected in any of the soil samples tested. Three of the soil samples (MW-9 at 10 feet, SB-10 at 10 feet, and SB-12 at 15 feet) were analyzed by the Toxicity Characteristic Leaching Procedure (TCLP) to determine the potential for the detected organics to leach under normal conditions. This method did not detect any of the Base Neutrals/Acid Extractable (BNA) compounds above the quantitative limits of detection. This implies that the BNA compounds have very little potential to leach downward into the groundwater horizon.

The three soil samples, which were analyzed for metals by the TCLP, displayed lower concentrations for the metals than those samples analyzed for total metals. Those results are indicated in Table D-2. This indicates that the majority of the detected metals have a low potential for leaching and are probably the result of the presence of scrap metal pieces that were readily in evidence during the drilling operations. Table D-2 summarizes the individually detected compounds by sample location. Metal concentrations above expected background level were common in many of the samples, with soil borings SB-7 and SB-8 having the highest levels. Among the metals, chromium, lead, nickel, and zinc were the most common with elevated levels.

Groundwater

Groundwater samples were analyzed for the same priority pollutants as the soil samples. Of the monitoring wells initially sampled, MW-2, MW-5, and MW-6 displayed high levels of volatiles, particularly benzene, toluene, and trichloroethane. MW-3, MW-7, and MW-8 did not have detectable quantities of volatiles. Pesticides were detected in monitoring wells MW-2, MW-3, MW-5, MW-6, and MW-8. However, only sample MW-8 had pesticide constituents above Drinking Water Standards (DWS). Levels of base neutral/acid extractables (BNAs) were initially detected in all water samples, with bis (2-ethylhexyl)

TABLE D-2

SOIL RESULTS
(in ppm)

Compound	SB-1	SB-2	SB-3		SB-5	SB-7			SB-8
	5 ft	15 ft	10 ft	15 ft	15 ft	11 ft	12 ft	15 ft	15 ft
Volatiles:									
1,4-Dichlorobenzene							0.7		
Chloromethane	0.5								
Benzene			0.6	0.6				0.3	
Toluene	0.3		1	2.8		0.3	0.5		
Ethylbenzene		0.3	1	2.4		3.6	0.7	1	
Xylene						6.6		1	
Tetrachloroethane					0.5				
Base Neutral/Acid Extractables:									
Di-n-butylphthalate									
Bis (2-chloroethyl) ether								8.8	
2-Methylphenol							1.6		
4-Methylphenol								1.8	
Nitrobenzene					13.7	95			
Anthracene									
Benzoic Acid				0.7	265.9	1.4		6.9	
Bis (2-chloroethoxy) methane					2.6	14	4.1	4.2	
Naphthalene							0.9		
Anilinebiphenyl									
2-Methylnaphthalene				1.2	50.1	1.8	0.9	5.8	
3-Nitroaniline					91.3				
Acenaphthylene					160.3				
Acenaphthene						0.6		2.5	
4-Nitrophenol					12.4	0.7		1.3	
Dibenzofuran						0.6			
2,4-Dinitrotoluene					523.3			4.4	
2,6-Dinitrotoluene							1.6	8.3	
1,4-Dichlorobenzene							0.7		
4-Chloropheny-phenylether					41.6				
Fluorene					1.6	1	0.7	3.4	
4,6-Dinitro-2-methylphenol						1.5		0.9	
N-Nitrosodiphenylamine						5.8	3.8	11.1	
4-Bromopheny-phenylether					53.4				
4-Nitroaniline					91.4			6.1	
Phenanthrene					3000	4.7	5.8	6.2	1.1
Fluoroanthene	0.8				92.3	0.8	0.8	0.7	
Bis (2-ethylhexyl) phthalate									
Benzo (b) Fluoranthene	1.8					1.1	1.3		
Benzo (k) Fluoranthene	1								
Indeno (1,2,3-cd) pyrene	0.7								
Benzo (g,h,i) perylene	1.3								
Total Petroleum Hydrocarbons			52700		26000		243000		

NOTE: Blank space represents results were below quantitative detection limits.

TABLE D-2 (cont'd.)

SOIL RESULTS
(in ppm)

Compound	SB-9	SB-10		SB-11	SB-12[1]		MW-1	MW-9	MW-10	
	10 ft	10 ft	15 ft	10 ft	10 ft	15 ft	10 ft	10 ft	10 ft	15 ft
Volatiles:										
1,4-Dichlorobenzene										
Chloromethane										
Benzene	0.6						1			
Toluene								0.9		
Ethylbenzene										
Xylene								1.0		
Tetrachloroethane										
Base Neutral/Acid Extractables:										
Di-n-butylphthalate					47					
Bis (2-chloroethyl) ether										
2-Methylphenol										
4-Methylphenol										
Nitrobenzene										
Anthracene					33					
Benzoic Acid										
Bis (2-chloroethoxy) methane										
Naphthalene										
Anilinebiphenyl					20					
2-Methylnaphthalene					65				0.98	
3-Nitroaniline										
Acenaphthylene										
Acenaphthene					8					
4-Nitrophenol										
Dibenzofuran										
2,4-Dinitrotoluene										
2,6-Dinitrotoluene										
1,4-Dichlorobenzene										
4-Chloropheny-phenyl-ether										
Fluorene					9					
4,6-Dinitro-2-methyl-phenol										
N-Nitrosodiphenylamine										
4-Bromopheny-phenyl-ether										
4-Nitroaniline										
Phenanthrene					30					
Fluoroanthene					11					
Bis (2-ethylhexyl) phthalate	4.2						1.6			
Benzo (b) Fluoranthene					9					
Benzo (k) Fluoranthene					9					
Indeno (1,2,3-cd) pyrene					3					
Benzo (g,h,i) perylene					3					
Pyrene					11					
Total Petroleum Hydrocarbons		180	410	3	670	8670		1980	680	360

NOTE: Blank space represents results were below quantitative detection limits.
[1]Analyzed by TCLP method.

phthalate being a common constituent in five of the seven wells sampled. MW-5 had the most and highest quantity of compounds detected, followed by MW-2. As a result of the wide variation in results for the BNA compounds detected in the May, 1988, and January, 1989, sampling efforts, it was determined that additional groundwater sampling points were needed and those samples displaying wide variations needed to be resampled. It was suspected that the presence of extensive biological activity in the well bores, as evidenced by the presence of black and red bacteria that discolored the water samples, could be biasing the sample results. The groundwater samples collected in May, 1989, were all filtered in the lab prior to analysis. As indicated in Table D-3, only the volatiles detected at MW-2 remained in significant concentrations for all sampling efforts.

Of the priority pollutant metals analyzed in the water samples, lead, nickel, and zinc often occur above expected background levels. In addition, cadmium, lead, and selenium are above DWS. However, cadmium and selenium appear to be at a common background level. A summary of metals analyses in the groundwater samples along with the DWS (EPA and State of Illinois) are shown in Table D-4. The concentrations of metals varied slightly between sampling efforts and it is also suspected that the filtering of the groundwater samples to remove biological and suspended sediment accounts for the reduction.

Both soil and groundwater samples indicated high levels of petroleum hydrocarbons in the initial sampling efforts. Analyses of Total Petroleum Hydrocarbons (TPH) for the water samples varied from 70 to 180 parts per million and for the selected soil samples from 2.6 to 24.3 percent on a dry weight basis. Soil samples selected for TPH analysis were from locations with volatiles, base-neutral, or significant indication of volatiles from the field OVA readings. The TPH concentrations in the groundwater samples also decreased with filtering of the samples as indicated in Table D-5.

TABLE D-3

METALS ANALYSES

SOIL SAMPLES
(in ppm)

Location and Depth		Arsenic	Cadmium	Chromium	Lead	Mercury	Nickel	Selenium	Silver	Zinc	Cyanide
SB-1	5'	4.6	6.5	27.0	23.8	*[1]	77.6	2.6	1.0	47.2	.09
	20'	0.7	2.8	4.0	13.0	*[1]	15.1	2.6	7.8	43.8	.09
SB-2	6'	6.9	4.9	34.7	125.0	*[1]	33.8	3.7	0.9	86.9	.05
	15'	4.1	5.0	37.3	46.4	*[1]	21.3	3.1	0.9	20.3	.06
SB-3	10'	0.3	6.4	96.7	166.0	*[1]	86.3	3.0	1.0	16.5	*[1]
	15'	1.2	3.6	6.9	223.0	*[1]	17.0	2.7	1.1	9.2	*[1]
SB-4	5'	4.3	6.0	29.1	115.0	*[1]	35.7	3.5	1.8	67.1	.05
	25'	4.8	6.7	18.9	15.0	*[1]	19.9	5.6	1.9	47.2	*[1]
SB-5	5'	1.0	2.9	5.4	346.0	*[1]	9.9	1.9	*[1]	9.2	*[1]
	15'	0.8	5.7	18.4	169.0	*[1]	23.3	1.6	*[1]	21.8	.06
SB-6	5'	0.7	4.7	9.0	72.3	*[1]	13.5	1.0	*[1]	18.3	*[1]
	10'	1.9	5.8	16.7	132.0	*[1]	94.4	2.7	0.9	39.1	0.23
SB-7	10'	12.2	33.4	1,820.0	130.0	*[1]	680.0	1.7	5.1	236.0	0.19
	12'	4.7	11.9	82.6	139.0	*[1]	64.0	0.5	2.0	136.0	0.17
	15'	4.8	13.2	443.0	650.0	*[1]	78.8	3.0	7.0	861.0	1.73
SB-8	10'	8.7	14.5	127.0	209.0	*[1]	82.8	2.2	3.0	362.0	.05
	15'	1.8	7.0	15.7	43.3	*[1]	51.2	2.4	2.9	19.4	.09
	26'	1.2	8.2	12.4	15.7	*[1]	32.9	2.5	1.0	24.4	*[1]
SB-9	10'	4.0	7.4	5.2	2.3	*[1]	30.8	2.2	0.4	39.7	*[1]
SB-10[2]	10'	<.01	<.01	<.01	2.7	*[1]		<.01	<.01		
SB-12[2]	15'	<.01	<.01	<.01	.008	*[1]		<.01	<.01		
MW-1	10'	4.2	6.0	8.6	2.4	*[1]	27.6	3.1	0.7	198.0	0.1
MW-9[2]	10'	<.01	<.01	<.01	0.10	*[1]		<.01	0.02		

NOTE: [1] = Values less than 0.5
[2] = Samples analyzed by TCLP

TABLE D-4

FARMALL GROUNDWATER INVESTIGATION

METALS SUMMARY
(in ppm)

Compound	EPA DWS	IL[1] DWS	MW-2 5/88	MW-2 1/89	MW-2 5/89[3]	MW-3 5/88	MW-3 1/89	MW-4 5/88	MW-4 1/89	MW-5 5/88	MW-5 1/89	MW-5 5/89
Arsenic	.05	1.0	0.4			.04		.04		.04		
Cadmium	.01	.05	.03	<.01		.05	<.01	.05	<.01	.07	.04	
Chromium	.05	1.0[2]	<.01			.04		.02		.01		
Lead	.05	0.1	.11	.98	.01	.10	.13	.10	.65	.06	.54	.05
Mercury	.002	.0005	<.002			<.002				<.002		
Nickel		1.0	.56	.04		1.58	.01	0.56	.02	.54	.20	
Selenium	.01	1.0	.05			.06		.03		.04		
Silver	.05	.005	.03			.04		.03		.04		
Zinc		1.0	1.00	.51		0.80	.15	0.3	.15	0.5	.78	
Cyanide	.05	.02	.06			<.05		<.05		<.05		

NOTE: [1]Ill. DWS - Water Quality Criteria for General Use.
[2]Trivalent chromium.
[3]Only Lead was anlyzed for on 5/89.

TABLE D-4 (cont'd.)

FARMALL GROUNDWATER INVESTIGATION

METALS SUMMARY
(in ppm)

Compound	MW-6			MW-7		MW-8		MW-9	MW-10
	5/88	1/89	5/89	5/88	1/89	5/88	1/89	5/89	5/89
Arsenic	.04			.03		.03			
Cadmium	.07	<.01		.08	.02	.09	<.01		
Chromium	.06			.01		<.01			
Lead	.94	<.01	.03	.25	.53	.03	.07	.21	.15
Mercury	.002			<.002		<.002			
Nickel	1.70	<.01		.58	.04	1.36	.01		
Selenium	.05			.04		.02			
Silver	.02			.01		.01			
Zinc	0.5	.04		0.6	.58	0.2	.13		
Cyanide	<.05			<.05		<.05			

TABLE D-5

FARMALL GROUNDWATER INVESTIGATION

ORGANICS SUMMARY
(ppb)

Compound	MW-2			MW-3		MW-4		MW-5		
	5/88	1/89	5/89[1]	3/88	1/89	3/88	1/89	3/88	1/89	5/89
Pesticides:										
Alpha BHC	1.32									
Beta BHC								.89		
Lindane	0.56						1.2			
Heptachlor	0.43			0.61						
p,p-DDT					0.4		0.4			
Chlordane	2.28									
Aldrin							0.6			
Volatiles:										
1,2-Dichloroethane	30	94								
1,2-Transdichloroethane										
1,1,1-Trichloroethane		30				8		350		
1,1,2-Trichloroethane									8	
Carbon Disulfide						3				
Benzene	1150	2500	6400		11				1	
Toluene	53	1100	2300		9					
Ethylbenzene		140	650							
2-Butanone		12								
Xylene			2050							
Base Neutral/Acid Extractables:			(2)							
Phenol										
Bis (2-chloroethyl) ether										
Pyrene		23								
Isophorene								90		
Benzoic Acid								5260		
Bis (2-chloroethoxy) methane								16		
3-Nitroaniline								601		
Acenaphthylene	12									
Acenaphthene	14								17	
4-Nitrophenol								517		
2,4-Dinitrotoluene								2370		
2,6-Dinitrotoluene								730		
4-Chlorophenyl-phenylether								300		
Fluorene	11								16	
4,6-Dinitro-2-methylphenol								9010		
N-Nitrosodiphenylamine								860		
4-Nitroaniline								520		
Phenenthrene	62	13						18700	24	
Fluoranthene	62	22						270		
Bis (2-ethylhexyl) phthalate	297			230		188				
Total Petroleum Hydrocarbons (ppm)		16.7	1.3		<1		1.3		9.7	<1

NOTE: Blank area indicates results were below quantitative detection limits.
[1]Pesticides were not analyzed for on 5/89.
[2]At MW-2, BNAs were not analzyed for on 5/89.

TABLE D-5 (cont'd.)

FARMALL GROUNDWATER INVESTIGATION

ORGANICS SUMMARY
(ppb)

Compound	MW-6			MW-7		MW-8		MW-9[3]	MW-10	EPA DWS	Reporting Level
	3/88	1/89	5/89	3/88	1/89	3/88	1/89				
Pesticides:											
Alpha BHC	0.6					0.25					.05
Beta BHC											.05
Lindane					.1	5.92				4	.05
Heptachlor											.05
p,p-DDT					.17	2.14	0.24			100	0.1
Chlordane											0.5
Aldrin					.05						.05
Volatiles:											
1,2-Dichloroethane										5	3
1,2-Transdichloroethane		60								200	5
1,1,1-Trichloroethane	250	460									5
1,1,2-Trichloroethane							5				5
Carbon Disulfide											5
Benzene		4			4		3			5	1
Toluene											5
Ethylbenzene											
2-Butanone		6					5				5
Xylene											
Base Neutral/Acid Extractables:											
Phenol	20	<.05									10
Bis (2-chloroethyl) ether	262										10
Pyrene		57									10
Isophorene		230									10
Benzoic Acid											10
Bis (2-chloroethoxy) methane											10
3-Nitroaniline											10
Acenaphthylene											10
Acenaphthene											10
4-Nitrophenol											10
2,4-Dinitrotoluene		66									10
2,6-Dinitrotoluene											10
4-Chlorophenyl-phenylether		15									10
Fluorene		230									10
4,6-Dinitro-2-methylphenol											10
N-Nitrosodiphenylamine											10
4-Nitroaniline											10
Phenenthrene		520									10
Fluoranthene				14							10
Bis (2-ethylhexyl) phthalate				567		164					10
Total Petroleum Hydrocarbons (ppm)		75	<1		<1		4	<1	<1		

NOTE: Blank area indicates results were below quantitative detection limits.
[3]MW-9 and MW-10 were not installed until 5/89.

During the May, 1989, sampling effort, five surface water samples were collected from Sylvan Slough adjacent to the property. The surface water samples were analyzed for volatiles (VOA), BNA, TPH, and the eight Drinking Water Standard (DWS) metals. As shown in Table D-6, there were no detected VOAs or BNAs and the metals were below DWS. Only TPH was detected in one sample (SW-5) above detection limits and visual observation at the time of sampling indicated the presence of an oily slick in the sampling area. These oily slicks were randomly flowing with the surface water as small slicks close to the shoreline. A visual inspection of the river bank did not reveal any indications that the slicks were seeping from the property.

TABLE D-6

FARMALL SURFACE WATER INVESTIGATION

ANALYTICAL SUMMARY
(in ppm)

Compounds	SW-1	SW-2	SW-3	SW-4	SW-5
Volatiles (ppb)	BDL	BDL	BDL	BDL	BDL
Base/Neutral Extractables (ppb)	BDL	BDL	BDL	BDL	BDL
TPH	<1.0	<1.0	<1.0	<1.0	2.0
Lead	0.01	<0.01	<0.01	<0.1	<0.01
Arsenic			<0.01	<0.01	<0.01
Barium			0.02	0.02	0.02
Cadmium			<0.01	<0.01	<0.01
Chromium			<0.01	<0.01	<0.01
Mercury			<0.002	<0.002	<0.002
Selenium			<0.01	<0.01	<0.01
Silum			<0.01	<0.01	<0.01

NOTE: BDL = Below Quantitative Detection Limits

E.

CONCLUSIONS

SOIL

As indicated in the laboratory analyses in Table D-1, Table D-2, Table D-3, and Attachment 2, the major concentrations of constituents tested for occurs at or near the groundwater table. The highest concentrations of organics are at SB-5 at 15 feet of depth and SB-7 at 10 to 15 feet of depth. Both of these locations are in the western landfill area of the site. In addition, SB-3 indicated the presence of volatile organics. These volatiles at SB-3 may have been the result of spillage or leakage from adjacent underground storage tanks that have since been removed. Field testing of the soil with a portable organic vapor analyzer (OVA) and laboratory analysis indicates the extensive presence of petroleum hydrocarbons at depths of 10 to 20 feet in the soil profile throughout most of the site. For the inorganic analysis, locations SB-3, SB-5, and SB-7 displayed elevated levels, with cadmium, chromium, lead, and zinc the prevalent metals that occur above expected background levels. However, Toxic Characteristic Leaching Procedure (TCLP) analysis of selected soil samples indicate that the base-neutral/acid extractables (BNAs) organics and the metals tested for have a very low potential for leaching into the groundwater horizon. Therefore, the presence of the BNA compounds and above-normal metal concentrations in the soil do not appear to be a current threat to health or the environment.

GROUNDWATER

The shallow groundwater horizon appears to be of limited area extent and the elevation of the water table fluctuates in conjunction with the rainfall and flow stage of the Sylvan Slough. Although this water-bearing horizon is probably isolated from other deeper

water-bearing zones, it probably discharges slightly into and receives some recharge from Sylvan Slough.

Organic compounds, along with extensive biological activity, were detected at every groundwater sample location during the first two sampling efforts. Location MW-2, on the hydrologic upgradient side of the site, indicated elevated levels of volatiles and base-neutral/ acid extractable compounds, as well as minor amounts of pesticides. The general absence of these compounds at MW-3 and MW-4 implies that the occurrence of these organic compounds is an isolated condition. In the two initial sampling efforts, sample location MW-5 contained the highest number of organic compounds and aggregate total. This location is on the southern edge of the property, adjacent to the railroad.

As a result of the high variation in sample results (between the May, 1988, and January, 1989, sampling effort) it was concluded that the presence of biological activity and possibly the presence of sediment in the water samples could be biasing the samples. It was decided to resample those locations with high organic concentration and to have the samples filtered in the laboratory prior to analysis. Filtering of the groundwater samples resulted in no BNAs, low TPH, and reduced metal concentrations being detected in the selected samples being analyzed. This reduction in concentration for organics and metal implies that the previous samples were biased by either the biological activity or possibly sediments in the samples. However, the volatiles detected at location MW-2 did not decrease with filtering the samples. The volatiles detected at location MW-2 are indicative of gasoline contamination. Since there are no existing underground storage tanks in use at the site and downgradient locations detected low or no volatiles in the groundwater, Pilko & Associates suspects that an offsite source is responsible for the compounds present in the groundwater horizon.

Inorganic analyses indicate elevated metal concentrations occur at all sample locations. Cadmium, lead, and selenium are all above Drinking Water Standards (DWS), with other elevated metals including nickel and zinc. The metal analyses reveal an equal order of magnitude for cadmium and selenium which implies these could be a background condition. Lead, nickel, and zinc indicate a higher quantity variation; however, elevated quantities were randomly distributed between locations. The elevated metal quantities are generally unique to specific locations and are probably related to the original constituents in the type of fill utilized at the site.

SURFACE WATER

Analysis of the surface water from Sylvan Slough did not indicate the presence of any of the organic compounds that were detected in the soils and groundwater samples from the site. Therefore, it does not appear that the site is affecting the surface water quality in the immediate slough vicinity.

F.

REPORT LIMITATIONS

The scope of this report is limited to the matters expressly covered. This report is prepared for the sole benefit of **Navistar International Transportation Corp.**, and may not be relied upon by any other person or entity without the written authorization of Pilko & Associates, Inc.

In preparing this report, Pilko & Associates, Inc. has relied on information derived from secondary sources and personal interviews. Except as set forth in this report, Pilko & Associates, Inc. has made no independent investigation as to the accuracy or completeness of the information derived from the secondary sources and personal interviews and has assumed that such information was accurate and complete.

All recommendations, findings, and conclusions stated in this report are based upon facts and circumstances as they existed at the time that this report was prepared (e.g., federal, state and local laws, rules, regulations, market conditions, energy costs, wage rates, political climate, and other matters that Pilko & Associates, Inc. deemed relevant). A change in any fact or circumstance upon which this report is based may adversely affect the recommendations, findings, and conclusions expressed in this report.

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G.

ATTACHMENTS

1. Boring Logs and Well Completions
2. Laboratory Analysis
3. Laboratory Quality Assurance Report

ATTACHMENT 1

BORING LOGS AND WELL COMPLETIONS

TEST BORING LOG

Test Hole MW-7
File No: 643
Date: 05/05/88

ELEV. (FT)	DEPTH (FT)	LOG	SAMPLE NO.	SAMPLE TYPE	BLOW COUNT	CLASSIFICATION
567.43	0					
						Black sand, cinders, some gravel.
	5					
	10					VOA = 4 ppm.
552.52	15					VOA = 40 ppm. Wet sand.
	20	SAND				VOA = 500 ppm. 547
						Greenish grey clay.
	25	BOC				
		BOH				Black sand and gravel, some shells. VOA = 80 ppm.
	30					
	35					
	40					
						TOC Elevation = 568.27
						H_2O = 15.75' TOC 05/09/88

TEST BORING LOG

Test Hole MW-8
File No: 643
Date: 05/04/88

ELEV. (FT)	DEPTH (FT)	LOG	SAMPLE NO.	SAMPLE TYPE	BLOW COUNT	CLASSIFICATION
567.0	0					Black and dark brown sand.
	5					
	10				18/18"	VOA = Trace.
553.11	15		05/09			VOA = 1,200 ppm.
		SAND				Grey clay, shaley clay.
	20					Gravel and sand.
		BOC				
	25					
	30	BOH				
	35					
	40					
						TOC Elevation = 567.56 H_2O = 14.45' 05/09/88

TEST BORING LOG

Test Hole MW-6
File No: 643
Date: 05/05/88

ELEV. (FT)	DEPTH (FT)	LOG	SAMPLE NO.	SAMPLE TYPE	BLOW COUNT	CLASSIFICATION
569.15	0					
						Black sand fill, foundry.
	5					
	10					
					18/18"	VOA = 600 ppm.
	15				4/12"	VOA = 2,000 ppm.
553.63			▽			
						552
	20	SAND				Greenish grey clay.
					4/32/	VOA = 1,600 ppm.
		BOC				
	25	BOH				
						Sand and gravel, shell pieces. VOA = 500 ppm.
	30					
	35					
	40					
						TOC Elevation = 571.42
						H_2O = 17.75' 05/09/88

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring MW-9

Project Name: Subsurface Investigation & Monitoring Well Installation — Date of Boring: May 16, 1989

Site: Old Farmall Facility, Rock Island, Illinois — Project No.: 001-95016

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Black Foundry SAND		1-AU					
	5						
		2-SS					
	10						
		3-SS					
	15						
		4-SS					
SAND	20						
		5-SS					
	25						
GRAVEL		6-SS					
Gray CLAY							
	30						
		7-SS					
End of Boring							

TEST BORING LOG

Test Hole SB-6
File No: 643
Date: 05/03/88

ELEV. (FT)	DEPTH (FT)	LOG	SAMPLE NO.	SAMPLE TYPE	BLOW COUNT	CLASSIFICATION
568.79	0					Brown silty sand.
						Black fine sand with tan streaks, cinders.
	5				12/18"	VOA = 2 ppm.
	10				5/4/3	Black sand, glass fragments. Some tan sand streaks. VOA = 5ppm.
	15				9/18"	Wet black sand. VOA = 1 ppm.
	20					Dark grey clay. VOA = 2 ppm.
						Sand and fine gravel, wet.
	25				3/4/12	Black and grey sand and gravel.
	30				16/15/12	Black and brown sand and gravel.
	35					Brown sandy gravel, fine to coarse.
	40					

TEST BORING LOG

Test Hole SB-5
File No: 643
Date: 05/03/88

ELEV. (FT)	DEPTH (FT)	LOG	SAMPLE NO.	SAMPLE TYPE	BLOW COUNT	CLASSIFICATION
569.42	0					Concrete.
						Brown fine sand with black stain.
						Black fine sand with tan streaks.
	5					VOA = 8 ppm.
	10				3/5/5	VOA = 6 ppm.
	15					Becomes moist. VOA = 20 ppm.
		▽				
	20					Moist grey clay/shale.
						Grey clay/shale.
	25				6/6/7	VOA = 20 ppm. Limestone fragments and sandy zone in grey shale.
	30					
	35					
	40					

TEST BORING LOG

Test Hole MW-5
File No: 643
Date: 05/05/88

ELEV. (FT)	DEPTH (FT)	LOG	SAMPLE NO.	SAMPLE TYPE	BLOW COUNT	CLASSIFICATION
570.00	0					Concrete.
						Black sand fill.
	5					
					6/12"	Reddish brown fine and coarse sand, some black zones. VOA = Trace.
	10					
	15				4/12"	Black and grey sand, very fine grained, wet to moist. VOA = 100 ppm.
552.50						
	20				11/12"	
						Sand and fine gravel. VOA = 100 ppm.
	25	SAND			6/6/5	Dark grey to black coarse sand and gravel. VOA = 20 ppm.
		BOC				
	30	BOH				
	35					
	40					Location 4 feet above rail tracks. TOC Elevation = 571.95 H_2O = 19.45' 05/09/88

TEST BORING LOG

Test Hole MW-4
File No: 643
Date: 05/09/88

ELEV. (FT)	DEPTH (FT)	LOG	SAMPLE NO.	SAMPLE TYPE	BLOW COUNT	CLASSIFICATION
574.23	0					Concrete.
						Black sand fill.
	5					
	10				17/12"	
	15				43/12"	Black sand, some gravel scattered brown streaks.
553.77	20				6/12"	Black sand, some grey streaks, wet.
		SAND				
	25					
		BOC				Grey clay, wet.
	30					
		BOH				
	35					
	40					
						TOC Elevation = 576.15 H_2O = 22.35' 05/10/88

TEST BORING LOG

Test Hole MW-2
File No: 643
Date: 05/06/88

ELEV. (FT)	DEPTH (FT)	LOG	SAMPLE NO.	SAMPLE TYPE	BLOW COUNT	CLASSIFICATION
575.34	0					Concrete.
						Black sand and cinder fill.
	5					
	10				8/18"	Red, brown, and black fine to coarse fill sand. VOA = 6 ppm.
	15				6/12"	VOA = Trace.
	20				9/12"	VOA = 5 ppm.
553.98						
	25					Greenish grey clay with sand streaks. VOA = 200 ppm.
	30					VOA = 10 ppm. Limestone.
	35					
	40					
						TOC Elevation = 577.33 H_2O = 23.35' 05/09/88

TEST BORING LOG

Test Hole MW-3
File No: 643
Date: 05/05/88

ELEV. (FT)	DEPTH (FT)	LOG	SAMPLE NO.	SAMPLE TYPE	BLOW COUNT	CLASSIFICATION
573.65	0					Coal pieces and fill.
						Reddish brown and black sand and cinders.
	5					
						Black sand.
	10					Moist. VOA = 20 ppm.
	15					Wood pieces. VOA = Trace.
553.72	20					Wet black sand, some brown streaks. VOA = 10 ppm.
		SAND				
	25					VOA = 20 ppm.
		BOC				
	30					Grey clay.
		BOH				
	35					
	40					
						TOC Elevation = 576.47
						H_2O = 22.75' 05/09/88

TEST BORING LOG

Test Hole MW-1
File No: 643
Date: 05/10/88

ELEV. (FT)	DEPTH (FT)	LOG	SAMPLE NO.	SAMPLE TYPE	BLOW COUNT	CLASSIFICATION
573.53	0					Silty sand, gravel fill.
						Black and reddish brown silty sand and gravel.
	5					
						Dark brown silty sand with clay and gravel.
	10					
						Stiff grey shale.
	15					
	20					
	25					
	30					
	35					
	40					
						Dry hole, no casing set.

TEST BORING LOG

Test Hole SB-3
File No: 643
Date: 05/03/88

ELEV. (FT)	DEPTH (FT)	LOG	SAMPLE NO.	SAMPLE TYPE	BLOW COUNT	CLASSIFICATION
573.34	0					Brown sand and gravel, backfill on removed tanks, new fill.
	5					
	10				10/30/10	Black foundry sand, cinders (metal slag). VOA = 15 ppm.
	15				12/18"	Sand is moist to damp. HC odor, VOA = 200 ppm.
	20				3/12"	Wet foundry sand. VOA = 20 ppm.
	25				12/18"	Sand and fine gravel stained with black, some brown trace. VOA = 1,000 ppm.
	30				30/12"	Limestone fragments in sand. VOA = 150 ppm.
	35					Dark grey shale, well layered stiff.
	40					

TEST BORING LOG

Test Hole SB-2
File No: 643
Date: 05/02/88

ELEV. (FT)	DEPTH (FT)	LOG	SAMPLE NO.	SAMPLE TYPE	BLOW COUNT	CLASSIFICATION
573.61	0					Concrete.
						Black sand fill.
	5		SS			
	10		SS			Possible HC odor. VOA = 2 ppm.
	15		SS		4/4/2	VOA = 2 ppm.
	20		SS			VOA = 50 ppm.
	25		SS			Sand and pea gravel, oil stains, possible river gravel.
	30		SS		20/2"	Grey to dark grey shale, well layered stiff.
	35					
	40					

TEST BORING LOG

Test Hole SB-1
File No: 643
Date: 05/02/88

ELEV. (FT)	DEPTH (FT)	LOG	SAMPLE NO.	SAMPLE TYPE	BLOW COUNT	CLASSIFICATION
573.89	0					Concrete.
						Black foundry sand and fill.
			SS		12/18"	VOA = 2 ppm.
	5					
	10		SS		10/18"	VOA = 0 ppm.
	15		SS		15/18"	VOA = 1 ppm.
		▽				
	20		SS		33/18"	Grey lime rock rubble. HC odor. 20 ppm.
	25					Hard limestone.
	30					
	35					
	40					

TEST BORING LOG

Test Hole SB-4
File No: 643
Date: 05/03/88

ELEV. (FT)	DEPTH (FT)	LOG	SAMPLE NO.	SAMPLE TYPE	BLOW COUNT	CLASSIFICATION
570.79	0					Concrete.
						Black sand and cinders.
	5			X		VOA = 0 ppm.
	10			X		VOA = 0 ppm.
	15			X		VOA = 0 ppm. Foundry fill.
		▽				
	20			X		Grey shale, dry to moist. VOA = 5 ppm.
	25					Grey shale, sandy, moist to wet.
	30					
	35					
	40					

TEST BORING LOG

Test Hole SB-7
File No: 643
Date: 05/04/88

ELEV. (FT)	DEPTH (FT)	LOG	SAMPLE NO.	SAMPLE TYPE	BLOW COUNT	CLASSIFICATION
568.8	0					Black sand fill.
						Rocky.
	5				24/18"	Black and grey coarse sand, foundry fill. VOA = 50 ppm.
	10					VOA = 200 ppm. VOA = 100 ppm.
	15					VOA = 60 ppm. Black coarse sand and gravel, purple tint - possible paint.
	20					VOA = 80 ppm. Black coarse sand and gravel.
	25					VOA = 60 ppm.
	30				69/18"	Light brown sand and mixed gravel. VOA = 100 ppm.
	35					VOA = 100 ppm.
	40					

TEST BORING LOG

Test Hole SB-8
File No: 643
Date: 05/03/88

ELEV. (FT)	DEPTH (FT)	LOG	SAMPLE NO.	SAMPLE TYPE	BLOW COUNT	CLASSIFICATION
568.03	0					
						Black sand fill.
	5				7/6/5	Black sand and fine silica gravel, some red and tan sand. VOA = 2 ppm.
	10				8/18"	Black and brown sand, cinder foundry fill. VOA = 5 ppm.
	15				9/18"	Wet black sand, coarse to fine. VOA = 25 ppm.
	20		N.R.		30/18"	Sand and gravel.
	25				50/12"	VOA = 4 ppm. Some silty sand.
	30				8/20/38	Grey shale.
						Limestone.
	35					
	40					

TEST BORING LOG

Test Hole SB-9
File No: 643
Date: 05/09/88

ELEV. (FT)	DEPTH (FT)	LOG	SAMPLE NO.	SAMPLE TYPE	BLOW COUNT	CLASSIFICATION
575.28	0					Gravel and sand fill.
						Brown silty sand and gravel.
	5					
						Black sand fill.
	10				30/6"	Grey clayey shale.
						Light grey shale, stiff.
	15					
	20					
	25					
	30					
	35					
	40					

Professional Service Industries, Inc.
Pittsburgh Testing Laboratory/A & H Flood Division

May 16, 1988

Pilko & Associates
2707 N. Loop West, Suite 960
Houston, Texas 77008

Attention: Mr. John Buchanan

Re: Subsurface Sampling and
Well Installation
Rock Island, Illinois
PSI File No.: 152-85059

Gentlemen:

Presented herein are the boring logs and monitoring well installation sheets for the above referenced project. Authorization to perform this work was in the form of a letter agreement, dated April 13, 1988, between Pilko & Associates and Professional Service Industries, Inc. All work was performed in accordance with instructions by representatives of Pilko & Associates.

Six borings were drilled with a truck mounted drilling rig, equipped with a rotary head. Soil samples were obtained at various intervals utilizing split-barrel sampling procedures as outlined in ASTM D-1586 test procedures. Seven, PVC monitoring wells were installed in separate borings upon completion of drilling. All drilling personnel were protected during the drilling operations in accordance with the US-EPA Level "D" waste site requirements.

The monitor well pipe, augers, samplers, and drill rig were cleaned prior to use with a high pressure steam cleaner. All samplers were decontaminated between use using a Hexane-Acetone rinse followed by steam cleaning. The augers were also steam cleaned between borings and the rig was steam cleaned upon completion of work.

4421 Harrison Street • Hillside, IL 60162 • Phone: 312/449-0500

All soil samples obtained were collected in the field by representatives of Pilko and Associates. All monitoring wells were developed by bailing and were surveyed in by representatives of Pilko & Associates using PSI personnel as part of the survey crew.

It has been a pleasure to have been of service to you on this project. If you have any questions, please call.

Very truly yours,

PROFESSIONAL SERVICE INDUSTRIES, INC.

Gregory R. Reuter
Division Manager
Geotechnical Services

GRR:sjp

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-1

Project Name: Subsurface Sampling & Monitoring Well Installation

Date of Boring: May 2, 1988

Site: Rock Island, Illinois

Project No.: 152-85059

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Black SAND							
		1SS					
	10'						
		2SS					
		3SS					
	20'						▼
		4SS					
-refusal (fill)		5SS					
Total depth of boring = 24½'							
Water measured @ 20' in boring while drilling							
	30'						

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-2

Project Name: Subsurface Sampling & Monitoring Well Installation

Date of Boring: May 2, 1988

Site: Rock Island, Illinois

Project No.: 152-85059

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Black SAND							
		1SS					
	10'						
		2SS					
		3SS					
	20'						
		4SS					
		5SS					
(fill)	30'						
Dark gray CLAY		6SS					
Total depth of boring = 31½'							
Water measured @ 17' in boring while drilling							
	40'						

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-3

Project Name: Subsurface Sampling & Monitoring Well Installation

Date of Boring: May 3, 1988

Site: Rock Island, Illinois

Project No.: 152-85059

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Black SAND							
	10'						
		1SS					
		2SS					
	20'						
		3SS					
		4SS					
(fill)	30'						
Dark gray CLAY		5SS					
Total depth of boring = 31½'							
Water measured @ 19' in boring while drilling							
	40'						

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-4

Project Name: Subsurface Sampling & Monitoring Well Installation

Date of Boring: May 3, 1988

Site: Rock Island, Illinois

Project No.: 152-85059

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Black SAND, with cinders							
		1SS					
	10'	2SS					
		3SS					
(fill)	20'						
Gray CLAY		4SS					
		5SS					▼
Total depth of boring = 26½'							
Water measured @ 25½ in boring while drilling	30'						

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-5

Project Name: Subsurface Sampling & Monitoring Well Installation

Date of Boring: May 3, 1988

Site: Rock Island, Illinois

Project No.: 152-85059

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Brown SAND							
		1SS					
	10'						
		2SS					
		3SS					
	20'						
Gray CLAY		4SS					
		5SS					
Total depth of boring = 26½'							
Water measured @ 20' in boring while drilling	30'						

A-100-8

1/5/88 1M

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-6

Project Name: Subsurface Sampling & Monitoring Well Installation

Date of Boring: May 3, 1988

Site: Rock Island, Illinois

Project No.: 152-85059

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Black SAND							
		1SS					
	10'						
		2SS					
							▼
		3SS					
(fill)	20'						
Gray CLAY		4SS					
Black, brown and gray SAND		5SS					
	30'						
		6SS					
		7SS					
Total depth of boring = 36½'							
Water measured @ 15' in boring while drilling	40'						

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-7

Project Name: Subsurface Sampling & Monitoring Well Installation

Date of Boring: May 4, 1988

Site: Rock Island, Illinois

Project No.: 152-85059

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Black SAND							
		1SS					
	10'						
		2SS					
		3SS					▼
	20'						
		4SS					
(fill)		5SS					
Fine to coarse GRAVEL							
	30'						
		6SS					
Tan SAND		7SS					
Total depth of boring = 36½'							
Water measured @ 16' in boring while drilling	40'						

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-8

Project Name: Subsurface Sampling & Monitoring Well Installation

Date of Boring: May 4, 1988

Site: Rock Island, Illinois

Project No.: 152-85059

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Black SAND							
		1SS					
	10'	2SS					
		3SS					
	20'	4SS					
Gray CLAY		5SS					
	30'	6SS					
Total depth of boring = 31½' Water measured @ 25' in boring while drilling	40'						

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-9

Project Name: Subsurface Sampling & Monitoring Well Installation

Date of Boring: May 9, 1988

Site: Rock Island, Illinois

Project No.: 152-85059

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Brown and black SAND							
		1SS					
Gray CLAY							
	10'						
		2SS					
-refusal		3SS					
Total depth of boring = 14'							
No water measured in boring upon completion of drilling							
	20'						

GENERAL NOTES

SAMPLE IDENTIFICATION

The Unified Soil Classification System is used to identify the soil unless otherwise noted.

SOIL PROPERTY SYMBOLS

N: Standard "N" penetration: Blows per foot of a 140 pound hammer falling 30 inches on a 2 inch O.D. split-spoon.

Qu: Unconfined compressive strength, TSF

Qp: Penetrometer value, unconfined compressive strength, TSF

Mc: Water content, %

LL: Liquid limit, %

PI: Plasticity Index, %

δ d: Natural dry density, PCF

▼: Apparent groundwater level at time noted after completion.

DRILLING AND SAMPLING SYMBOLS

SS: Split-Spoon - 1 3/8" I.D., 2" O.D., except where noted.
ST: Shelby Tube - 3" O.D., except where noted.
AU: Auger Sample.
DB: Diamond Bit.
CB: Carbide Bit.
WS: Washed Sample.

RELATIVE DENSITY AND CONSISTENCY CLASSIFICATION

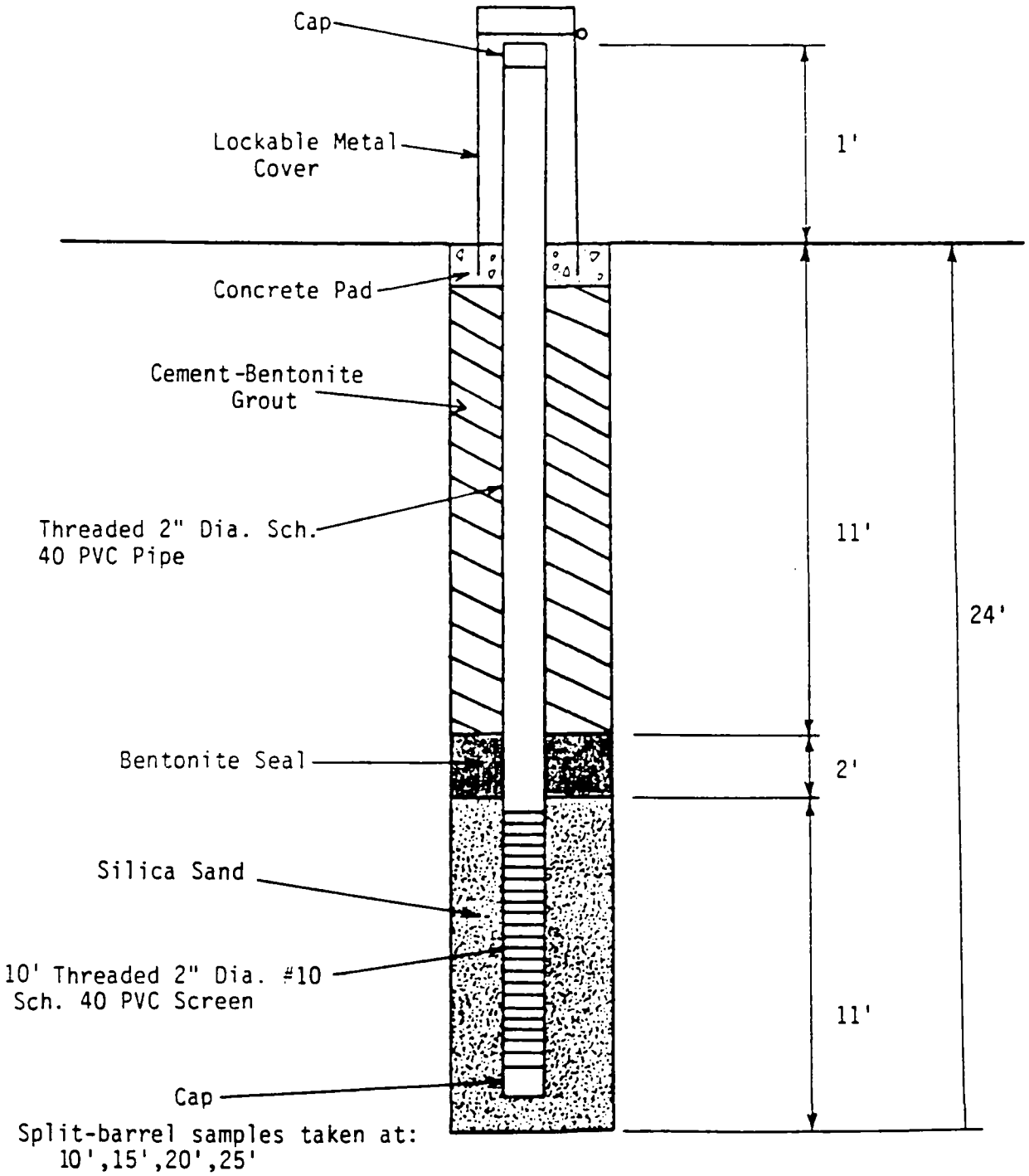
TERM (NON-COHESIVE SOILS)	STANDARD PENETRATION RESISTANCE
Very Loose	0 - 2
Loose	2 - 4
Slightly Compact	4 - 8
Medium Dense	8 - 16
Dense	16 - 26
Very Dense	Over 26

TERM (COHESIVE SOILS)	Qu - (TSF)
Very Soft	0 - 0.25
Soft	0.25 - 0.50
Firm (Medium)	0.50 - 1.00
Stiff	1.00 - 2.00
Very Stiff	2.00 - 4.00
Hard	4.00+

PARTICLE SIZE

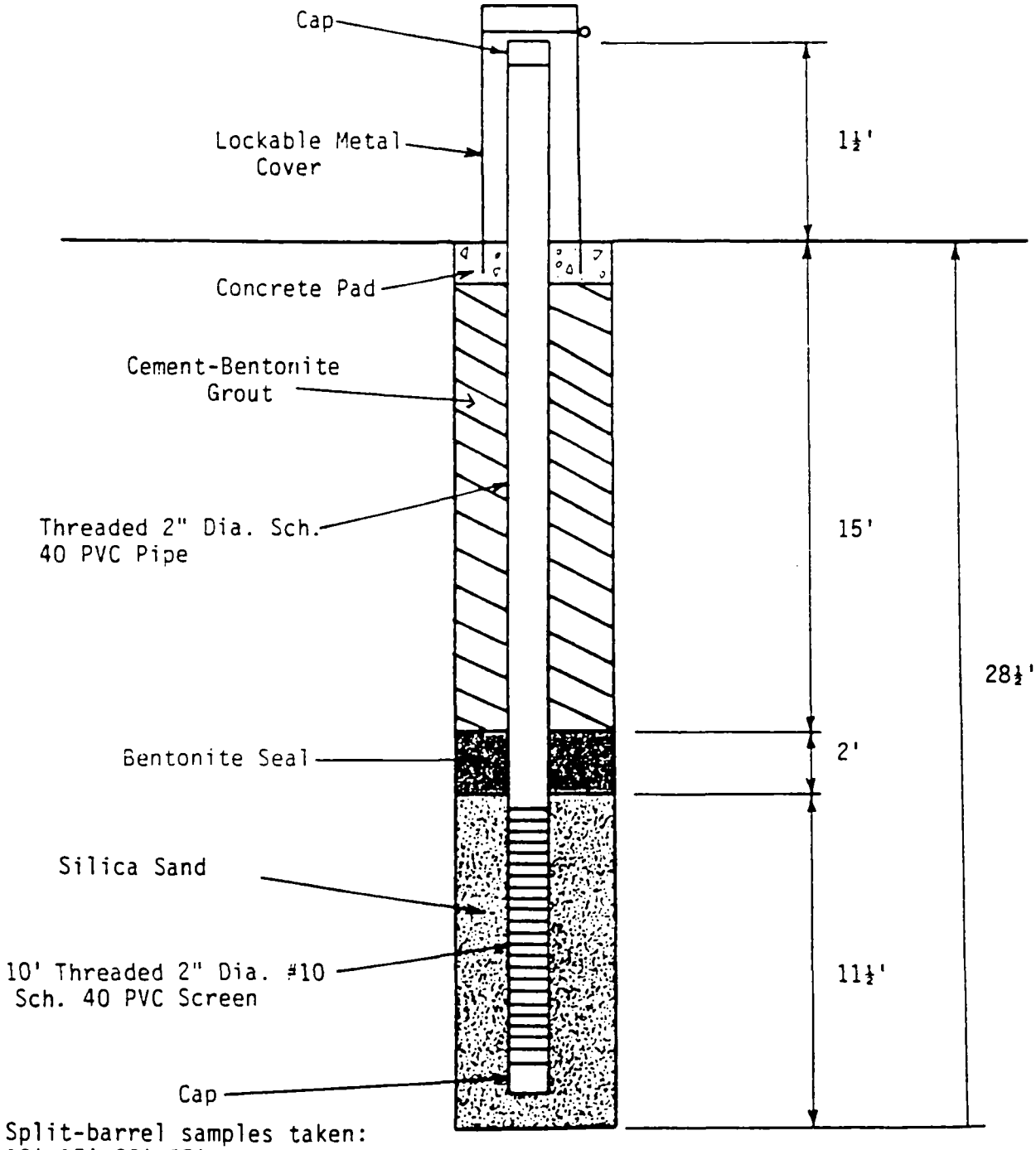
Boulders	8 in. +	Coarse Sand	5mm-0.6mm	Silt	0.074mm-0.005mm
Cobbles	8 in.-3 in.	Medium Sand	0.6mm-0.2mm	Clay	-0.005mm
Gravel	3 in.-5mm	Fine Sand	0.2mm-0.074mm		

Professional Service Industries



PROJECT NAME		
Subsurface Sampling and Well Installation	MW-1	
	PROJECT NO 152-85059	DATE May 4, 1988

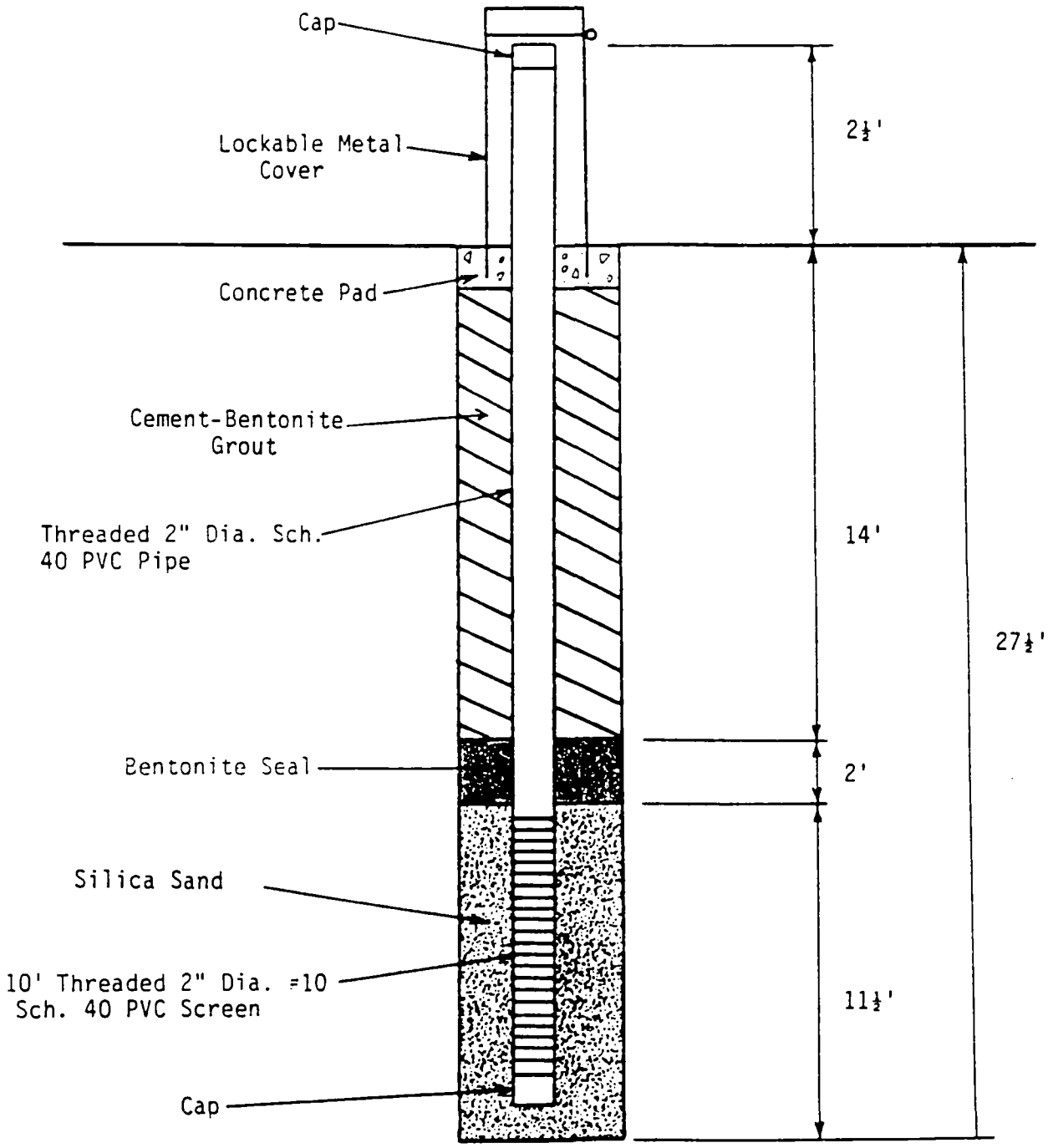
Professional Service Industries



Split-barrel samples taken: 10',15',20',25'

PROJECT NAME		
Subsurface Sampling and Well Installation	MW-2	
	PROJECT NO 152-85059	DATE May 6, 1988

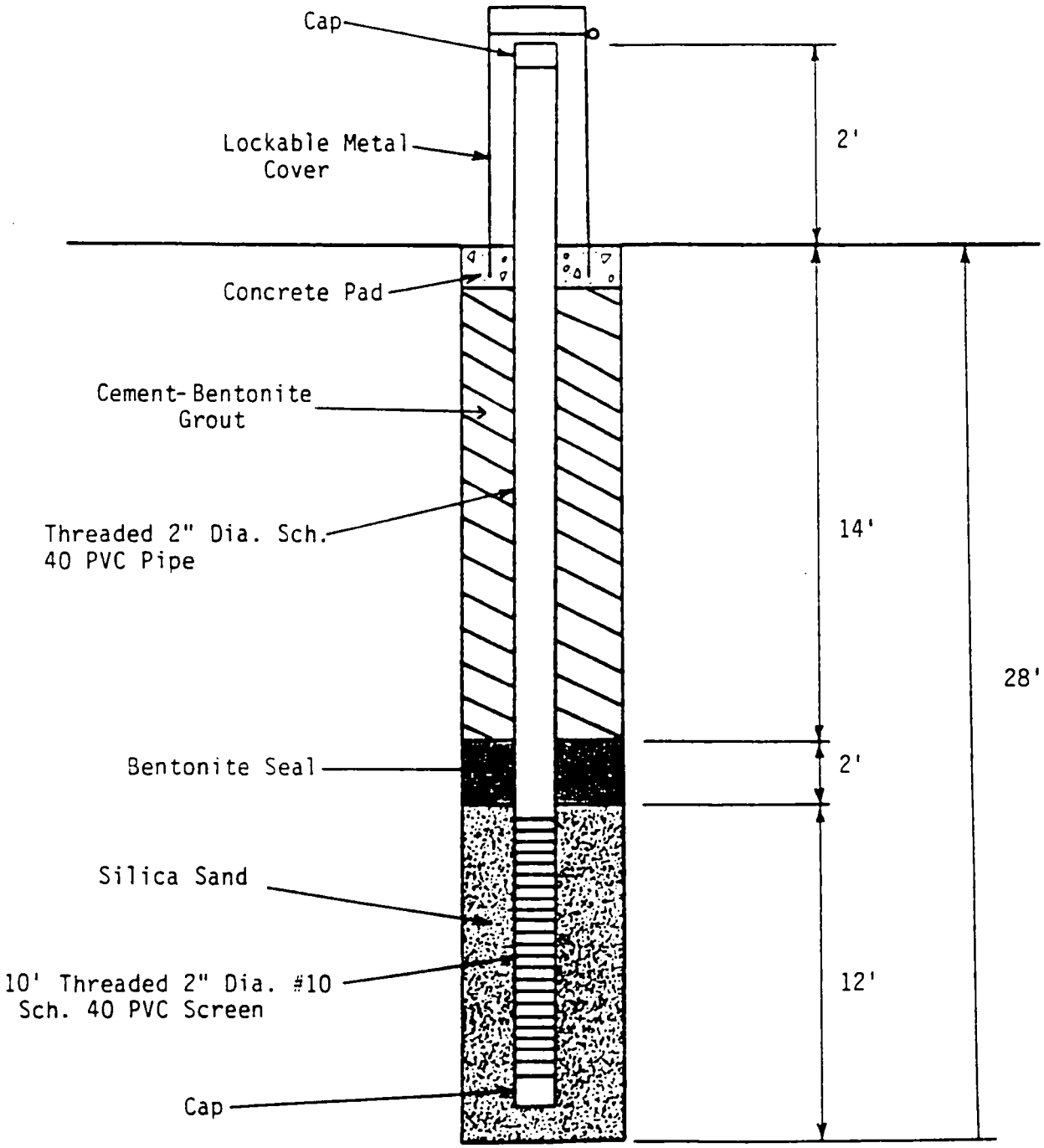
Professional Service Industries



Split-barrel samples taken:
10',15',20',25'

PROJECT NAME		
Subsurface Sampling and Well Installation	MW-3	
	PROJECT NO 152-85059	DATE May 5, 1988

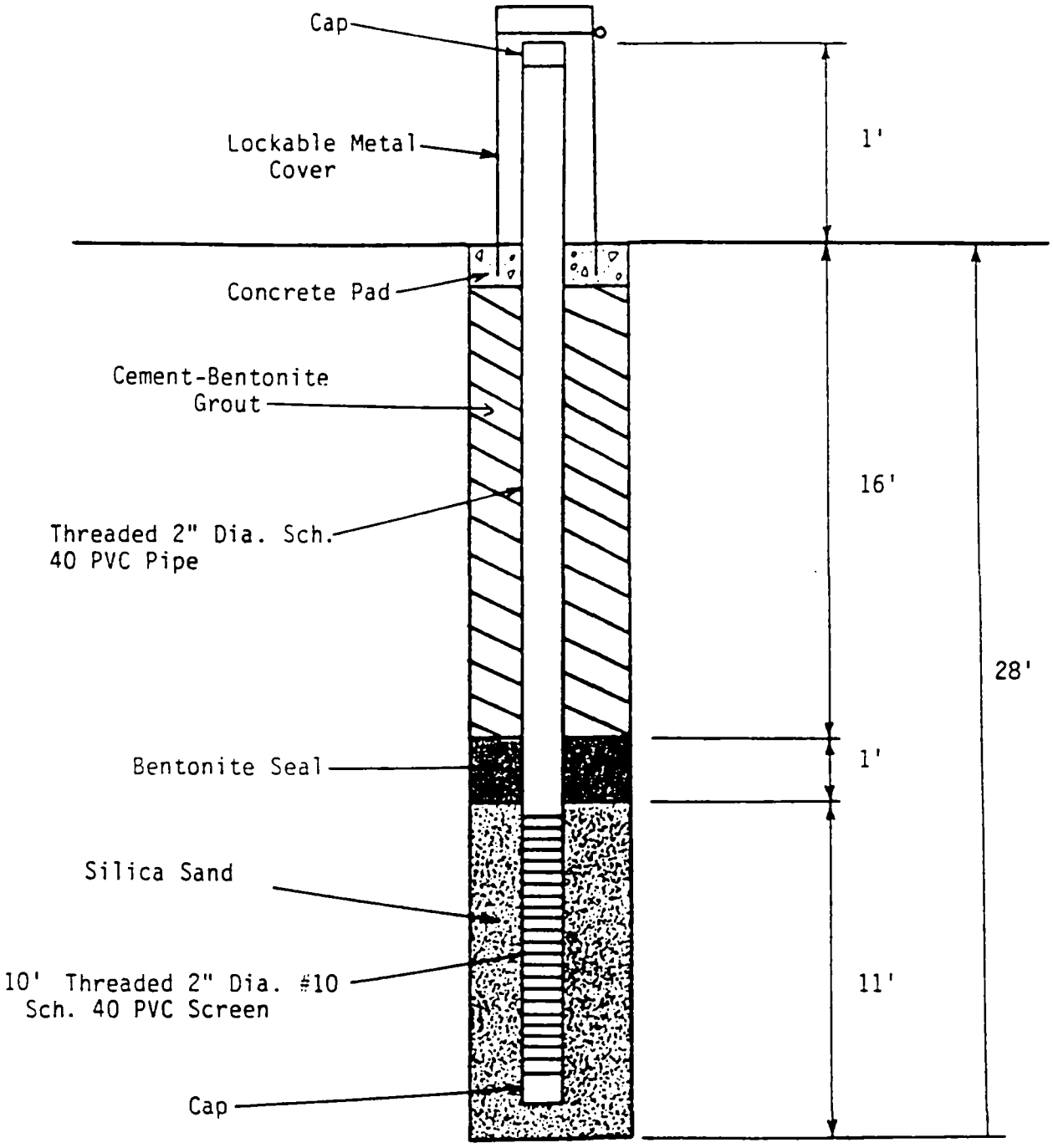
Professional Service Industries



Split-barrel samples taken:
10',15',20',25'

PROJECT NAME	MW-4	
Subsurface Sampling and Well Installation	PROJECT NO 152-85059	DATE May 5, 1988

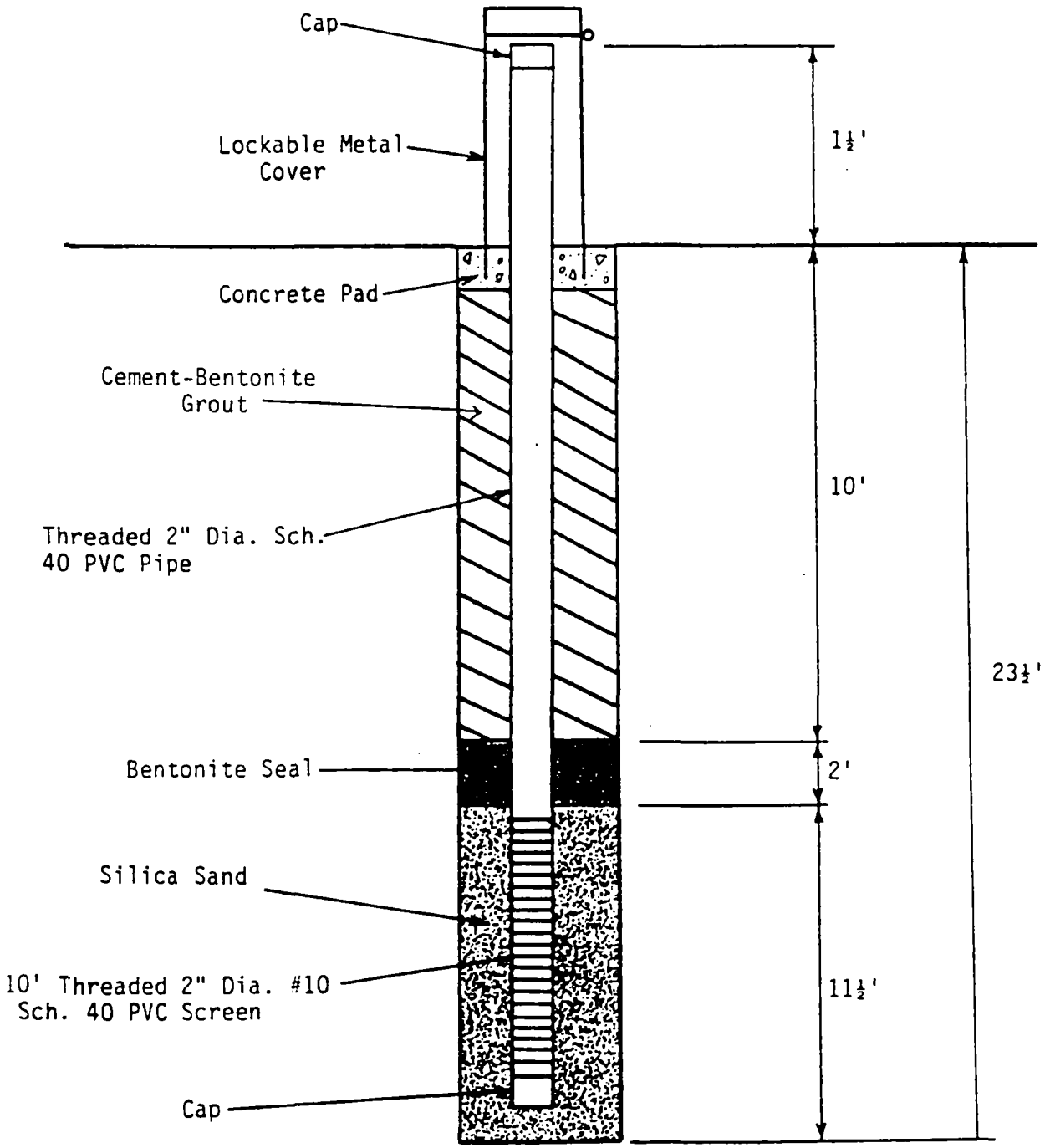
Professional Service Industries



Split-barrel samples taken:
10',15',20',25'

PROJECT NAME		
Subsurface Sampling and Well Installation	MW-5 3	
	PROJECT NO 152-85059	DATE May 5, 1988

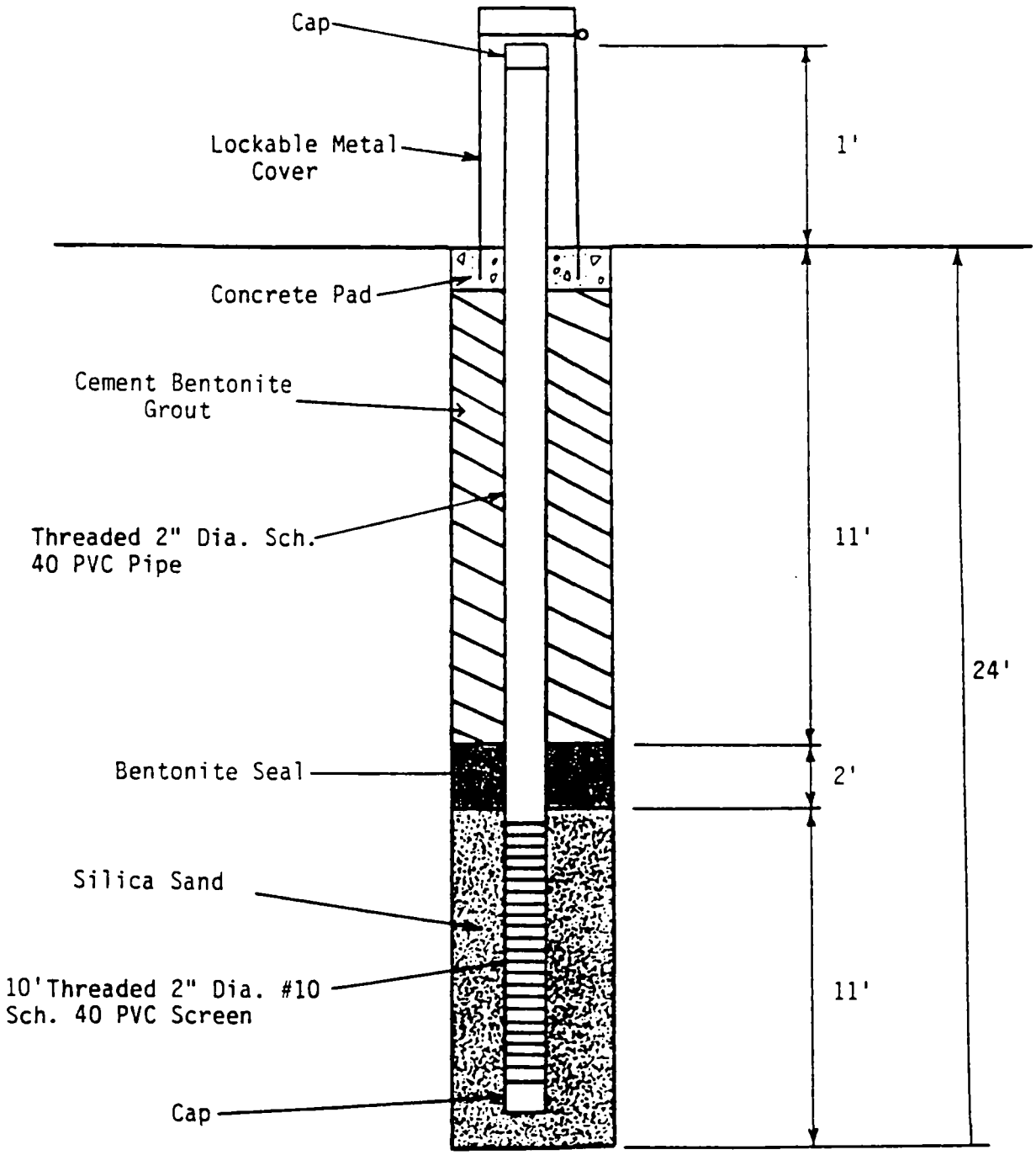
Professional Service Industries



Split-barrel samples taken:
10',15',20'

PROJECT NAME		
Subsurface Sampling and Well Installation	MW-6	
	PROJECT NO 152-85059	DATE May 5, 1988

Professional Service Industries



Split-barrel samples taken:
10',15',20',25'

PROJECT NAME		
Subsurface Sampling and Well Installation	MW-7	
	PROJECT NO 152-85059	DATE May 6, 1988

Professional Service Industries, Inc.
A & H Engineering Division

May 31, 1989

Pilko & Associates, Inc.
2707 N. Loop West, Suite 960
Houston, TX 77008

Attn: Mr. John Buchanan, P.E.

Re: Subsurface Investigation &
Monitoring Well Installation
Old Farmall Facility
Rock Island, Illinois
PSI File No.: 001-95016

Gentlemen:

In compliance with your instructions, we have conducted a soils exploration and monitoring well installation program for the above referenced project.

The results of this investigation are to be found in the accompanying report, two (2) copies of which are being transmitted herewith.

Please call at any time if you have any questions or if we could be of any further assistance.

Very truly yours,

Professional Service Industries, Inc.
A & H ENGINEERING DIVISION

Karl Newman

Karl Newman
Staff Geologist

Douglas P. Ramsey

Douglas P. Ramsey, P.E.
Division Manager

DPR/llr

SOIL EXPLORATION &

MONITORING WELL INSTALLATION

PREPARED FOR

PILKO & ASSOCIATES, INC.

2707 N. LOOP WEST

SUITE 960

HOUSTON, TX 77008

BY

A & H ENGINEERING DIVISION

INTRODUCTION

This report presents the results of a soils exploration and monitoring well installation program, conducted for Pilko & Associates, Inc.

Authorization

Authorization to perform this exploration and analysis was in the form of a subcontract agreement dated April 27, 1989, between Professional Service Industries, Inc. and Pilko & Associates, Inc.

FIELD EXPLORATION

Scope

The field exploration to determine the engineering characteristics of the subsurface materials included a reconnaissance of the project site, making the borings, performing standard penetration tests, and recovering split-spoon samples.

In addition, jar samples were secured for the purpose of performing laboratory tests, if required.

Five (5) test borings have been made, and these were drilled to depths ranging from approximately thirty (30) to forty-two (42) feet below the existing ground surface. They were drilled in the locations determined by representatives of Pilko & Associates, Inc.

In addition, two (2) inch diameter PVC groundwater monitoring wells were installed at Borings MW-9 and MW-10. A monitoring well diagram is included with this report. An existing six (6) inch diameter pumping well was sealed with approximately one and one-half

(1½) to two (2) cubic yards of portland cement grout.

Drilling & Sampling Procedures

The soil borings were performed with a drilling rig equipped with a rotary head. Conventional hollow-stem augers were used to advance the holes. Representative samples were obtained employing split-spoon sampling procedures in accordance with ASTM designation D-1586.

SUBSURFACE CONDITIONS

General

The types of foundation materials encountered have been visually classified and are described in detail on the boring logs. Representative samples of the soils were placed in the possession of Pilko & Associates, Inc. for further environmental testing purposes.

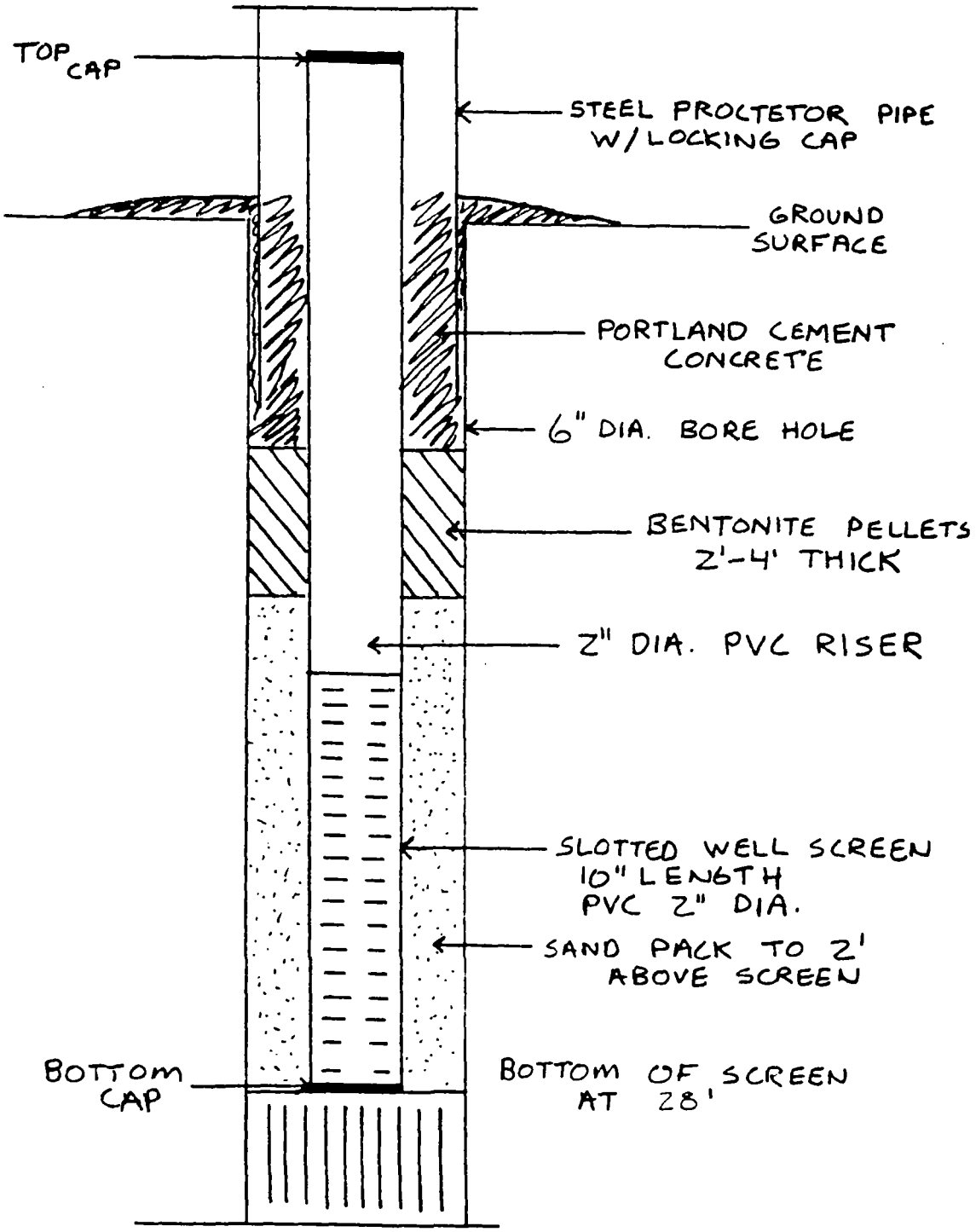
The stratification of the soils, as shown on the boring logs, represents the soil conditions in the actual boring locations, and other variations may occur between the borings. Lines of demarcation represent the approximate boundary between the soil types, but the transition may be gradual.

Summary

Soil test borings have been drilled and monitoring wells have been installed to investigate the subsurface and groundwater conditions on the site. An engineering analysis of the subsurface conditions was beyond the scope of this investigation. The boring logs can be found in the Appendix, which follows.

APPENDIX

Professional Service Industries



PROJECT NAME		
Subsurface Exploration & Monitoring Well Installation Old Farmall Facility Rock Island, Illinois	MONITORING WELL DIAGRAM	
	PROJECT NO 001-95016	DATE May 31, 1989

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring SB-10

Project Name: Subsurface Investigation & Monitoring Well Installation
Date of Boring: May 17, 1989
Site: Old Farmall Facility, Rock Island, Illinois
Project No.: 001-95016

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Black Foundry SAND		1-AU					
	5	2-SS					
	10	3-SS					
	15	4-SS					
	20	5-SS					
Dark Gray CLAY, With Organic Material	25	6-SS					
Clayey SAND & GRAVEL	30	7-SS					
	35	8-SS					
End of Boring							

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring SB-11

Project Name: Subsurface Investigation & Monitoring Well Installation

Date of Boring: May 16, 1989

Site: Old Farmall Facility, Rock Island, Illinois

Project No.: 001-95016

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Black Foundry SAND		1-AU					
	5						
		2-SS					
	10						
		3-SS					
	15						
		4-SS					
	20						
Clayey SAND & GRAVEL		5-SS					
	25						
Gray CLAY		6-SS					
Brown SAND & GRAVEL							
	30						
		7-SS					
	35						
Gray SHALE		8-SS					
End of Boring							

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring SB-12

Project Name: Subsurface Investigation & Monitoring Well Installation Date of Boring: May 17, 1989

Site: Old Farmall Facility, Rock Island, Illinois Project No.: 001-95016

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
12" CONCRETE							
Foundary SAND							
- Clean Sand at 5'							
	5						
- Rock Fragments at 11'		1-SS					
	10						
		2-SS					
	15						
		3-SS					
Dark Gray CLAY							
	20						
		4-SS					
	25						
		5-SS					
SAND & GRAVEL							
	30						
		6-SS					
	35						
		7-SS					
Gray SHALE							
	40						
		8-SS					
End of Boring							

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring MW-10

Project Name: Subsurface Investigation & Monitoring Well Installation

Date of Boring: May 16, 1989

Site: Old Farmall Facility, Rock Island, Illinois

Project No.: 001-95016

DESCRIPTION	DEPTH	SAMPLE	N	Q_u	Q_p	M_c	REMARKS
SURFACE							
Black Foundry SAND		1-AU					
	5						
		2-SS					
	10						
		3-SS					
	15						
		4-SS					
	20						
CLAY		5-SS					
	25						
LIMESTONE		6-SS					
SAND & GRAVEL							
	30						
		7-SS					
End of Boring							

ATTACHMENT 2

LABORATORY ANALYSIS

MAY, 1988

LABORATORY ANALYSIS

Professional Service Industries, Inc.

ANALYTICAL REPORT

'ESTED FOR: **PILKO & ASSOCIATES**
2707 N. Loop West
Suite 960
Houston, TX 77008

ATTN: John Buchannon

PROJECT: Navistar-Farmwall
1050/643

'ATE: May 31, 1988

OUR REPORT NO.: 213-80703-03

REMARKS:

Date Received: May 11, 1988
Sample Identification: Five water samples labeled below.
Methodology Employed: SW 846/Standard Methods, 16th Edition

Analysis	Results	Method #	Performed by
Sample ID: MW-2			
Priority Pollutant Metals:			
Antimony, mg/L	0.02	304	SC 5/18/88, 1100
Arsenic, mg/L	0.04	304	SC 5/21/88, 1050
Beryllium, mg/L	0.06	305	SM 5/20/88, 0834
Cadmium, mg/L	0.03	305	SM 5/20/88, 0834
Chromium, mg/L	<0.01	305	SM 5/20/88, 0834
Copper, mg/L	<0.01	305	SM 5/20/88, 0834
Lead, mg/L	0.11	304	SC 5/19/88, 1250
Mercury, mg/L	<0.002	303 A-F	SC 5/20/88, 1000
Nickel, mg/L	0.56	305	SM 5/20/88, 1133
Selenium, mg/L	0.05	304	SC 5/23/88, 1000
Silver, mg/L	0.03	303 A-F	SC 5/20/88, 0900
Thallium, mg/L	<0.01	304	SC 5/20/88, 0750
Zinc, mg/L	1.03	305	SM 5/20/88, 1133
Cyanide, mg/L	0.06	412 B	RC 5/11/88, 1600

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Sample ID: MW-2

Date analyzed: 5/24/88

HSL EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	1
Chloroethane	BDL	10
Dichloromethane	BDL	5
Acetone	BDL	10
Carbon disulfide	BDL	5
Trichlorofluoromethane	BDL	10
1,1-Dichloroethene	BDL	5
1,1-Dichloroethane	BDL	5
Trans-1,2-dichloroethene	BDL	5
Chloroform	BDL	5
1,2-Dichloroethane	30	3
2-Butanone	BDL	5
1,1,1-Trichloroethane	BDL	5
Carbon tetrachloride	BDL	3
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5
1,2-Dichloropropane	BDL	5
Cis-1,3-dichloropropene	BDL	5
Trichloroethene	BDL	3
Dibromochloromethane	BDL	5
1,1,2-Trichloroethane	BDL	5
Benzene	1,150	1
Trans-1,3-dichloropropene	BDL	5
2-Chloroethylvinylether	BDL	10
Bromoform	BDL	5
2-Hexanone	BDL	10
4-Methyl-2-pentanone	BDL	10
Tetrachloroethene	BDL	3
1,1,2,2-Tetrachloroethane	BDL	3
Toluene	53	5
Chlorobenzene	BDL	5
Ethylbenzene	BDL	5
Styrene	BDL	5
Total Xylenes	BDL	5
1,2-Dichlorobenzene	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10

BDL = Below Detection Limit

Surrogate Recoveries, %

1,2-Dichloroethane-d4 -----	77.0
Toluene-d8 ----------	96.1
Bromofluorobenzene --------	91.9

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Sample ID: MW-2

Date extracted: 5/22/88
Date analyzed: 5/27/88

EPA 608 Pesticides

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
Alpha-BHC	1.32	0.05
Beta-BHC	BDL	0.05
Lindane	0.56	0.05 4ppb
Delta-BHC	BDL	0.05
Heptachlor	0.43	0.05
Aldrin	BDL	0.05
Heptachlor epoxide	BDL	0.05
Endosulfan I	BDL	0.05
Dieldrin	BDL	0.10
p,p'-DDE	BDL	0.10
Endrin	BDL	0.10
Endosulfan II	BDL	0.10
p,p'-DDD	BDL	0.10
Endrin aldehyde	BDL	0.10
Endosulfan sulfate	BDL	0.10
p,p'-DDT	BDL	0.10
Chlordane	2.28	0.50
Toxaphene	BDL	1.00
PCB 1016	BDL	0.50
PCB 1221	BDL	0.50
PCB 1232	BDL	0.50
PCB 1242	BDL	0.50
PCB 1248	BDL	0.50
PCB 1254	BDL	1.00
PCB 1260	BDL	1.00

BDL = Below Detection Limit
** = Detected but below reporting level

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Sample ID: MW-2

Date extracted: 5/25/88
Date analyzed: 5/26/88

EPA 625 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
Phenol	BDL	10
Bis(2-chloroethyl)ether	BDL	10
2-Chlorophenol	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10
Benzyl alcohol	BDL	10
1,2-Dichlorobenzene	BDL	10
2-Methylphenol	BDL	10
Bis(2-chloroisopropyl)ether	BDL	10
4-Methylphenol	BDL	10
N-Nitrosodi-n-propylamine	BDL	10
Hexachloroethane	BDL	10
Nitrobenzene	BDL	10
Isophorone	BDL	10
2-Nitrophenol	BDL	10
2,4-Dimethylphenol	BDL	10
Benzoic acid	BDL	10
Bis(2-chloroethoxy)methane	BDL	10
2,4-Dichlorophenol	BDL	10
1,2,4-Trichlorobenzene	BDL	10
Naphthalene	BDL	10
4-Chloroaniline	BDL	10
Hexachlorobutadiene	BDL	10
4-Chloro-3-methylphenol	BDL	10
2-Methylnaphthalene	**	10
Hexachlorocyclopentadiene	BDL	10
2,4,6-Trichlorophenol	BDL	10
2,4,5-Trichlorophenol	BDL	10
2-Chloronaphthalene	BDL	10
2-Nitroaniline	BDL	10
Dimethylphthalate	BDL	10
Acenaphthylene	12	10
3-Nitroaniline	BDL	10
Acenaphthene	14	10
2,4-Dinitrophenol	BDL	10
4-Nitrophenol	BDL	10
Dibenzofuran	BDL	10
2.4-Dinitrotoluene	BDL	10
2,6-Dinitrotoluene	BDL	10
Diethylphthalate	BDL	10

-Continued-

EPA 625 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
4-Chlorophenyl-phenylether	BDL	10
Fluorene	11	10
4-Nitroaniline	BDL	10
4,6-Dinitro-2-methylphenol	BDL	10
N-Nitrosodiphenylamine	**	10
4-Bromophenyl-phenylether	BDL	10
Hexachlorobenzene	BDL	10
Pentachlorophenol	BDL	10
Phenanthrene	62	10
Anthracene	BDL	10
Di-n-butylphthalate	**	10
Fluoroanthene	62	10
Pyrene	BDL	10
Benzylbutylphthalate	BDL	10
3,3'-Dichlorobenzidine	**	10
Benzo(a)anthracene	BDL	10
Bis(2-ethylhexyl)phthalate	297	10
Chrysene	BDL	10
Di-n-octylphthalate	BDL	10
Benzo(b)fluoranthene	BDL	10
Benzo(k)fluroanthene	BDL	10
Benzo(a)pyrene	BDL	10
Indeno(1,2,3-cd)pyrene	BDL	10
Dibenzo(a,h)anthracene	BDL	10
Benzo(g,h,i)perylene	BDL	10

BDL = Below Detection Limit

Analysis	Results	Method #	Performed by
Sample ID: MW-3			
Priority Pollutant Metals:			
Antimony, mg/L	0.02	304	SC 5/18/88, 1100
Arsenic, mg/L	0.04	304	SC 5/21/88, 1050
Beryllium, mg/L	0.11	305	SM 5/20/88, 0834
Cadmium, mg/L	0.05	305	SM 5/20/88, 0834
Chromium, mg/L	0.04	305	SM 5/20/88, 0834
Copper, mg/L	<0.01	305	SM 5/20/88, 0834
Lead, mg/L	0.10	304	SC 5/19/88, 1250
Mercury, mg/L	<0.002	303 A-F	SC 5/20/88, 1000
Nickel, mg/L	1.58	305	SM 5/20/88, 1133
Selenium, mg/L	0.06	304	SC 5/23/88, 1000
Silver, mg/L	0.04	303 A-F	SC 5/20/88, 0900
Thallium, mg/L	<0.01	304	SC 5/20/88, 0750
Zinc, mg/L	0.83	305	SM 5/20/88, 1133
Cyanide, mg/L	<0.05	412 B	RC 5/11/88, 1600

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Sample ID: MW-3

Date analyzed: 5/24/88

HSL EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	1
Chloroethane	BDL	10
Dichloromethane	BDL	5
Acetone	BDL	10
Carbon disulfide	BDL	5
Trichlorofluoromethane	BDL	10
1,1-Dichloroethene	BDL	5
1,1-Dichloroethane	BDL	5
Trans-1,2-dichloroethene	BDL	5
Chloroform	BDL	5
1,2-Dichloroethane	BDL	3
2-Butanone	BDL	5
1,1,1-Trichloroethane	BDL	5
Carbon tetrachloride	BDL	3
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5
1,2-Dichloropropane	BDL	5
Cis-1,3-dichloropropene	BDL	5
Trichloroethene	BDL	3
Dibromochloromethane	BDL	5
1,1,2-Trichloroethane	BDL	5
Benzene	BDL	1
Trans-1,3-dichloropropene	BDL	5
2-Chloroethylvinylether	BDL	10
Bromoform	BDL	5
2-Hexanone	BDL	10
4-Methyl-2-pentanone	BDL	10
Tetrachloroethene	BDL	3
1,1,2,2-Tetrachloroethane	BDL	3
Toluene	BDL	5
Chlorobenzene	BDL	5
Ethylbenzene	BDL	5
Styrene	BDL	5
Total Xylenes	BDL	5
1,2-Dichlorobenzene	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10

BDL = Below Detection Limit

Surrogate Recoveries, %

1,2-Dichloroethane-d4 ----- 87.4
Toluene-d8 ---------- 111.5
Bromofluorobenzene -------- 82.3

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Sample ID: MW-3

Date extracted: 5/22/88
Date analyzed: 5/26/88

EPA 608 Pesticides

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
Alpha-BHC	BDL	0.05
Beta-BHC	BDL	0.05
Lindane	BDL	0.05
Delta-BHC	BDL	0.05
Heptachlor	0.61	0.05
Aldrin	BDL	0.05
Heptachlor epoxide	BDL	0.05
Endosulfan I	BDL	0.05
Dieldrin	BDL	0.10
p,p'-DDE	BDL	0.10
Endrin	BDL	0.10
Endosulfan II	BDL	0.10
p,p'-DDD	BDL	0.10
Endrin aldehyde	BDL	0.10
Endosulfan sulfate	BDL	0.10
p,p'-DDT	BDL	0.10
Chlordane	BDL	0.50
Toxaphene	BDL	1.00
PCB 1016	BDL	0.50
PCB 1221	BDL	0.50
PCB 1232	BDL	0.50
PCB 1242	BDL	0.50
PCB 1248	BDL	0.50
PCB 1254	BDL	1.00
PCB 1260	BDL	1.00

BDL = Below Detection Limit
** = Detected but below reporting level

Sample ID: MW-3

Date extracted: 5/25/88
Date analyzed: 5/26/88

EPA 625 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
Phenol	BDL	10
Bis(2-chloroethyl)ether	BDL	10
2-Chlorophenol	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10
Benzyl alcohol	BDL	10
1,2-Dichlorobenzene	BDL	10
2-Methylphenol	BDL	10
Bis(2-chloroisopropyl)ether	BDL	10
4-Methylphenol	BDL	10
N-Nitrosodi-n-propylamine	BDL	10
Hexachloroethane	BDL	10
Nitrobenzene	BDL	10
Isophorone	BDL	10
2-Nitrophenol	BDL	10
2,4-Dimethylphenol	BDL	10
Benzoic acid	BDL	10
Bis(2-chloroethoxy)methane	BDL	10
2,4-Dichlorophenol	BDL	10
1,2,4-Trichlorobenzene	BDL	10
Naphthalene	BDL	10
4-Chloroaniline	BDL	10
Hexachlorobutadiene	BDL	10
4-Chloro-3-methylphenol	BDL	10
2-Methylnaphthalene	**	10
Hexachlorocyclopentadiene	BDL	10
2,4,6-Trichlorophenol	BDL	10
2,4,5-Trichlorophenol	BDL	10
2-Chloronaphthalene	BDL	10
2-Nitroaniline	BDL	10
Dimethylphthalate	BDL	10
Acenaphthylene	BDL	10
3-Nitroaniline	BDL	10
Acenaphthene	BDL	10
2,4-Dinitrophenol	BDL	10
4-Nitrophenol	BDL	10
Dibenzofuran	BDL	10
2.4-Dinitrotoluene	BDL	10
2,6-Dinitrotoluene	BDL	10
Diethylphthalate	BDL	10

-Continued-

EPA 625 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
4-Chlorophenyl-phenylether	BDL	10
Fluorene	BDL	10
4-Nitroaniline	BDL	10
4,6-Dinitro-2-methylphenol	BDL	10
N-Nitrosodiphenylamine	BDL	10
4-Bromophenyl-phenylether	BDL	10
Hexachlorobenzene	BDL	10
Pentachlorophenol	BDL	10
Phenanthrene	BDL	10
Anthracene	BDL	10
Di-n-butylphthalate	BDL	10
Fluoroanthene	BDL	10
Pyrene	BDL	10
Benzylbutylphthalate	BDL	10
3,3'-Dichlorobenzidine	BDL	10
Benzo(a)anthracene	BDL	10
Bis(2-ethylhexyl)phthalate	230	10
Chrysene	BDL	10
Di-n-octylphthalate	BDL	10
Benzo(b)fluoranthene	BDL	10
Benzo(k)fluroanthene	BDL	10
Benzo(a)pyrene	BDL	10
Indeno(1,2,3-cd)pyrene	BDL	10
Dibenzo(a,h)anthracene	BDL	10
Benzo(g,h,i)perylene	BDL	10

BDL = Below Detection Limit

Analysis	Results	Method #	Performed by
Sample ID: MW-4			
Priority Pollutant Metals:			
Antimony, mg/L	0.01	304	SC 5/18/88, 1100
Arsenic, mg/L	0.04	304	SC 5/21/88, 1050
Beryllium, mg/L	0.08	305	SM 5/20/88, 0834
Cadmium, mg/L	0.05	305	SM 5/20/88, 0834
Chromium, mg/L	0.02	305	SM 5/20/88, 0834
Copper, mg/L	<0.01	305	SM 5/20/88, 0834
Lead, mg/L	0.10	304	SC 5/19/88, 1250
Mercury, mg/L	<0.002	303 A-F	SC 5/20/88, 1000
Nickel, mg/L	0.56	305	SM 5/20/88, 1133
Selenium, mg/L	0.03	304	SC 5/23/88, 1000
Silver, mg/L	0.03	303 A-F	SC 5/20/88, 0900
Thallium, mg/L	<0.01	304	SC 5/20/88, 0750
Zinc, mg/L	0.33	305	SM 5/20/88, 1133
Cyanide, mg/L	<0.05	412 B	RC 5/11/88, 1600

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Sample ID: MW-4

Date analyzed: 5/26/88

HSL EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	1
Chloroethane	BDL	10
Dichloromethane	BDL	5
Acetone	BDL	10
Carbon disulfide	3	5
Trichlorofluoromethane	BDL	10
1,1-Dichloroethene	BDL	5
1,1-Dichloroethane	BDL	5
Trans-1,2-dichloroethene	BDL	5
Chloroform	BDL	5
1,2-Dichloroethane	BDL	3
2-Butanone	BDL	5
1,1,1-Trichloroethane	8	5
Carbon tetrachloride	BDL	3
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5
1,2-Dichloropropane	BDL	5
Cis-1,3-dichloropropene	BDL	5
Trichloroethene	BDL	3
Dibromochloromethane	BDL	5
1,1,2-Trichloroethane	BDL	5
Benzene	BDL	1
Trans-1,3-dichloropropene	BDL	5
2-Chloroethylvinylether	BDL	10
Bromoform	BDL	5
2-Hexanone	BDL	10
4-Methyl-2-pentanone	BDL	10
Tetrachloroethene	BDL	3
1,1,2,2-Tetrachloroethane	BDL	3
Toluene	BDL	5
Chlorobenzene	BDL	5
Ethylbenzene	BDL	5
Styrene	BDL	5
Total Xylenes	BDL	5
1,2-Dichlorobenzene	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10

BDL = Below Detection Limit

Surrogate Recoveries, %

1,2-Dichloroethane-d4 -----	85.7
Toluene-d8 ----------	93.4
Bromofluorobenzene --------	86.5

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Sample ID: MW-4

Date extracted: 5/22/88
Date analyzed: 5/26/88

EPA 608 Pesticides

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
Alpha-BHC	BDL	0.05
Beta-BHC	BDL	0.05
Lindane	BDL	0.05
Delta-BHC	BDL	0.05
Heptachlor	BDL	0.05
Aldrin	BDL	0.05
Heptachlor epoxide	BDL	0.05
Endosulfan I	BDL	0.05
Dieldrin	BDL	0.10
p,p'-DDE	BDL	0.10
Endrin	BDL	0.10
Endosulfan II	BDL	0.10
p,p'-DDD	BDL	0.10
Endrin aldehyde	BDL	0.10
Endosulfan sulfate	BDL	0.10
p,p'-DDT	BDL	0.10
Chlordane	BDL	0.50
Toxaphene	BDL	1.00
PCB 1016	BDL	0.50
PCB 1221	BDL	0.50
PCB 1232	BDL	0.50
PCB 1242	BDL	0.50
PCB 1248	BDL	0.50
PCB 1254	BDL	1.00
PCB 1260	BDL	1.00

BDL = Below Detection Limit
** = Detected but below reporting level

Sample ID: MW-4

Date extracted: 5/22/88
Date analyzed: 5/26/88

EPA 625 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
Phenol	BDL	10
Bis(2-chloroethyl)ether	BDL	10
2-Chlorophenol	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10
Benzyl alcohol	BDL	10
1,2-Dichlorobenzene	BDL	10
2-Methylphenol	BDL	10
Bis(2-chloroisopropyl)ether	BDL	10
4-Methylphenol	BDL	10
N-Nitrosodi-n-propylamine	BDL	10
Hexachloroethane	BDL	10
Nitrobenzene	BDL	10
Isophorone	BDL	10
2-Nitrophenol	BDL	10
2,4-Dimethylphenol	BDL	10
Benzoic acid	BDL	10
Bis(2-chloroethoxy)methane	BDL	10
2,4-Dichlorophenol	BDL	10
1,2,4-Trichlorobenzene	BDL	10
Naphthalene	BDL	10
4-Chloroaniline	BDL	10
Hexachlorobutadiene	BDL	10
4-Chloro-3-methylphenol	BDL	10
2-Methylnaphthalene	BDL	10
Hexachlorocyclopentadiene	BDL	10
2,4,6-Trichlorophenol	BDL	10
2,4,5-Trichlorophenol	BDL	10
2-Chloronaphthalene	BDL	10
2-Nitroaniline	BDL	10
Dimethylphthalate	BDL	10
Acenaphthylene	BDL	10
3-Nitroaniline	BDL	10
Acenaphthene	BDL	10
2,4-Dinitrophenol	BDL	10
4-Nitrophenol	BDL	10
Dibenzofuran	BDL	10
2.4-Dinitrotoluene	BDL	10
2,6-Dinitrotoluene	BDL	10
Diethylphthalate	BDL	10

-Continued-

EPA 625 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
4-Chlorophenyl-phenylether	BDL	10
Fluorene	BDL	10
4-Nitroaniline	BDL	10
4,6-Dinitro-2-methylphenol	BDL	10
N-Nitrosodiphenylamine	BDL	10
4-Bromophenyl-phenylether	BDL	10
Hexachlorobenzene	BDL	10
Pentachlorophenol	BDL	10
Phenanthrene	BDL	10
Anthracene	BDL	10
Di-n-butylphthalate	BDL	10
Fluoroanthene	BDL	10
Pyrene	BDL	10
Benzylbutylphthalate	BDL	10
3,3'-Dichlorobenzidine	BDL	10
Benzo(a)anthracene	BDL	10
Bis(2-ethylhexyl)phthalate	188	10
Chrysene	BDL	10
Di-n-octylphthalate	BDL	10
Benzo(b)fluoranthene	BDL	10
Benzo(k)fluroanthene	BDL	10
Benzo(a)pyrene	BDL	10
Indeno(1,2,3-cd)pyrene	BDL	10
Dibenzo(a,h)anthracene	BDL	10
Benzo(g,h,i)perylene	BDL	10

BDL = Below Detection Limit

Analysis	Results	Method #	Performed by
Sample ID: MW-5			
Priority Pollutant Metals:			
Antimony, mg/L	0.01	304	SC 5/18/88, 1100
Arsenic, mg/L	0.04	304	SC 5/21/88, 1050
Beryllium, mg/L	0.12	305	SM 5/20/88, 0834
Cadmium, mg/L	0.07	305	SM 5/20/88, 0834
Chromium, mg/L	0.01	305	SM 5/20/88, 0834
Copper, mg/L	<0.01	305	SM 5/20/88, 0834
Lead, mg/L	0.06	304	SC 5/19/88, 1250
Mercury, mg/L	<0.002	303 A-F	SC 5/20/88, 1000
Nickel, mg/L	0.54	305	SM 5/20/88, 1133
Selenium, mg/L	0.04	304	SC 5/23/88, 1000
Silver, mg/L	0.04	303 A-F	SC 5/20/88, 0900
Thallium, mg/L	<0.01	304	SC 5/20/88, 0750
Zinc, mg/L	0.53	305	SM 5/20/88, 1133
Cyanide, mg/L	<0.05	412 B	RC 5/11/88, 1600

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Sample ID: MW-5

Date analyzed: 5/26/88

HSL EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	1
Chloroethane	BDL	10
Dichloromethane	BDL	5
Acetone	BDL	10
Carbon disulfide	BDL	5
Trichlorofluoromethane	BDL	10
1,1-Dichloroethene	BDL	5
1,1-Dichloroethane	BDL	5
Trans-1,2-dichloroethene	BDL	5
Chloroform	BDL	5
1,2-Dichloroethane	BDL	3
2-Butanone	BDL	5
1,1,1-Trichloroethane	350	5
Carbon tetrachloride	BDL	3
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5
1,2-Dichloropropane	BDL	5
Cis-1,3-dichloropropene	BDL	5
Trichloroethene	BDL	3
Dibromochloromethane	BDL	5
1,1,2-Trichloroethane	BDL	5
Benzene	BDL	1
Trans-1,3-dichloropropene	BDL	5
2-Chloroethylvinylether	BDL	10
Bromoform	BDL	5
2-Hexanone	BDL	10
4-Methyl-2-pentanone	BDL	10
Tetrachloroethene	BDL	3
1,1,2,2-Tetrachloroethane	BDL	3
Toluene	BDL	5
Chlorobenzene	BDL	5
Ethylbenzene	BDL	5
Styrene	BDL	5
Total Xylenes	BDL	5
1,2-Dichlorobenzene	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10

BDL = Below Detection Limit

Surrogate Recoveries, %

1,2-Dichloroethane-d4 -----	94.7
Toluene-d8 ----------	90.3
Bromofluorobenzene --------	90.3

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Sample ID: MW-5

Date extracted: 5/22/88
Date analyzed: 5/25/88

EPA 608 Pesticides

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
Alpha-BHC	BDL	0.05
Beta-BHC	.89	0.05
Lindane	BDL	0.05
Delta-BHC	BDL	0.05
Heptachlor	BDL	0.05
Aldrin	BDL	0.05
Heptachlor epoxide	BDL	0.05
Endosulfan I	BDL	0.05
Dieldrin	BDL	0.10
p,p'-DDE	BDL	0.10
Endrin	BDL	0.10
Endosulfan II	BDL	0.10
p,p'-DDD	BDL	0.10
Endrin aldehyde	BDL	0.10
Endosulfan sulfate	BDL	0.10
p,p'-DDT	BDL	0.10
Chlordane	BDL	0.50
Toxaphene	BDL	1.00
PCB 1016	BDL	0.50
PCB 1221	BDL	0.50
PCB 1232	BDL	0.50
PCB 1242	BDL	0.50
PCB 1248	BDL	0.50
PCB 1254	BDL	1.00
PCB 1260	BDL	1.00

BDL = Below Detection Limit
** = Detected but below reporting level

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Sample ID: MW-5

Date extracted: 5/25/88
Date analyzed: 5/26/88

EPA 625 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
Phenol	BDL	10
Bis(2-chloroethyl)ether	BDL	10
2-Chlorophenol	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10
Benzyl alcohol	BDL	10
1,2-Dichlorobenzene	BDL	10
2-Methylphenol	BDL	10
Bis(2-chloroisopropyl)ether	BDL	10
4-Methylphenol	**	10
N-Nitrosodi-n-propylamine	BDL	10
Hexachloroethane	BDL	10
Nitrobenzene	BDL	10
Isophorone	90	10
2-Nitrophenol	BDL	10
2,4-Dimethylphenol	**	10
Benzoic acid	5,260	10
Bis(2-chloroethoxy)methane	16	10
2,4-Dichlorophenol	BDL	10
1,2,4-Trichlorobenzene	BDL	10
Naphthalene	BDL	10
4-Chloroaniline	BDL	10
Hexachlorobutadiene	BDL	10
4-Chloro-3-methylphenol	**	10
2-Methylnaphthalene	BDL	10
Hexachlorocyclopentadiene	BDL	10
2,4,6-Trichlorophenol	BDL	10
2,4,5-Trichlorophenol	BDL	10
2-Chloronaphthalene	BDL	10
2-Nitroaniline	BDL	10
Dimethylphthalate	BDL	10
Acenaphthylene	BDL	10
3-Nitroaniline	601	10
Acenaphthene	BDL	10
2,4-Dinitrophenol	BDL	10
4-Nitrophenol	517	10
Dibenzofuran	BDL	10
2.4-Dinitrotoluene	2,370	10
2,6-Dinitrotoluene	730	10
Diethylphthalate	BDL	10

-Continued-

EPA 625 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
4-Chlorophenyl-phenylether	300	10
Fluorene	BDL	10
4-Nitroaniline	520	10
4,6-Dinitro-2-methylphenol	9,010	10
N-Nitrosodiphenylamine	860	10
4-Bromophenyl-phenylether	BDL	10
Hexachlorobenzene	BDL	10
Pentachlorophenol	BDL	10
Phenanthrene	18,700	10
Anthracene	BDL	10
Di-n-butylphthalate	BDL	10
Fluoroanthene	270	10
Pyrene	BDL	10
Benzylbutylphthalate	BDL	10
3,3'-Dichlorobenzidine	BDL	10
Benzo(a)anthracene	BDL	10
Bis(2-ethylhexyl)phthalate	BDL	10
Chrysene	BDL	10
Di-n-octylphthalate	BDL	10
Benzo(b)fluoranthene	BDL	10
Benzo(k)fluroanthene	BDL	10
Benzo(a)pyrene	BDL	10
Indeno(1,2,3-cd)pyrene	BDL	10
Dibenzo(a,h)anthracene	BDL	10
Benzo(g,h,i)perylene	BDL	10

BDL = Below Detection Limit

Analysis	Results	Method #	Performed by
Sample ID: MW-6			
Priority Pollutant Metals:			
Antimony, mg/L	0.01	304	SC 5/18/88, 1100
Arsenic, mg/L	0.04	304	SC 5/21/88, 1050
Beryllium, mg/L	0.11	305	SM 5/20/88, 0834
Cadmium, mg/L	0.07	305	SM 5/20/88, 0834
Chromium, mg/L	0.06	305	SM 5/20/88, 0834
Copper, mg/L	<0.01	305	SM 5/20/88, 0834
Lead, mg/L	0.94	304	SC 5/19/88, 1250
Mercury, mg/L	<0.002	303 A-F	SC 5/20/88, 1000
Nickel, mg/L	1.70	305	SM 5/20/88, 1133
Selenium, mg/L	0.05	304	SC 5/23/88, 1000
Silver, mg/L	0.02	303 A-F	SC 5/20/88, 0900
Thallium, mg/L	<0.01	304	SC 5/20/88, 0750
Zinc, mg/L	0.51	305	SM 5/20/88, 1133
Cyanide, mg/L	<0.05	412 B	RC 5/11/88, 1600

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Sample ID: MW-6

Date analyzed: 5/26/88

HSL EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	1
Chloroethane	BDL	10
Dichloromethane	BDL	5
Acetone	BDL	10
Carbon disulfide	BDL	5
Trichlorofluoromethane	BDL	10
1,1-Dichloroethene	BDL	5
1,1-Dichloroethane	BDL	5
Trans-1,2-dichloroethene	BDL	5
Chloroform	BDL	5
1,2-Dichloroethane	BDL	3
2-Butanone	BDL	5
1,1,1-Trichloroethane	250	5
Carbon tetrachloride	BDL	3
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5
1,2-Dichloropropane	BDL	5
Cis-1,3-dichloropropene	BDL	5
Trichloroethene	BDL	3
Dibromochloromethane	BDL	5
1,1,2-Trichloroethane	BDL	5
Benzene	BDL	1
Trans-1,3-dichloropropene	BDL	5
2-Chloroethylvinylether	BDL	10
Bromoform	BDL	5
2-Hexanone	BDL	10
4-Methyl-2-pentanone	BDL	10
Tetrachloroethene	BDL	3
1,1,2,2-Tetrachloroethane	BDL	3
Toluene	BDL	5
Chlorobenzene	BDL	5
Ethylbenzene	BDL	5
Styrene	BDL	5
Total Xylenes	BDL	5
1,2-Dichlorobenzene	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10

BDL = Below Detection Limit

Surrogate Recoveries, %

1,2-Dichloroethane-d4 -----	86.8
Toluene-d8 ----------	90.6
Bromofluorobenzene --------	87.0

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Sample ID: MW-6

Date extracted: 5/22/88
Date analyzed: 5/26/88

EPA 608 Pesticides

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
Alpha-BHC	0.60	0.05
Beta-BHC	BDL	0.05
Lindane	BDL	0.05
Delta-BHC	BDL	0.05
Heptachlor	BDL	0.05
Aldrin	BDL	0.05
Heptachlor epoxide	BDL	0.05
Endosulfan I	BDL	0.05
Dieldrin	BDL	0.10
p,p'-DDE	BDL	0.10
Endrin	BDL	0.10
Endosulfan II	BDL	0.10
p,p'-DDD	BDL	0.10
Endrin aldehyde	BDL	0.10
Endosulfan sulfate	BDL	0.10
p,p'-DDT	BDL	0.10
Chlordane	BDL	0.50
Toxaphene	BDL	1.00
PCB 1016	BDL	0.50
PCB 1221	BDL	0.50
PCB 1232	BDL	0.50
PCB 1242	BDL	0.50
PCB 1248	BDL	0.50
PCB 1254	BDL	1.00
PCB 1260	BDL	1.00

BDL = Below Detection Limit
** = Detected but below reporting level

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Sample ID: MW-6

Date extracted: 5/25/88
Date analyzed: 5/26/88

EPA 625 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
Phenol	20	10
Bis(2-chloroethyl)ether	262	10
2-Chlorophenol	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10
Benzyl alcohol	BDL	10
1,2-Dichlorobenzene	BDL	10
2-Methylphenol	**	10
Bis(2-chloroisopropyl)ether	BDL	10
4-Methylphenol	BDL	10
N-Nitrosodi-n-propylamine	BDL	10
Hexachloroethane	BDL	10
Nitrobenzene	BDL	10
Isophorone	BDL	10
2-Nitrophenol	BDL	10
2,4-Dimethylphenol	BDL	10
Benzoic acid	BDL	10
Bis(2-chloroethoxy)methane	BDL	10
2,4-Dichlorophenol	BDL	10
1,2,4-Trichlorobenzene	BDL	10
Naphthalene	BDL	10
4-Chloroaniline	BDL	10
Hexachlorobutadiene	BDL	10
4-Chloro-3-methylphenol	BDL	10
2-Methylnaphthalene	BDL	10
Hexachlorocyclopentadiene	BDL	10
2,4,6-Trichlorophenol	BDL	10
2,4,5-Trichlorophenol	BDL	10
2-Chloronaphthalene	BDL	10
2-Nitroaniline	BDL	10
Dimethylphthalate	BDL	10
Acenaphthylene	BDL	10
3-Nitroaniline	BDL	10
Acenaphthene	BDL	10
2,4-Dinitrophenol	BDL	10
4-Nitrophenol	BDL	10
Dibenzofuran	BDL	10
2.4-Dinitrotoluene	BDL	10
2,6-Dinitrotoluene	BDL	10
Diethylphthalate	BDL	10

-Continued-

EPA 625 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
4-Chlorophenyl-phenylether	BDL	10
Fluorene	BDL	10
4-Nitroaniline	BDL	10
4,6-Dinitro-2-methylphenol	BDL	10
N-Nitrosodiphenylamine	BDL	10
4-Bromophenyl-phenylether	BDL	10
Hexachlorobenzene	BDL	10
Pentachlorophenol	BDL	10
Phenanthrene	BDL	10
Anthracene	BDL	10
Di-n-butylphthalate	BDL	10
Fluoroanthene	BDL	10
Pyrene	BDL	10
Benzylbutylphthalate	BDL	10
3,3'-Dichlorobenzidine	BDL	10
Benzo(a)anthracene	BDL	10
Bis(2-ethylhexyl)phthalate	BDL	10
Chrysene	BDL	10
Di-n-octylphthalate	BDL	10
Benzo(b)fluoranthene	BDL	10
Benzo(k)fluroanthene	BDL	10
Benzo(a)pyrene	BDL	10
Indeno(1,2,3-cd)pyrene	BDL	10
Dibenzo(a,h)anthracene	BDL	10
Benzo(g,h,i)perylene	BDL	10

BDL = Below Detection Limit

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

Comment: The QA report summary is forthcoming.

Empty Shuttle Lab Seal No. 1078 Shuttle Opened in Field by JWB Shuttle Resealed by JWB

Sealed by G.A. Date 4-22-88 Seal no. 1078 Date 5/3/88 Seal no. 1079 Date 5/10/88

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NO.: 1050/643

LOCATION: NavistAR - Farmall

DATE: 05/10/88

SAMPLE DUE DATE:

TIME	SAMPLER	CONTAINERS	SAMPLE TYPE: GRAB	COMPOSITE	SOIL	WATER	SAMPLE I.D..	VOA	Pesticides	PCB	BN	A/E	Metals				SPLIT (Y) (N)
12:45	JWB	7				X	MW-2	✓	✓	✓	✓	✓	✓				
1:30	JWB	7				X	MW-3	✓	✓	✓	✓	✓	✓				

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME	SAMPLE CONDITIONS
J Buchanan to Fed Ex	5/11/88		Gary Crab	5/11/88	8:30	

Empty Shuttle Lab Seal No. 1076 Shuttle Opened in Field by JWI Shuttle Reseated by [illegible]

Sealed by G. A. Date 4-22-88 Seal no. 1076 Date 05/03/88 Seal no. 1077 Date 05/10/88

CHAIN OF CUSTODY RECORD

PAGE 1 OF ___

PROJECT NO.: 1050/643

LOCATION: NAVISTAR Farmall

DATE: 05/10/88

SAMPLE DUE DATE:

TIME	SAMPLER	CONTAINERS	SAMPLE TYPE: GRAB	COMPOSITE	SOIL	WATER	SAMPLE I.D..	ANALYSIS REQUIRED: Priority Pollutants VOA	PCB	Pesticides	B/N	A/E	Metals				SPLIT (Y) (N)
800	JCM	7				✓	MW-4	✓	✓	✓	✓	✓	✓				
930	JCM	7				✓	MW-5	✓	✓	✓	✓	✓	✓				
1100	JCM	7				✓	MW-6	✓	✓	✓	✓	✓	✓				

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME	SAMPLE CONDITIONS
J Buchanan to Fed Ex	05/10/88	4:30 pm	[illegible]	5/11/88	8:30	

Professional Service Industries, Inc.

ANALYTICAL REPORT

TESTED FOR: **PILKO & ASSOCIATES**
2707 N. Loop West
Suite 960
Houston, TX 77008

ATTN: John Buchannon

PROJECT: Navistar 1050/643

DATE: May 31, 1988

OUR REPORT NO.: 213-80703-02

REMARKS:

Date Received: May 10, 1988
Sample Identification: Two water samples and two soil samples labeled below.
Methodology Employed: SW 846/Standard Methods, 16th Edition

Analysis	Results	Method #	Performed by
Sample ID: MW-7			
Priority Pollutant Metals:			
Antimony, mg/L	0.03	304	SC 5/24/88, 0825
Arsenic, mg/L	0.03	304	SC 5/21/88, 1050
Beryllium, mg/L	0.12	305	SM 5/20/88, 0834
Cadmium, mg/L	0.08	305	SM 5/20/88, 0834
Chromium, mg/L	0.01	305	SM 5/20/88, 0834
Copper, mg/L	<0.01	305	SM 5/20/88, 0834
Lead, mg/L	0.25	304	SC 5/19/88, 1250
Mercury, mg/L	<0.002	303 A-F	SC 5/20/88, 1550
Nickel, mg/L	0.58	305	SM 5/20/88, 1133
Selenium, mg/L	0.04	304	SC 5/23/88, 1000
Silver, mg/L	0.01	303 A-F	SC 5/20/88, 0900
Thallium, mg/L	<0.01	304	SC 5/20/88, 0750
Zinc, mg/L	0.65	305	SM 5/20/88, 1133
Cyanide, mg/L	0.08	412 B	RC 5/12/88, 1300

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Page 2
Sample ID: MW-7

Date analyzed: 5/24/88

HSL EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	1
Chloroethane	BDL	10
Dichloromethane	BDL	5
Acetone	BDL	10
Carbon disulfide	BDL	5
Trichlorofluoromethane	BDL	10
1,1-Dichloroethene	BDL	5
1,1-Dichloroethane	BDL	5
Trans-1,2-dichloroethene	BDL	5
Chloroform	BDL	5
1,2-Dichloroethane	BDL	3
2-Butanone	BDL	5
1,1,1-Trichloroethane	BDL	5
Carbon tetrachloride	**	3
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5
1,2-Dichloropropane	BDL	5
Cis-1,3-dichloropropene	BDL	5
Trichloroethene	BDL	3
Dibromochloromethane	BDL	5
1,1,2-Trichloroethane	BDL	5
Benzene	**	1
Trans-1,3-dichloropropene	BDL	5
2-Chloroethylvinylether	BDL	10
Bromoform	BDL	5
2-Hexanone	BDL	10
4-Methyl-2-pentanone	BDL	10
Tetrachloroethene	BDL	3
1,1,2,2-Tetrachloroethane	BDL	3
Toluene	BDL	5
Chlorobenzene	BDL	5
Ethylbenzene	BDL	5
Styrene	BDL	5
Total Xylenes	BDL	5
1,2-Dichlorobenzene	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10

BDL = Below Detection Limit

Surrogate Recoveries, %

1,2-Dichloroethane-d4 -----	86.0
Toluene-d8 ----------	93.5
Bromofluorobenzene --------	91.8

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Page 3
Sample ID: MW-7

Date extracted: 5/24/88
Date analyzed: 5/25/88

EPA 608 Pesticides

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
Alpha-BHC	BDL	0.05
Beta-BHC	BDL	0.05
Lindane	BDL	0.05
Delta-BHC	BDL	0.05
Heptachlor	BDL	0.05
Aldrin	BDL	0.05
Heptachlor epoxide	BDL	0.05
Endosulfan I	BDL	0.05
Dieldrin	BDL	0.10
p,p'-DDE	BDL	0.10
Endrin	BDL	0.10
Endosulfan II	BDL	0.10
p,p'-DDD	BDL	0.10
Endrin aldehyde	BDL	0.10
Endosulfan sulfate	BDL	0.10
p,p'-DDT	BDL	0.10
Chlordane	BDL	0.50
Toxaphene	BDL	1.00
PCB 1016	BDL	0.50
PCB 1221	BDL	0.50
PCB 1232	BDL	0.50
PCB 1242	BDL	0.50
PCB 1248	BDL	0.50
PCB 1254	BDL	1.00
PCB 1260	BDL	1.00

BDL = Below Detection Limit
** = Detected but below reporting level

Pilko & Associates
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Page 4
Sample ID: MW-7

Date extracted: 5/24/88
Date analyzed: 5/25/88

EPA 625 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
Phenol	BDL	10
Bis(2-chloroethyl)ether	BDL	10
2-Chlorophenol	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10
Benzyl alcohol	BDL	10
1,2-Dichlorobenzene	BDL	10
2-Methylphenol	BDL	10
Bis(2-chloroisopropyl)ether	BDL	10
4-Methylphenol	BDL	10
N-Nitrosodi-n-propylamine	BDL	10
Hexachloroethane	BDL	10
Nitrobenzene	BDL	10
Isophorone	BDL	10
2-Nitrophenol	BDL	10
2,4-Dimethylphenol	BDL	10
Benzoic acid	BDL	10
Bis(2-chloroethoxy)methane	BDL	10
2,4-Dichlorophenol	BDL	10
1,2,4-Trichlorobenzene	BDL	10
Naphthalene	BDL	10
4-Chloroaniline	BDL	10
Hexachlorobutadiene	BDL	10
4-Chloro-3-methylphenol	BDL	10
2-Methylnaphthalene	BDL	10
Hexachlorocyclopentadiene	BDL	10
2,4,6-Trichlorophenol	BDL	10
2,4,5-Trichlorophenol	BDL	10
2-Chloronaphthalene	BDL	10
2-Nitroaniline	BDL	10
Dimethylphthalate	BDL	10
Acenaphthylene	**	10
3-Nitroaniline	BDL	10
Acenaphthene	**	10
2,4-Dinitrophenol	BDL	10
4-Nitrophenol	BDL	10
Dibenzofuran	BDL	10
2.4-Dinitrotoluene	BDL	10
2,6-Dinitrotoluene	BDL	10
Diethylphthalate	BDL	10

-Continued-

EPA 625 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
4-Chlorophenyl-phenylether	BDL	10
Fluorene	**	10
4-Nitroaniline	BDL	10
4,6-Dinitro-2-methylphenol	BDL	10
N-Nitrosodiphenylamine	**	10
4-Bromophenyl-phenylether	BDL	10
Hexachlorobenzene	BDL	10
Pentachlorophenol	BDL	10
Phenanthrene	BDL	10
Anthracene	**	10
Di-n-butylphthalate	BDL	10
Fluoroanthene	14	10
Pyrene	BDL	10
Benzylbutylphthalate	BDL	10
3,3'-Dichlorobenzidine	BDL	10
Benzo(a)anthracene	BDL	10
Bis(2-ethylhexyl)phthalate	567	10
Chrysene	BDL	10
Di-n-octylphthalate	BDL	10
Benzo(b)fluoranthene	BDL	10
Benzo(k)fluroanthene	BDL	10
Benzo(a)pyrene	BDL	10
Indeno(1,2,3-cd)pyrene	BDL	10
Dibenzo(a,h)anthracene	BDL	10
Benzo(g,h,i)perylene	BDL	10

BDL = Below Detection Limit

Analysis	Results	Method #	Performed by
Sample ID: MW-8			
Priority Pollutant Metals:			
Antimony, mg/L	0.03	304	SC 5/24/88, 0825
Arsenic, mg/L	0.03	304	SC 5/21/88, 1050
Beryllium, mg/L	0.12	305	SM 5/20/88, 0834
Cadmium, mg/L	0.09	305	SM 5/20/88, 0834
Chromium, mg/L	<0.01	305	SM 5/20/88, 0834
Copper, mg/L	<0.01	305	SM 5/20/88, 0834
Lead, mg/L	0.03	304	SC 5/19/88, 1250
Mercury, mg/L	<0.002	303 A-F	SC 5/20/88, 1550
Nickel, mg/L	1.36	305	SM 5/20/88, 1133
Selenium, mg/L	0.02	304	SC 5/23/88, 1000
Silver, mg/L	0.01	303 A-F	SC 5/20/88, 0900
Thallium, mg/L	<0.01	304	SC 5/20/88, 0750
Zinc, mg/L	0.22	305	SM 5/20/88, 1133
Cyanide, mg/L	<0.05	412 B	RC 5/12/88, 1300

Pilko & Associates
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Sample ID: MW-8

Date analyzed: 5/24/88

HSL EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	1
Chloroethane	BDL	10
Dichloromethane	BDL	5
Acetone	BDL	10
Carbon disulfide	BDL	5
Trichlorofluoromethane	BDL	10
1,1-Dichloroethene	BDL	5
1,1-Dichloroethane	BDL	5
Trans-1,2-dichloroethene	BDL	5
Chloroform	BDL	5
1,2-Dichloroethane	BDL	3
2-Butanone	BDL	5
1,1,1-Trichloroethane	BDL	5
Carbon tetrachloride	BDL	3
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5
1,2-Dichloropropane	BDL	5
Cis-1,3-dichloropropene	BDL	5
Trichloroethene	BDL	3
Dibromochloromethane	BDL	5
1,1,2-Trichloroethane	BDL	5
Benzene	BDL	1
Trans-1,3-dichloropropene	BDL	5
2-Chloroethylvinylether	BDL	10
Bromoform	BDL	5
2-Hexanone	BDL	10
4-Methyl-2-pentanone	BDL	10
Tetrachloroethene	BDL	3
1,1,2,2-Tetrachloroethane	BDL	3
Toluene	BDL	5
Chlorobenzene	BDL	5
Ethylbenzene	BDL	5
Styrene	BDL	5
Total Xylenes	BDL	5
1,2-Dichlorobenzene	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10

BDL = Below Detection Limit

Surrogate Recoveries, %

1,2-Dichloroethane-d4 -----	86.7
Toluene-d8 ----------	98.3
Bromofluorobenzene --------	98.1

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Sample ID: MW-8

Date extracted: 5/24/88
Date analyzed: 5/25/88

EPA 608 Pesticides

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
Alpha-BHC	0.25	0.05
Beta-BHC	BDL	0.05
Lindane	5.92	0.05
Delta-BHC	BDL	0.05
Heptachlor	BDL	0.05
Aldrin	BDL	0.05
Heptachlor epoxide	BDL	0.05
Endosulfan I	BDL	0.05
Dieldrin	BDL	0.10
p,p'-DDE	BDL	0.10
Endrin	BDL	0.10
Endosulfan II	BDL	0.10
p,p'-DDD	BDL	0.10
Endrin aldehyde	BDL	0.10
Endosulfan sulfate	BDL	0.10
p,p'-DDT	2.14	0.10
Chlordane	BDL	0.50
Toxaphene	BDL	1.00
PCB 1016	BDL	0.50
PCB 1221	BDL	0.50
PCB 1232	BDL	0.50
PCB 1242	BDL	0.50
PCB 1248	BDL	0.50
PCB 1254	BDL	1.00
PCB 1260	BDL	1.00

BDL = Below Detection Limit
** = Detected but below reporting level

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Sample ID: MW-8

Date extracted: 5/24/88
Date analyzed: 5/25/88

EPA 625 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
Phenol	BDL	10
Bis(2-chloroethyl)ether	BDL	10
2-Chlorophenol	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10
Benzyl alcohol	BDL	10
1,2-Dichlorobenzene	BDL	10
2-Methylphenol	BDL	10
Bis(2-chloroisopropyl)ether	BDL	10
4-Methylphenol	BDL	10
N-Nitrosodi-n-propylamine	BDL	10
Hexachloroethane	BDL	10
Nitrobenzene	BDL	10
Isophorone	BDL	10
2-Nitrophenol	BDL	10
2,4-Dimethylphenol	BDL	10
Benzoic acid	BDL	10
Bis(2-chloroethoxy)methane	BDL	10
2,4-Dichlorophenol	BDL	10
1,2,4-Trichlorobenzene	BDL	10
Naphthalene	BDL	10
4-Chloroaniline	BDL	10
Hexachlorobutadiene	BDL	10
4-Chloro-3-methylphenol	BDL	10
2-Methylnaphthalene	BDL	10
Hexachlorocyclopentadiene	BDL	10
2,4,6-Trichlorophenol	BDL	10
2,4,5-Trichlorophenol	BDL	10
2-Chloronaphthalene	BDL	10
2-Nitroaniline	BDL	10
Dimethylphthalate	BDL	10
Acenaphthylene	BDL	10
3-Nitroaniline	BDL	10
Acenaphthene	BDL	10
2,4-Dinitrophenol	BDL	10
4-Nitrophenol	BDL	10
Dibenzofuran	BDL	10
2.4-Dinitrotoluene	BDL	10
2,6-Dinitrotoluene	BDL	10
Diethylphthalate	BDL	10

-Continued-

EPA 625 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppb, (ug/l)	Reporting Level ppb, (ug/l)
4-Chlorophenyl-phenylether	BDL	10
Fluorene	BDL	10
4-Nitroaniline	BDL	10
4,6-Dinitro-2-methylphenol	BDL	10
N-Nitrosodiphenylamine	BDL	10
4-Bromophenyl-phenylether	BDL	10
Hexachlorobenzene	BDL	10
Pentachlorophenol	BDL	10
Phenanthrene	BDL	10
Anthracene	BDL	10
Di-n-butylphthalate	**	10
Fluoroanthene	BDL	10
Pyrene	BDL	10
Benzylbutylphthalate	BDL	10
3,3'-Dichlorobenzidine	BDL	10
Benzo(a)anthracene	BDL	10
Bis(2-ethylhexyl)phthalate	164	10
Chrysene	BDL	10
Di-n-octylphthalate	BDL	10
Benzo(b)fluoranthene	BDL	10
Benzo(k)fluroanthene	BDL	10
Benzo(a)pyrene	BDL	10
Indeno(1,2,3-cd)pyrene	BDL	10
Dibenzo(a,h)anthracene	BDL	10
Benzo(g,h,i)perylene	BDL	10

BDL = Below Detection Limit

Professional Service Industries, Inc.

ANALYTICAL REPORT

TESTED FOR: **PILKO & ASSOCIATES**
2707 N. Loop West
Suite 960
Houston, TX 77008

PROJECT: Navistar 1050/643

Attention: John Buchannon

DATE: May 31, 1988

OUR REPORT NO.: 213-80703-01

REMARKS: Date Received: May 5, 1988

Sample Identification: Twenty-five soil samples labeled below.

Methodology Employed: SW 846, Standard Methods, 16th Edition
All metals reported on dry weight basis

Analysis	Results	Method #	Performed by
Sample ID: SB-1, 5'-6'			
Priority Pollutant Metals:			
Antimony, mg/kg	1.45	304	SC 5/18/88, 1100
Arsenic, mg/kg	4.61	304	SC 5/21/88, 1050
Beryllium, mg/kg	18.0	305	SM 5/16/88, 1428
Cadmium, mg/kg	6.53	305	SM 5/16/88, 1428
Chromium, mg/kg	27.0	305	SM 5/16/88, 1428
Copper, mg/kg	39.2	305	SM 5/16/88, 1428
Lead, mg/kg	23.8	304	SC 5/19/88, 1250
Mercury, mg/kg	<0.50	303 A-F	SC 5/18/88, 0850
Nickel, mg/kg	77.6	305	SM 5/16/88, 1428
Selenium, mg/kg	2.59	304	SC 5/23/88, 1000
Silver, mg/kg	1.04	303 A-F	SC 5/17/88, 1600
Thallium, mg/kg	<0.50	304	SC 5/17/88, 1350
Zinc, mg/kg	47.2	305	SM 5/16/88, 1428
Cyanide, mg/kg	0.09	412 B	RC 5/16/88, 1300

Continued

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Page 2
Sample ID: SB-1, 5'-6'

Date extracted: 5/18/88
Date analyzed: 5/18/88

SW 8080 PESTICIDES

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Alpha-BHC	BDL	1
Beta-BHC	BDL	1
Lindane	BDL	1
Delta-BHC	BDL	1
Heptachlor	BDL	1
Aldrin	BDL	1
Heptachlor epoxide	BDL	1
Endosulfan I	BDL	1
Dieldrin	BDL	1
p,p'-DDE	BDL	1
Endrin	BDL	1
Endosulfan II	BDL	1
p,p'-DDD	BDL	1
Endrin aldehyde	BDL	1
Endosulfan sulfate	BDL	1
p,p'-DDT	BDL	1
Chlordane	BDL	5
Toxaphene	BDL	5
PCB 1016	BDL	5
PCB 1221	BDL	5
PCB 1232	BDL	5
PCB 1242	BDL	5
PCB 1248	BDL	5
PCB 1254	BDL	5
PCB 1260	BDL	5

BDL = Below Detection Limit

Continued

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Page 3
Sample ID: SB-1, 5'-6'

Date extracted: 5/19/88
Date analyzed: 5/19/88

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Chloromethane	0.5	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	BDL	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	BDL	0.3
2-Butanone	BDL	0.3
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Vinyl acetate	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	BDL	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	0.3	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	BDL	0.3
Styrene	**	0.3
Total xylenes	BDL	0.3
1,2-Dichlorobenzene	BDL	0.3
1,3-Dichlorobenzene	BDL	0.3
1,4-Dichlorobenzene	BDL	0.3

BDL = Below Detection Limit
** = Detected but below reporting level

Surrogate Recovery,	%
1,2-Dichloroethane-d4	100.0
Toluene-d8	110.0
Bromofluorobenzene	104.4

Continued

Sample ID: SB-1, 5'-6'

Date extracted: 5/22/88
Date analyzed: 5/23/88

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Phenol	BDL	0.66
Bis(2-chloroethyl)ether	BDL	0.66
2-Chlorophenol	BDL	0.66
1,3-Dichlorobenzene	BDL	0.66
1,4-Dichlorobenzene	BDL	0.66
Benzyl alcohol	BDL	1.30
1,2-Dichlorobenzene	BDL	0.66
2-Methylphenol	BDL	0.66
Bis(2-chloroisopropyl)ether	BDL	0.66
4-Methylphenol	BDL	0.66
N-Nitrosodi-n-propylamine	BDL	0.66
Hexachloroethane	BDL	0.66
Nitrobenzene	BDL	0.66
Isophorone	BDL	0.66
2-Nitrophenol	BDL	0.66
2,4-Dimethylphenol	BDL	0.66
Benzoic acid	BDL	3.30
Bis(2-chloroethoxy)methane	BDL	0.66
2,4-Dichlorophenol	BDL	0.66
1,2,4-Trichlorobenzene	BDL	0.66
Naphthalene	BDL	0.66
4-Chloroaniline	BDL	1.30
Hexachlorobutadiene	BDL	0.66
4-Chloro-3-methylphenol	BDL	0.66
2-Methylnaphthalene	**	0.66
Hexachlorocyclopentadiene	BDL	0.66
2,4,6-Trichlorophenol	BDL	0.66
2,4,5-Trichlorophenol	BDL	0.66
2-Chloronaphthalene	BDL	0.66
2-Nitroaniline	BDL	3.30
Dimethylphthalate	BDL	0.66
Acenaphthylene	BDL	0.66
3-Nitroaniline	BDL	3.30
Acenaphthene	BDL	0.66
2,4-Dinitrophenol	BDL	3.30
4-Nitrophenol	BDL	0.66
Dibenzofuran	BDL	0.66
2,4-Dinitrotoluene	BDL	0.66
2,6-Dinitrotoluene	BDL	0.66
Diethylphthalate	BDL	0.66

Continued

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
4-Chlorophenyl-phenylether	BDL	0.66
Fluorene	BDL	0.66
4-Nitroaniline	BDL	3.30
4,6-Dinitro-2-methylphenol	BDL	3.30
N-Nitrosodiphenylamine	**	0.66
4-Bromophenyl-phenylether	BDL	0.66
Hexachlorobenzene	BDL	0.66
Pentachlorophenol	BDL	3.30
Phenanthrene	**	0.66
Anthracene	BDL	0.66
Di-n-butylphthalate	BDL	0.66
Fluoroanthene	0.78	0.66
Pyrene	BDL	0.66
Benzylbutylphthalate	BDL	0.66
3,3'-Dichlorobenzidine	BDL	1.30
Benzo(a)anthracene	BDL	0.66
Bis(2-ethylhexyl)phthalate	BDL	0.66
Chrysene	BDL	0.66
Di-n-octylphthalate	BDL	0.66
Benzo(b)fluoranthene	1.8	0.66
Benzo(k)fluroanthene	1.0	0.66
Benzo(a)pyrene	BDL	0.66
Indeno(1,2,3-cd)pyrene	0.70	0.66
Dibenzo(a,h)anthracene	BDL	0.66
Benzo(g,h,i)perylene	1.3	0.66

BDL = Below Detection Limit
** = Detected but below reporting level

Continued

Analysis	Results	Method #	Performed by
Sample ID: SB-1, 20'-21'			
Priority Pollutant Metals:			
Antimony, mg/kg	0.52	304	SC 5/18/88, 1100
Arsenic, mg/kg	0.73	304	SC 5/21/88, 1050
Beryllium, mg/kg	2.89	305	SM 5/16/88, 1428
Cadmium, mg/kg	2.76	305	SM 5/16/88, 1428
Chromium, mg/kg	4.02	305	SM 5/16/88, 1428
Copper, mg/kg	5.18	305	SM 5/16/88, 1428
Lead, mg/kg	13.0	304	SC 5/19/88, 1250
Mercury, mg/kg	<0.50	303 A-F	SC 5/18/88, 0850
Nickel, mg/kg	15.1	305	SM 5/16/88, 1428
Selenium, mg/kg	2.59	304	SC 5/23/88, 1000
Silver, mg/kg	7.78	303 A-F	SC 5/17/88, 1600
Thallium, mg/kg	<0.50	304	SC 5/17/88, 1350
Zinc, mg/kg	43.8	305	SM 5/16/88, 1428
Cyanide, mg/kg	0.09	412 B	RC 5/16/88, 1300

Continued

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Page 7
Sample ID: SB-1, 20'-21'

Date extracted: 5/18/88
Date analyzed: 5/18/88

SW 8080 PESTICIDES

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Alpha-BHC	BDL	1
Beta-BHC	BDL	1
Lindane	BDL	1
Delta-BHC	BDL	1
Heptachlor	BDL	1
Aldrin	BDL	1
Heptachlor epoxide	BDL	1
Endosulfan I	BDL	1
Dieldrin	BDL	1
p,p'-DDE	BDL	1
Endrin	BDL	1
Endosulfan II	BDL	1
p,p'-DDD	BDL	1
Endrin aldehyde	BDL	1
Endosulfan sulfate	BDL	1
p,p'-DDT	BDL	1
Chlordane	BDL	5
Toxaphene	BDL	5
PCB 1016	BDL	5
PCB 1221	BDL	5
PCB 1232	BDL	5
PCB 1242	BDL	5
PCB 1248	BDL	5
PCB 1254	BDL	5
PCB 1260	BDL	5

BDL = Below Detection Limit

Continued

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Page 8
Sample ID: SB-1, 20'-21'

Date extracted: 5/19/88
Date analyzed: 5/19/88

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	BDL	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	BDL	0.3
2-Butanone	BDL	0.3
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Vinyl acetate	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	BDL	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	**	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	BDL	0.3
Styrene	BDL	0.3
Total xylenes	BDL	0.3
1,2-Dichlorobenzene	BDL	0.3
1,3-Dichlorobenzene	BDL	0.3
1,4-Dichlorobenzene	BDL	0.3

BDL = Below Detection Limit
** = Detected but below reporting level

Surrogate Recovery,	%
1,2-Dichloroethane-d4	105.6
Toluene-d8	106.0
Bromofluorobenzene	100.0

Continued

Pilko & Associates
213-80703-01
Page 9
Sample ID: SB-1, 20'-21'

Date extracted: 5/22/88
Date analyzed: 5/23/88

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Phenol	BDL	0.66
Bis(2-chloroethyl)ether	BDL	0.66
2-Chlorophenol	BDL	0.66
1,3-Dichlorobenzene	BDL	0.66
1,4-Dichlorobenzene	BDL	0.66
Benzyl alcohol	BDL	1.30
1,2-Dichlorobenzene	BDL	0.66
2-Methylphenol	BDL	0.66
Bis(2-chloroisopropyl)ether	BDL	0.66
4-Methylphenol	BDL	0.66
N-Nitrosodi-n-propylamine	BDL	0.66
Hexachloroethane	BDL	0.66
Nitrobenzene	BDL	0.66
Isophorone	BDL	0.66
2-Nitrophenol	BDL	0.66
2,4-Dimethylphenol	BDL	0.66
Benzoic acid	BDL	3.30
Bis(2-chloroethoxy)methane	BDL	0.66
2,4-Dichlorophenol	BDL	0.66
1,2,4-Trichlorobenzene	BDL	0.66
Naphthalene	BDL	0.66
4-Chloroaniline	BDL	1.30
Hexachlorobutadiene	BDL	0.66
4-Chloro-3-methylphenol	BDL	0.66
2-Methylnaphthalene	**	0.66
Hexachlorocyclopentadiene	BDL	0.66
2,4,6-Trichlorophenol	BDL	0.66
2,4,5-Trichlorophenol	BDL	0.66
2-Chloronaphthalene	BDL	0.66
2-Nitroaniline	BDL	3.30
Dimethylphthalate	BDL	0.66
Acenaphthylene	BDL	0.66
3-Nitroaniline	BDL	3.30
Acenaphthene	BDL	0.66
2,4-Dinitrophenol	BDL	3.30
4-Nitrophenol	BDL	0.66
Dibenzofuran	BDL	0.66
2,4-Dinitrotoluene	BDL	0.66
2,6-Dinitrotoluene	BDL	0.66
Diethylphthalate	BDL	0.66

Continued

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
4-Chlorophenyl-phenylether	BDL	0.66
Fluorene	BDL	0.66
4-Nitroaniline	BDL	3.30
4,6-Dinitro-2-methylphenol	BDL	3.30
N-Nitrosodiphenylamine	**	0.66
4-Bromophenyl-phenylether	BDL	0.66
Hexachlorobenzene	BDL	0.66
Pentachlorophenol	BDL	3.30
Phenanthrene	**	0.66
Anthracene	BDL	0.66
Di-n-butylphthalate	BDL	0.66
Fluoroanthene	**	0.66
Pyrene	**	0.66
Benzylbutylphthalate	BDL	0.66
3,3'-Dichlorobenzidine	BDL	1.30
Benzo(a)anthracene	BDL	0.66
Bis(2-ethylhexyl)phthalate	BDL	0.66
Chrysene	BDL	0.66
Di-n-octylphthalate	BDL	0.66
Benzo(b)fluoranthene	BDL	0.66
Benzo(k)fluroanthene	BDL	0.66
Benzo(a)pyrene	**	0.66
Indeno(1,2,3-cd)pyrene	BDL	0.66
Dibenzo(a,h)anthracene	BDL	0.66
Benzo(g,h,i)perylene	BDL	0.66

BDL = Below Detection Limit
** = Detected but below reporting level

Continued

Analysis	Results	Method #	Performed by
Sample ID: SB-2, 6'-7'			
Priority Pollutant Metals:			
Antimony, mg/kg	1.06	304	SC 5/18/88, 1100
Arsenic, mg/kg	6.93	304	SC 5/21/88, 1050
Beryllium, mg/kg	5.73	305	SM 5/16/88, 1428
Cadmium, mg/kg	4.85	305	SM 5/16/88, 1428
Chromium, mg/kg	34.7	305	SM 5/16/88, 1428
Copper, mg/kg	28.2	305	SM 5/16/88, 1428
Lead, mg/kg	125	304	SC 5/19/88, 1250
Mercury, mg/kg	<0.50	303 A-F	SC 5/18/88, 0850
Nickel, mg/kg	33.8	305	SM 5/16/88, 1428
Selenium, mg/kg	3.70	304	SC 5/23/88, 1000
Silver, mg/kg	0.92	303 A-F	SC 5/17/88, 1600
Thallium, mg/kg	<0.50	304	SC 5/17/88, 1350
Zinc, mg/kg	86.9	305	SM 5/16/88, 1428
Cyanide, mg/kg	0.05	412 B	RC 5/16/88, 1300

Continued

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Sample ID: SB-2, 5'-6'

Date extracted: 5/18/88
Date analyzed: 5/18/88

SW 8080 PESTICIDES

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Alpha-BHC	BDL	1
Beta-BHC	BDL	1
Lindane	BDL	1
Delta-BHC	BDL	1
Heptachlor	BDL	1
Aldrin	BDL	1
Heptachlor epoxide	BDL	1
Endosulfan I	BDL	1
Dieldrin	BDL	1
p,p'-DDE	BDL	1
Endrin	BDL	1
Endosulfan II	BDL	1
p,p'-DDD	BDL	1
Endrin aldehyde	BDL	1
Endosulfan sulfate	BDL	1
p,p'-DDT	BDL	1
Chlordane	BDL	5
Toxaphene	BDL	5
PCB 1016	BDL	5
PCB 1221	BDL	5
PCB 1232	BDL	5
PCB 1242	BDL	5
PCB 1248	BDL	5
PCB 1254	BDL	5
PCB 1260	BDL	5

BDL = Below Detection Limit

Continued

Sample ID: SB-2, 5'-6'

Date extracted: 5/19/88
Date analyzed: 5/19/88

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	BDL	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	BDL	0.3
2-Butanone	BDL	0.3
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Vinyl acetate	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	BDL	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	**	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	BDL	0.3
Styrene	**	0.3
Total xylenes	BDL	0.3
1,2-Dichlorobenzene	BDL	0.3
1,3-Dichlorobenzene	BDL	0.3
1,4-Dichlorobenzene	BDL	0.3

BDL = Below Detection Limit
** = Detected but below reporting level

Surrogate Recovery,	%
1,2-Dichloroethane-d4	94.0
Toluene-d8	100.0
Bromofluorobenzene	104.0

Continued

Sample ID: SB-2, 5'-6'

Date extracted: 5/24/88
Date analyzed: 5/24/88

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Phenol	BDL	0.66
Bis(2-chloroethyl)ether	BDL	0.66
2-Chlorophenol	BDL	0.66
1,3-Dichlorobenzene	BDL	0.66
1,4-Dichlorobenzene	BDL	0.66
Benzyl alcohol	BDL	1.30
1,2-Dichlorobenzene	BDL	0.66
2-Methylphenol	BDL	0.66
Bis(2-chloroisopropyl)ether	BDL	0.66
4-Methylphenol	BDL	0.66
N-Nitrosodi-n-propylamine	BDL	0.66
Hexachloroethane	BDL	0.66
Nitrobenzene	BDL	0.66
Isophorone	BDL	0.66
2-Nitrophenol	BDL	0.66
2,4-Dimethylphenol	BDL	0.66
Benzoic acid	BDL	3.30
Bis(2-chloroethoxy)methane	BDL	0.66
2,4-Dichlorophenol	BDL	0.66
1,2,4-Trichlorobenzene	BDL	0.66
Naphthalene	BDL	0.66
4-Chloroaniline	BDL	1.30
Hexachlorobutadiene	BDL	0.66
4-Chloro-3-methylphenol	BDL	0.66
2-Methylnaphthalene	BDL	0.66
Hexachlorocyclopentadiene	BDL	0.66
2,4,6-Trichlorophenol	BDL	0.66
2,4,5-Trichlorophenol	BDL	0.66
2-Chloronaphthalene	BDL	0.66
2-Nitroaniline	BDL	3.30
Dimethylphthalate	BDL	0.66
Acenaphthylene	BDL	0.66
3-Nitroaniline	BDL	3.30
Acenaphthene	BDL	0.66
2,4-Dinitrophenol	BDL	3.30
4-Nitrophenol	BDL	0.66
Dibenzofuran	BDL	0.66
2,4-Dinitrotoluene	BDL	0.66
2,6-Dinitrotoluene	BDL	0.66
Diethylphthalate	BDL	0.66

Continued

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
4-Chlorophenyl-phenylether	BDL	0.66
Fluorene	BDL	0.66
4-Nitroaniline	BDL	3.30
4,6-Dinitro-2-methylphenol	BDL	3.30
N-Nitrosodiphenylamine	BDL	0.66
4-Bromophenyl-phenylether	BDL	0.66
Hexachlorobenzene	BDL	0.66
Pentachlorophenol	BDL	3.30
Phenanthrene	BDL	0.66
Anthracene	BDL	0.66
Di-n-butylphthalate	BDL	0.66
Fluoroanthene	**	0.66
Pyrene	BDL	0.66
Benzylbutylphthalate	BDL	0.66
3,3'-Dichlorobenzidine	BDL	1.30
Benzo(a)anthracene	BDL	0.66
Bis(2-ethylhexyl)phthalate	BDL	0.66
Chrysene	BDL	0.66
Di-n-octylphthalate	BDL	0.66
Benzo(b)fluoranthene	BDL	0.66
Benzo(k)fluroanthene	BDL	0.66
Benzo(a)pyrene	BDL	0.66
Indeno(1,2,3-cd)pyrene	BDL	0.66
Dibenzo(a,h)anthracene	BDL	0.66
Benzo(g,h,i)perylene	BDL	0.66

BDL = Below Detection Limit
** = Detected but below reporting level

Continued

Analysis	Results	Method #	Performed by
Sample ID: SB-2, 15'-16'			
Priority Pollutant Metals:			
Antimony, mg/kg	0.97	304	SC 5/18/88, 1100
Arsenic, mg/kg	4.11	304	SC 5/21/88, 1050
Beryllium, mg/kg	9.08	305	SM 5/16/88, 1428
Cadmium, mg/kg	4.98	305	SM 5/16/88, 1428
Chromium, mg/kg	37.3	305	SM 5/16/88, 1428
Copper, mg/kg	53.8	305	SM 5/16/88, 1428
Lead, mg/kg	46.4	304	SC 5/19/88, 1250
Mercury, mg/kg	<0.50	303 A-F	SC 5/18/88, 0850
Nickel, mg/kg	21.3	305	SM 5/16/88, 1428
Selenium, mg/kg	3.09	304	SC 5/23/88, 1000
Silver, mg/kg	0.88	303 A-F	SC 5/17/88, 1600
Thallium, mg/kg	<0.50	304	SC 5/17/88, 1350
Zinc, mg/kg	20.3	305	SM 5/16/88, 1428
Cyanide, mg/kg	0.06	412 B	RC 5/16/88, 1300

Continued

Sample ID: SB-2, 15'-16'

Date extracted: 5/18/88
Date analyzed: 5/18/88

SW 8080 PESTICIDES

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Alpha-BHC	BDL	1
Beta-BHC	BDL	1
Lindane	BDL	1
Delta-BHC	BDL	1
Heptachlor	BDL	1
Aldrin	BDL	1
Heptachlor epoxide	BDL	1
Endosulfan I	BDL	1
Dieldrin	BDL	1
p,p'-DDE	BDL	1
Endrin	BDL	1
Endosulfan II	BDL	1
p,p'-DDD	BDL	1
Endrin aldehyde	BDL	1
Endosulfan sulfate	BDL	1
p,p'-DDT	BDL	1
Chlordane	BDL	5
Toxaphene	BDL	5
PCB 1016	BDL	5
PCB 1221	BDL	5
PCB 1232	BDL	5
PCB 1242	BDL	5
PCB 1248	BDL	5
PCB 1254	BDL	5
PCB 1260	BDL	5

BDL = Below Detection Limit

Continued

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Sample ID: SB-2, 15'-16'

Date extracted: 5/19/88
Date analyzed: 5/19/88

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	BDL	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	BDL	0.3
2-Butanone	BDL	0.3
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Vinyl acetate	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	**	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	**	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	0.3	0.3
Styrene	BDL	0.3
Total xylenes	BDL	0.3
1,2-Dichlorobenzene	BDL	0.3
1,3-Dichlorobenzene	BDL	0.3
1,4-Dichlorobenzene	BDL	0.3

BDL = Below Detection Limit
** = Detected but below reporting level

Surrogate Recovery,	%
1,2-Dichloroethane-d4	102.0
Toluene-d8	102.8
Bromofluorobenzene	98.8

Continued

Sample ID: SB-2, 15'-16'

Date extracted: 5/23/88
Date analyzed: 5/24/88

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Phenol	BDL	0.66
Bis(2-chloroethyl)ether	BDL	0.66
2-Chlorophenol	BDL	0.66
1,3-Dichlorobenzene	BDL	0.66
1,4-Dichlorobenzene	BDL	0.66
Benzyl alcohol	BDL	1.30
1,2-Dichlorobenzene	BDL	0.66
2-Methylphenol	BDL	0.66
Bis(2-chloroisopropyl)ether	BDL	0.66
4-Methylphenol	BDL	0.66
N-Nitrosodi-n-propylamine	BDL	0.66
Hexachloroethane	BDL	0.66
Nitrobenzene	BDL	0.66
Isophorone	BDL	0.66
2-Nitrophenol	BDL	0.66
2,4-Dimethylphenol	BDL	0.66
Benzoic acid	BDL	3.30
Bis(2-chloroethoxy)methane	BDL	0.66
2,4-Dichlorophenol	BDL	0.66
1,2,4-Trichlorobenzene	BDL	0.66
Naphthalene	BDL	0.66
4-Chloroaniline	BDL	1.30
Hexachlorobutadiene	BDL	0.66
4-Chloro-3-methylphenol	BDL	0.66
2-Methylnaphthalene	BDL	0.66
Hexachlorocyclopentadiene	BDL	0.66
2,4,6-Trichlorophenol	BDL	0.66
2,4,5-Trichlorophenol	BDL	0.66
2-Chloronaphthalene	BDL	0.66
2-Nitroaniline	BDL	3.30
Dimethylphthalate	BDL	0.66
Acenaphthylene	BDL	0.66
3-Nitroaniline	BDL	3.30
Acenaphthene	BDL	0.66
2,4-Dinitrophenol	BDL	3.30
4-Nitrophenol	BDL	0.66
Dibenzofuran	BDL	0.66
2,4-Dinitrotoluene	BDL	0.66
2,6-Dinitrotoluene	BDL	0.66
Diethylphthalate	BDL	0.66

Continued

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
4-Chlorophenyl-phenylether	BDL	0.66
Fluorene	BDL	0.66
4-Nitroaniline	BDL	3.30
4,6-Dinitro-2-methylphenol	BDL	3.30
N-Nitrosodiphenylamine	BDL	0.66
4-Bromophenyl-phenylether	BDL	0.66
Hexachlorobenzene	BDL	0.66
Pentachlorophenol	BDL	3.30
Phenanthrene	BDL	0.66
Anthracene	BDL	0.66
Di-n-butylphthalate	BDL	0.66
Fluoroanthene	BDL	0.66
Pyrene	BDL	0.66
Benzylbutylphthalate	BDL	0.66
3,3'-Dichlorobenzidine	BDL	1.30
Benzo(a)anthracene	BDL	0.66
Bis(2-ethylhexyl)phthalate	BDL	0.66
Chrysene	BDL	0.66
Di-n-octylphthalate	BDL	0.66
Benzo(b)fluoranthene	BDL	0.66
Benzo(k)fluroanthene	BDL	0.66
Benzo(a)pyrene	BDL	0.66
Indeno(1,2,3-cd)pyrene	BDL	0.66
Dibenzo(a,h)anthracene	BDL	0.66
Benzo(g,h,i)perylene	BDL	0.66

BDL = Below Detection Limit
** = Detected but below reporting level

Continued

Analysis	Results	Method #	Performed by
Sample ID: SB-3, 10'-11'			
Priority Pollutant Metals:			
Antimony, mg/kg	1.71	304	SC 5/18/88, 1100
Arsenic, mg/kg	0.34	304	SC 5/21/88, 1050
Beryllium, mg/kg	19.8	305	SM 5/16/88, 1428
Cadmium, mg/kg	6.45	305	SM 5/16/88, 1428
Chromium, mg/kg	96.7	305	SM 5/16/88, 1428
Copper, mg/kg	75.5	305	SM 5/16/88, 1428
Lead, mg/kg	166	304	SC 5/19/88, 1250
Mercury, mg/kg	<0.50	303 A-F	SC 5/18/88, 0850
Nickel, mg/kg	86.3	305	SM 5/16/88, 1428
Selenium, mg/kg	3.02	304	SC 5/23/88, 1000
Silver, mg/kg	1.01	303 A-F	SC 5/17/88, 1600
Thallium, mg/kg	<0.50	304	SC 5/17/88, 1350
Zinc, mg/kg	16.5	305	SM 5/16/88, 1428
Cyanide, mg/kg	<0.05	412 B	RC 5/16/88, 1300

Continued

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Sample ID: SB-3, 10'-11'

Date extracted: 5/19/88
Date analyzed: 5/19/88

SW 8080 PESTICIDES

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Alpha-BHC	BDL	1
Beta-BHC	BDL	1
Lindane	BDL	1
Delta-BHC	BDL	1
Heptachlor	BDL	1
Aldrin	BDL	1
Heptachlor epoxide	BDL	1
Endosulfan I	BDL	1
Dieldrin	BDL	1
p,p'-DDE	BDL	1
Endrin	BDL	1
Endosulfan II	BDL	1
p,p'-DDD	BDL	1
Endrin aldehyde	BDL	1
Endosulfan sulfate	BDL	1
p,p'-DDT	BDL	1
Chlordane	BDL	5
Toxaphene	BDL	5
PCB 1016	BDL	5
PCB 1221	BDL	5
PCB 1232	BDL	5
PCB 1242	BDL	5
PCB 1248	BDL	5
PCB 1254	BDL	5
PCB 1260	BDL	5

BDL = Below Detection Limit

Continued

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Sample ID: SB-3, 10'-11'

Date extracted: 5/19/88
Date analyzed: 5/19/88

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	BDL	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	**	0.3
2-Butanone	BDL	0.3
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Vinyl acetate	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	0.6	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	1.0	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	1.0	0.3
Styrene	**	0.3
Total xylenes	BDL	0.3
1,2-Dichlorobenzene	BDL	0.3
1,3-Dichlorobenzene	BDL	0.3
1,4-Dichlorobenzene	BDL	0.3

BDL = Below Detection Limit
** = Detected but below reporting level

Surrogate Recovery,	%
1,2-Dichloroethane-d4	101.2
Toluene-d8	102.0
Bromofluorobenzene	97.2

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Sample ID: SB-3, 10'-11'

Date extracted: 5/23/88
Date analyzed: 5/24/88

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Phenol	BDL	0.66
Bis(2-chloroethyl)ether	BDL	0.66
2-Chlorophenol	BDL	0.66
1,3-Dichlorobenzene	BDL	0.66
1,4-Dichlorobenzene	BDL	0.66
Benzyl alcohol	BDL	1.30
1,2-Dichlorobenzene	BDL	0.66
2-Methylphenol	BDL	0.66
Bis(2-chloroisopropyl)ether	BDL	0.66
4-Methylphenol	BDL	0.66
N-Nitrosodi-n-propylamine	BDL	0.66
Hexachloroethane	BDL	0.66
Nitrobenzene	BDL	0.66
Isophorone	BDL	0.66
2-Nitrophenol	BDL	0.66
2,4-Dimethylphenol	BDL	0.66
Benzoic acid	BDL	3.30
Bis(2-chloroethoxy)methane	BDL	0.66
2,4-Dichlorophenol	BDL	0.66
1,2,4-Trichlorobenzene	BDL	0.66
Naphthalene	BDL	0.66
4-Chloroaniline	BDL	1.30
Hexachlorobutadiene	BDL	0.66
4-Chloro-3-methylphenol	BDL	0.66
2-Methylnaphthalene	BDL	0.66
Hexachlorocyclopentadiene	BDL	0.66
2,4,6-Trichlorophenol	BDL	0.66
2,4,5-Trichlorophenol	BDL	0.66
2-Chloronaphthalene	BDL	0.66
2-Nitroaniline	BDL	3.30
Dimethylphthalate	BDL	0.66
Acenaphthylene	BDL	0.66
3-Nitroaniline	BDL	3.30
Acenaphthene	BDL	0.66
2,4-Dinitrophenol	BDL	3.30
4-Nitrophenol	BDL	0.66
Dibenzofuran	BDL	0.66
2,4-Dinitrotoluene	BDL	0.66
2,6-Dinitrotoluene	BDL	0.66
Diethylphthalate	BDL	0.66

Continued

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
4-Chlorophenyl-phenylether	BDL	0.66
Fluorene	BDL	0.66
4-Nitroaniline	BDL	3.30
4,6-Dinitro-2-methylphenol	BDL	3.30
N-Nitrosodiphenylamine	BDL	0.66
4-Bromophenyl-phenylether	BDL	0.66
Hexachlorobenzene	BDL	0.66
Pentachlorophenol	BDL	3.30
Phenanthrene	BDL	0.66
Anthracene	BDL	0.66
Di-n-butylphthalate	BDL	0.66
Fluoroanthene	BDL	0.66
Pyrene	BDL	0.66
Benzylbutylphthalate	BDL	0.66
3,3'-Dichlorobenzidine	BDL	1.30
Benzo(a)anthracene	BDL	0.66
Bis(2-ethylhexyl)phthalate	BDL	0.66
Chrysene	BDL	0.66
Di-n-octylphthalate	BDL	0.66
Benzo(b)fluoranthene	BDL	0.66
Benzo(k)fluroanthene	BDL	0.66
Benzo(a)pyrene	BDL	0.66
Indeno(1,2,3-cd)pyrene	BDL	0.66
Dibenzo(a,h)anthracene	BDL	0.66
Benzo(g,h,i)perylene	BDL	0.66

BDL = Below Detection Limit
** = Detected but below reporting level

Continued

Analysis	Results	Method #	Performed by
Sample ID: SB-3, 15'-16'			
Priority Pollutant Metals:			
Antimony, mg/kg	1.17	304	SC 5/18/88, 1100
Arsenic, mg/kg	1.22	304	SC 5/21/88, 1050
Beryllium, mg/kg	2.18	305	SM 5/16/88, 1428
Cadmium, mg/kg	3.56	305	SM 5/16/88, 1428
Chromium, mg/kg	6.90	305	SM 5/16/88, 1428
Copper, mg/kg	4.67	305	SM 5/16/88, 1428
Lead, mg/kg	223	304	SC 5/19/88, 1250
Mercury, mg/kg	<0.50	303 A-F	SC 5/18/88, 0850
Nickel, mg/kg	17.0	305	SM 5/16/88, 1428
Selenium, mg/kg	2.66	304	SC 5/23/88, 1000
Silver, mg/kg	1.06	303 A-F	SC 5/17/88, 1600
Thallium, mg/kg	<0.50	304	SC 5/17/88, 1350
Zinc, mg/kg	9.19	305	SM 5/16/88, 1428
Cyanide, mg/kg	<0.05	412 B	RC 5/16/88, 1300

Continued

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Sample ID: SB-3, 15'-16'

Date extracted: 5/19/88
Date analyzed: 5/19/88

SW 8080 PESTICIDES

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Alpha-BHC	BDL	1
Beta-BHC	BDL	1
Lindane	BDL	1
Delta-BHC	BDL	1
Heptachlor	BDL	1
Aldrin	BDL	1
Heptachlor epoxide	BDL	1
Endosulfan I	BDL	1
Dieldrin	BDL	1
p,p'-DDE	BDL	1
Endrin	BDL	1
Endosulfan II	BDL	1
p,p'-DDD	BDL	1
Endrin aldehyde	BDL	1
Endosulfan sulfate	BDL	1
p,p'-DDT	BDL	1
Chlordane	BDL	5
Toxaphene	BDL	5
PCB 1016	BDL	5
PCB 1221	BDL	5
PCB 1232	BDL	5
PCB 1242	BDL	5
PCB 1248	BDL	5
PCB 1254	BDL	5
PCB 1260	BDL	5

BDL = Below Detection Limit

Continued

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Sample ID: SB-3, 15'-16'

Date extracted: 5/19/88
Date analyzed: 5/19/88

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	BDL	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	BDL	0.3
2-Butanone	BDL	0.3
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Vinyl acetate	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	0.6	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	2.8	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	2.4	0.3
Styrene	BDL	0.3
Total xylenes	BDL	0.3
1,2-Dichlorobenzene	BDL	0.3
1,3-Dichlorobenzene	BDL	0.3
1,4-Dichlorobenzene	BDL	0.3

BDL = Below Detection Limit
** = Detected but below reporting level

Surrogate Recovery,	%
1,2-Dichloroethane-d4	96.0
Toluene-d8	106.0
Bromofluorobenzene	96.8

Continued

Sample ID: SB-3, 15'-16'

Date extracted: 5/23/88
Date analyzed: 5/24/88

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Phenol	BDL	0.66
Bis(2-chloroethyl)ether	BDL	0.66
2-Chlorophenol	BDL	0.66
1,3-Dichlorobenzene	BDL	0.66
1,4-Dichlorobenzene	BDL	0.66
Benzyl alcohol	BDL	1.30
1,2-Dichlorobenzene	BDL	0.66
2-Methylphenol	BDL	0.66
Bis(2-chloroisopropyl)ether	BDL	0.66
4-Methylphenol	BDL	0.66
N-Nitrosodi-n-propylamine	BDL	0.66
Hexachloroethane	BDL	0.66
Nitrobenzene	BDL	0.66
Isophorone	BDL	0.66
2-Nitrophenol	BDL	0.66
2,4-Dimethylphenol	BDL	0.66
Benzoic acid	0.72	3.30
Bis(2-chloroethoxy)methane	BDL	0.66
2,4-Dichlorophenol	BDL	0.66
1,2,4-Trichlorobenzene	BDL	0.66
Naphthalene	BDL	0.66
4-Chloroaniline	**	1.30
Hexachlorobutadiene	BDL	0.66
4-Chloro-3-methylphenol	BDL	0.66
2-Methylnaphthalene	1.2	0.66
Hexachlorocyclopentadiene	BDL	0.66
2,4,6-Trichlorophenol	BDL	0.66
2,4,5-Trichlorophenol	BDL	0.66
2-Chloronaphthalene	BDL	0.66
2-Nitroaniline	BDL	3.30
Dimethylphthalate	BDL	0.66
Acenaphthylene	BDL	0.66
3-Nitroaniline	BDL	3.30
Acenaphthene	BDL	0.66
2,4-Dinitrophenol	BDL	3.30
4-Nitrophenol	BDL	0.66
Dibenzofuran	BDL	0.66
2,4-Dinitrotoluene	BDL	0.66
2,6-Dinitrotoluene	BDL	0.66
Diethylphthalate	BDL	0.66

Continued

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
4-Chlorophenyl-phenylether	BDL	0.66
Fluorene	BDL	0.66
4-Nitroaniline	BDL	3.30
4,6-Dinitro-2-methylphenol	BDL	3.30
N-Nitrosodiphenylamine	BDL	0.66
4-Bromophenyl-phenylether	BDL	0.66
Hexachlorobenzene	BDL	0.66
Pentachlorophenol	BDL	3.30
Phenanthrene	BDL	0.66
Anthracene	BDL	0.66
Di-n-butylphthalate	BDL	0.66
Fluoroanthene	BDL	0.66
Pyrene	BDL	0.66
Benzylbutylphthalate	BDL	0.66
3,3'-Dichlorobenzidine	BDL	1.30
Benzo(a)anthracene	BDL	0.66
Bis(2-ethylhexyl)phthalate	BDL	0.66
Chrysene	BDL	0.66
Di-n-octylphthalate	BDL	0.66
Benzo(b)fluoranthene	BDL	0.66
Benzo(k)fluroanthene	BDL	0.66
Benzo(a)pyrene	BDL	0.66
Indeno(1,2,3-cd)pyrene	BDL	0.66
Dibenzo(a,h)anthracene	BDL	0.66
Benzo(g,h,i)perylene	BDL	0.66

BDL = Below Detection Limit
** = Detected but below reporting level

Continued

Analysis	Results	Method #	Performed by
Sample ID: SB-4, 5'-6'			
Priority Pollutant Metals:			
Antimony, mg/kg	1.30	304	SC 5/18/88, 1100
Arsenic, mg/kg	4.31	304	SC 5/21/88, 1050
Beryllium, mg/kg	10.7	305	SM 5/16/88, 1428
Cadmium, mg/kg	5.96	305	SM 5/16/88, 1428
Chromium, mg/kg	29.1	305	SM 5/16/88, 1428
Copper, mg/kg	43.2	305	SM 5/16/88, 1428
Lead, mg/kg	115	304	SC 5/19/88, 1250
Mercury, mg/kg	<0.50	303 A-F	SC 5/18/88, 0850
Nickel, mg/kg	35.7	305	SM 5/16/88, 1428
Selenium, mg/kg	3.54	304	SC 5/23/88, 1000
Silver, mg/kg	1.77	303 A-F	SC 5/17/88, 1600
Thallium, mg/kg	<0.50	304	SC 5/17/88, 1350
Zinc, mg/kg	67.1	305	SM 5/16/88, 1428
Cyanide, mg/kg	0.05	412 B	RC 5/16/88, 1300

Continued

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Sample ID: SB-4, 5'-6'

Date extracted: 5/19/88
Date analyzed: 5/19/88

SW 8080 PESTICIDES

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Alpha-BHC	BDL	1
Beta-BHC	BDL	1
Lindane	BDL	1
Delta-BHC	BDL	1
Heptachlor	BDL	1
Aldrin	BDL	1
Heptachlor epoxide	BDL	1
Endosulfan I	BDL	1
Dieldrin	BDL	1
p,p'-DDE	BDL	1
Endrin	BDL	1
Endosulfan II	BDL	1
p,p'-DDD	BDL	1
Endrin aldehyde	BDL	1
Endosulfan sulfate	BDL	1
p,p'-DDT	BDL	1
Chlordane	BDL	5
Toxaphene	BDL	5
PCB 1016	BDL	5
PCB 1221	BDL	5
PCB 1232	BDL	5
PCB 1242	BDL	5
PCB 1248	BDL	5
PCB 1254	BDL	5
PCB 1260	BDL	5

BDL = Below Detection Limit

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Sample ID: SB-4, 5'-6'

Date extracted: 5/19/88
Date analyzed: 5/19/88

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	BDL	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	BDL	0.3
2-Butanone	BDL	0.3
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Vinyl acetate	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	**	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	**	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	BDL	0.3
Styrene	**	0.3
Total xylenes	BDL	0.3
1,2-Dichlorobenzene	BDL	0.3
1,3-Dichlorobenzene	BDL	0.3
1,4-Dichlorobenzene	BDL	0.3

BDL = Below Detection Limit
** = Detected but below reporting level

Surrogate Recovery,	%
1,2-Dichloroethane-d4	86.0
Toluene-d8	92.4
Bromofluorobenzene	94.8

Continued

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
4-Chlorophenyl-phenylether	BDL	0.66
Fluorene	BDL	0.66
4-Nitroaniline	BDL	3.30
4,6-Dinitro-2-methylphenol	BDL	3.30
N-Nitrosodiphenylamine	BDL	0.66
4-Bromophenyl-phenylether	BDL	0.66
Hexachlorobenzene	BDL	0.66
Pentachlorophenol	BDL	3.30
Phenanthrene	BDL	0.66
Anthracene	BDL	0.66
Di-n-butylphthalate	BDL	0.66
Fluoroanthene	BDL	0.66
Pyrene	BDL	0.66
Benzylbutylphthalate	BDL	0.66
3,3'-Dichlorobenzidine	BDL	1.30
Benzo(a)anthracene	BDL	0.66
Bis(2-ethylhexyl)phthalate	BDL	0.66
Chrysene	BDL	0.66
Di-n-octylphthalate	BDL	0.66
Benzo(b)fluoranthene	BDL	0.66
Benzo(k)fluroanthene	BDL	0.66
Benzo(a)pyrene	BDL	0.66
Indeno(1,2,3-cd)pyrene	BDL	0.66
Dibenzo(a,h)anthracene	BDL	0.66
Benzo(g,h,i)perylene	BDL	0.66

BDL = Below Detection Limit
** = Detected but below reporting level

Continued

Analysis	Results	Method #	Performed by
Sample ID: SB-4, 25'-26'			
Priority Pollutant Metals:			
Antimony, mg/kg	1.06	304	SC 5/18/88, 1100
Arsenic, mg/kg	4.81	304	SC 5/21/88, 1050
Beryllium, mg/kg	7.61	305	SM 5/16/88, 1428
Cadmium, mg/kg	6.68	305	SM 5/16/88, 1428
Chromium, mg/kg	18.9	305	SM 5/16/88, 1428
Copper, mg/kg	10.7	305	SM 5/16/88, 1428
Lead, mg/kg	15.0	304	SC 5/19/88, 1250
Mercury, mg/kg	<0.50	303 A-F	SC 5/18/88, 0850
Nickel, mg/kg	19.9	305	SM 5/16/88, 1428
Selenium, mg/kg	5.62	304	SC 5/23/88, 1000
Silver, mg/kg	1.87	303 A-F	SC 5/17/88, 1600
Thallium, mg/kg	<0.50	304	SC 5/17/88, 1350
Zinc, mg/kg	47.2	305	SM 5/16/88, 1428
Cyanide, mg/kg	<0.05	412 B	RC 5/16/88, 1300

Continued

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Sample ID: SB-4, 25'-26'

Date extracted: 5/23/88
Date analyzed: 5/24/88

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Phenol	BDL	0.66
Bis(2-chloroethyl)ether	BDL	0.66
2-Chlorophenol	BDL	0.66
1,3-Dichlorobenzene	BDL	0.66
1,4-Dichlorobenzene	BDL	0.66
Benzyl alcohol	BDL	1.30
1,2-Dichlorobenzene	BDL	0.66
2-Methylphenol	BDL	0.66
Bis(2-chloroisopropyl)ether	BDL	0.66
4-Methylphenol	BDL	0.66
N-Nitrosodi-n-propylamine	BDL	0.66
Hexachloroethane	BDL	0.66
Nitrobenzene	BDL	0.66
Isophorone	BDL	0.66
2-Nitrophenol	BDL	0.66
2,4-Dimethylphenol	BDL	0.66
Benzoic acid	BDL	3.30
Bis(2-chloroethoxy)methane	BDL	0.66
2,4-Dichlorophenol	BDL	0.66
1,2,4-Trichlorobenzene	BDL	0.66
Naphthalene	BDL	0.66
4-Chloroaniline	BDL	1.30
Hexachlorobutadiene	BDL	0.66
4-Chloro-3-methylphenol	BDL	0.66
2-Methylnaphthalene	BDL	0.66
Hexachlorocyclopentadiene	BDL	0.66
2,4,6-Trichlorophenol	BDL	0.66
2,4,5-Trichlorophenol	BDL	0.66
2-Chloronaphthalene	BDL	0.66
2-Nitroaniline	BDL	3.30
Dimethylphthalate	BDL	0.66
Acenaphthylene	BDL	0.66
3-Nitroaniline	BDL	3.30
Acenaphthene	BDL	0.66
2,4-Dinitrophenol	BDL	3.30
4-Nitrophenol	BDL	0.66
Dibenzofuran	BDL	0.66
2,4-Dinitrotoluene	BDL	0.66
2,6-Dinitrotoluene	BDL	0.66
Diethylphthalate	BDL	0.66

Continued

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
4-Chlorophenyl-phenylether	BDL	0.66
Fluorene	BDL	0.66
4-Nitroaniline	BDL	3.30
4,6-Dinitro-2-methylphenol	BDL	3.30
N-Nitrosodiphenylamine	BDL	0.66
4-Bromophenyl-phenylether	BDL	0.66
Hexachlorobenzene	BDL	0.66
Pentachlorophenol	BDL	3.30
Phenanthrene	BDL	0.66
Anthracene	BDL	0.66
Di-n-butylphthalate	BDL	0.66
Fluoroanthene	BDL	0.66
Pyrene	BDL	0.66
Benzylbutylphthalate	BDL	0.66
3,3'-Dichlorobenzidine	BDL	1.30
Benzo(a)anthracene	BDL	0.66
Bis(2-ethylhexyl)phthalate	BDL	0.66
Chrysene	BDL	0.66
Di-n-octylphthalate	BDL	0.66
Benzo(b)fluoranthene	BDL	0.66
Benzo(k)fluroanthene	BDL	0.66
Benzo(a)pyrene	BDL	0.66
Indeno(1,2,3-cd)pyrene	BDL	0.66
Dibenzo(a,h)anthracene	BDL	0.66
Benzo(g,h,i)perylene	BDL	0.66

BDL = Below Detection Limit
** = Detected but below reporting level

Continued

Analysis	Results	Method #	Performed by
Sample ID: SB-5, 5'-6'			
Priority Pollutant Metals:			
Antimony, mg/kg	0.58	304	SC 5/18/88, 1100
Arsenic, mg/kg	1.04	304	SC 5/21/88, 1050
Beryllium, mg/kg	2.23	305	SM 5/16/88, 1428
Cadmium, mg/kg	2.88	305	SM 5/16/88, 1428
Chromium, mg/kg	5.38	305	SM 5/16/88, 1428
Copper, mg/kg	4.68	305	SM 5/16/88, 1428
Lead, mg/kg	346	304	SC 5/19/88, 1250
Mercury, mg/kg	<0.50	303 A-F	SC 5/18/88, 0850
Nickel, mg/kg	9.87	305	SM 5/16/88, 1428
Selenium, mg/kg	1.92	304	SC 5/23/88, 1000
Silver, mg/kg	<0.50	303 A-F	SC 5/17/88, 1600
Thallium, mg/kg	<0.50	304	SC 5/17/88, 1350
Zinc, mg/kg	9.18	305	SM 5/16/88, 1428
Cyanide, mg/kg	<0.05	412 B	RC 5/16/88, 1300

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Sample ID: SB-5, 5'-6'

Date extracted: 5/19/88
Date analyzed: 5/19/88

SW 8080 PESTICIDES

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Alpha-BHC	BDL	1
Beta-BHC	BDL	1
Lindane	BDL	1
Delta-BHC	BDL	1
Heptachlor	BDL	1
Aldrin	BDL	1
Heptachlor epoxide	BDL	1
Endosulfan I	BDL	1
Dieldrin	BDL	1
p,p'-DDE	BDL	1
Endrin	BDL	1
Endosulfan II	BDL	1
p,p'-DDD	BDL	1
Endrin aldehyde	BDL	1
Endosulfan sulfate	BDL	1
p,p'-DDT	BDL	1
Chlordane	BDL	5
Toxaphene	BDL	5
PCB 1016	BDL	5
PCB 1221	BDL	5
PCB 1232	BDL	5
PCB 1242	BDL	5
PCB 1248	BDL	5
PCB 1254	BDL	5
PCB 1260	BDL	5

BDL = Below Detection Limit

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Sample ID: SB-5, 5'-6'

Date extracted: 5/19/88
Date analyzed: 5/20/88

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	BDL	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	BDL	0.3
2-Butanone	BDL	0.3
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Vinyl acetate	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	**	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	**	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	BDL	0.3
Styrene	BDL	0.3
Total xylenes	BDL	0.3
1,2-Dichlorobenzene	BDL	0.3
1,3-Dichlorobenzene	BDL	0.3
1,4-Dichlorobenzene	BDL	0.3

BDL = Below Detection Limit
** = Detected but below reporting level

Surrogate Recovery,	%
1,2-Dichloroethane-d4	96.0
Toluene-d8	99.6
Bromofluorobenzene	99.6

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Sample ID: SB-5, 5'-6'

Date extracted: 5/22/88
Date analyzed: 5/23/88

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Phenol	BDL	0.66
Bis(2-chloroethyl)ether	BDL	0.66
2-Chlorophenol	BDL	0.66
1,3-Dichlorobenzene	BDL	0.66
1,4-Dichlorobenzene	BDL	0.66
Benzyl alcohol	BDL	1.30
1,2-Dichlorobenzene	BDL	0.66
2-Methylphenol	BDL	0.66
Bis(2-chloroisopropyl)ether	BDL	0.66
4-Methylphenol	BDL	0.66
N-Nitrosodi-n-propylamine	BDL	0.66
Hexachloroethane	BDL	0.66
Nitrobenzene	BDL	0.66
Isophorone	BDL	0.66
2-Nitrophenol	BDL	0.66
2,4-Dimethylphenol	BDL	0.66
Benzoic acid	BDL	3.30
Bis(2-chloroethoxy)methane	BDL	0.66
2,4-Dichlorophenol	BDL	0.66
1,2,4-Trichlorobenzene	BDL	0.66
Naphthalene	BDL	0.66
4-Chloroaniline	BDL	1.30
Hexachlorobutadiene	BDL	0.66
4-Chloro-3-methylphenol	BDL	0.66
2-Methylnaphthalene	BDL	0.66
Hexachlorocyclopentadiene	BDL	0.66
2,4,6-Trichlorophenol	BDL	0.66
2,4,5-Trichlorophenol	BDL	0.66
2-Chloronaphthalene	BDL	0.66
2-Nitroaniline	BDL	3.30
Dimethylphthalate	BDL	0.66
Acenaphthylene	BDL	0.66
3-Nitroaniline	BDL	3.30
Acenaphthene	BDL	0.66
2,4-Dinitrophenol	BDL	3.30
4-Nitrophenol	BDL	0.66
Dibenzofuran	BDL	0.66
2,4-Dinitrotoluene	BDL	0.66
2,6-Dinitrotoluene	BDL	0.66
Diethylphthalate	BDL	0.66

Continued

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
4-Chlorophenyl-phenylether	BDL	0.66
Fluorene	BDL	0.66
4-Nitroaniline	BDL	3.30
4,6-Dinitro-2-methylphenol	BDL	3.30
N-Nitrosodiphenylamine	BDL	0.66
4-Bromophenyl-phenylether	BDL	0.66
Hexachlorobenzene	BDL	0.66
Pentachlorophenol	BDL	3.30
Phenanthrene	BDL	0.66
Anthracene	BDL	0.66
Di-n-butylphthalate	BDL	0.66
Fluoroanthene	BDL	0.66
Pyrene	BDL	0.66
Benzylbutylphthalate	BDL	0.66
3,3'-Dichlorobenzidine	BDL	1.30
Benzo(a)anthracene	BDL	0.66
Bis(2-ethylhexyl)phthalate	BDL	0.66
Chrysene	BDL	0.66
Di-n-octylphthalate	BDL	0.66
Benzo(b)fluoranthene	BDL	0.66
Benzo(k)fluroanthene	BDL	0.66
Benzo(a)pyrene	BDL	0.66
Indeno(1,2,3-cd)pyrene	BDL	0.66
Dibenzo(a,h)anthracene	BDL	0.66
Benzo(g,h,i)perylene	BDL	0.66

BDL = Below Detection Limit
** = Detected but below reporting level

Continued

Analysis	Results	Method #	Performed by
Sample ID: SB-5, 15'-16'			
Priority Pollutant Metals:			
Antimony, mg/kg	0.94	304	SC 5/18/88, 1100
Arsenic, mg/kg	0.83	304	SC 5/21/88, 1050
Beryllium, mg/kg	5.94	305	SM 5/16/88, 1428
Cadmium, mg/kg	5.66	305	SM 5/16/88, 1428
Chromium, mg/kg	18.4	305	SM 5/16/88, 1428
Copper, mg/kg	23.1	305	SM 5/16/88, 1428
Lead, mg/kg	169	304	SC 5/19/88, 1250
Mercury, mg/kg	<0.50	303 A-F	SC 5/18/88, 0850
Nickel, mg/kg	23.3	305	SM 5/16/88, 1428
Selenium, mg/kg	1.66	304	SC 5/23/88, 1000
Silver, mg/kg	<0.50	303 A-F	SC 5/17/88, 1600
Thallium, mg/kg	<0.50	304	SC 5/17/88, 1350
Zinc, mg/kg	21.8	305	SM 5/16/88, 1428
Cyanide, mg/kg	0.06	412 B	RC 5/16/88, 1300

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Sample ID: SB-5, 15'-16'

Date extracted: 5/19/88
Date analyzed: 5/19/88

SW 8080 PESTICIDES

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Alpha-BHC	BDL	1
Beta-BHC	BDL	1
Lindane	BDL	1
Delta-BHC	BDL	1
Heptachlor	BDL	1
Aldrin	BDL	1
Heptachlor epoxide	BDL	1
Endosulfan I	BDL	1
Dieldrin	BDL	1
p,p'-DDE	BDL	1
Endrin	BDL	1
Endosulfan II	BDL	1
p,p'-DDD	BDL	1
Endrin aldehyde	BDL	1
Endosulfan sulfate	BDL	1
p,p'-DDT	BDL	1
Chlordane	BDL	5
Toxaphene	BDL	5
PCB 1016	BDL	5
PCB 1221	BDL	5
PCB 1232	BDL	5
PCB 1242	BDL	5
PCB 1248	BDL	5
PCB 1254	BDL	5
PCB 1260	BDL	5

BDL = Below Detection Limit

Continued

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Sample ID: SB-5, 15'-16'

Date extracted: 5/20/88
Date analyzed: 5/20/88

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	BDL	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	BDL	0.3
2-Butanone	BDL	0.3
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Vinyl acetate	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	**	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	0.5	0.3
Toluene	**	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	BDL	0.3
Styrene	BDL	0.3
Total xylenes	BDL	0.3
1,2-Dichlorobenzene	BDL	0.3
1,3-Dichlorobenzene	BDL	0.3
1,4-Dichlorobenzene	BDL	0.3

BDL = Below Detection Limit
** = Detected but below reporting level

Surrogate Recovery,	%
1,2-Dichloroethane-d4	92.4
Toluene-d8	99.2
Bromofluorobenzene	115.2

Continued

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Sample ID: SB-5, 15'-16'

Date extracted: 5/23/88
Date analyzed: 5/24/88

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Phenol	BDL	0.66
Bis(2-chloroethyl)ether	BDL	0.66
2-Chlorophenol	BDL	0.66
1,3-Dichlorobenzene	BDL	0.66
1,4-Dichlorobenzene	BDL	0.66
Benzyl alcohol	BDL	1.30
1,2-Dichlorobenzene	BDL	0.66
2-Methylphenol	BDL	0.66
Bis(2-chloroisopropyl)ether	BDL	0.66
4-Methylphenol	**	0.66
N-Nitrosodi-n-propylamine	BDL	0.66
Hexachloroethane	BDL	0.66
Nitrobenzene	BDL	0.66
Isophorone	13.7	0.66
2-Nitrophenol	BDL	0.66
2,4-Dimethylphenol	**	0.66
Benzoic acid	265.9	3.30
Bis(2-chloroethoxy)methane	2.6	0.66
2,4-Dichlorophenol	BDL	0.66
1,2,4-Trichlorobenzene	BDL	0.66
Naphthalene	BDL	0.66
4-Chloroaniline	BDL	1.30
Hexachlorobutadiene	BDL	0.66
4-Chloro-3-methylphenol	**	0.66
2-Methylnaphthalene	50.1	0.66
Hexachlorocyclopentadiene	BDL	0.66
2,4,6-Trichlorophenol	BDL	0.66
2,4,5-Trichlorophenol	BDL	0.66
2-Chloronaphthalene	BDL	0.66
2-Nitroaniline	BDL	3.30
Dimethylphthalate	BDL	0.66
Acenaphthylene	160.3	0.66
3-Nitroaniline	91.3	3.30
Acenaphthene	BDL	0.66
2,4-Dinitrophenol	BDL	3.30
4-Nitrophenol	12.4	0.66
Dibenzofuran	BDL	0.66
2,4-Dinitrotoluene	523.3	0.66
2,6-Dinitrotoluene	BDL	0.66
Diethylphthalate	BDL	0.66

Continued

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
4-Chlorophenyl-phenylether	41.6	0.66
Fluorene	1.6	0.66
4-Nitroaniline	91.4	3.30
4,6-Dinitro-2-methylphenol	BDL	3.30
N-Nitrosodiphenylamine	BDL	0.66
4-Bromophenyl-phenylether	53.4	0.66
Hexachlorobenzene	BDL	0.66
Pentachlorophenol	BDL	3.30
Phenanthrene	3,000	0.66
Anthracene	BDL	0.66
Di-n-butylphthalate	BDL	0.66
Fluoroanthene	92.3	0.66
Pyrene	BDL	0.66
Benzylbutylphthalate	BDL	0.66
3,3'-Dichlorobenzidine	BDL	1.30
Benzo(a)anthracene	BDL	0.66
Bis(2-ethylhexyl)phthalate	BDL	0.66
Chrysene	BDL	0.66
Di-n-octylphthalate	BDL	0.66
Benzo(b)fluoranthene	BDL	0.66
Benzo(k)fluroanthene	BDL	0.66
Benzo(a)pyrene	BDL	0.66
Indeno(1,2,3-cd)pyrene	BDL	0.66
Dibenzo(a,h)anthracene	BDL	0.66
Benzo(g,h,i)perylene	BDL	0.66

BDL = Below Detection Limit
** = Detected but below reporting level

Continued

Analysis	Results	Method #	Performed by
Sample ID: SB-6, 5'-6'			
Priority Pollutant Metals:			
Antimony, mg/kg	0.60	304	SC 5/18/88, 1100
Arsenic, mg/kg	0.75	304	SC 5/21/88, 1050
Beryllium, mg/kg	3.93	305	SM 5/16/88, 1428
Cadmium, mg/kg	4.68	305	SM 5/16/88, 1428
Chromium, mg/kg	9.01	305	SM 5/16/88, 1428
Copper, mg/kg	7.72	305	SM 5/16/88, 1428
Lead, mg/kg	72.3	304	SC 5/19/88, 1250
Mercury, mg/kg	<0.50	303 A-F	SC 5/18/88, 0850
Nickel, mg/kg	13.5	305	SM 5/16/88, 1428
Selenium, mg/kg	1.00	304	SC 5/23/88, 1000
Silver, mg/kg	<0.50	303 A-F	SC 5/17/88, 1600
Thallium, mg/kg	<0.50	304	SC 5/17/88, 1350
Zinc, mg/kg	18.3	305	SM 5/16/88, 1428
Cyanide, mg/kg	<0.05	412 B	RC 5/16/88, 1300

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Sample ID: SB-6, 5'-6'

Date extracted: 5/19/88
Date analyzed: 5/19/88

SW 8080 PESTICIDES

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Alpha-BHC	BDL	1
Beta-BHC	BDL	1
Lindane	BDL	1
Delta-BHC	BDL	1
Heptachlor	BDL	1
Aldrin	BDL	1
Heptachlor epoxide	BDL	1
Endosulfan I	BDL	1
Dieldrin	BDL	1
p,p'-DDE	BDL	1
Endrin	BDL	1
Endosulfan II	BDL	1
p,p'-DDD	BDL	1
Endrin aldehyde	BDL	1
Endosulfan sulfate	BDL	1
p,p'-DDT	BDL	1
Chlordane	BDL	5
Toxaphene	BDL	5
PCB 1016	BDL	5
PCB 1221	BDL	5
PCB 1232	BDL	5
PCB 1242	BDL	5
PCB 1248	BDL	5
PCB 1254	BDL	5
PCB 1260	BDL	5

BDL = Below Detection Limit

Continued

Sample ID: SB-6, 5'-6'

Date extracted: 5/20/88
Date analyzed: 5/20/88

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	BDL	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	BDL	0.3
2-Butanone	BDL	0.3
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Vinyl acetate	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	**	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	**	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	BDL	0.3
Styrene	BDL	0.3
Total xylenes	BDL	0.3
1,2-Dichlorobenzene	BDL	0.3
1,3-Dichlorobenzene	BDL	0.3
1,4-Dichlorobenzene	BDL	0.3

BDL = Below Detection Limit
** = Detected but below reporting level

Surrogate Recovery,	%
1,2-Dichloroethane-d4	86.0
Toluene-d8	101.6
Bromofluorobenzene	96.4

Continued

Sample ID: SB-6, 5'-6'

Date extracted: 5/23/88
Date analyzed: 5/24/88

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Phenol	BDL	0.66
Bis(2-chloroethyl)ether	BDL	0.66
2-Chlorophenol	BDL	0.66
1,3-Dichlorobenzene	BDL	0.66
1,4-Dichlorobenzene	BDL	0.66
Benzyl alcohol	BDL	1.30
1,2-Dichlorobenzene	BDL	0.66
2-Methylphenol	BDL	0.66
Bis(2-chloroisopropyl)ether	BDL	0.66
4-Methylphenol	BDL	0.66
N-Nitrosodi-n-propylamine	BDL	0.66
Hexachloroethane	BDL	0.66
Nitrobenzene	BDL	0.66
Isophorone	BDL	0.66
2-Nitrophenol	BDL	0.66
2,4-Dimethylphenol	BDL	0.66
Benzoic acid	BDL	3.30
Bis(2-chloroethoxy)methane	BDL	0.66
2,4-Dichlorophenol	BDL	0.66
1,2,4-Trichlorobenzene	BDL	0.66
Naphthalene	BDL	0.66
4-Chloroaniline	BDL	1.30
Hexachlorobutadiene	BDL	0.66
4-Chloro-3-methylphenol	BDL	0.66
2-Methylnaphthalene	BDL	0.66
Hexachlorocyclopentadiene	BDL	0.66
2,4,6-Trichlorophenol	BDL	0.66
2,4,5-Trichlorophenol	BDL	0.66
2-Chloronaphthalene	BDL	0.66
2-Nitroaniline	BDL	3.30
Dimethylphthalate	BDL	0.66
Acenaphthylene	BDL	0.66
3-Nitroaniline	BDL	3.30
Acenaphthene	BDL	0.66
2,4-Dinitrophenol	BDL	3.30
4-Nitrophenol	BDL	0.66
Dibenzofuran	BDL	0.66
2,4-Dinitrotoluene	BDL	0.66
2,6-Dinitrotoluene	BDL	0.66
Diethylphthalate	BDL	0.66

Continued

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
4-Chlorophenyl-phenylether	BDL	0.66
Fluorene	BDL	0.66
4-Nitroaniline	BDL	3.30
4,6-Dinitro-2-methylphenol	BDL	3.30
N-Nitrosodiphenylamine	BDL	0.66
4-Bromophenyl-phenylether	BDL	0.66
Hexachlorobenzene	BDL	0.66
Pentachlorophenol	BDL	3.30
Phenanthrene	BDL	0.66
Anthracene	BDL	0.66
Di-n-butylphthalate	BDL	0.66
Fluoroanthene	BDL	0.66
Pyrene	BDL	0.66
Benzylbutylphthalate	BDL	0.66
3,3'-Dichlorobenzidine	BDL	1.30
Benzo(a)anthracene	BDL	0.66
Bis(2-ethylhexyl)phthalate	BDL	0.66
Chrysene	BDL	0.66
Di-n-octylphthalate	BDL	0.66
Benzo(b)fluoranthene	BDL	0.66
Benzo(k)fluroanthene	BDL	0.66
Benzo(a)pyrene	BDL	0.66
Indeno(1,2,3-cd)pyrene	BDL	0.66
Dibenzo(a,h)anthracene	BDL	0.66
Benzo(g,h,i)perylene	BDL	0.66

BDL = Below Detection Limit
** = Detected but below reporting level

Continued

Analysis	Results	Method #	Performed by
Sample ID: SB-6, 10'-11'			
Priority Pollutant Metals:			
Antimony, mg/kg	1.05	304	SC 5/18/88, 1100
Arsenic, mg/kg	1.92	304	SC 5/21/88, 1050
Beryllium, mg/kg	6.22	305	SM 5/16/88, 1428
Cadmium, mg/kg	5.85	305	SM 5/16/88, 1428
Chromium, mg/kg	16.7	305	SM 5/16/88, 1428
Copper, mg/kg	26.1	305	SM 5/16/88, 1428
Lead, mg/kg	132	304	SC 5/19/88, 1250
Mercury, mg/kg	<0.50	303 A-F	SC 5/18/88, 0850
Nickel, mg/kg	94.4	305	SM 5/16/88, 1428
Selenium, mg/kg	2.74	304	SC 5/23/88, 1000
Silver, mg/kg	0.91	303 A-F	SC 5/17/88, 1600
Thallium, mg/kg	<0.50	304	SC 5/17/88, 1350
Zinc, mg/kg	39.1	305	SM 5/16/88, 1428
Cyanide, mg/kg	0.23	412 B	RC 5/16/88, 1300

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Sample ID: SB-6, 10'-11'

Date extracted: 5/22/88
Date analyzed: 5/23/88

SW 8080 PESTICIDES

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Alpha-BHC	BDL	1
Beta-BHC	BDL	1
Lindane	BDL	1
Delta-BHC	BDL	1
Heptachlor	BDL	1
Aldrin	BDL	1
Heptachlor epoxide	BDL	1
Endosulfan I	BDL	1
Dieldrin	BDL	1
p,p'-DDE	BDL	1
Endrin	BDL	1
Endosulfan II	BDL	1
p,p'-DDD	BDL	1
Endrin aldehyde	BDL	1
Endosulfan sulfate	BDL	1
p,p'-DDT	BDL	1
Chlordane	BDL	5
Toxaphene	BDL	5
PCB 1016	BDL	5
PCB 1221	BDL	5
PCB 1232	BDL	5
PCB 1242	BDL	5
PCB 1248	BDL	5
PCB 1254	BDL	5
PCB 1260	BDL	5

BDL = Below Detection Limit

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Sample ID: SB-6, 10'-11'

Date extracted: 5/20/88
Date analyzed: 5/20/88

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	BDL	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	BDL	0.3
2-Butanone	BDL	0.3
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Vinyl acetate	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	**	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	**	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	BDL	0.3
Styrene	BDL	0.3
Total xylenes	BDL	0.3
1,2-Dichlorobenzene	BDL	0.3
1,3-Dichlorobenzene	BDL	0.3
1,4-Dichlorobenzene	BDL	0.3

BDL = Below Detection Limit
** = Detected but below reporting level

Surrogate Recovery,	%
1,2-Dichloroethane-d4	97.2
Toluene-d8	115.6
Bromofluorobenzene	104.8

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Sample ID: SB-6, 10'-11'

Date extracted: 5/22/88
Date analyzed: 5/23/88

SW 8080 PESTICIDES

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Alpha-BHC	BDL	1
Beta-BHC	BDL	1
Lindane	BDL	1
Delta-BHC	BDL	1
Heptachlor	BDL	1
Aldrin	BDL	1
Heptachlor epoxide	BDL	1
Endosulfan I	BDL	1
Dieldrin	BDL	1
p,p'-DDE	BDL	1
Endrin	BDL	1
Endosulfan II	BDL	1
p,p'-DDD	BDL	1
Endrin aldehyde	BDL	1
Endosulfan sulfate	BDL	1
p,p'-DDT	BDL	1
Chlordane	BDL	5
Toxaphene	BDL	5
PCB 1016	BDL	5
PCB 1221	BDL	5
PCB 1232	BDL	5
PCB 1242	BDL	5
PCB 1248	BDL	5
PCB 1254	BDL	5
PCB 1260	BDL	5

BDL = Below Detection Limit

Continued

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Sample ID: SB-6, 10'-11'

Date extracted: 5/23/88
Date analyzed: 5/24/88

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Phenol	BDL	0.66
Bis(2-chloroethyl)ether	BDL	0.66
2-Chlorophenol	BDL	0.66
1,3-Dichlorobenzene	BDL	0.66
1,4-Dichlorobenzene	BDL	0.66
Benzyl alcohol	BDL	1.30
1,2-Dichlorobenzene	BDL	0.66
2-Methylphenol	BDL	0.66
Bis(2-chloroisopropyl)ether	BDL	0.66
4-Methylphenol	BDL	0.66
N-Nitrosodi-n-propylamine	BDL	0.66
Hexachloroethane	BDL	0.66
Nitrobenzene	BDL	0.66
Isophorone	BDL	0.66
2-Nitrophenol	BDL	0.66
2,4-Dimethylphenol	BDL	0.66
Benzoic acid	BDL	3.30
Bis(2-chloroethoxy)methane	BDL	0.66
2,4-Dichlorophenol	BDL	0.66
1,2,4-Trichlorobenzene	BDL	0.66
Naphthalene	BDL	0.66
4-Chloroaniline	BDL	1.30
Hexachlorobutadiene	BDL	0.66
4-Chloro-3-methylphenol	BDL	0.66
2-Methylnaphthalene	BDL	0.66
Hexachlorocyclopentadiene	BDL	0.66
2,4,6-Trichlorophenol	BDL	0.66
2,4,5-Trichlorophenol	BDL	0.66
2-Chloronaphthalene	BDL	0.66
2-Nitroaniline	BDL	3.30
Dimethylphthalate	BDL	0.66
Acenaphthylene	BDL	0.66
3-Nitroaniline	BDL	3.30
Acenaphthene	BDL	0.66
2,4-Dinitrophenol	BDL	3.30
4-Nitrophenol	BDL	0.66
Dibenzofuran	BDL	0.66
2,4-Dinitrotoluene	BDL	0.66
2,6-Dinitrotoluene	BDL	0.66
Diethylphthalate	BDL	0.66

Continued

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
4-Chlorophenyl-phenylether	BDL	0.66
Fluorene	BDL	0.66
4-Nitroaniline	BDL	3.30
4,6-Dinitro-2-methylphenol	BDL	3.30
N-Nitrosodiphenylamine	BDL	0.66
4-Bromophenyl-phenylether	BDL	0.66
Hexachlorobenzene	BDL	0.66
Pentachlorophenol	BDL	3.30
Phenanthrene	BDL	0.66
Anthracene	BDL	0.66
Di-n-butylphthalate	BDL	0.66
Fluoroanthene	BDL	0.66
Pyrene	BDL	0.66
Benzylbutylphthalate	BDL	0.66
3,3'-Dichlorobenzidine	BDL	1.30
Benzo(a)anthracene	BDL	0.66
Bis(2-ethylhexyl)phthalate	BDL	0.66
Chrysene	BDL	0.66
Di-n-octylphthalate	BDL	0.66
Benzo(b)fluoranthene	BDL	0.66
Benzo(k)fluroanthene	BDL	0.66
Benzo(a)pyrene	BDL	0.66
Indeno(1,2,3-cd)pyrene	BDL	0.66
Dibenzo(a,h)anthracene	BDL	0.66
Benzo(g,h,i)perylene	BDL	0.66

BDL = Below Detection Limit
** = Detected but below reporting level

Continued

Analysis	Results	Method #	Performed by
Sample ID: SB-7, 10'-11'			
Priority Pollutant Metals:			
Antimony, mg/kg	1.98	304	SC 5/18/88, 1100
Arsenic, mg/kg	12.2	304	SC 5/21/88, 1050
Beryllium, mg/kg	125	305	SM 5/16/88, 1428
Cadmium, mg/kg	33.4	305	SM 5/16/88, 1428
Chromium, mg/kg	1,820	305	SM 5/16/88, 1428
Copper, mg/kg	1,020	305	SM 5/16/88, 1428
Lead, mg/kg	130	304	SC 5/19/88, 1250
Mercury, mg/kg	<0.50	303 A-F	SC 5/18/88, 0850
Nickel, mg/kg	680	305	SM 5/16/88, 1428
Selenium, mg/kg	1.70	304	SC 5/23/88, 1000
Silver, mg/kg	5.09	303 A-F	SC 5/17/88, 1600
Thallium, mg/kg	<0.50	304	SC 5/17/88, 1350
Zinc, mg/kg	236	305	SM 5/16/88, 1428
Cyanide, mg/kg	0.19	412 B	RC 5/16/88, 1300

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Sample ID: SB-7, 10'-11'

Date extracted: 5/22/88
Date analyzed: 5/23/88

SW 8080 PESTICIDES

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Alpha-BHC	BDL	1
Beta-BHC	BDL	1
Lindane	BDL	1
Delta-BHC	BDL	1
Heptachlor	BDL	1
Aldrin	BDL	1
Heptachlor epoxide	BDL	1
Endosulfan I	BDL	1
Dieldrin	BDL	1
p,p'-DDE	BDL	1
Endrin	BDL	1
Endosulfan II	BDL	1
p,p'-DDD	BDL	1
Endrin aldehyde	BDL	1
Endosulfan sulfate	BDL	1
p,p'-DDT	BDL	1
Chlordane	BDL	5
Toxaphene	BDL	5
PCB 1016	BDL	5
PCB 1221	BDL	5
PCB 1232	BDL	5
PCB 1242	BDL	5
PCB 1248	BDL	5
PCB 1254	BDL	5
PCB 1260	BDL	5

BDL = Below Detection Limit

Continued

Date extracted: 5/19/88
Date analyzed: 5/20/88

Sample ID: SB-7, 10'-11'

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	BDL	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	BDL	0.3
2-Butanone	BDL	0.3
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Vinyl acetate	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	**	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	0.3	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	3.6	0.3
Styrene	BDL	0.3
Total xylenes	6.6	0.3
1,2-Dichlorobenzene	BDL	0.3
1,3-Dichlorobenzene	BDL	0.3
1,4-Dichlorobenzene	BDL	0.3

BDL = Below Detection Limit
** = Detected but below reporting level

Surrogate Recovery,	%
1,2-Dichloroethane-d4	94.8
Toluene-d8	96.4
Bromofluorobenzene	98.0

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Sample ID: SB-7, 10'-11'

Date extracted: 5/24/88
Date analyzed: 5/25/88

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Phenol	BDL	0.66
Bis(2-chloroethyl)ether	BDL	0.66
2-Chlorophenol	BDL	0.66
1,3-Dichlorobenzene	BDL	0.66
1,4-Dichlorobenzene	BDL	0.66
Benzyl alcohol	BDL	1.30
1,2-Dichlorobenzene	BDL	0.66
2-Methylphenol	BDL	0.66
Bis(2-chloroisopropyl)ether	BDL	0.66
4-Methylphenol	BDL	0.66
N-Nitrosodi-n-propylamine	BDL	0.66
Hexachloroethane	BDL	0.66
Nitrobenzene	95	0.66
Isophorone	**	0.66
2-Nitrophenol	BDL	0.66
2,4-Dimethylphenol	BDL	0.66
Benzoic acid	1.2	3.30
Bis(2-chloroethoxy)methane	14.0	0.66
2,4-Dichlorophenol	BDL	0.66
1,2,4-Trichlorobenzene	BDL	0.66
Naphthalene	BDL	0.66
4-Chloroaniline	**	1.30
Hexachlorobutadiene	BDL	0.66
4-Chloro-3-methylphenol	BDL	0.66
2-Methylnaphthalene	1.8	0.66
Hexachlorocyclopentadiene	BDL	0.66
2,4,6-Trichlorophenol	BDL	0.66
2,4,5-Trichlorophenol	BDL	0.66
2-Chloronaphthalene	BDL	0.66
2-Nitroaniline	BDL	3.30
Dimethylphthalate	BDL	0.66
Acenaphthylene	**	0.66
3-Nitroaniline	BDL	3.30
Acenaphthene	0.61	0.66
2,4-Dinitrophenol	BDL	3.30
4-Nitrophenol	0.69	0.66
Dibenzofuran	0.58	0.66
2,4-Dinitrotoluene	BDL	0.66
2,6-Dinitrotoluene	BDL	0.66
Diethylphthalate	BDL	0.66

Continued

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
4-Chlorophenyl-phenylether	BDL	0.66
Fluorene	0.99	0.66
4-Nitroaniline	**	3.30
4,6-Dinitro-2-methylphenol	1.5	3.30
N-Nitrosodiphenylamine	5.8	0.66
4-Bromophenyl-phenylether	BDL	0.66
Hexachlorobenzene	BDL	0.66
Pentachlorophenol	BDL	3.30
Phenanthrene	4.7	0.66
Anthracene	BDL	0.66
Di-n-butylphthalate	BDL	0.66
Fluoroanthene	0.83	0.66
Pyrene	BDL	0.66
Benzylbutylphthalate	BDL	0.66
3,3'-Dichlorobenzidine	**	1.30
Benzo(a)anthracene	BDL	0.66
Bis(2-ethylhexyl)phthalate	BDL	0.66
Chrysene	BDL	0.66
Di-n-octylphthalate	BDL	0.66
Benzo(b)fluoranthene	1.1	0.66
Benzo(k)fluroanthene	BDL	0.66
Benzo(a)pyrene	BDL	0.66
Indeno(1,2,3-cd)pyrene	BDL	0.66
Dibenzo(a,h)anthracene	BDL	0.66
Benzo(g,h,i)perylene	BDL	0.66

BDL = Below Detection Limit
** = Detected but below reporting level

Continued

Analysis	Results	Method #	Performed by
Sample ID: SB-7, 12'-13'			
Priority Pollutant Metals:			
Antimony, mg/kg	1.37	304	SC 5/18/88, 1100
Arsenic, mg/kg	4.68	304	SC 5/21/88, 1050
Beryllium, mg/kg	18.0	305	SM 5/16/88, 1428
Cadmium, mg/kg	11.9	305	SM 5/16/88, 1428
Chromium, mg/kg	82.6	305	SM 5/16/88, 1428
Copper, mg/kg	87.2	305	SM 5/16/88, 1428
Lead, mg/kg	139	304	SC 5/19/88, 1250
Mercury, mg/kg	<0.50	303 A-F	SC 5/18/88, 0850
Nickel, mg/kg	64.0	305	SM 5/16/88, 1428
Selenium, mg/kg	0.49	304	SC 5/23/88, 1000
Silver, mg/kg	1.95	303 A-F	SC 5/17/88, 1600
Thallium, mg/kg	<0.50	304	SC 5/17/88, 1350
Zinc, mg/kg	136	305	SM 5/16/88, 1428
Cyanide, mg/kg	0.17	412 B	RC 5/16/88, 1300

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Sample ID: SB-7, 12'-13'

Date extracted: 5/22/88
Date analyzed: 5/23/88

SW 8080 PESTICIDES

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Alpha-BHC	BDL	1
Beta-BHC	BDL	1
Lindane	BDL	1
Delta-BHC	BDL	1
Heptachlor	BDL	1
Aldrin	BDL	1
Heptachlor epoxide	BDL	1
Endosulfan I	BDL	1
Dieldrin	BDL	1
p,p'-DDE	BDL	1
Endrin	BDL	1
Endosulfan II	BDL	1
p,p'-DDD	BDL	1
Endrin aldehyde	BDL	1
Endosulfan sulfate	BDL	1
p,p'-DDT	BDL	1
Chlordane	BDL	5
Toxaphene	BDL	5
PCB 1016	BDL	5
PCB 1221	BDL	5
PCB 1232	BDL	5
PCB 1242	BDL	5
PCB 1248	BDL	5
PCB 1254	BDL	5
PCB 1260	BDL	5

BDL = Below Detection Limit

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Sample ID: SB-7, 12'-13'

Date extracted: 5/19/88
Date analyzed: 5/20/88

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	BDL	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	BDL	0.3
2-Butanone	BDL	0.3
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Vinyl acetate	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	**	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	0.5	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	0.7	0.3
Styrene	BDL	0.3
Total xylenes	BDL	0.3
1,2-Dichlorobenzene	BDL	0.3
1,3-Dichlorobenzene	BDL	0.3
1,4-Dichlorobenzene	0.7	0.3

BDL = Below Detection Limit
** = Detected but below reporting level

Surrogate Recovery,	%
1,2-Dichloroethane-d4	94.0
Toluene-d8	102.4
Bromofluorobenzene	90.8

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Sample ID: SB-7, 12'-13'

Date extracted: 5/24/88
Date analyzed: 5/25/88

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Phenol	**	0.66
Bis(2-chloroethyl)ether	BDL	0.66
2-Chlorophenol	BDL	0.66
1,3-Dichlorobenzene	**	0.66
1,4-Dichlorobenzene	0.71	0.66
Benzyl alcohol	BDL	1.30
1,2-Dichlorobenzene	BDL	0.66
2-Methylphenol	1.6	0.66
Bis(2-chloroisopropyl)ether	BDL	0.66
4-Methylphenol	BDL	0.66
N-Nitrosodi-n-propylamine	BDL	0.66
Hexachloroethane	BDL	0.66
Nitrobenzene	**	0.66
Isophorone	BDL	0.66
2-Nitrophenol	BDL	0.66
2,4-Dimethylphenol	**	0.66
Benzoic acid	**	3.30
Bis(2-chloroethoxy)methane	4.1	0.66
2,4-Dichlorophenol	BDL	0.66
1,2,4-Trichlorobenzene	BDL	0.66
Naphthalene	0.94	0.66
4-Chloroaniline	**	1.30
Hexachlorobutadiene	BDL	0.66
4-Chloro-3-methylphenol	BDL	0.66
2-Methylnaphthalene	0.93	0.66
Hexachlorocyclopentadiene	BDL	0.66
2,4,6-Trichlorophenol	BDL	0.66
2,4,5-Trichlorophenol	BDL	0.66
2-Chloronaphthalene	BDL	0.66
2-Nitroaniline	BDL	3.30
Dimethylphthalate	BDL	0.66
Acenaphthylene	**	0.66
3-Nitroaniline	BDL	3.30
Acenaphthene	**	0.66
2,4-Dinitrophenol	BDL	3.30
4-Nitrophenol	**	0.66
Dibenzofuran	BDL	0.66
2,4-Dinitrotoluene	BDL	0.66
2,6-Dinitrotoluene	1.6	0.66
Diethylphthalate	BDL	0.66

Continued

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
4-Chlorophenyl-phenylether	BDL	0.66
Fluorene	0.7	0.66
4-Nitroaniline	BDL	3.30
4,6-Dinitro-2-methylphenol	BDL	3.30
N-Nitrosodiphenylamine	3.8	0.66
4-Bromophenyl-phenylether	BDL	0.66
Hexachlorobenzene	BDL	0.66
Pentachlorophenol	BDL	3.30
Phenanthrene	5.8	0.66
Anthracene	BDL	0.66
Di-n-butylphthalate	**	0.66
Fluoroanthene	0.78	0.66
Pyrene	BDL	0.66
Benzylbutylphthalate	BDL	0.66
3,3'-Dichlorobenzidine	**	1.30
Benzo(a)anthracene	BDL	0.66
Bis(2-ethylhexyl)phthalate	BDL	0.66
Chrysene	BDL	0.66
Di-n-octylphthalate	BDL	0.66
Benzo(b)fluoranthene	1.3	0.66
Benzo(k)fluroanthene	BDL	0.66
Benzo(a)pyrene	BDL	0.66
Indeno(1,2,3-cd)pyrene	BDL	0.66
Dibenzo(a,h)anthracene	BDL	0.66
Benzo(g,h,i)perylene	BDL	0.66

BDL = Below Detection Limit
** = Detected but below reporting level

Continued

Analysis	Results	Method #	Performed by
Sample ID: SB-7, 15'-16'			
Priority Pollutant Metals:			
Antimony, mg/kg	6.44	304	SC 5/18/88, 1100
Arsenic, mg/kg	4.83	304	SC 5/21/88, 1050
Beryllium, mg/kg	19.0	305	SM 5/16/88, 1428
Cadmium, mg/kg	13.2	305	SM 5/16/88, 1428
Chromium, mg/kg	443	305	SM 5/16/88, 1428
Copper, mg/kg	116	305	SM 5/16/88, 1428
Lead, mg/kg	650	304	SC 5/19/88, 1250
Mercury, mg/kg	<0.50	303 A-F	SC 5/18/88, 0850
Nickel, mg/kg	78.8	305	SM 5/16/88, 1428
Selenium, mg/kg	3.02	304	SC 5/23/88, 1000
Silver, mg/kg	7.05	303 A-F	SC 5/17/88, 1600
Thallium, mg/kg	<0.50	304	SC 5/17/88, 1350
Zinc, mg/kg	861	305	SM 5/16/88, 1428
Cyanide, mg/kg	1.73	412 B	RC 5/16/88, 1300

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Sample ID: SB-7, 15'-16'

Date extracted: 5/23/88
Date analyzed: 5/24/88

SW 8080 PESTICIDES

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Alpha-BHC	BDL	1
Beta-BHC	BDL	1
Lindane	BDL	1
Delta-BHC	BDL	1
Heptachlor	BDL	1
Aldrin	BDL	1
Heptachlor epoxide	BDL	1
Endosulfan I	BDL	1
Dieldrin	BDL	1
p,p'-DDE	BDL	1
Endrin	BDL	1
Endosulfan II	BDL	1
p,p'-DDD	BDL	1
Endrin aldehyde	BDL	1
Endosulfan sulfate	BDL	1
p,p'-DDT	BDL	1
Chlordane	BDL	5
Toxaphene	BDL	5
PCB 1016	BDL	5
PCB 1221	BDL	5
PCB 1232	BDL	5
PCB 1242	BDL	5
PCB 1248	BDL	5
PCB 1254	BDL	5
PCB 1260	BDL	5

BDL = Below Detection Limit

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Sample ID: SB-7, 15'-16'

Date extracted: 5/19/88
Date analyzed: 5/20/88

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	BDL	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	BDL	0.3
2-Butanone	BDL	0.3
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Vinyl acetate	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	0.3	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	BDL	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	1.0	0.3
Styrene	BDL	0.3
Total xylenes	1.0	0.3
1,2-Dichlorobenzene	BDL	0.3
1,3-Dichlorobenzene	BDL	0.3
1,4-Dichlorobenzene	BDL	0.3

BDL = Below Detection Limit
** = Detected but below reporting level

Surrogate Recovery,	%
1,2-Dichloroethane-d4	92.8
Toluene-d8	96.0
Bromofluorobenzene	100.4

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Sample ID: SB-7, 15'-16'

Date extracted: 5/24/88
Date analyzed: 5/25/88

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Phenol	BDL	0.66
Bis(2-chloroethyl)ether	8.8	0.66
2-Chlorophenol	BDL	0.66
1,3-Dichlorobenzene	BDL	0.66
1,4-Dichlorobenzene	BDL	0.66
Benzyl alcohol	BDL	1.30
1,2-Dichlorobenzene	BDL	0.66
2-Methylphenol	**	0.66
Bis(2-chloroisopropyl)ether	BDL	0.66
4-Methylphenol	1.8	0.66
N-Nitrosodi-n-propylamine	BDL	0.66
Hexachloroethane	BDL	0.66
Nitrobenzene	**	0.66
Isophorone	BDL	0.66
2-Nitrophenol	BDL	0.66
2,4-Dimethylphenol	**	0.66
Benzoic acid	6.9	3.30
Bis(2-chloroethoxy)methane	4.2	0.66
2,4-Dichlorophenol	BDL	0.66
1,2,4-Trichlorobenzene	BDL	0.66
Naphthalene	BDL	0.66
4-Chloroaniline	**	1.30
Hexachlorobutadiene	BDL	0.66
4-Chloro-3-methylphenol	**	0.66
2-Methylnaphthalene	5.8	0.66
Hexachlorocyclopentadiene	BDL	0.66
2,4,6-Trichlorophenol	BDL	0.66
2,4,5-Trichlorophenol	BDL	0.66
2-Chloronaphthalene	BDL	0.66
2-Nitroaniline	BDL	3.30
Dimethylphthalate	BDL	0.66
Acenaphthylene	**	0.66
3-Nitroaniline	BDL	3.30
Acenaphthene	2.5	0.66
2,4-Dinitrophenol	BDL	3.30
4-Nitrophenol	1.3	0.66
Dibenzofuran	BDL	0.66
2,4-Dinitrotoluene	4.4	0.66
2,6-Dinitrotoluene	8.3	0.66
Diethylphthalate	BDL	0.66

Continued

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
4-Chlorophenyl-phenylether	BDL	0.66
Fluorene	3.4	0.66
4-Nitroaniline	1.6	3.30
4,6-Dinitro-2-methylphenol	0.92	3.30
N-Nitrosodiphenylamine	11.1	0.66
4-Bromophenyl-phenylether	BDL	0.66
Hexachlorobenzene	BDL	0.66
Pentachlorophenol	BDL	3.30
Phenanthrene	6.2	0.66
Anthracene	BDL	0.66
Di-n-butylphthalate	BDL	0.66
Fluoroanthene	0.75	0.66
Pyrene	BDL	0.66
Benzylbutylphthalate	BDL	0.66
3,3'-Dichlorobenzidine	BDL	1.30
Benzo(a)anthracene	BDL	0.66
Bis(2-ethylhexyl)phthalate	BDL	0.66
Chrysene	BDL	0.66
Di-n-octylphthalate	BDL	0.66
Benzo(b)fluoranthene	BDL	0.66
Benzo(k)fluroanthene	BDL	0.66
Benzo(a)pyrene	BDL	0.66
Indeno(1,2,3-cd)pyrene	BDL	0.66
Dibenzo(a,h)anthracene	BDL	0.66
Benzo(g,h,i)perylene	BDL	0.66

BDL = Below Detection Limit
** = Detected but below reporting level

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

The QA report summary is forthcoming.

Analysis	Results	Method #	Performed by
Sample ID: SB-8, 10'-11'			
Priority Pollutant Metals:			
Antimony, mg/kg	2.20	304	SC 5/18/88, 1100
Arsenic, mg/kg	8.68	304	SC 5/21/88, 1050
Beryllium, mg/kg	29.4	305	SM 5/16/88, 1428
Cadmium, mg/kg	14.5	305	SM 5/16/88, 1428
Chromium, mg/kg	127	305	SM 5/16/88, 1428
Copper, mg/kg	235	305	SM 5/16/88, 1428
Lead, mg/kg	209	304	SC 5/19/88, 1250
Mercury, mg/kg	<0.50	303 A-F	SC 5/18/88, 0850
Nickel, mg/kg	82.8	305	SM 5/16/88, 1428
Selenium, mg/kg	2.20	304	SC 5/23/88, 1000
Silver, mg/kg	3.30	303 A-F	SC 5/17/88, 1600
Thallium, mg/kg	<0.50	304	SC 5/17/88, 1350
Zinc, mg/kg	362	305	SM 5/16/88, 1428
Cyanide, mg/kg	0.05	412 B	RC 5/16/88, 1300

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Sample ID: SB-8, 10'-11'

Date extracted: 5/23/88
Date analyzed: 5/23/88

SW 8080 PESTICIDES

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Alpha-BHC	BDL	1
Beta-BHC	BDL	1
Lindane	BDL	1
Delta-BHC	BDL	1
Heptachlor	BDL	1
Aldrin	BDL	1
Heptachlor epoxide	BDL	1
Endosulfan I	BDL	1
Dieldrin	BDL	1
p,p'-DDE	BDL	1
Endrin	BDL	1
Endosulfan II	BDL	1
p,p'-DDD	BDL	1
Endrin aldehyde	BDL	1
Endosulfan sulfate	BDL	1
p,p'-DDT	BDL	1
Chlordane	BDL	5
Toxaphene	BDL	5
PCB 1016	BDL	5
PCB 1221	BDL	5
PCB 1232	BDL	5
PCB 1242	BDL	5
PCB 1248	BDL	5
PCB 1254	BDL	5
PCB 1260	BDL	5

BDL = Below Detection Limit

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Sample ID: SB-8, 10'-11'

Date extracted: 5/19/88
Date analyzed: 5/20/88

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	BDL	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	BDL	0.3
2-Butanone	BDL	0.3
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Vinyl acetate	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	**	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	**	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	BDL	0.3
Styrene	BDL	0.3
Total xylenes	BDL	0.3
1,2-Dichlorobenzene	BDL	0.3
1,3-Dichlorobenzene	BDL	0.3
1,4-Dichlorobenzene	BDL	0.3

BDL = Below Detection Limit
** = Detected but below reporting level

Surrogate Recovery,	%
1,2-Dichloroethane-d4	82.0
Toluene-d8	96.4
Bromofluorobenzene	98.0

Continued

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Sample ID: SB-8, 10'-11'

Date extracted: 5/23/88
Date analyzed: 5/24/88

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Phenol	BDL	0.66
Bis(2-chloroethyl)ether	BDL	0.66
2-Chlorophenol	BDL	0.66
1,3-Dichlorobenzene	BDL	0.66
1,4-Dichlorobenzene	BDL	0.66
Benzyl alcohol	BDL	1.30
1,2-Dichlorobenzene	BDL	0.66
2-Methylphenol	BDL	0.66
Bis(2-chloroisopropyl)ether	BDL	0.66
4-Methylphenol	BDL	0.66
N-Nitrosodi-n-propylamine	BDL	0.66
Hexachloroethane	BDL	0.66
Nitrobenzene	BDL	0.66
Isophorone	BDL	0.66
2-Nitrophenol	BDL	0.66
2,4-Dimethylphenol	BDL	0.66
Benzoic acid	BDL	3.30
Bis(2-chloroethoxy)methane	BDL	0.66
2,4-Dichlorophenol	BDL	0.66
1,2,4-Trichlorobenzene	BDL	0.66
Naphthalene	BDL	0.66
4-Chloroaniline	BDL	1.30
Hexachlorobutadiene	BDL	0.66
4-Chloro-3-methylphenol	BDL	0.66
2-Methylnaphthalene	**	0.66
Hexachlorocyclopentadiene	BDL	0.66
2,4,6-Trichlorophenol	BDL	0.66
2,4,5-Trichlorophenol	BDL	0.66
2-Chloronaphthalene	BDL	0.66
2-Nitroaniline	BDL	3.30
Dimethylphthalate	BDL	0.66
Acenaphthylene	BDL	0.66
3-Nitroaniline	BDL	3.30
Acenaphthene	BDL	0.66
2,4-Dinitrophenol	BDL	3.30
4-Nitrophenol	BDL	0.66
Dibenzofuran	BDL	0.66
2,4-Dinitrotoluene	BDL	0.66
2,6-Dinitrotoluene	BDL	0.66
Diethylphthalate	BDL	0.66

Continued

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
4-Chlorophenyl-phenylether	BDL	0.66
Fluorene	BDL	0.66
4-Nitroaniline	BDL	3.30
4,6-Dinitro-2-methylphenol	BDL	3.30
N-Nitrosodiphenylamine	BDL	0.66
4-Bromophenyl-phenylether	BDL	0.66
Hexachlorobenzene	BDL	0.66
Pentachlorophenol	BDL	3.30
Phenanthrene	**	0.66
Anthracene	BDL	0.66
Di-n-butylphthalate	BDL	0.66
Fluoroanthene	BDL	0.66
Pyrene	BDL	0.66
Benzylbutylphthalate	BDL	0.66
3,3'-Dichlorobenzidine	BDL	1.30
Benzo(a)anthracene	BDL	0.66
Bis(2-ethylhexyl)phthalate	BDL	0.66
Chrysene	BDL	0.66
Di-n-octylphthalate	BDL	0.66
Benzo(b)fluoranthene	BDL	0.66
Benzo(k)fluroanthene	BDL	0.66
Benzo(a)pyrene	BDL	0.66
Indeno(1,2,3-cd)pyrene	BDL	0.66
Dibenzo(a,h)anthracene	BDL	0.66
Benzo(g,h,i)perylene	BDL	0.66

BDL = Below Detection Limit
** = Detected but below reporting level

Continued

Analysis	Results	Method #	Performed by
Sample ID: SB-8, 15'-16'			
Priority Pollutant Metals:			
Antimony, mg/kg	0.93	304	SC 5/18/88, 1100
Arsenic, mg/kg	1.80	304	SC 5/21/88, 1050
Beryllium, mg/kg	5.89	305	SM 5/16/88, 1428
Cadmium, mg/kg	6.96	305	SM 5/16/88, 1428
Chromium, mg/kg	15.7	305	SM 5/16/88, 1428
Copper, mg/kg	13.7	305	SM 5/16/88, 1428
Lead, mg/kg	43.3	304	SC 5/19/88, 1250
Mercury, mg/kg	<0.50	303 A-F	SC 5/18/88, 0850
Nickel, mg/kg	51.2	305	SM 5/16/88, 1428
Selenium, mg/kg	2.43	304	SC 5/23/88, 1000
Silver, mg/kg	2.92	303 A-F	SC 5/17/88, 1600
Thallium, mg/kg	<0.50	304	SC 5/17/88, 1350
Zinc, mg/kg	19.4	305	SM 5/16/88, 1428
Cyanide, mg/kg	0.09	412 B	RC 5/16/88, 1300

Continued

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Sample ID: SB-8, 15'-16'

Date extracted: 5/23/88
Date analyzed: 5/23/88

SW 8080 PESTICIDES

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Alpha-BHC	BDL	1
Beta-BHC	BDL	1
Lindane	BDL	1
Delta-BHC	BDL	1
Heptachlor	BDL	1
Aldrin	BDL	1
Heptachlor epoxide	BDL	1
Endosulfan I	BDL	1
Dieldrin	BDL	1
p,p'-DDE	BDL	1
Endrin	BDL	1
Endosulfan II	BDL	1
p,p'-DDD	BDL	1
Endrin aldehyde	BDL	1
Endosulfan sulfate	BDL	1
p,p'-DDT	BDL	1
Chlordane	BDL	5
Toxaphene	BDL	5
PCB 1016	BDL	5
PCB 1221	BDL	5
PCB 1232	BDL	5
PCB 1242	BDL	5
PCB 1248	BDL	5
PCB 1254	BDL	5
PCB 1260	BDL	5

BDL = Below Detection Limit

Continued

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Sample ID: SB-8, 15'-16'

Date extracted: 5/19/88
Date analyzed: 5/20/88

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	BDL	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	BDL	0.3
2-Butanone	BDL	0.3
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Vinyl acetate	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	BDL	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	BDL	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	BDL	0.3
Styrene	BDL	0.3
Total xylenes	BDL	0.3
1,2-Dichlorobenzene	BDL	0.3
1,3-Dichlorobenzene	BDL	0.3
1,4-Dichlorobenzene	BDL	0.3

BDL = Below Detection Limit
** = Detected but below reporting level

Surrogate Recovery,	%
1,2-Dichloroethane-d4	81.6
Toluene-d8	97.6
Bromofluorobenzene	94.4

Continued

Date extracted: 5/23/88
Date analyzed: 5/24/88

Sample ID: SB-8, 15'-16'

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Phenol	BDL	0.66
Bis(2-chloroethyl)ether	BDL	0.66
2-Chlorophenol	BDL	0.66
1,3-Dichlorobenzene	BDL	0.66
1,4-Dichlorobenzene	BDL	0.66
Benzyl alcohol	BDL	1.30
1,2-Dichlorobenzene	BDL	0.66
2-Methylphenol	BDL	0.66
Bis(2-chloroisopropyl)ether	BDL	0.66
4-Methylphenol	BDL	0.66
N-Nitrosodi-n-propylamine	BDL	0.66
Hexachloroethane	BDL	0.66
Nitrobenzene	BDL	0.66
Isophorone	BDL	0.66
2-Nitrophenol	BDL	0.66
2,4-Dimethylphenol	BDL	0.66
Benzoic acid	**	3.30
Bis(2-chloroethoxy)methane	BDL	0.66
2,4-Dichlorophenol	BDL	0.66
1,2,4-Trichlorobenzene	BDL	0.66
Naphthalene	BDL	0.66
4-Chloroaniline	BDL	1.30
Hexachlorobutadiene	BDL	0.66
4-Chloro-3-methylphenol	BDL	0.66
2-Methylnaphthalene	BDL	0.66
Hexachlorocyclopentadiene	BDL	0.66
2,4,6-Trichlorophenol	BDL	0.66
2,4,5-Trichlorophenol	BDL	0.66
2-Chloronaphthalene	BDL	0.66
2-Nitroaniline	BDL	3.30
Dimethylphthalate	BDL	0.66
Acenaphthylene	BDL	0.66
3-Nitroaniline	BDL	3.30
Acenaphthene	BDL	0.66
2,4-Dinitrophenol	BDL	3.30
4-Nitrophenol	**	0.66
Dibenzofuran	BDL	0.66
2,4-Dinitrotoluene	BDL	0.66
2,6-Dinitrotoluene	BDL	0.66
Diethylphthalate	BDL	0.66

Continued

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
4-Chlorophenyl-phenylether	BDL	0.66
Fluorene	BDL	0.66
4-Nitroaniline	**	3.30
4,6-Dinitro-2-methylphenol	BDL	3.30
N-Nitrosodiphenylamine	BDL	0.66
4-Bromophenyl-phenylether	BDL	0.66
Hexachlorobenzene	BDL	0.66
Pentachlorophenol	BDL	3.30
Phenanthrene	1.1	0.66
Anthracene	BDL	0.66
Di-n-butylphthalate	BDL	0.66
Fluoroanthene	**	0.66
Pyrene	BDL	0.66
Benzylbutylphthalate	BDL	0.66
3,3'-Dichlorobenzidine	BDL	1.30
Benzo(a)anthracene	BDL	0.66
Bis(2-ethylhexyl)phthalate	BDL	0.66
Chrysene	BDL	0.66
Di-n-octylphthalate	BDL	0.66
Benzo(b)fluoranthene	BDL	0.66
Benzo(k)fluroanthene	BDL	0.66
Benzo(a)pyrene	BDL	0.66
Indeno(1,2,3-cd)pyrene	BDL	0.66
Dibenzo(a,h)anthracene	BDL	0.66
Benzo(g,h,i)perylene	BDL	0.66

BDL = Below Detection Limit
** = Detected but below reporting level

Continued

Analysis	Results	Method #	Performed by
Sample ID: SB-8, 26'-27'			
Priority Pollutant Metals:			
Antimony, mg/kg	0.76	304	SC 5/18/88, 1100
Arsenic, mg/kg	1.21	304	SC 5/21/88, 1050
Beryllium, mg/kg	9.26	305	SM 5/16/88, 1428
Cadmium, mg/kg	8.25	305	SM 5/16/88, 1428
Chromium, mg/kg	12.4	305	SM 5/16/88, 1428
Copper, mg/kg	10.5	305	SM 5/16/88, 1428
Lead, mg/kg	15.7	304	SC 5/19/88, 1250
Mercury, mg/kg	<0.50	303 A-F	SC 5/18/88, 0850
Nickel, mg/kg	32.9	305	SM 5/16/88, 1428
Selenium, mg/kg	2.53	304	SC 5/23/88, 1000
Silver, mg/kg	1.01	303 A-F	SC 5/17/88, 1600
Thallium, mg/kg	<0.50	304	SC 5/17/88, 1350
Zinc, mg/kg	24.4	305	SM 5/16/88, 1428
Cyanide, mg/kg	<0.05	412 B	RC 5/16/88, 1300

Continued

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Sample ID: SB-8, 26'-27'

Date extracted: 5/22/88
Date analyzed: 5/23/88

SW 8080 PESTICIDES

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Alpha-BHC	BDL	1
Beta-BHC	BDL	1
Lindane	BDL	1
Delta-BHC	BDL	1
Heptachlor	BDL	1
Aldrin	BDL	1
Heptachlor epoxide	BDL	1
Endosulfan I	BDL	1
Dieldrin	BDL	1
p,p'-DDE	BDL	1
Endrin	BDL	1
Endosulfan II	BDL	1
p,p'-DDD	BDL	1
Endrin aldehyde	BDL	1
Endosulfan sulfate	BDL	1
p,p'-DDT	BDL	1
Chlordane	BDL	5
Toxaphene	BDL	5
PCB 1016	BDL	5
PCB 1221	BDL	5
PCB 1232	BDL	5
PCB 1242	BDL	5
PCB 1248	BDL	5
PCB 1254	BDL	5
PCB 1260	BDL	5

BDL = Below Detection Limit

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Sample ID: SB-8, 26'-27'

Date extracted: 5/19/88
Date analyzed: 5/20/88

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	BDL	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	BDL	0.3
2-Butanone	BDL	0.3
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Vinyl acetate	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	**	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	**	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	BDL	0.3
Styrene	BDL	0.3
Total xylenes	BDL	0.3
1,2-Dichlorobenzene	BDL	0.3
1,3-Dichlorobenzene	BDL	0.3
1,4-Dichlorobenzene	BDL	0.3

BDL = Below Detection Limit
** = Detected but below reporting level

Surrogate Recovery,	%
1,2-Dichloroethane-d4	87.2
Toluene-d8	107.6
Bromofluorobenzene	98.4

Continued

Sample ID: SB-8, 26'-27'

Date extracted: 5/23/88
Date analyzed: 5/24/88

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Phenol	BDL	0.66
Bis(2-chloroethyl)ether	BDL	0.66
2-Chlorophenol	BDL	0.66
1,3-Dichlorobenzene	BDL	0.66
1,4-Dichlorobenzene	BDL	0.66
Benzyl alcohol	BDL	1.30
1,2-Dichlorobenzene	BDL	0.66
2-Methylphenol	BDL	0.66
Bis(2-chloroisopropyl)ether	BDL	0.66
4-Methylphenol	BDL	0.66
N-Nitrosodi-n-propylamine	BDL	0.66
Hexachloroethane	BDL	0.66
Nitrobenzene	BDL	0.66
Isophorone	BDL	0.66
2-Nitrophenol	BDL	0.66
2,4-Dimethylphenol	BDL	0.66
Benzoic acid	BDL	3.30
Bis(2-chloroethoxy)methane	BDL	0.66
2,4-Dichlorophenol	BDL	0.66
1,2,4-Trichlorobenzene	BDL	0.66
Naphthalene	BDL	0.66
4-Chloroaniline	BDL	1.30
Hexachlorobutadiene	BDL	0.66
4-Chloro-3-methylphenol	BDL	0.66
2-Methylnaphthalene	BDL	0.66
Hexachlorocyclopentadiene	BDL	0.66
2,4,6-Trichlorophenol	BDL	0.66
2,4,5-Trichlorophenol	BDL	0.66
2-Chloronaphthalene	BDL	0.66
2-Nitroaniline	BDL	3.30
Dimethylphthalate	BDL	0.66
Acenaphthylene	BDL	0.66
3-Nitroaniline	BDL	3.30
Acenaphthene	BDL	0.66
2,4-Dinitrophenol	BDL	3.30
4-Nitrophenol	BDL	0.66
Dibenzofuran	BDL	0.66
2,4-Dinitrotoluene	BDL	0.66
2,6-Dinitrotoluene	BDL	0.66
Diethylphthalate	BDL	0.66

Continued

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
4-Chlorophenyl-phenylether	BDL	0.66
Fluorene	BDL	0.66
4-Nitroaniline	BDL	3.30
4,6-Dinitro-2-methylphenol	BDL	3.30
N-Nitrosodiphenylamine	BDL	0.66
4-Bromophenyl-phenylether	BDL	0.66
Hexachlorobenzene	BDL	0.66
Pentachlorophenol	BDL	3.30
Phenanthrene	BDL	0.66
Anthracene	BDL	0.66
Di-n-butylphthalate	BDL	0.66
Fluoroanthene	BDL	0.66
Pyrene	BDL	0.66
Benzylbutylphthalate	BDL	0.66
3,3'-Dichlorobenzidine	BDL	1.30
Benzo(a)anthracene	BDL	0.66
Bis(2-ethylhexyl)phthalate	BDL	0.66
Chrysene	BDL	0.66
Di-n-octylphthalate	BDL	0.66
Benzo(b)fluoranthene	BDL	0.66
Benzo(k)fluroanthene	BDL	0.66
Benzo(a)pyrene	BDL	0.66
Indeno(1,2,3-cd)pyrene	BDL	0.66
Dibenzo(a,h)anthracene	BDL	0.66
Benzo(g,h,i)perylene	BDL	0.66

BDL = Below Detection Limit
** = Detected but below reporting level

Continued

Analysis	Results	Method #	Performed by
Sample ID: SB-9 10'11'			
Priority Pollutant Metals:	Dry wt. basis		
Antimony, mg/kg	4.41	304	SC 5/24/88, 0825
Arsenic, mg/kg	3.97	304	SC 5/21/88, 1050
Beryllium, mg/kg	14.9	305	SM 5/20/88, 0834
Cadmium, mg/kg	7.45	305	SM 5/20/88, 0834
Chromium, mg/kg	5.25	305	SM 5/20/88, 0834
Copper, mg/kg	1.01	305	SM 5/20/88, 0834
Lead, mg/kg	2.34	304	SC 5/19/88, 1250
Mercury, mg/kg	<0.10	303 A-F	SC 5/20/88, 1550
Nickel, mg/kg	30.8	305	SM 5/20/88, 1133
Selenium, mg/kg	2.21	304	SC 5/23/88, 1000
Silver, mg/kg	0.44	303 A-F	SC 5/20/88, 0900
Thallium, mg/kg	<0.50	304	SC 5/20/88, 0750
Zinc, mg/kg	39.7	305	SM 5/20/88, 1133
Cyanide, mg/kg	<0.05	412 B	RC 5/12/88, 1300
Moisture, %	5.20	---	PW 5/20/88, 1300

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Sample ID: SB-9 10'-11'

Date analyzed: 5/24/88

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	BDL	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
2-Butanone	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	BDL	0.3
1,2-Dichloroethane	BDL	0.3
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Vinyl acetate	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	0.60	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	BDL	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	BDL	0.3
Styrene	BDL	0.3
Total xylenes	BDL	0.3
1,2-Dichlorobenzene	BDL	0.3
1,3-Dichlorobenzene	BDL	0.3
1,4-Dichlorobenzene	BDL	0.3

BDL = Below Detection Limit

Surrogate Recoveries, %

1,2-Dichloroethane-d4 ----- 89.6
Toluene-d8 ---------- 90.4
Bromofluorobenzene -------- 90.4

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Sample ID: SB-9 10'-11'

Date extracted: 5/23/88
Date analyzed: 5/24/88

SW 8080 PESTICIDES

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Alpha-BHC	BDL	1
Beta-BHC	BDL	1
Lindane	BDL	1
Delta-BHC	BDL	1
Heptachlor	BDL	1
Aldrin	BDL	1
Heptachlor epoxide	BDL	1
Endosulfan I	BDL	1
Dieldrin	BDL	1
p,p'-DDE	BDL	1
Endrin	BDL	1
Endosulfan II	BDL	1
p,p'-DDD	BDL	1
Endrin aldehyde	BDL	1
Endosulfan sulfate	BDL	1
p,p'-DDT	BDL	1
Chlordane	BDL	5
Toxaphene	BDL	5
PCB 1016	BDL	5
PCB 1221	BDL	5
PCB 1232	BDL	5
PCB 1242	BDL	5
PCB 1248	BDL	5
PCB 1254	BDL	5
PCB 1260	BDL	5

BDL = Below Detection Limit
** = Detected but below reporting level

Date extracted: 5/24/88
Date analyzed: 5/25/88

Sample ID: SB-9 10'-11'

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Phenol	BDL	0.66
Bis(2-chloroethyl)ether	BDL	0.66
2-Chlorophenol	BDL	0.66
1,3-Dichlorobenzene	BDL	0.66
1,4-Dichlorobenzene	BDL	0.66
Benzyl alcohol	BDL	1.30
1,2-Dichlorobenzene	BDL	0.66
2-Methylphenol	BDL	0.66
Bis(2-chloroisopropyl)ether	BDL	0.66
4-Methylphenol	BDL	0.66
N-Nitrosodi-n-propylamine	BDL	0.66
Hexachloroethane	BDL	0.66
Nitrobenzene	BDL	0.66
Isophorone	BDL	0.66
2-Nitrophenol	BDL	0.66
2,4-Dimethylphenol	BDL	0.66
Benzoic acid	BDL	3.30
Bis(2-chloroethoxy)methane	BDL	0.66
2,4-Dichlorophenol	BDL	0.66
1,2,4-Trichlorobenzene	BDL	0.66
Naphthalene	BDL	0.66
4-Chloroaniline	BDL	1.30
Hexachlorobutadiene	BDL	0.66
4-Chloro-3-methylphenol	BDL	0.66
2-Methylnaphthalene	BDL	0.66
Hexachlorocyclopentadiene	BDL	0.66
2,4,6-Trichlorophenol	BDL	0.66
2,4,5-Trichlorophenol	BDL	0.66
2-Chloronaphthalene	BDL	0.66
2-Nitroaniline	BDL	3.30
Dimethylphthalate	BDL	0.66
Acenaphthylene	BDL	0.66
3-Nitroaniline	BDL	3.30
Acenaphthene	BDL	0.66
2,4-Dinitrophenol	BDL	3.30
4-Nitrophenol	BDL	0.66
Dibenzofuran	BDL	0.66
2,4-Dinitrotoluene	BDL	0.66
2,6-Dinitrotoluene	BDL	0.66
Diethylphthalate	BDL	0.66

-Continued-

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
4-Chlorophenyl-phenylether	BDL	0.66
Fluorene	BDL	0.66
4-Nitroaniline	BDL	3.30
4,6-Dinitro-2-methylphenol	BDL	3.30
N-Nitrosodiphenylamine	BDL	0.66
4-Bromophenyl-phenylether	BDL	0.66
Hexachlorobenzene	BDL	0.66
Pentachlorophenol	BDL	3.30
Phenanthrene	BDL	0.66
Anthracene	BDL	0.66
Di-n-butylphthalate	BDL	0.66
Fluoroanthene	BDL	0.66
Pyrene	BDL	0.66
Benzylbutylphthalate	BDL	0.66
3,3'-Dichlorobenzidine	BDL	1.30
Benzo(a)anthracene	BDL	0.66
Bis(2-ethylhexyl)phthalate	4.21	0.66
Chrysene	BDL	0.66
Di-n-octylphthalate	BDL	0.66
Benzo(b)fluoranthene	BDL	0.66
Benzo(k)fluroanthene	BDL	0.66
Benzo(a)pyrene	BDL	0.66
Indeno(1,2,3-cd)pyrene	BDL	0.66
Dibenzo(a,h)anthracene	BDL	0.66
Benzo(g,h,i)perylene	BDL	0.66

BDL = Below Detection Limit

Empty Shuttle Lab Seal No. 1074 Shuttle Opened in field by JWM Shuttle Resealed by JWM

Sealed by G.A. Date 4-22-88 Seal no. 1074 Date 5-1-88 Seal no. 1073 Date 05/04/88

CHAIN OF CUSTODY RECORD

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PROJECT NO.: 1050/643

LOCATION: NAVISTAR

DATE: 05/02/88

SAMPLE DUE DATE:

TIME	SAMPLER	CONTAINERS	SAMPLE TYPE: GRAB	COMPOSITE	SOIL	WATER	SAMPLE I.D..	ANALYSIS REQUIRED: Priority Pollutants: Volatiles	Pesticides	PCB's	Base Neutral	Acid Extract	P.P.				SPLIT (Y) (N)
10:40	JWM	1			X		SB-1 5-6 ft	✓	✓	✓	✓	✓					
10:50	↓	1			X		SB-1 10-11 ft	✓	✓	✓	✓	✓					
11:10		1			X		SB-1 20-21 ft	✓	✓	✓	✓	✓					
11:30		1			X		SB-2 >6-7 5-6 ft	✓	✓	✓	✓	✓					
11:45		1			X		SB-2 15-16 ft	✓	✓	✓	✓	✓					
1:00		1			X		SB-3 10-11 ft	✓	✓	✓	✓	✓					
1:15	JWM	1			X		SB-3 15-16 ft	✓	✓	✓	✓	✓					

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME	SAMPLE CONDITIONS
J Buchanan to Fed Ex	05/04/88	16:30	[illegible]	5/5/88	9:00	

Empty Shuttle Lab Seal No. 1077 Shuttle Opened in field by [illegible] Shuttle Resealed by [illegible]

Sealed by _____ Date _____ Seal no. 1074 Date 5-1-88 Seal no. 1077 Date 05/04/90

CHAIN OF CUSTODY RECORD

PROJECT NO.: 1050/643

LOCATION: NAVISTAR

DATE: 05/02/88

SAMPLE DUE DATE:

ANALYSIS REQUIRED: PRIORITY Pollutants

TIME	SAMPLER	CONTAINERS	SAMPLE TYPE: GRAB	COMPOSITE	SOIL	WATER	SAMPLE I.D.	Vol. Hals	Pesticides	PCB	Base Neutral	Acid					SPLIT (Y) (N)
8:20	JWA	1			X		SB-4 5-6 ft	✓	✓	✓	✓	✓					
8:30	↓	1			X		SB-4 10-11 ft	✓	✓	✓	✓	✓					
9:00		1			X		SB-4 25-26 ft.	✓	✓	✓	✓	✓					
11:15		1			X		SB-5 5-6 ft	✓	✓	✓	✓	✓					
11:30		1			X		SB-5 10-11 ft.	✓	✓	✓	✓	✓					
11:40	↓	1			X		SB-5 15-16 ft.	✓	✓	✓	✓	✓					
13:20	JWA	1			X		SB-6 5-6 ft	✓	✓	✓	✓	✓					

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME	SAMPLE CONDITIONS
J Buchanan to Fed Ex	05/04/88	16:30	[illegible]	5/5/88	900	

Empty Shuttle Lab Seal No._____ Shuttle Opened in field by JWB Shuttle Resealed by JWB

Sealed by_____ Date_____ Seal no. 1074 Date 5-1-88 Seal no. 1077 Date 05/04/88

CHAIN OF CUSTODY RECORD

PROJECT NO.: 1050/643

LOCATION: NAVISTAR

DATE: 05/03/88

SAMPLE DUE DATE:

TIME	SAMPLER	CONTAINERS	SAMPLE TYPE: GRAB	COMPOSITE	SOIL	WATER	SAMPLE I.D..	ANALYSIS REQUIRED: Priority Pollutants: Volatiles	Base Neutrals	Acid Extract	Pesticides	PCBs					SPLIT (Y) (N)
14:00	JWB	1			Y		SB-6 15-16ft.	✓	✓	✓	✓	✓					
13:40		1			Y		SB-6 10-11 ft.	✓	✓	✓	—	✓					
05/04 8:30		1			Y		SB-8 5-6 ft	✓	✓	✓	✓	✓					
8:40		1			Y		SB-8 10-11 ft	✓	✓	✓	✓	✓					
8:50		1			Y		SB-8 15-16 ft	✓	✓	✓	✓	✓					
9:10		1			Y		SB-8 25-26ft. 26.27	✓	✓	✓	✓	✓					
11:20	JWB	1			Y		SB-7 5-6 ft	✓	✓	✓	✓	✓					

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME	SAMPLE CONDITIONS
J Buchanan to FedEx	05/04/88		C. Cirabi	5/5/88	900	

Analysis	Results	Method #	Performed by
Sample ID: MW-1 10'-11'			
Priority Pollutant Metals: Dry wt. basis			
Antimony, mg/kg	3.82	304	SC 5/24/88, 0825
Arsenic, mg/kg	4.17	304	SC 5/21/88, 1050
Beryllium, mg/kg	8.79	305	SM 5/20/88, 0834
Cadmium, mg/kg	6.04	305	SM 5/20/88, 0834
Chromium, mg/kg	8.55	305	SM 5/20/88, 0834
Copper, mg/kg	8.76	305	SM 5/20/88, 0834
Lead, mg/kg	2.36	304	SC 5/19/88, 1250
Mercury, mg/kg	<0.10	303 A-F	SC 5/20/88, 1550
Nickel, mg/kg	27.6	305	SM 5/20/88, 1133
Selenium, mg/kg	3.13	304	SC 5/23/88, 1000
Silver, mg/kg	0.70	303 A-F	SC 5/20/88, 0900
Thallium, mg/kg	<0.50	304	SC 5/20/88, 0750
Zinc, mg/kg	198	305	SM 5/20/88, 1133
Cyanide, mg/kg	0.10	412 B	RC 5/12/88, 1300
Moisture, %	1.70	---	PW 5/20/88, 1300

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Sample ID: MW-1 10'-11'

Date extracted: 5/24/88
Date analyzed: 5/24/88

SW 8080 PESTICIDES

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Alpha-BHC	BDL	1
Beta-BHC	BDL	1
Lindane	BDL	1
Delta-BHC	BDL	1
Heptachlor	BDL	1
Aldrin	BDL	1
Heptachlor epoxide	BDL	1
Endosulfan I	BDL	1
Dieldrin	BDL	1
p,p'-DDE	BDL	1
Endrin	BDL	1
Endosulfan II	BDL	1
p,p'-DDD	BDL	1
Endrin aldehyde	BDL	1
Endosulfan sulfate	BDL	1
p,p'-DDT	BDL	1
Chlordane	BDL	5
Toxaphene	BDL	5
PCB 1016	BDL	5
PCB 1221	BDL	5
PCB 1232	BDL	5
PCB 1242	BDL	5
PCB 1248	BDL	5
PCB 1254	BDL	5
PCB 1260	BDL	5

BDL = Below Detection Limit
** = Detected but below reporting level

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Sample ID: MW-1 10'-11'

Date analyzed: 5/24/88

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Chloromethane	BDL	0.3
Bromomethane	BDL	0.3
Vinyl chloride	BDL	0.3
Chloroethane	BDL	0.3
Dichloromethane	BDL	0.3
Acetone	BDL	3.0
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
1,1-Dichloroethane	BDL	0.3
2-Butanone	BDL	0.3
Trans-1,2-dichloroethene	BDL	0.3
Chloroform	**	0.3
1,2-Dichloroethane	BDL	0.3
1,1,1-Trichloroethane	BDL	0.3
Carbon tetrachloride	BDL	0.3
Bromodichloromethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
Vinyl acetate	BDL	0.3
Cis-1,3-dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
Benzene	1.0	0.3
Trans-1,3-dichloropropane	BDL	0.3
2-Chloroethylvinylether	BDL	0.3
Bromoform	BDL	0.3
2-Hexanone	BDL	0.3
4-Methyl-2-pentanone	BDL	0.3
Tetrachloroethene	BDL	0.3
1,1,2,2-Tetrachloroethane	BDL	0.3
Toluene	BDL	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	**	0.3
Styrene	BDL	0.3
Total xylenes	BDL	0.3
1,2-Dichlorobenzene	BDL	0.3
1,3-Dichlorobenzene	BDL	0.3
1,4-Dichlorobenzene	BDL	0.3

BDL = Below Detection Limit

Surrogate Recoveries, %

1,2-Dichloroethane-d4 ----- 92.4
Toluene-d8 ---------- 100.8
Bromofluorobenzene -------- 99.2

Analysis	Results	Method #	Performed by
Sample ID: MW-1 10'-11'			
Priority Pollutant Metals:	Dry wt. basis		
Antimony, mg/kg	3.82	304	SC 5/24/88, 0825
Arsenic, mg/kg	4.17	304	SC 5/21/88, 1050
Beryllium, mg/kg	8.79	305	SM 5/20/88, 0834
Cadmium, mg/kg	6.04	305	SM 5/20/88, 0834
Chromium, mg/kg	8.55	305	SM 5/20/88, 0834
Copper, mg/kg	8.76	305	SM 5/20/88, 0834
Lead, mg/kg	2.36	304	SC 5/19/88, 1250
Mercury, mg/kg	<0.10	303 A-F	SC 5/20/88, 1550
Nickel, mg/kg	27.6	305	SM 5/20/88, 1133
Selenium, mg/kg	3.13	304	SC 5/23/88, 1000
Silver, mg/kg	0.70	303 A-F	SC 5/20/88, 0900
Thallium, mg/kg	<0.50	304	SC 5/20/88, 0750
Zinc, mg/kg	198	305	SM 5/20/88, 1133
Cyanide, mg/kg	0.10	412 B	RC 5/12/88, 1300
Moisture, %	1.70	---	PW 5/20/88, 1300

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Sample ID: MW-1 10'-11'

Date extracted: 5/24/88
Date analyzed: 5/25/88

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
Phenol	BDL	0.66
Bis(2-chloroethyl)ether	10.0	0.66
2-Chlorophenol	BDL	0.66
1,3-Dichlorobenzene	BDL	0.66
1,4-Dichlorobenzene	BDL	0.66
Benzyl alcohol	BDL	1.30
1,2-Dichlorobenzene	BDL	0.66
2-Methylphenol	BDL	0.66
Bis(2-chloroisopropyl)ether	BDL	0.66
4-Methylphenol	BDL	0.66
N-Nitrosodi-n-propylamine	BDL	0.66
Hexachloroethane	BDL	0.66
Nitrobenzene	BDL	0.66
Isophorone	BDL	0.66
2-Nitrophenol	BDL	0.66
2,4-Dimethylphenol	BDL	0.66
Benzoic acid	BDL	3.30
Bis(2-chloroethoxy)methane	BDL	0.66
2,4-Dichlorophenol	BDL	0.66
1,2,4-Trichlorobenzene	BDL	0.66
Naphthalene	BDL	0.66
4-Chloroaniline	BDL	1.30
Hexachlorobutadiene	BDL	0.66
4-Chloro-3-methylphenol	BDL	0.66
2-Methylnaphthalene	BDL	0.66
Hexachlorocyclopentadiene	BDL	0.66
2,4,6-Trichlorophenol	BDL	0.66
2,4,5-Trichlorophenol	BDL	0.66
2-Chloronaphthalene	BDL	0.66
2-Nitroaniline	BDL	3.30
Dimethylphthalate	BDL	0.66
Acenaphthylene	BDL	0.66
3-Nitroaniline	BDL	3.30
Acenaphthene	BDL	0.66
2,4-Dinitrophenol	BDL	3.30
4-Nitrophenol	BDL	0.66
Dibenzofuran	BDL	0.66
2,4-Dinitrotoluene	BDL	0.66
2,6-Dinitrotoluene	BDL	0.66
Diethylphthalate	BDL	0.66

-Continued-

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Level ppm, (mg/kg)
4-Chlorophenyl-phenylether	BDL	0.66
Fluorene	BDL	0.66
4-Nitroaniline	BDL	3.30
4,6-Dinitro-2-methylphenol	BDL	3.30
N-Nitrosodiphenylamine	BDL	0.66
4-Bromophenyl-phenylether	BDL	0.66
Hexachlorobenzene	BDL	0.66
Pentachlorophenol	BDL	3.30
Phenanthrene	BDL	0.66
Anthracene	BDL	0.66
Di-n-butylphthalate	BDL	0.66
Fluoroanthene	**	0.66
Pyrene	BDL	0.66
Benzylbutylphthalate	BDL	0.66
3,3'-Dichlorobenzidine	BDL	1.30
Benzo(a)anthracene	BDL	0.66
Bis(2-ethylhexyl)phthalate	1.6	0.66
Chrysene	BDL	0.66
Di-n-octylphthalate	BDL	0.66
Benzo(b)fluoranthene	BDL	0.66
Benzo(k)fluroanthene	BDL	0.66
Benzo(a)pyrene	BDL	0.66
Indeno(1,2,3-cd)pyrene	BDL	0.66
Dibenzo(a,h)anthracene	BDL	0.66
Benzo(g,h,i)perylene	BDL	0.66

BDL = Below Detection Limit

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

The QA report summary is forthcoming.

Empty Shuttle Lab Seal No. 1072 Shuttle Opened in field by JWB Shuttle Resealed by JWB

Sealed by GA Date 4-22-88 Seal no. 1072 Date 05/02/88 Seal no. 1075 Date 05/09/88

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NO.: 1050/643

LOCATION: NAVISTAR Farmall

DATE: 05/09/88

SAMPLE DUE DATE:

TIME	SAMPLER	CONTAINERS	SAMPLE TYPE: GRAB	COMPOSITE	SOIL	WATER	SAMPLE I.D..	ANALYSIS REQUIRED: PRIORITY Pollutants: PESTICIDES	PCBs	B/N	A/E	Metals					SPLIT (Y) (N)
3:00	JWB	7				X	MW-7	✓	✓	✓	✓	✓					
4:00	JWB	7				X	MW-8	✓	✓	✓	✓	✓					
11:30	JWB	1			X		SB-9 10-11	✓	✓	✓	✓	✓					
12:00	JWB	1			X		MW1 10-11 ft	✓	✓	✓	✓	✓					
12:30	JWB	1			X		MW-1 15-16 ft	✓	✓	✓	✓	✓					

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME	SAMPLE CONDITIONS
J Buchanan + Fed Ex	05/09		Mary Quabi	5/10/88	8:30	

JANUARY, 1989

LABORATORY ANALYSIS

Professional Service Industries, Inc.

ANALYTICAL REPORT

TESTED FOR: PILKO & ASSOCIATES
2707 N. Loop West
Suite 960
Houston, TX 77008

ATTN: John Buchanan

PROJECT: Navistar
Farmall

DATE: February 16, 1989

OUR REPORT NO.: 214-80703-04 (Revised)

REMARKS:

Date Received: January 27, 1989
Sample Identification: Seven water samples dated 1/26/89.
Methodology Employed: Standard Methods, 16th Edition; sw 846

TEST RESULTS:

	Results	Method #	Performed by
Sample ID: MW 2			
Phenol, mg/L	0.09	510 c	RC 1/30/89, 1300
Cyanide, mg/L	<0.05	412 b	RC 1/31/89, 1500
Cadmium, mg/L	<0.01	305	SM 2/2/89, 1335
Nickel, mg/L	0.04	305	SM 2/2/89, 1335
Lead, mg/L	0.98	304	RS 2/3/89, 0830
Zinc, mg/L	0.51	305	SM 2/2/89, 1335
Total Petroleum Hydrocarbon, mg/L	16.7	503 A	AF 2/2/89, 1300

Continued

Pilko & Associates
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Page 2
Sample ID: MW 2

Date Received: 1/3/89
Date Analyzed: 2/9/89

EPA 608 Pesticides

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Alpha-BHC	BRL	0.05
Beta-BHC	BRL	0.05
Lindane	BRL	0.05
Delta-BHC	BRL	0.05
Heptachlor	BRL	0.05
Aldrin	**	0.05
Heptachlor epoxide	BRL	0.05
Endosulfan I	BRL	0.05
Dieldrin	BRL	0.10
p,p'-DDE	BRL	0.10
Endrin	BRL	0.10
Endosulfan II	BRL	0.10
p,p'-DDD	BRL	0.10
Endrin aldehyde	BRL	0.10
Endosulfan sulfate	BRL	0.10
p,p'-DDT	BRL	0.10
Chlordane	BRL	0.50
Toxaphene	BRL	1.00
PCB 1016	BRL	0.50
PCB 1221	BRL	0.50
PCB 1232	BRL	0.50
PCB 1242	BRL	0.50
PCB 1248	BRL	0.50
PCB 1254	BRL	1.00
PCB 1260	BRL	1.00

BRL = Below Reporting Limit
** = Detected but below reporting level

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Page 3
Sample ID: MW 2

HSL EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Chloromethane	BRL	10
Bromomethane	BRL	10
Vinyl chloride	BRL	1
Chloroethane	BRL	10
Dichloromethane	BRL	5
Acetone	BRL	10
Carbon disulfide	BRL	5
Trichlorofluoromethane	BRL	10
1,1-Dichloroethene	BRL	5
1,1-Dichloroethane	BRL	5
Trans-1,2-dichloroethene	BRL	5
Chloroform	**	5
1,2-Dichloroethane	94	3
2-Butanone	12	5
1,1,1-Trichloroethane	BRL	5
Carbon tetrachloride	BRL	3
Vinyl acetate	BRL	10
Bromodichloromethane	BRL	5
1,2-Dichloropropane	BRL	5
Cis-1,3-dichloropropene	BRL	5
Trichloroethene	BRL	3
Dibromochloromethane	BRL	5
1,1,2-Trichloroethane	30	5
Benzene	2,500	1
Trans-1,3-dichloropropene	BRL	5
2-Chloroethylvinylether	BRL	10
Bromoform	BRL	5
2-Hexanone	**	10
4-Methyl-2-pentanone	BRL	10
Tetrachloroethene	BRL	3
1,1,2,2-Tetrachloroethane	BRL	3
Toluene	1,100	5
Chlorobenzene	BRL	5
Ethylbenzene	140	5
Styrene	BRL	5
Total Xylenes	BRL	5
1,2-Dichlorobenzene	BRL	10
1,3-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10

BRL = Below Reporting Limit

EPA 625 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Phenol	BRL	10
Bis(2-chloroethyl)ether	BRL	10
2-Chlorophenol	BRL	10
1,3-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10
Benzyl alcohol	BRL	10
1,2-Dichlorobenzene	BRL	10
2-Methylphenol	BRL	10
Bis(2-chloroisopropyl)ether	BRL	10
4-Methylphenol	BRL	10
N-Nitrosodi-n-propylamine	BRL	10
Hexachloroethane	BRL	10
Nitrobenzene	BRL	10
Isophorone	BRL	10
2-Nitrophenol	BRL	10
2,4-Dimethylphenol	BRL	10
Benzoic acid	BRL	10
Bis(2-chloroethoxy)methane	BRL	10
2,4-Dichlorophenol	BRL	10
1,2,4-Trichlorobenzene	BRL	10
Naphthalene	BRL	10
4-Chloroaniline	BRL	10
Hexachlorobutadiene	BRL	10
4-Chloro-3-methylphenol	BRL	10
2-Methylnaphthalene	BRL	10
Hexachlorocyclopentadiene	BRL	10
2,4,6-Trichlorophenol	BRL	10
2,4,5-Trichlorophenol	BRL	10
2-Chloronaphthalene	BRL	10
2-Nitroaniline	BRL	10
Dimethylphthalate	BRL	10
Acenaphthylene	**	10
3-Nitroaniline	BRL	10
Acenaphthene	**	10
2,4-Dinitrophenol	BRL	10
4-Nitrophenol	BRL	10
Dibenzofuran	BRL	10
2.4-Dinitrotoluene	BRL	10
2,6-Dinitrotoluene	BRL	10
Diethylphthalate	BRL	10

-Continued-

EPA 625 Base-Neutral and Acid Extractable Compounds
(Continued)

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
4-Chlorophenyl-phenylether	BRL	10
Fluorene	**	10
4-Nitroaniline	BRL	10
4,6-Dinitro-2-methylphenol	BRL	10
N-Nitrosodiphenylamine	BRL	10
4-Bromophenyl-phenylether	BRL	10
Hexachlorobenzene	BRL	10
Pentachlorophenol	BRL	10
Phenanthrene	13	10
Anthracene	**	10
Di-n-butylphthalate	BRL	10
Fluoroanthene	22	10
Pyrene	23	10
Benzylbutylphthalate	BRL	10
3,3'-Dichlorobenzidine	BRL	10
Benzo(a)anthracene	**	10
Bis(2-ethylhexyl)phthalate	BRL	10
Chrysene	**	10
Di-n-octylphthalate	BRL	10
Benzo(b)fluoranthene	**	10
Benzo(k)fluroanthene	BRL	10
Benzo(a)pyrene	**	10
Indeno(1,2,3-cd)pyrene	**	10
Dibenzo(a,h)anthracene	BRL	10
Benzo(g,h,i)perylene	**	10

BRL = Below Reporting Limit
** = Detected but below report limit

	Results	Method #	Performed by
Sample ID: MW 3			
Phenol, mg/L	<0.05	510 c	RC 1/30/89, 1300
Cyanide, mg/L	<0.05	412 b	RC 1/31/89, 1500
Cadmium, mg/L	<0.01	305	SM 2/2/89, 1335
Nickel, mg/L	0.01	305	SM 2/2/89, 1335
Lead, mg/L	0.13	304	RS 2/3/89, 0830
Zinc, mg/L	0.15	305	SM 2/2/89, 1335
Total Petroleum Hydrocarbon, mg/L	<1	503 A	AF 2/2/89, 1300

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Sample ID: MW 3

Date Received: 1/3/89
Date Analyzed: 2/9/89

EPA 608 Pesticides

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Alpha-BHC	BRL	0.05
Beta-BHC	BRL	0.05
Lindane	BRL	0.05
Delta-BHC	BRL	0.05
Heptachlor	BRL	0.05
Aldrin	**	0.05
Heptachlor epoxide	BRL	0.05
Endosulfan I	BRL	0.05
Dieldrin	BRL	0.10
p,p'-DDE	BRL	0.10
Endrin	BRL	0.10
Endosulfan II	BRL	0.10
p,p'-DDD	BRL	0.10
Endrin aldehyde	BRL	0.10
Endosulfan sulfate	BRL	0.10
p,p'-DDT	0.40	0.10
Chlordane	BRL	0.50
Toxaphene	BRL	1.00
PCB 1016	BRL	0.50
PCB 1221	BRL	0.50
PCB 1232	BRL	0.50
PCB 1242	BRL	0.50
PCB 1248	BRL	0.50
PCB 1254	BRL	1.00
PCB 1260	BRL	1.00

BRL = Below Reporting Limit
** = Detected but below reporting level

Sample ID: MW 3

HSL EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Chloromethane	BRL	10
Bromomethane	BRL	10
Vinyl chloride	BRL	1
Chloroethane	BRL	10
Dichloromethane	BRL	5
Acetone	BRL	10
Carbon disulfide	BRL	5
Trichlorofluoromethane	BRL	10
1,1-Dichloroethene	BRL	5
1,1-Dichloroethane	BRL	5
Trans-1,2-dichloroethene	BRL	5
Chloroform	BRL	5
1,2-Dichloroethane	BRL	3
2-Butanone	BRL	5
1,1,1-Trichloroethane	BRL	5
Carbon tetrachloride	BRL	3
Vinyl acetate	BRL	10
Bromodichloromethane	BRL	5
1,2-Dichloropropane	BRL	5
Cis-1,3-dichloropropene	BRL	5
Trichloroethene	BRL	3
Dibromochloromethane	BRL	5
1,1,2-Trichloroethane	BRL	5
Benzene	11	1
Trans-1,3-dichloropropene	BRL	5
2-Chloroethylvinylether	BRL	10
Bromoform	BRL	5
2-Hexanone	BRL	10
4-Methyl-2-pentanone	BRL	10
Tetrachloroethene	BRL	3
1,1,2,2-Tetrachloroethane	BRL	3
Toluene	9	5
Chlorobenzene	BRL	5
Ethylbenzene	BRL	5
Styrene	BRL	5
Total Xylenes	BRL	5
1,2-Dichlorobenzene	BRL	10
1,3-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10

BRL = Below Reporting Limit
** = Detected but below reporting limit

EPA 625 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Phenol	BRL	10
Bis(2-chloroethyl)ether	BRL	10
2-Chlorophenol	BRL	10
1,3-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10
Benzyl alcohol	BRL	10
1,2-Dichlorobenzene	BRL	10
2-Methylphenol	BRL	10
Bis(2-chloroisopropyl)ether	BRL	10
4-Methylphenol	BRL	10
N-Nitrosodi-n-propylamine	BRL	10
Hexachloroethane	BRL	10
Nitrobenzene	BRL	10
Isophorone	BRL	10
2-Nitrophenol	BRL	10
2,4-Dimethylphenol	BRL	10
Benzoic acid	BRL	10
Bis(2-chloroethoxy)methane	BRL	10
2,4-Dichlorophenol	BRL	10
1,2,4-Trichlorobenzene	BRL	10
Naphthalene	BRL	10
4-Chloroaniline	BRL	10
Hexachlorobutadiene	BRL	10
4-Chloro-3-methylphenol	BRL	10
2-Methylnaphthalene	BRL	10
Hexachlorocyclopentadiene	BRL	10
2,4,6-Trichlorophenol	BRL	10
2,4,5-Trichlorophenol	BRL	10
2-Chloronaphthalene	BRL	10
2-Nitroaniline	BRL	10
Dimethylphthalate	BRL	10
Acenaphthylene	BRL	10
3-Nitroaniline	BRL	10
Acenaphthene	BRL	10
2,4-Dinitrophenol	BRL	10
4-Nitrophenol	BRL	10
Dibenzofuran	BRL	10
2.4-Dinitrotoluene	BRL	10
2,6-Dinitrotoluene	BRL	10
Diethylphthalate	BRL	10

-Continued-

EPA 625 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
4-Chlorophenyl-phenylether	BRL	10
Fluorene	BRL	10
4-Nitroaniline	BRL	10
4,6-Dinitro-2-methylphenol	BRL	10
N-Nitrosodiphenylamine	BRL	10
4-Bromophenyl-phenylether	BRL	10
Hexachlorobenzene	BRL	10
Pentachlorophenol	BRL	10
Phenanthrene	BRL	10
Anthracene	BRL	10
Di-n-butylphthalate	BRL	10
Fluoroanthene	BRL	10
Pyrene	BRL	10
Benzylbutylphthalate	BRL	10
3,3'-Dichlorobenzidine	BRL	10
Benzo(a)anthracene	BRL	10
Bis(2-ethylhexyl)phthalate	BRL	10
Chrysene	BRL	10
Di-n-octylphthalate	BRL	10
Benzo(b)fluoranthene	BRL	10
Benzo(k)fluroanthene	BRL	10
Benzo(a)pyrene	BRL	10
Indeno(1,2,3-cd)pyrene	BRL	10
Dibenzo(a,h)anthracene	BRL	10
Benzo(g,h,i)perylene	BRL	10

BRL = Below Reporting Limit
** = Detected but below report limit

	Results	Method #	Performed by
Sample ID: MW 4			
Phenol, mg/L	<0.05	510 c	RC 1/30/89, 1300
Cyanide, mg/L	<0.05	412 b	RC 1/31/89, 1500
Cadmium, mg/L	<0.01	305	SM 2/2/89, 1335
Nickel, mg/L	0.02	305	SM 2/2/89, 1335
Lead, mg/L	0.65	304	RS 2/3/89, 0830
Zinc, mg/L	0.15	305	SM 2/2/89, 1335
Total Petroleum Hydrocarbon, mg/L	1.3	503 A	AF 2/2/89, 1300

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Sample ID: MW 4

Date Received: 1/3/89
Date Analyzed: 2/9/89

EPA 608 Pesticides

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Alpha-BHC	**	0.05
Beta-BHC	BRL	0.05
Lindane	1.2	0.05
Delta-BHC	BRL	0.05
Heptachlor	BRL	0.05
Aldrin	0.58	0.05
Heptachlor epoxide	BRL	0.05
Endosulfan I	BRL	0.05
Dieldrin	BRL	0.10
p,p'-DDE	BRL	0.10
Endrin	BRL	0.10
Endosulfan II	BRL	0.10
p,p'-DDD	BRL	0.10
Endrin aldehyde	BRL	0.10
Endosulfan sulfate	BRL	0.10
p,p'-DDT	0.39	0.10
Chlordane	BRL	0.50
Toxaphene	BRL	1.00
PCB 1016	BRL	0.50
PCB 1221	BRL	0.50
PCB 1232	BRL	0.50
PCB 1242	BRL	0.50
PCB 1248	BRL	0.50
PCB 1254	BRL	1.00
PCB 1260	BRL	1.00

BRL = Below Reporting Limit
** = Detected but below reporting level

HSL EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Chloromethane	BRL	10
Bromomethane	BRL	10
Vinyl chloride	BRL	1
Chloroethane	BRL	10
Dichloromethane	BRL	5
Acetone	BRL	10
Carbon disulfide	BRL	5
Trichlorofluoromethane	BRL	10
1,1-Dichloroethene	BRL	5
1,1-Dichloroethane	BRL	5
Trans-1,2-dichloroethene	BRL	5
Chloroform	BRL	5
1,2-Dichloroethane	BRL	3
2-Butanone	BRL	5
1,1,1-Trichloroethane	BRL	5
Carbon tetrachloride	BRL	3
Vinyl acetate	BRL	10
Bromodichloromethane	BRL	5
1,2-Dichloropropane	BRL	5
Cis-1,3-dichloropropene	BRL	5
Trichloroethene	BRL	3
Dibromochloromethane	BRL	5
1,1,2-Trichloroethane	BRL	5
Benzene	BRL	1
Trans-1,3-dichloropropene	BRL	5
2-Chloroethylvinylether	BRL	10
Bromoform	BRL	5
2-Hexanone	BRL	10
4-Methyl-2-pentanone	BRL	10
Tetrachloroethene	BRL	3
1,1,2,2-Tetrachloroethane	BRL	3
Toluene	BRL	5
Chlorobenzene	BRL	5
Ethylbenzene	BRL	5
Styrene	BRL	5
Total Xylenes	BRL	5
1,2-Dichlorobenzene	BRL	10
1,3-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10

BRL = Below Reporting Limit
** = Detected but below reporting limit

EPA 625 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Phenol	BRL	10
Bis(2-chloroethyl)ether	BRL	10
2-Chlorophenol	BRL	10
1,3-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10
Benzyl alcohol	BRL	10
1,2-Dichlorobenzene	BRL	10
2-Methylphenol	BRL	10
Bis(2-chloroisopropyl)ether	BRL	10
4-Methylphenol	BRL	10
N-Nitrosodi-n-propylamine	BRL	10
Hexachloroethane	BRL	10
Nitrobenzene	BRL	10
Isophorone	BRL	10
2-Nitrophenol	BRL	10
2,4-Dimethylphenol	BRL	10
Benzoic acid	BRL	10
Bis(2-chloroethoxy)methane	BRL	10
2,4-Dichlorophenol	BRL	10
1,2,4-Trichlorobenzene	BRL	10
Naphthalene	BRL	10
4-Chloroaniline	BRL	10
Hexachlorobutadiene	BRL	10
4-Chloro-3-methylphenol	BRL	10
2-Methylnaphthalene	BRL	10
Hexachlorocyclopentadiene	BRL	10
2,4,6-Trichlorophenol	BRL	10
2,4,5-Trichlorophenol	BRL	10
2-Chloronaphthalene	BRL	10
2-Nitroaniline	BRL	10
Dimethylphthalate	BRL	10
Acenaphthylene	BRL	10
3-Nitroaniline	BRL	10
Acenaphthene	BRL	10
2,4-Dinitrophenol	BRL	10
4-Nitrophenol	BRL	10
Dibenzofuran	BRL	10
2.4-Dinitrotoluene	BRL	10
2,6-Dinitrotoluene	BRL	10
Diethylphthalate	BRL	10

-Continued-

EPA 625 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
4-Chlorophenyl-phenylether	BRL	10
Fluorene	BRL	10
4-Nitroaniline	BRL	10
4,6-Dinitro-2-methylphenol	BRL	10
N-Nitrosodiphenylamine	BRL	10
4-Bromophenyl-phenylether	BRL	10
Hexachlorobenzene	BRL	10
Pentachlorophenol	BRL	10
Phenanthrene	**	10
Anthracene	BRL	10
Di-n-butylphthalate	BRL	10
Fluoroanthene	**	10
Pyrene	**	10
Benzylbutylphthalate	BRL	10
3,3'-Dichlorobenzidine	BRL	10
Benzo(a)anthracene	**	10
Bis(2-ethylhexyl)phthalate	BRL	10
Chrysene	**	10
Di-n-octylphthalate	BRL	10
Benzo(b)fluoranthene	**	10
Benzo(k)fluroanthene	BRL	10
Benzo(a)pyrene	**	10
Indeno(1,2,3-cd)pyrene	BRL	10
Dibenzo(a,h)anthracene	BRL	10
Benzo(g,h,i)perylene	**	10

BRL = Below Reporting Limit
** = Detected but below report limit

	Results	Method #	Performed by
Sample ID: MW 5			
Phenol, mg/L	<0.05	510 c	RC 1/30/89, 1300
Cyanide, mg/L	<0.05	412 b	RC 1/31/89, 1500
Cadmium, mg/L	0.04	305	SM 2/2/89, 1335
Nickel, mg/L	0.20	305	SM 2/2/89, 1335
Lead, mg/L	0.54	304	RS 2/3/89, 0830
Zinc, mg/L	0.78	305	SM 2/2/89, 1335
Total Petroleum Hydrocarbon, mg/L	9.7	503 A	AF 2/2/89, 1300

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Sample ID: MW 5

Date Received: 1/3/89
Date Analyzed: 2/9/89

EPA 608 Pesticides

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Alpha-BHC	BRL	0.05
Beta-BHC	BRL	0.05
Lindane	BRL	0.05
Delta-BHC	BRL	0.05
Heptachlor	**	0.05
Aldrin	BRL	0.05
Heptachlor epoxide	BRL	0.05
Endosulfan I	BRL	0.05
Dieldrin	BRL	0.10
p,p'-DDE	BRL	0.10
Endrin	BRL	0.10
Endosulfan II	BRL	0.10
p,p'-DDD	BRL	0.10
Endrin aldehyde	BRL	0.10
Endosulfan sulfate	BRL	0.10
p,p'-DDT	BRL	0.10
Chlordane	BRL	0.50
Toxaphene	BRL	1.00
PCB 1016	BRL	0.50
PCB 1221	BRL	0.50
PCB 1232	BRL	0.50
PCB 1242	BRL	0.50
PCB 1248	BRL	0.50
PCB 1254	BRL	1.00
PCB 1260	BRL	1.00

BRL = Below Reporting Limit
** = Detected but below reporting level

HSL EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Chloromethane	BRL	10
Bromomethane	BRL	10
Vinyl chloride	BRL	1
Chloroethane	BRL	10
Dichloromethane	BRL	5
Acetone	BRL	10
Carbon disulfide	BRL	5
Trichlorofluoromethane	BRL	10
1,1-Dichloroethene	BRL	5
1,1-Dichloroethane	BRL	5
Trans-1,2-dichloroethene	BRL	5
Chloroform	BRL	5
1,2-Dichloroethane	BRL	3
2-Butanone	BRL	5
1,1,1-Trichloroethane	BRL	5
Carbon tetrachloride	BRL	3
Vinyl acetate	BRL	10
Bromodichloromethane	BRL	5
1,2-Dichloropropane	BRL	5
Cis-1,3-dichloropropene	BRL	5
Trichloroethene	BRL	3
Dibromochloromethane	BRL	5
1,1,2-Trichloroethane	8	5
Benzene	1	1
Trans-1,3-dichloropropene	BRL	5
2-Chloroethylvinylether	BRL	10
Bromoform	BRL	5
2-Hexanone	BRL	10
4-Methyl-2-pentanone	BRL	10
Tetrachloroethene	BRL	3
1,1,2,2-Tetrachloroethane	BRL	3
Toluene	BRL	5
Chlorobenzene	BRL	5
Ethylbenzene	BRL	5
Styrene	BRL	5
Total Xylenes	BRL	5
1,2-Dichlorobenzene	BRL	10
1,3-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10

BRL = Below Reporting Limit
** = Detected but below reporting limit

EPA 625 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Phenol	BRL	10
Bis(2-chloroethyl)ether	BRL	10
2-Chlorophenol	BRL	10
1,3-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10
Benzyl alcohol	BRL	10
1,2-Dichlorobenzene	BRL	10
2-Methylphenol	BRL	10
Bis(2-chloroisopropyl)ether	BRL	10
4-Methylphenol	BRL	10
N-Nitrosodi-n-propylamine	BRL	10
Hexachloroethane	BRL	10
Nitrobenzene	BRL	10
Isophorone	BRL	10
2-Nitrophenol	BRL	10
2,4-Dimethylphenol	BRL	10
Benzoic acid	BRL	10
Bis(2-chloroethoxy)methane	BRL	10
2,4-Dichlorophenol	BRL	10
1,2,4-Trichlorobenzene	BRL	10
Naphthalene	BRL	10
4-Chloroaniline	BRL	10
Hexachlorobutadiene	BRL	10
4-Chloro-3-methylphenol	BRL	10
2-Methylnaphthalene	BRL	10
Hexachlorocyclopentadiene	BRL	10
2,4,6-Trichlorophenol	BRL	10
2,4,5-Trichlorophenol	BRL	10
2-Chloronaphthalene	**	10
2-Nitroaniline	BRL	10
Dimethylphthalate	BRL	10
Acenaphthylene	**	10
3-Nitroaniline	BRL	10
Acenaphthene	17	10
2,4-Dinitrophenol	BRL	10
4-Nitrophenol	BRL	10
Dibenzofuran	**	10
2.4-Dinitrotoluene	**	10
2,6-Dinitrotoluene	BRL	10
Diethylphthalate	BRL	10

-Continued-

Sample ID: MW 5

EPA 625 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
4-Chlorophenyl-phenylether	BRL	10
Fluorene	16	10
4-Nitroaniline	BRL	10
4,6-Dinitro-2-methylphenol	BRL	10
N-Nitrosodiphenylamine	BRL	10
4-Bromophenyl-phenylether	BRL	10
Hexachlorobenzene	BRL	10
Pentachlorophenol	BRL	10
Phenanthrene	24	10
Anthracene	BRL	10
Di-n-butylphthalate	BRL	10
Fluoroanthene	BRL	10
Pyrene	**	10
Benzylbutylphthalate	BRL	10
3,3'-Dichlorobenzidine	BRL	10
Benzo(a)anthracene	BRL	10
Bis(2-ethylhexyl)phthalate	BRL	10
Chrysene	BRL	10
Di-n-octylphthalate	BRL	10
Benzo(b)fluoranthene	BRL	10
Benzo(k)fluroanthene	BRL	10
Benzo(a)pyrene	BRL	10
Indeno(1,2,3-cd)pyrene	BRL	10
Dibenzo(a,h)anthracene	BRL	10
Benzo(g,h,i)perylene	BRL	10

BRL = Below Reporting Limit
** = Detected but below report limit

	Results	Method #	Performed by
Sample ID: MW 6			
Phenol, mg/L	<0.05	510 c	RC 1/30/89, 1300
Cyanide, mg/L	<0.05	412 b	RC 1/31/89, 1500
Cadmium, mg/L	<0.01	305	SM 2/2/89, 1335
Nickel, mg/L	<0.01	305	SM 2/2/89, 1335
Lead, mg/L	<0.01	304	RS 2/3/89, 0830
Zinc, mg/L	0.04	305	SM 2/2/89, 1335
Total Petroleum Hydrocarbon, mg/L	75.0	503 A	AF 2/2/89, 1300

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Sample ID: MW 6

Date Received: 1/6/89
Date Analyzed: 2/9/89

EPA 608 Pesticides

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Alpha-BHC	BRL	0.05
Beta-BHC	BRL	0.05
Lindane	BRL	0.05
Delta-BHC	BRL	0.05
Heptachlor	**	0.05
Aldrin	BRL	0.05
Heptachlor epoxide	BRL	0.05
Endosulfan I	BRL	0.05
Dieldrin	BRL	0.10
p,p'-DDE	BRL	0.10
Endrin	BRL	0.10
Endosulfan II	BRL	0.10
p,p'-DDD	BRL	0.10
Endrin aldehyde	BRL	0.10
Endosulfan sulfate	BRL	0.10
p,p'-DDT	BRL	0.10
Chlordane	BRL	0.50
Toxaphene	BRL	1.00
PCB 1016	BRL	0.50
PCB 1221	BRL	0.50
PCB 1232	BRL	0.50
PCB 1242	BRL	0.50
PCB 1248	BRL	0.50
PCB 1254	BRL	1.00
PCB 1260	BRL	1.00

BRL = Below Reporting Limit
** = Detected but below reporting level

HSL EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Chloromethane	BRL	10
Bromomethane	BRL	10
Vinyl chloride	BRL	1
Chloroethane	BRL	10
Dichloromethane	BRL	5
Acetone	BRL	10
Carbon disulfide	BRL	5
Trichlorofluoromethane	BRL	10
1,1-Dichloroethene	BRL	5
1,1-Dichloroethane	BRL	5
Trans-1,2-dichloroethene	60	5
Chloroform	**	5
1,2-Dichloroethane	BRL	3
2-Butanone	6	5
1,1,1-Trichloroethane	460	5
Carbon tetrachloride	BRL	3
Vinyl acetate	BRL	10
Bromodichloromethane	BRL	5
1,2-Dichloropropane	BRL	5
Cis-1,3-dichloropropene	BRL	5
Trichloroethene	BRL	3
Dibromochloromethane	BRL	5
1,1,2-Trichloroethane	**	5
Benzene	4	1
Trans-1,3-dichloropropene	BRL	5
2-Chloroethylvinylether	BRL	10
Bromoform	BRL	5
2-Hexanone	BRL	10
4-Methyl-2-pentanone	BRL	10
Tetrachloroethene	BRL	3
1,1,2,2-Tetrachloroethane	**	3
Toluene	BRL	5
Chlorobenzene	BRL	5
Ethylbenzene	BRL	5
Styrene	BRL	5
Total Xylenes	BRL	5
1,2-Dichlorobenzene	BRL	10
1,3-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10

BRL = Below Reporting Limit
** = Detected but below reporting limit

EPA 625 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Phenol	BRL	10
Bis(2-chloroethyl)ether	BRL	10
2-Chlorophenol	BRL	10
1,3-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10
Benzyl alcohol	BRL	10
1,2-Dichlorobenzene	BRL	10
2-Methylphenol	BRL	10
Bis(2-chloroisopropyl)ether	BRL	10
4-Methylphenol	BRL	10
N-Nitrosodi-n-propylamine	BRL	10
Hexachloroethane	BRL	10
Nitrobenzene	**	10
Isophorone	230	10
2-Nitrophenol	BRL	10
2,4-Dimethylphenol	BRL	10
Benzoic acid	BRL	10
Bis(2-chloroethoxy)methane	BRL	10
2,4-Dichlorophenol	BRL	10
1,2,4-Trichlorobenzene	BRL	10
Naphthalene	BRL	10
4-Chloroaniline	BRL	10
Hexachlorobutadiene	BRL	10
4-Chloro-3-methylphenol	BRL	10
2-Methylnaphthalene	BRL	10
Hexachlorocyclopentadiene	BRL	10
2,4,6-Trichlorophenol	BRL	10
2,4,5-Trichlorophenol	BRL	10
2-Chloronaphthalene	BRL	10
2-Nitroaniline	BRL	10
Dimethylphthalate	BRL	10
Acenaphthylene	BRL	10
3-Nitroaniline	BRL	10
Acenaphthene	BRL	10
2,4-Dinitrophenol	BRL	10
4-Nitrophenol	BRL	10
Dibenzofuran	BRL	10
2,4-Dinitrotoluene	66	10
2,6-Dinitrotoluene	BRL	10
Diethylphthalate	BRL	10

-Continued-

EPA 625 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
4-Chlorophenyl-phenylether	15	10
Fluorene	230	10
4-Nitroaniline	BRL	10
4,6-Dinitro-2-methylphenol	BRL	10
N-Nitrosodiphenylamine	190	10
4-Bromophenyl-phenylether	BRL	10
Hexachlorobenzene	BRL	10
Pentachlorophenol	BRL	10
Phenanthrene	520	10
Anthracene	BRL	10
Di-n-butylphthalate	BRL	10
Fluoroanthene	**	10
Pyrene	57	10
Benzylbutylphthalate	BRL	10
3,3'-Dichlorobenzidine	BRL	10
Benzo(a)anthracene	BRL	10
Bis(2-ethylhexyl)phthalate	BRL	10
Chrysene	BRL	10
Di-n-octylphthalate	BRL	10
Benzo(b)fluoranthene	BRL	10
Benzo(k)fluroanthene	BRL	10
Benzo(a)pyrene	BRL	10
Indeno(1,2,3-cd)pyrene	BRL	10
Dibenzo(a,h)anthracene	BRL	10
Benzo(g,h,i)perylene	BRL	10

BRL = Below Reporting Limit
** = Detected but below report limit

	Results	Method #	Performed by
Sample ID: MW 7			
Phenol, mg/L	<0.05	510 c	RC 1/30/89, 1300
Cyanide, mg/L	<0.05	412 b	RC 1/31/89, 1500
Cadmium, mg/L	0.02	305	SM 2/2/89, 1335
Nickel, mg/L	0.04	305	SM 2/2/89, 1335
Lead, mg/L	0.53	304	RS 2/3/89, 0830
Zinc, mg/L	0.58	305	SM 2/2/89, 1335
Total Petroleum Hydrocarbon, mg/L	<1	503 A	AF 2/2/89, 1300

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Sample ID: MW 7

Date Received: 1/6/89
Date Analyzed: 2/9/89

EPA 608 Pesticides

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Alpha-BHC	BRL	0.05
Beta-BHC	BRL	0.05
Lindane	0.11	0.05
Delta-BHC	BRL	0.05
Heptachlor	**	0.05
Aldrin	0.05	0.05
Heptachlor epoxide	BRL	0.05
Endosulfan I	BRL	0.05
Dieldrin	BRL	0.10
p,p'-DDE	BRL	0.10
Endrin	BRL	0.10
Endosulfan II	BRL	0.10
p,p'-DDD	BRL	0.10
Endrin aldehyde	BRL	0.10
Endosulfan sulfate	BRL	0.10
p,p'-DDT	0.17	0.10
Chlordane	BRL	0.50
Toxaphene	BRL	1.00
PCB 1016	BRL	0.50
PCB 1221	BRL	0.50
PCB 1232	BRL	0.50
PCB 1242	BRL	0.50
PCB 1248	BRL	0.50
PCB 1254	BRL	1.00
PCB 1260	BRL	1.00

BRL = Below Reporting Limit
** = Detected but below reporting level

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Sample ID: MW 7

HSL EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Chloromethane	BRL	10
Bromomethane	BRL	10
Vinyl chloride	BRL	1
Chloroethane	BRL	10
Dichloromethane	BRL	5
Acetone	BRL	10
Carbon disulfide	BRL	5
Trichlorofluoromethane	BRL	10
1,1-Dichloroethene	BRL	5
1,1-Dichloroethane	BRL	5
Trans-1,2-dichloroethene	BRL	5
Chloroform	BRL	5
1,2-Dichloroethane	BRL	3
2-Butanone	BRL	5
1,1,1-Trichloroethane	**	5
Carbon tetrachloride	BRL	3
Vinyl acetate	BRL	10
Bromodichloromethane	BRL	5
1,2-Dichloropropane	BRL	5
Cis-1,3-dichloropropene	BRL	5
Trichloroethene	BRL	3
Dibromochloromethane	BRL	5
1,1,2-Trichloroethane	BRL	5
Benzene	4	1
Trans-1,3-dichloropropene	BRL	5
2-Chloroethylvinylether	BRL	10
Bromoform	BRL	5
2-Hexanone	BRL	10
4-Methyl-2-pentanone	BRL	10
Tetrachloroethene	BRL	3
1,1,2,2-Tetrachloroethane	**	3
Toluene	BRL	5
Chlorobenzene	BRL	5
Ethylbenzene	BRL	5
Styrene	BRL	5
Total Xylenes	BRL	5
1,2-Dichlorobenzene	BRL	10
1,3-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10

BRL = Below Reporting Limit
** = Detected but below reporting limit

EPA 625 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Phenol	BRL	10
Bis(2-chloroethyl)ether	BRL	10
2-Chlorophenol	BRL	10
1,3-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10
Benzyl alcohol	BRL	10
1,2-Dichlorobenzene	BRL	10
2-Methylphenol	BRL	10
Bis(2-chloroisopropyl)ether	BRL	10
4-Methylphenol	BRL	10
N-Nitrosodi-n-propylamine	BRL	10
Hexachloroethane	BRL	10
Nitrobenzene	BRL	10
Isophorone	BRL	10
2-Nitrophenol	BRL	10
2,4-Dimethylphenol	BRL	10
Benzoic acid	BRL	10
Bis(2-chloroethoxy)methane	BRL	10
2,4-Dichlorophenol	BRL	10
1,2,4-Trichlorobenzene	BRL	10
Naphthalene	BRL	10
4-Chloroaniline	BRL	10
Hexachlorobutadiene	BRL	10
4-Chloro-3-methylphenol	BRL	10
2-Methylnaphthalene	BRL	10
Hexachlorocyclopentadiene	BRL	10
2,4,6-Trichlorophenol	BRL	10
2,4,5-Trichlorophenol	BRL	10
2-Chloronaphthalene	BRL	10
2-Nitroaniline	BRL	10
Dimethylphthalate	BRL	10
Acenaphthylene	BRL	10
3-Nitroaniline	BRL	10
Acenaphthene	BRL	10
2,4-Dinitrophenol	BRL	10
4-Nitrophenol	BRL	10
Dibenzofuran	BRL	10
2.4-Dinitrotoluene	BRL	10
2,6-Dinitrotoluene	BRL	10
Diethylphthalate	BRL	10

-Continued-

EPA 625 Base-Neutral and Acid Extractable Compounds
(Continued)

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
4-Chlorophenyl-phenylether	BRL	10
Fluorene	BRL	10
4-Nitroaniline	BRL	10
4,6-Dinitro-2-methylphenol	BRL	10
N-Nitrosodiphenylamine	BRL	10
4-Bromophenyl-phenylether	BRL	10
Hexachlorobenzene	BRL	10
Pentachlorophenol	BRL	10
Phenanthrene	BRL	10
Anthracene	BRL	10
Di-n-butylphthalate	BRL	10
Fluoroanthene	BRL	10
Pyrene	BRL	10
Benzylbutylphthalate	BRL	10
3,3'-Dichlorobenzidine	BRL	10
Benzo(a)anthracene	BRL	10
Bis(2-ethylhexyl)phthalate	BRL	10
Chrysene	BRL	10
Di-n-octylphthalate	BRL	10
Benzo(b)fluoranthene	BRL	10
Benzo(k)fluroanthene	BRL	10
Benzo(a)pyrene	BRL	10
Indeno(1,2,3-cd)pyrene	BRL	10
Dibenzo(a,h)anthracene	BRL	10
Benzo(g,h,i)perylene	BRL	10

BRL = Below Reporting Limit
** = Detected but below report limit

	Results	Method #	Performed by
Sample ID: MW 8			
Phenol, mg/L	<0.05	510 c	RC 1/30/89, 1300
Cyanide, mg/L	<0.05	412 b	RC 1/31/89, 1500
Cadmium, mg/L	<0.01	305	SM 2/2/89, 1335
Nickel, mg/L	0.01	305	SM 2/2/89, 1335
Lead, mg/L	0.07	304	RS 2/3/89, 0830
Zinc, mg/L	0.13	305	SM 2/2/89, 1335
Total Petroleum Hydrocarbon, mg/L	4.0	503 A	AF 2/2/89, 1300

Parameter	Mdl	Blank	Orig	Dup	Rpd %	Amount Spiked	Spike Recovery, %
Cyanide	0.05	<0.05	<0.05	<0.05	0	0.25	104
Cadmium	0.01	<0.01	<0.01	<0.01	0	1.0	85
Nickel	0.01	<0.01	<0.01	<0.01	0	1.0	81
Lead	0.01	<0.01	<0.01	<0.01	0	0.20	125
Zinc	0.01	<0.01	0.04	0.04	0	1.0	82
TPH	--	<0.001	19.5	13.8	34	--	--
Phenols	0.05	<0.05	<0.05	<0.05	0	0.25	93

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Sample ID: MW 8

Date Received: 1/3/89
Date Analyzed: 2/9/89

EPA 608 Pesticides

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Alpha-BHC	**	0.05
Beta-BHC	BRL	0.05
Lindane	**	0.05
Delta-BHC	BRL	0.05
Heptachlor	BRL	0.05
Aldrin	**	0.05
Heptachlor epoxide	BRL	0.05
Endosulfan I	BRL	0.05
Dieldrin	BRL	0.10
p,p'-DDE	BRL	0.10
Endrin	BRL	0.10
Endosulfan II	BRL	0.10
p,p'-DDD	BRL	0.10
Endrin aldehyde	BRL	0.10
Endosulfan sulfate	BRL	0.10
p,p'-DDT	0.24	0.10
Chlordane	BRL	0.50
Toxaphene	BRL	1.00
PCB 1016	BRL	0.50
PCB 1221	BRL	0.50
PCB 1232	BRL	0.50
PCB 1242	BRL	0.50
PCB 1248	BRL	0.50
PCB 1254	BRL	1.00
PCB 1260	BRL	1.00

BRL = Below Reporting Limit
** = Detected but below reporting level

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Sample ID: MW 8

HSL EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Chloromethane	BRL	10
Bromomethane	BRL	10
Vinyl chloride	BRL	1
Chloroethane	BRL	10
Dichloromethane	BRL	5
Acetone	BRL	10
Carbon disulfide	BRL	5
Trichlorofluoromethane	BRL	10
1,1-Dichloroethene	BRL	5
1,1-Dichloroethane	BRL	5
Trans-1,2-dichloroethene	BRL	5
Chloroform	**	5
1,2-Dichloroethane	BRL	3
2-Butanone	5	5
1,1,1-Trichloroethane	5	5
Carbon tetrachloride	BRL	3
Vinyl acetate	BRL	10
Bromodichloromethane	BRL	5
1,2-Dichloropropane	BRL	5
Cis-1,3-dichloropropene	BRL	5
Trichloroethene	BRL	3
Dibromochloromethane	BRL	5
1,1,2-Trichloroethane	BRL	5
Benzene	3	1
Trans-1,3-dichloropropene	BRL	5
2-Chloroethylvinylether	BRL	10
Bromoform	BRL	5
2-Hexanone	BRL	10
4-Methyl-2-pentanone	BRL	10
Tetrachloroethene	BRL	3
1,1,2,2-Tetrachloroethane	BRL	3
Toluene	BRL	5
Chlorobenzene	BRL	5
Ethylbenzene	BRL	5
Styrene	BRL	5
Total Xylenes	BRL	5
1,2-Dichlorobenzene	BRL	10
1,3-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10

BRL = Below Reporting Limit
** = Detected but below reporting limit

EPA 625 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Phenol	BRL	10
Bis(2-chloroethyl)ether	BRL	10
2-Chlorophenol	BRL	10
1,3-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10
Benzyl alcohol	BRL	10
1,2-Dichlorobenzene	BRL	10
2-Methylphenol	BRL	10
Bis(2-chloroisopropyl)ether	BRL	10
4-Methylphenol	BRL	10
N-Nitrosodi-n-propylamine	BRL	10
Hexachloroethane	BRL	10
Nitrobenzene	BRL	10
Isophorone	BRL	10
2-Nitrophenol	BRL	10
2,4-Dimethylphenol	BRL	10
Benzoic acid	BRL	10
Bis(2-chloroethoxy)methane	BRL	10
2,4-Dichlorophenol	BRL	10
1,2,4-Trichlorobenzene	BRL	10
Naphthalene	BRL	10
4-Chloroaniline	BRL	10
Hexachlorobutadiene	BRL	10
4-Chloro-3-methylphenol	BRL	10
2-Methylnaphthalene	BRL	10
Hexachlorocyclopentadiene	BRL	10
2,4,6-Trichlorophenol	BRL	10
2,4,5-Trichlorophenol	BRL	10
2-Chloronaphthalene	BRL	10
2-Nitroaniline	BRL	10
Dimethylphthalate	BRL	10
Acenaphthylene	**	10
3-Nitroaniline	BRL	10
Acenaphthene	**	10
2,4-Dinitrophenol	BRL	10
4-Nitrophenol	BRL	10
Dibenzofuran	**	10
2.4-Dinitrotoluene	BRL	10
2,6-Dinitrotoluene	BRL	10
Diethylphthalate	BRL	10

-Continued-

EPA 625 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
4-Chlorophenyl-phenylether	BRL	10
Fluorene	**	10
4-Nitroaniline	BRL	10
4,6-Dinitro-2-methylphenol	BRL	10
N-Nitrosodiphenylamine	BRL	10
4-Bromophenyl-phenylether	BRL	10
Hexachlorobenzene	BRL	10
Pentachlorophenol	BRL	10
Phenanthrene	BRL	10
Anthracene	BRL	10
Di-n-butylphthalate	BRL	10
Fluoroanthene	BRL	10
Pyrene	BRL	10
Benzylbutylphthalate	BRL	10
3,3'-Dichlorobenzidine	BRL	10
Benzo(a)anthracene	BRL	10
Bis(2-ethylhexyl)phthalate	BRL	10
Chrysene	BRL	10
Di-n-octylphthalate	BRL	10
Benzo(b)fluoranthene	BRL	10
Benzo(k)fluroanthene	BRL	10
Benzo(a)pyrene	BRL	10
Indeno(1,2,3-cd)pyrene	BRL	10
Dibenzo(a,h)anthracene	BRL	10
Benzo(g,h,i)perylene	BRL	10

BRL = Below Reporting Limit
** = Detected but below report limit

Respectfully submmitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

aled by C. Thompson Date _____ Seal no. 2457 Date 1/26/89 Seal no. 2402 Date 1/26/89

CHAIN OF CUSTODY RECORD

PAGE ___ OF ___

PROJECT NO.: 1050/7605

LOCATION: Navistar Farmall

DATE: 01/26/89

SAMPLE DUE DATE:

TIME	SAMPLER	CONTAINERS	SAMPLE TYPE: GRAB	COMPOSITE	SOIL	WATER	SAMPLE I.D..	VOA's	BN's	Pesticides	Phenols by D.I. Hillstrom	CN, Cd, Ni	Pb, Zn	TPH			SPLIT (Y) (N)
4:00 ~~MW-7~~	JWM	6				X	mw-7	✓	✓	✓	✓	✓	✓	✓			
5:00 ~~MW-2~~	JWM	6				X	mw-2	✓	✓	✓	✓	✓	✓	✓			
6:00 ~~MW-6~~	JWM	6				X	mw-6	✓	✓	✓	✓	✓	✓	✓			

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME	SAMPLE CONDITIONS
J Buchanan	1/26/89	7:00	Fed Ex			

mpty Shuttle Lab Seal no. 2456 Shuttle opened in field by [illegible] Shuttle resealed by [illegible]

ealed by C Thomas Date 1/23/89 Seal no. 2456 Date 1/26/89 Seal no. 2401 Date 1/26/89

CHAIN OF CUSTODY RECORD

PAGE ___ OF ___

PROJECT NO.: 1050/7605

LOCATION: Navistar/Farmall

DATE: 01/26/89

SAMPLE DUE DATE:

TIME	SAMPLER	CONTAINERS	SAMPLE TYPE: GRAB	COMPOSITE	SOIL	WATER	SAMPLE I.D..	VOA's	BN's	Phenols by distillation	Pesticides	CN, Cd, Ni	Pb, Zn	TPH			SPLIT (Y) (N)
9:00	JWB	6				X	mw-3	✓	✓	✓	✓	✓	✓	✓			
10:00	JWB	6				X	mw-3	✓	✓	✓	✓	✓	✓	✓			
12:00	JWB	6				X	mw-4	✓	✓	✓	✓	✓	✓	✓			
2:00	JWB	6				X	mw-8	✓	✓	✓	✓	✓	✓	✓			

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME	SAMPLE CONDITIONS
J Buchanan	1/26	6:00	Fed Exp			

MAY, 1989

LABORATORY ANALYSIS

Professional Service Industries, Inc.

June 6, 1989

Mr. John Buchanan
Pilko & Associates
2707 North Loop West
Suite 960
Houston, TX 77008

Dear Mr. Buchanan:

Professional Service Industries, Inc., (PSI) has completed analysis on your samples as shown on the attached report. All services performed by PSI were performed in accordance with sound laboratory practice and the analytical procedures as listed on the report, and under the General Conditions as published in PSI's Schedule of Fees and Services, March 1, 1989, or as part of your agreement with PSI.

Please review this information and contact me at your earliest convenience should any discrepancies arise.

PSI appreciates your business and looks forward to serving your analytical needs in the future.

Sincerely,

PROFESSIONAL SERVICE INDUSTRIES, INC.

John R. Lloyd
Senior Division Manager

attachment

6913 Highway 225 • Deer Park, TX 77536 • Phone: 713/479-8307

Professional Service Industries, Inc.

ANALYTICAL REPORT

Tested For: PILKO & ASSOCIATES
2707 North Loop West
Suite 960
Houston, TX 77008

Project: Rock Island

ATTN: John Buchanan

Date: May 31, 1989

Report # 214-80703-06

****

Date Received: May 19, 1989
Sample Identification: Seventeen soil samples labeled below.
Methodology Employed: EPA, SM, SW

	Results	Method #	Performed by
Sample ID: MW 10, 15'			
Total Petroleum Hydrocarbons, %	0.036	SM 503 E	AF 5/30/89, 0950

continued

Pilko & Associates
214-80703-06
Page 2
Sample ID: MW 10, 15'

Date extracted: May 25, 1989
Date analyzed: May 29, 1989

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Limit ppm, (mg/kg)
Chloromethane	BRL	0.3
Bromomethane	BRL	0.3
Vinyl chloride	BRL	0.3
Chloroethane	BRL	0.3
Dichloromethane	BRL	0.3
Acetone	BRL	3.0
Carbon disulfide	BRL	0.3
1,1-Dichloroethene	BRL	0.3
1,1-Dichloroethane	BRL	0.3
2-Butanone	BRL	0.3
Trans-1,2-dichloroethene	BRL	0.3
Chloroform	BRL	0.3
1,2-Dichloroethane	BRL	0.3
1,1,1-Trichloroethane	BRL	0.3
Carbon tetrachloride	BRL	0.3
Bromodichloromethane	BRL	0.3
1,2-Dichloropropane	BRL	0.3
Vinyl acetate	BRL	0.3
Cis-1,3-dichloropropene	BRL	0.3
Trichloroethene	BRL	0.3
Dibromochloromethane	BRL	0.3
1,1,2-Trichloroethane	BRL	0.3
Benzene	BRL	0.3
Trans-1,3-dichloropropane	BRL	0.3
2-Chloroethylvinylether	BRL	0.3
Bromoform	BRL	0.3
2-Hexanone	BRL	0.3
4-Methyl-2-pentanone	BRL	0.3
Tetrachloroethene	BRL	0.3
1,1,2,2-Tetrachloroethane	BRL	0.3
Toluene	BRL	0.3
Chlorobenzene	BRL	0.3
Ethylbenzene	BRL	0.3
Styrene	BRL	0.3
Total xylenes	BRL	0.3
1,2-Dichlorobenzene	BRL	0.3
1,3-Dichlorobenzene	BRL	0.3
1,4-Dichlorobenzene	BRL	0.3

-continued-

SW 8240 VOLATILE COMPOUNDS
continued

Compound Name	Concentration ppm, (mg/kg)	Reporting Limit ppm, (mg/kg)
Acrolein	BRL	0.66
Acrylonitrile	BRL	0.66
Dibromomethane	BRL	0.66
1,4-Dichloro-2-butane	BRL	0.66
Dichlorodifluoromethane	BRL	0.66
Ethanol	BRL	0.66
Ethyl methacrylate	BRL	0.66
Idomethane	BRL	0.66

BRL = Below Reporting Limit

Surrogate Recoveries, %	
1,2-Dichloroethane-d4	70
Toluene-d8	100
Bromofluorobenzene	99

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Page 4
Sample ID: MW 10, 15'

Date extracted: NA
Date analyzed: June 1, 1989

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm. (mg/kg)	Reporting Limit ppm. (mg/kg)
Phenol	BRL	0.66
Bis(2-chloroethyl)ether	BRL	0.66
2-Chlorophenol	BRL	0.66
1,3-Dichlorobenzene	BRL	0.66
1,4-Dichlorobenzene	BRL	0.66
Benzyl alcohol	BRL	1.30
1,2-Dichlorobenzene	BRL	0.66
2-Methylphenol	BRL	0.66
Bis(2-chloroisopropyl)ether	BRL	0.66
4-Methylphenol	BRL	0.66
N-Nitrosodi-N-propylamine	BRL	0.66
Hexachloroethane	BRL	0.66
Nitrobenzene	BRL	0.66
Isophorone	BRL	0.66
2-Nitrophenol	BRL	0.66
2,4-Dimethylphenol	BRL	0.66
Benzoic acid	BRL	3.30
Bis(2-chloroethoxy)methane	BRL	0.66
2,4-Dichlorophenol	BRL	0.66
1,2,4-Trichlorobenzene	BRL	0.66
Naphthalene	BRL	0.66
4-Chloroaniline	BRL	1.30
Hexachlorobutadiene	BRL	0.66
4-Chloro-3-methylphenol	BRL	0.66
2-Methylnaphthalene	BRL	0.66
Hexachlorocyclopentadiene	BRL	0.66
2,4,6-Trichlorophenol	BRL	0.66
2,4,5-Trichlorophenol	BRL	0.66
2-Chloronaphthalene	BRL	0.66
2-Nitroaniline	BRL	3.30
Dimethylphthalate	BRL	0.66
Acenaphthylene	BRL	0.66
3-Nitroaniline	BRL	3.30
Acenaphthene	BRL	0.66
2,4-Dinitrophenol	BRL	3.30
4-Nitrophenol	BRL	0.66
Dibenzofuran	BRL	0.66
2,4-Dinitrotoluene	BRL	0.66
2,6-Dinitrotoluene	BRL	0.66
Diethylphthalate	BRL	0.66

-Continued-

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Limit ppm, (mg/kg)
4-Chlorophenyl-phenylether	BRL	0.66
Fluorene	BRL	0.66
4-Nitroaniline	BRL	3.30
4,6-Dinitro-2-methylphenol	BRL	3.30
N-Nitrosodiphenylamine	BRL	0.66
4-Bromophenyl-phenylether	BRL	0.66
Hexachlorobenzene	BRL	0.66
Pentachlorophenol	BRL	3.30
Phenanthrene	BRL	0.66
Anthracene	BRL	0.66
Di-n-butylphthalate	BRL	0.66
Fluoroanthene	BRL	0.66
Pyrene	BRL	0.66
Benzylbutylphthalate	BRL	0.66
3,3'-Dichlorobenzidine	BRL	1.30
Benzo(a)anthracene	BRL	0.66
Bis(2-ethylhexyl)phthalate	BRL	0.66
Chrysene	BRL	0.66
Di-n-octylphthalate	BRL	0.66
Benzo(b)fluoranthene	BRL	0.66
Benzo(k)fluroanthene	BRL	0.66
Benzo(a)pyrene	BRL	0.66
Indeno(1,2,3-cd)pyrene	BRL	0.66
Dibenzo(a,h)anthracene	BRL	0.66
Benzo(g,h,i)perylene	BRL	0.66

BRL = Below Reporting Limit

Surrogate recoveries, %

Nitrobenzene-d5	112
2-Fluorobiphenyl	109
Terphenyl-d14	122

	Results	Method #	Performed by
Sample ID: MW 5			
Total Petroleum Hydrocarbons, mg/L	<1	SM 503 E	AF 5/30/89, 0950
Lead, mg/L	0.05	200.7	SM 5/28/89, 1745

continued

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Page 7
Sample ID: MW 5

Date extracted: NA
Date analyzed: 5/29/89

EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Chloromethane	BRL	10
Bromomethane	BRL	10
Vinyl chloride	BRL	1
Chloroethane	BRL	10
Dichloromethane	BRL	10
Trichlorofluoromethane	BRL	10
1,1-Dichloroethene	BRL	10
1,1-Dichloroethane	BRL	10
Trans-1,2-dichloroethene	BRL	10
Chloroform	BRL	10
1,2-Dichloroethane	BRL	3
1,1,1-Trichloroethane	BRL	10
Carbon tetrachloride	BRL	3
Bromodichloromethane	BRL	10
1,2-Dichloropropane	BRL	10
Cis-1,3-dichloropropene	BRL	10
Trichloroethene	BRL	3
Dibromochloromethane	BRL	10
1,1,2-Trichloroethane	BRL	10
Benzene	**	1
Trans-1,3-dichloropropene	BRL	10
2-Chloroethylvinylether	BRL	10
Bromoform	BRL	10
Tetrachloroethene	BRL	3
1,1,2,2-Tetrachloroethane	BRL	3
Toluene	BRL	10
Chlorobenzene	BRL	10
Ethylbenzene	BRL	10
1,2-Dichlorobenzene	BRL	10
1,3-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10

BRL = Below Reporting Limit
** = Detected but Below Reporting Limit

Surrogate Recoveries, %

1,2-Dichloroethane-d4	92
Toluene-d8	120
Bromofluorobenzene	118

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Page 8
Sample ID: MW 5

Date extracted: 5/22/89
Date analyzed: 5/31/89

EPA 625 BASE/NEUTRAL EXTRACTABLES

Compound Name	Concentration ppb. (ug/l)	Reporting Limit ppb. (ug/l)
Acenaphthene	BRL	10
Acenaphthlyene	BRL	10
Anthracene	BRL	10
Aldrin	BRL	10
Benzo(a)anthracene	BRL	10
Benzo(b)fluoranthene	BRL	10
Benzo(k)fluoranthene	BRL	10
Benzo(ghi)perylene	BRL	10
Benzyl butyl phthalate	BRL	10
Beta-BHC	BRL	10
Delta-BHC	BRL	10
Bis(2-chloroethyl)ether	BRL	10
Bis(2-chloroethoxy)methane	BRL	10
Bis(2-ethylhexyl)phthalate	BRL	10
Bis(2-chloroisopropyl)ether	BRL	10
4-Bromophenyl phenyl ethyl	BRL	10
Chlordane	BRL	10
2-Chloronaphthalene	BRL	10
4-Chlorophenyl phenyl ether	BRL	10
Chrysene	BRL	10
4,4'-DDD	BRL	10
4,4'-DDE	BRL	10
4,4'-DDT	BRL	10
Dibenzo(a,h)anthracene	BRL	10
Di-n-butylphthalate	BRL	10
1,3-Dichlorobenzene	BRL	10
1,2-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10
3,3'-Dichlorobenzidine	BRL	10
Dieldrin	BRL	10
Diethyl phthalate	BRL	10
Dimethyl phthalate	BRL	10
2,4-Dinitrotoluene	BRL	10
2,6-Dinitrotoluene	BRL	10
Di-n-octylphthalate	BRL	10
Endosulfan sulfate	BRL	10
Endrin aldehyde	BRL	10
Fluorene	BRL	10
Heptachlor	BRL	10
Heptachlor epoxide	BRL	10
Hexachlorobenzene	BRL	10
Hexachlorobutadiene	BRL	10
Hexachloroethane	BRL	10
Ideno(1,2,3-cd)pyrene	BRL	10

EPA 625 BASE/NEUTRAL EXTRACTABLES
continued

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Isophrone	BRL	10
Naphthalene	BRL	10
Nitrobenzene	BRL	10
N-Nitrosodi-n-propylamine	BRL	10
PCB 1016	BRL	10
PCB 1221	BRL	10
PCB 1232	BRL	10
PCB 1242	BRL	10
PCB 1248	BRL	10
PCB 1254	BRL	10
PCB 1260	BRL	10
Phenanthrene	BRL	10
Pyrene	BRL	10
Toxaphene	BRL	10
1,2,4-Trichlorobenzene	BRL	10

BRL = Below Reporting Limit

Surrogate Recovery, %	
Nitrobenzene	76

	Results	Method #	Performed by
Sample ID: MW 6			
Total Petroleum Hydrocarbons, mg/L	<1	SM 503 E	AF 5/30/89, 0950
Lead, mg/L	0.03	200.7	SM 5/28/89, 1745

continued

Pilko & Associates
214-80703-06
Page 11
Sample ID: MW 6

Date extracted: NA
Date analyzed: 5/29/89

EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Chloromethane	BRL	10
Bromomethane	BRL	10
Vinyl chloride	BRL	1
Chloroethane	BRL	10
Dichloromethane	BRL	10
Trichlorofluoromethane	BRL	10
1,1-Dichloroethene	BRL	10
1,1-Dichloroethane	BRL	10
Trans-1,2-dichloroethene	BRL	10
Chloroform	BRL	10
1,2-Dichloroethane	BRL	3
1,1,1-Trichloroethane	BRL	10
Carbon tetrachloride	BRL	3
Bromodichloromethane	BRL	10
1,2-Dichloropropane	BRL	10
Cis-1,3-dichloropropene	BRL	10
Trichloroethene	BRL	3
Dibromochloromethane	BRL	10
1,1,2-Trichloroethane	BRL	10
Benzene	**	1
Trans-1,3-dichloropropene	BRL	10
2-Chloroethylvinylether	BRL	10
Bromoform	BRL	10
Tetrachloroethene	BRL	3
1,1,2,2-Tetrachloroethane	BRL	3
Toluene	BRL	10
Chlorobenzene	BRL	10
Ethylbenzene	BRL	10
1,2-Dichlorobenzene	BRL	10
1,3-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10

BRL = Below Reporting Limit
** = Detected but Below Reporting Limit

Surrogate Recoveries, %

1,2-Dichloroethane-d4	94
Toluene-d8	123
Bromofluorobenzene	135

Pilko & Associates
214-80703-06
Page 12
Sample ID: MW 6

Date extracted: 5/22/89
Date analyzed: 5/31/89

EPA 625 BASE/NEUTRAL EXTRACTABLES

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Acenaphthene	BRL	10
Acenaphthlyene	BRL	10
Anthracene	BRL	10
Aldrin	BRL	10
Benzo(a)anthracene	BRL	10
Benzo(b)fluoranthene	BRL	10
Benzo(k)fluoranthene	BRL	10
Benzo(ghi)perylene	BRL	10
Benzyl butyl phthalate	BRL	10
Beta-BHC	BRL	10
Delta-BHC	BRL	10
Bis(2-chloroethyl)ether	BRL	10
Bis(2-chloroethoxy)methane	BRL	10
Bis(2-ethylhexyl)phthalate	BRL	10
Bis(2-chloroisopropyl)ether	BRL	10
4-Bromophenyl phenyl ethyl	BRL	10
Chlordane	BRL	10
2-Chloronaphthalene	BRL	10
4-Chlorophenyl phenyl ether	BRL	10
Chrysene	BRL	10
4,4'-DDD	BRL	10
4,4'-DDE	BRL	10
4,4'-DDT	BRL	10
Dibenzo(a,h)anthracene	BRL	10
Di-n-butylphthalate	BRL	10
1,3-Dichlorobenzene	BRL	10
1,2-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10
3,3'-Dichlorobenzidine	BRL	10
Dieldrin	BRL	10
Diethyl phthalate	BRL	10
Dimethyl phthalate	BRL	10
2,4-Dinitrotoluene	BRL	10
2,6-Dinitrotoluene	BRL	10
Di-n-octylphthalate	BRL	10
Endosulfan sulfate	BRL	10
Endrin aldehyde	BRL	10
Fluorene	BRL	10
Heptachlor	BRL	10
Heptachlor epoxide	BRL	10
Hexachlorobenzene	BRL	10
Hexachlorobutadiene	BRL	10
Hexachloroethane	BRL	10
Ideno(1,2,3-cd)pyrene	BRL	10

EPA 625 BASE/NEUTRAL EXTRACTABLES
continued

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Isophrone	BRL	10
Naphthalene	BRL	10
Nitrobenzene	BRL	10
N-Nitrosodi-n-propylamine	BRL	10
PCB 1016	BRL	10
PCB 1221	BRL	10
PCB 1232	BRL	10
PCB 1242	BRL	10
PCB 1248	BRL	10
PCB 1254	BRL	10
PCB 1260	BRL	10
Phenanthrene	BRL	10
Pyrene	BRL	10
Toxaphene	BRL	10
1,2,4-Trichlorobenzene	BRL	10

BRL = Below Reporting Limit

Surrogate Recovery, %	
Nitrobenzene	91

	Results	Method #	Performed by
Sample ID: MW 9			
Total Petroleum Hydrocarbons, mg/L	<1	SM 503 E	AF 5/30/89, 0950
Lead, mg/L	0.21	200.7	SM 5/28/89, 1745

continued

Pilko & Associates
214-80703-06
Page 15
Sample ID: MW 9

Date extracted: NA
Date analyzed: 5/29/89

EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Chloromethane	BRL	10
Bromomethane	BRL	10
Vinyl chloride	BRL	1
Chloroethane	BRL	10
Dichloromethane	BRL	10
Trichlorofluoromethane	BRL	10
1,1-Dichloroethene	BRL	10
1,1-Dichloroethane	BRL	10
Trans-1,2-dichloroethene	BRL	10
Chloroform	BRL	10
1,2-Dichloroethane	BRL	3
1,1,1-Trichloroethane	BRL	10
Carbon tetrachloride	BRL	3
Bromodichloromethane	BRL	10
1,2-Dichloropropane	BRL	10
Cis-1,3-dichloropropene	BRL	10
Trichloroethene	BRL	3
Dibromochloromethane	BRL	10
1,1,2-Trichloroethane	BRL	10
Benzene	**	1
Trans-1,3-dichloropropene	BRL	10
2-Chloroethylvinylether	BRL	10
Bromoform	BRL	10
Tetrachloroethene	BRL	3
1,1,2,2-Tetrachloroethane	BRL	3
Toluene	BRL	10
Chlorobenzene	BRL	10
Ethylbenzene	BRL	10
1,2-Dichlorobenzene	**	10
1,3-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10

BRL = Below Reporting Limit
** = Detected but Below Reporting Limit

Surrogate Recoveries, %

1,2-Dichloroethane-d4	89
Toluene-d8	106
Bromofluorobenzene	112

Pilko & Associates
214-80703-06
Page 16
Sample ID: MW 9

Date extracted: 5/22/89
Date analyzed: 5/31/89

EPA 625 BASE/NEUTRAL EXTRACTABLES

Compound Name	Concentration ppb. (ug/l)	Reporting Limit ppb. (ug/l)
Acenaphthene	BRL	10
Acenaphthlyene	BRL	10
Anthracene	BRL	10
Aldrin	BRL	10
Benzo(a)anthracene	BRL	10
Benzo(b)fluoranthene	BRL	10
Benzo(k)fluoranthene	BRL	10
Benzo(ghi)perylene	BRL	10
Benzyl butyl phthalate	BRL	10
Beta-BHC	BRL	10
Delta-BHC	BRL	10
Bis(2-chloroethyl)ether	BRL	10
Bis(2-chloroethoxy)methane	BRL	10
Bis(2-ethylhexyl)phthalate	BRL	10
Bis(2-chloroisopropyl)ether	BRL	10
4-Bromophenyl phenyl ethyl	BRL	10
Chlordane	BRL	10
2-Chloronaphthalene	BRL	10
4-Chlorophenyl phenyl ether	BRL	10
Chrysene	BRL	10
4,4'-DDD	BRL	10
4,4'-DDE	BRL	10
4,4'-DDT	BRL	10
Dibenzo(a,h)anthracene	BRL	10
Di-n-butylphthalate	BRL	10
1,3-Dichlorobenzene	BRL	10
1,2-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10
3,3'-Dichlorobenzidine	BRL	10
Dieldrin	BRL	10
Diethyl phthalate	BRL	10
Dimethyl phthalate	BRL	10
2,4-Dinitrotoluene	BRL	10
2,6-Dinitrotoluene	BRL	10
Di-n-octylphthalate	BRL	10
Endosulfan sulfate	BRL	10
Endrin aldehyde	BRL	10
Fluorene	BRL	10
Heptachlor	BRL	10
Heptachlor epoxide	BRL	10
Hexachlorobenzene	BRL	10
Hexachlorobutadiene	BRL	10
Hexachloroethane	BRL	10
Ideno(1,2,3-cd)pyrene	BRL	10

EPA 625 BASE/NEUTRAL EXTRACTABLES
continued

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Isophrone	BRL	10
Naphthalene	BRL	10
Nitrobenzene	BRL	10
N-Nitrosodi-n-propylamine	BRL	10
PCB 1016	BRL	10
PCB 1221	BRL	10
PCB 1232	BRL	10
PCB 1242	BRL	10
PCB 1248	BRL	10
PCB 1254	BRL	10
PCB 1260	BRL	10
Phenanthrene	BRL	10
Pyrene	BRL	10
Toxaphene	BRL	10
1,2,4-Trichlorobenzene	BRL	10

BRL = Below Reporting Limit

Surrogate Recovery, %	
Nitrobenzene	87

	Results	Method #	Performed by
Sample ID: MW 10			
Total Petroleum Hydrocarbons, mg/L	<1	SM 503 E	AF 5/30/89, 0950
Lead, mg/L	0.15	200.7	SM 5/28/89, 1745

continued

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Sample ID: MW 10

Date extracted: NA
Date analyzed: 5/29/89

EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb. (ug/l)	Reporting Limit ppb. (ug/l)
Chloromethane	BRL	10
Bromomethane	BRL	10
Vinyl chloride	BRL	1
Chloroethane	BRL	10
Dichloromethane	BRL	10
Trichlorofluoromethane	BRL	10
1,1-Dichloroethene	BRL	10
1,1-Dichloroethane	BRL	10
Trans-1,2-dichloroethene	BRL	10
Chloroform	BRL	10
1,2-Dichloroethane	BRL	3
1,1,1-Trichloroethane	BRL	10
Carbon tetrachloride	BRL	3
Bromodichloromethane	BRL	10
1,2-Dichloropropane	BRL	10
Cis-1,3-dichloropropene	BRL	10
Trichloroethene	BRL	3
Dibromochloromethane	BRL	10
1,1,2-Trichloroethane	BRL	10
Benzene	**	1
Trans-1,3-dichloropropene	BRL	10
2-Chloroethylvinylether	BRL	10
Bromoform	BRL	10
Tetrachloroethene	BRL	3
1,1,2,2-Tetrachloroethane	BRL	3
Toluene	BRL	10
Chlorobenzene	BRL	10
Ethylbenzene	BRL	10
1,2-Dichlorobenzene	BRL	10
1,3-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10

BRL = Below Reporting Limit
** = Detected but Below Reporting Limit

Surrogate Recoveries, %

1,2-Dichloroethane-d4	83
Toluene-d8	112
Bromofluorobenzene	114

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Sample ID: MW 10

Date extracted: 5/22/89
Date analyzed: 5/31/89

EPA 625 BASE/NEUTRAL EXTRACTABLES

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Acenaphthene	BRL	10
Acenaphthlyene	BRL	10
Anthracene	BRL	10
Aldrin	BRL	10
Benzo(a)anthracene	BRL	10
Benzo(b)fluoranthene	BRL	10
Benzo(k)fluoranthene	BRL	10
Benzo(ghi)perylene	BRL	10
Benzyl butyl phthalate	BRL	10
Beta-BHC	BRL	10
Delta-BHC	BRL	10
Bis(2-chloroethyl)ether	BRL	10
Bis(2-chloroethoxy)methane	BRL	10
Bis(2-ethylhexyl)phthalate	BRL	10
Bis(2-chloroisopropyl)ether	BRL	10
4-Bromophenyl phenyl ethyl	BRL	10
Chlordane	BRL	10
2-Chloronaphthalene	BRL	10
4-Chlorophenyl phenyl ether	BRL	10
Chrysene	BRL	10
4,4'-DDD	BRL	10
4,4'-DDE	BRL	10
4,4'-DDT	BRL	10
Dibenzo(a,h)anthracene	BRL	10
Di-n-butylphthalate	BRL	10
1,3-Dichlorobenzene	BRL	10
1,2-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10
3,3'-Dichlorobenzidine	BRL	10
Dieldrin	BRL	10
Diethyl phthalate	BRL	10
Dimethyl phthalate	BRL	10
2,4-Dinitrotoluene	BRL	10
2,6-Dinitrotoluene	BRL	10
Di-n-octylphthalate	BRL	10
Endosulfan sulfate	BRL	10
Endrin aldehyde	BRL	10
Fluorene	BRL	10
Heptachlor	BRL	10
Heptachlor epoxide	BRL	10
Hexachlorobenzene	BRL	10
Hexachlorobutadiene	BRL	10
Hexachloroethane	BRL	10
Ideno(1,2,3-cd)pyrene	BRL	10

EPA 625 BASE/NEUTRAL EXTRACTABLES
continued

Compound Name	Concentration ppb. (ug/l)	Reporting Limit ppb. (ug/l)
Isophrone	BRL	10
Naphthalene	BRL	10
Nitrobenzene	BRL	10
N-Nitrosodi-n-propylamine	BRL	10
PCB 1016	BRL	10
PCB 1221	BRL	10
PCB 1232	BRL	10
PCB 1242	BRL	10
PCB 1248	BRL	10
PCB 1254	BRL	10
PCB 1260	BRL	10
Phenanthrene	BRL	10
Pyrene	BRL	10
Toxaphene	BRL	10
1,2,4-Trichlorobenzene	BRL	10

BRL = Below Reporting Limit

Surrogate Recovery, %	
Nitrobenzene	111

	Results	Method #	Performed by
Sample ID: SW 1			
Total Petroleum Hydrocarbons, mg/L	<1	SM 503 E	AF 5/30/89, 0950
Lead, mg/L	0.01	200.7	SM 5/28/89, 1745

continued

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Sample ID: SW 1

Date extracted: NA
Date analyzed: 5/30/89

EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Chloromethane	BRL	10
Bromomethane	BRL	10
Vinyl chloride	BRL	1
Chloroethane	BRL	10
Dichloromethane	BRL	10
Trichlorofluoromethane	BRL	10
1,1-Dichloroethene	BRL	10
1,1-Dichloroethane	BRL	10
Trans-1,2-dichloroethene	BRL	10
Chloroform	BRL	10
1,2-Dichloroethane	BRL	3
1,1,1-Trichloroethane	BRL	10
Carbon tetrachloride	BRL	3
Bromodichloromethane	BRL	10
1,2-Dichloropropane	BRL	10
Cis-1,3-dichloropropene	BRL	10
Trichloroethene	BRL	3
Dibromochloromethane	BRL	10
1,1,2-Trichloroethane	BRL	10
Benzene	BRL	1
Trans-1,3-dichloropropene	BRL	10
2-Chloroethylvinylether	BRL	10
Bromoform	BRL	10
Tetrachloroethene	BRL	3
1,1,2,2-Tetrachloroethane	BRL	3
Toluene	BRL	10
Chlorobenzene	BRL	10
Ethylbenzene	BRL	10
1,2-Dichlorobenzene	BRL	10
1,3-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10

BRL = Below Reporting Limit

Surrogate Recoveries, %

1,2-Dichloroethane-d4	72
Toluene-d8	93
Bromofluorobenzene	93

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Sample ID: SW 1

Date extracted: 5/22/89
Date analyzed: 5/31/89

EPA 625 BASE/NEUTRAL EXTRACTABLES

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Acenaphthene	BRL	10
Acenaphthlyene	BRL	10
Anthracene	BRL	10
Aldrin	BRL	10
Benzo(a)anthracene	BRL	10
Benzo(b)fluoranthene	BRL	10
Benzo(k)fluoranthene	BRL	10
Benzo(ghi)perylene	BRL	10
Benzyl butyl phthalate	BRL	10
Beta-BHC	BRL	10
Delta-BHC	BRL	10
Bis(2-chloroethyl)ether	BRL	10
Bis(2-chloroethoxy)methane	BRL	10
Bis(2-ethylhexyl)phthalate	BRL	10
Bis(2-chloroisopropyl)ether	BRL	10
4-Bromophenyl phenyl ethyl	BRL	10
Chlordane	BRL	10
2-Chloronaphthalene	BRL	10
4-Chlorophenyl phenyl ether	BRL	10
Chrysene	BRL	10
4,4'-DDD	BRL	10
4,4'-DDE	BRL	10
4,4'-DDT	BRL	10
Dibenzo(a,h)anthracene	BRL	10
Di-n-butylphthalate	BRL	10
1,3-Dichlorobenzene	BRL	10
1,2-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10
3,3'-Dichlorobenzidine	BRL	10
Dieldrin	BRL	10
Diethyl phthalate	BRL	10
Dimethyl phthalate	BRL	10
2,4-Dinitrotoluene	BRL	10
2,6-Dinitrotoluene	BRL	10
Di-n-octylphthalate	BRL	10
Endosulfan sulfate	BRL	10
Endrin aldehyde	BRL	10
Fluorene	BRL	10
Heptachlor	BRL	10
Heptachlor epoxide	BRL	10
Hexachlorobenzene	BRL	10
Hexachlorobutadiene	BRL	10
Hexachloroethane	BRL	10
Ideno(1,2,3-cd)pyrene	BRL	10

EPA 625 BASE/NEUTRAL EXTRACTABLES
continued

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Isophrone	BRL	10
Naphthalene	BRL	10
Nitrobenzene	BRL	10
N-Nitrosodi-n-propylamine	BRL	10
PCB 1016	BRL	10
PCB 1221	BRL	10
PCB 1232	BRL	10
PCB 1242	BRL	10
PCB 1248	BRL	10
PCB 1254	BRL	10
PCB 1260	BRL	10
Phenanthrene	BRL	10
Pyrene	BRL	10
Toxaphene	BRL	10
1,2,4-Trichlorobenzene	BRL	10

BRL = Below Reporting Limit

Surrogate Recovery, %	
Nitrobenzene	76

	Results	Method #	Performed by
Sample ID: SW 2			
Total Petroleum Hydrocarbons, mg/L	<1	SM 503 E	AF 5/30/89, 0950
Lead, mg/L	<0.01	200.7	SM 5/28/89, 1745

continued

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Sample ID: SW 2

Date extracted: NA
Date analyzed: 5/30/89

EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Chloromethane	BRL	10
Bromomethane	BRL	10
Vinyl chloride	BRL	1
Chloroethane	BRL	10
Dichloromethane	BRL	10
Trichlorofluoromethane	BRL	10
1,1-Dichloroethene	BRL	10
1,1-Dichloroethane	BRL	10
Trans-1,2-dichloroethene	BRL	10
Chloroform	BRL	10
1,2-Dichloroethane	BRL	3
1,1,1-Trichloroethane	BRL	10
Carbon tetrachloride	BRL	3
Bromodichloromethane	BRL	10
1,2-Dichloropropane	BRL	10
Cis-1,3-dichloropropene	BRL	10
Trichloroethene	BRL	3
Dibromochloromethane	BRL	10
1,1,2-Trichloroethane	BRL	10
Benzene	BRL	1
Trans-1,3-dichloropropene	BRL	10
2-Chloroethylvinylether	BRL	10
Bromoform	BRL	10
Tetrachloroethene	BRL	3
1,1,2,2-Tetrachloroethane	BRL	3
Toluene	BRL	10
Chlorobenzene	BRL	10
Ethylbenzene	BRL	10
1,2-Dichlorobenzene	BRL	10
1,3-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10

BRL = Below Reporting Limit

Surrogate Recoveries, %

1,2-Dichloroethane-d4	75
Toluene-d8	101
Bromofluorobenzene	109

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Sample ID: SW 2

Date extracted: 5/22/89
Date analyzed: 5/31/89

EPA 625 BASE/NEUTRAL EXTRACTABLES

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Acenaphthene	BRL	10
Acenaphthlyene	BRL	10
Anthracene	BRL	10
Aldrin	BRL	10
Benzo(a)anthracene	BRL	10
Benzo(b)fluoranthene	BRL	10
Benzo(k)fluoranthene	BRL	10
Benzo(ghi)perylene	BRL	10
Benzyl butyl phthalate	BRL	10
Beta-BHC	BRL	10
Delta-BHC	BRL	10
Bis(2-chloroethyl)ether	BRL	10
Bis(2-chloroethoxy)methane	BRL	10
Bis(2-ethylhexyl)phthalate	BRL	10
Bis(2-chloroisopropyl)ether	BRL	10
4-Bromophenyl phenyl ethyl	BRL	10
Chlordane	BRL	10
2-Chloronaphthalene	BRL	10
4-Chlorophenyl phenyl ether	BRL	10
Chrysene	BRL	10
4,4'-DDD	BRL	10
4,4'-DDE	BRL	10
4,4'-DDT	BRL	10
Dibenzo(a,h)anthracene	BRL	10
Di-n-butylphthalate	BRL	10
1,3-Dichlorobenzene	BRL	10
1,2-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10
3,3'-Dichlorobenzidine	BRL	10
Dieldrin	BRL	10
Diethyl phthalate	BRL	10
Dimethyl phthalate	BRL	10
2,4-Dinitrotoluene	BRL	10
2,6-Dinitrotoluene	BRL	10
Di-n-octylphthalate	BRL	10
Endosulfan sulfate	BRL	10
Endrin aldehyde	BRL	10
Fluorene	BRL	10
Heptachlor	BRL	10
Heptachlor epoxide	BRL	10
Hexachlorobenzene	BRL	10
Hexachlorobutadiene	BRL	10
Hexachloroethane	BRL	10
Ideno(1,2,3-cd)pyrene	BRL	10

EPA 625 BASE/NEUTRAL EXTRACTABLES
continued

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Isophrone	BRL	10
Naphthalene	BRL	10
Nitrobenzene	BRL	10
N-Nitrosodi-n-propylamine	BRL	10
PCB 1016	BRL	10
PCB 1221	BRL	10
PCB 1232	BRL	10
PCB 1242	BRL	10
PCB 1248	BRL	10
PCB 1254	BRL	10
PCB 1260	BRL	10
Phenanthrene	BRL	10
Pyrene	BRL	10
Toxaphene	BRL	10
1,2,4-Trichlorobenzene	BRL	10

BRL = Below Reporting Limit

Surrogate Recovery, %	
Nitrobenzene	88

	Results	Method #	Performed by
Sample ID: SW 3			
Total Petroleum Hydrocarbons, mg/L	<1	SM 503 E	AF 5/30/89, 0950
Total Metals:			
Arsenic, mg/L	<0.01	206.2	SM 5/27/89, 1200
Barium, mg/L	0.02	200.7	SM 5/28/89, 1127
Cadmium, mg/L	<0.01	200.7	SM 5/27/89, 2247
Chromium, mg/L	<0.01	200.7	SM 5/27/89, 2247
Lead, mg/L	<0.01	206.2	SM 5/27/89, 1200
Mercury, mg/L	<0.002	245.1	PW 5/25/89, 1950
Selenium, mg/L	<0.01	206.2	SM 5/27/89, 1200
Silver, mg/L	<0.01	206.2	SM 5/27/89, 1200

continued

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Sample ID: SW 3

Date extracted: NA
Date analyzed: 5/30/89

EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Chloromethane	BRL	10
Bromomethane	BRL	10
Vinyl chloride	BRL	1
Chloroethane	BRL	10
Dichloromethane	BRL	10
Trichlorofluoromethane	BRL	10
1,1-Dichloroethene	BRL	10
1,1-Dichloroethane	BRL	10
Trans-1,2-dichloroethene	BRL	10
Chloroform	BRL	10
1,2-Dichloroethane	BRL	3
1,1,1-Trichloroethane	BRL	10
Carbon tetrachloride	BRL	3
Bromodichloromethane	BRL	10
1,2-Dichloropropane	BRL	10
Cis-1,3-dichloropropene	BRL	10
Trichloroethene	BRL	3
Dibromochloromethane	BRL	10
1,1,2-Trichloroethane	BRL	10
Benzene	BRL	1
Trans-1,3-dichloropropene	BRL	10
2-Chloroethylvinylether	BRL	10
Bromoform	BRL	10
Tetrachloroethene	BRL	3
1,1,2,2-Tetrachloroethane	BRL	3
Toluene	BRL	10
Chlorobenzene	BRL	10
Ethylbenzene	BRL	10
1,2-Dichlorobenzene	BRL	10
1,3-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10

BRL = Below Reporting Limit

Surrogate Recoveries, %

1,2-Dichloroethane-d4	75
Toluene-d8	104
Bromofluorobenzene	108

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Sample ID: SW 3

Date extracted: 5/22/89
Date analyzed: 5/31/89

EPA 625 BASE/NEUTRAL EXTRACTABLES

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Acenaphthene	BRL	10
Acenaphthlyene	BRL	10
Anthracene	BRL	10
Aldrin	BRL	10
Benzo(a)anthracene	BRL	10
Benzo(b)fluoranthene	BRL	10
Benzo(k)fluoranthene	BRL	10
Benzo(ghi)perylene	BRL	10
Benzyl butyl phthalate	BRL	10
Beta-BHC	BRL	10
Delta-BHC	BRL	10
Bis(2-chloroethyl)ether	BRL	10
Bis(2-chloroethoxy)methane	BRL	10
Bis(2-ethylhexyl)phthalate	BRL	10
Bis(2-chloroisopropyl)ether	BRL	10
4-Bromophenyl phenyl ethyl	BRL	10
Chlordane	BRL	10
2-Chloronaphthalene	BRL	10
4-Chlorophenyl phenyl ether	BRL	10
Chrysene	BRL	10
4,4'-DDD	BRL	10
4,4'-DDE	BRL	10
4,4'-DDT	BRL	10
Dibenzo(a,h)anthracene	BRL	10
Di-n-butylphthalate	BRL	10
1,3-Dichlorobenzene	BRL	10
1,2-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10
3,3'-Dichlorobenzidine	BRL	10
Dieldrin	BRL	10
Diethyl phthalate	BRL	10
Dimethyl phthalate	BRL	10
2,4-Dinitrotoluene	BRL	10
2,6-Dinitrotoluene	BRL	10
Di-n-octylphthalate	BRL	10
Endosulfan sulfate	BRL	10
Endrin aldehyde	BRL	10
Fluorene	BRL	10
Heptachlor	BRL	10
Heptachlor epoxide	BRL	10
Hexachlorobenzene	BRL	10
Hexachlorobutadiene	BRL	10
Hexachloroethane	BRL	10
Ideno(1,2,3-cd)pyrene	BRL	10

EPA 625 BASE/NEUTRAL EXTRACTABLES
continued

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Isophrone	BRL	10
Naphthalene	BRL	10
Nitrobenzene	BRL	10
N-Nitrosodi-n-propylamine	BRL	10
PCB 1016	BRL	10
PCB 1221	BRL	10
PCB 1232	BRL	10
PCB 1242	BRL	10
PCB 1248	BRL	10
PCB 1254	BRL	10
PCB 1260	BRL	10
Phenanthrene	BRL	10
Pyrene	BRL	10
Toxaphene	BRL	10
1,2,4-Trichlorobenzene	BRL	10

BRL = Below Reporting Limit

Surrogate Recovery, %	
Nitrobenzene	74

	Results	Method #	Performed by
Sample ID: SW 4			
Total Petroleum Hydrocarbons, mg/L	<1	SM 503 E	AF 5/30/89, 0950
Total Metals:			
Arsenic, mg/L	<0.01	206.2	SM 5/27/89, 1200
Barium, mg/L	0.02	200.7	SM 5/28/89, 1127
Cadmium, mg/L	<0.01	200.7	SM 5/27/89, 2247
Chromium, mg/L	<0.01	200.7	SM 5/27/89, 2247
Lead, mg/L	<0.01	206.2	SM 5/27/89, 1200
Mercury, mg/L	<0.002	245.1	PW 5/25/89, 1950
Selenium, mg/L	<0.01	206.2	SM 5/27/89, 1200
Silver, mg/L	<0.01	206.2	SM 5/27/89, 1200

continued

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Sample ID: SW 4

Date extracted: NA
Date analyzed: 5/30/89

EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Chloromethane	BRL	10
Bromomethane	BRL	10
Vinyl chloride	BRL	1
Chloroethane	BRL	10
Dichloromethane	BRL	10
Trichlorofluoromethane	BRL	10
1,1-Dichloroethene	BRL	10
1,1-Dichloroethane	BRL	10
Trans-1,2-dichloroethene	BRL	10
Chloroform	BRL	10
1,2-Dichloroethane	BRL	3
1,1,1-Trichloroethane	BRL	10
Carbon tetrachloride	BRL	3
Bromodichloromethane	BRL	10
1,2-Dichloropropane	BRL	10
Cis-1,3-dichloropropene	BRL	10
Trichloroethene	BRL	3
Dibromochloromethane	BRL	10
1,1,2-Trichloroethane	BRL	10
Benzene	BRL	1
Trans-1,3-dichloropropene	BRL	10
2-Chloroethylvinylether	BRL	10
Bromoform	BRL	10
Tetrachloroethene	BRL	3
1,1,2,2-Tetrachloroethane	BRL	3
Toluene	BRL	10
Chlorobenzene	BRL	10
Ethylbenzene	BRL	10
1,2-Dichlorobenzene	BRL	10
1,3-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10

BRL = Below Reporting Limit

Surrogate Recoveries, %

1,2-Dichloroethane-d4	71
Toluene-d8	109
Bromofluorobenzene	101

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Sample ID: SW 4

Date extracted: 5/21/89
Date analyzed: 5/30/89

EPA 625 BASE/NEUTRAL EXTRACTABLES

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Acenaphthene	BRL	10
Acenaphthlyene	BRL	10
Anthracene	BRL	10
Aldrin	BRL	10
Benzo(a)anthracene	BRL	10
Benzo(b)fluoranthene	BRL	10
Benzo(k)fluoranthene	BRL	10
Benzo(ghi)perylene	BRL	10
Benzyl butyl phthalate	BRL	10
Beta-BHC	BRL	10
Delta-BHC	BRL	10
Bis(2-chloroethyl)ether	BRL	10
Bis(2-chloroethoxy)methane	BRL	10
Bis(2-ethylhexyl)phthalate	BRL	10
Bis(2-chloroisopropyl)ether	BRL	10
4-Bromophenyl phenyl ethyl	BRL	10
Chlordane	BRL	10
2-Chloronaphthalene	BRL	10
4-Chlorophenyl phenyl ether	BRL	10
Chrysene	BRL	10
4,4'-DDD	BRL	10
4,4'-DDE	BRL	10
4,4'-DDT	BRL	10
Dibenzo(a,h)anthracene	BRL	10
Di-n-butylphthalate	BRL	10
1,3-Dichlorobenzene	BRL	10
1,2-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10
3,3'-Dichlorobenzidine	BRL	10
Dieldrin	BRL	10
Diethyl phthalate	BRL	10
Dimethyl phthalate	BRL	10
2,4-Dinitrotoluene	BRL	10
2,6-Dinitrotoluene	BRL	10
Di-n-octylphthalate	BRL	10
Endosulfan sulfate	BRL	10
Endrin aldehyde	BRL	10
Fluorene	BRL	10
Heptachlor	BRL	10
Heptachlor epoxide	BRL	10
Hexachlorobenzene	BRL	10
Hexachlorobutadiene	BRL	10
Hexachloroethane	BRL	10
Ideno(1,2,3-cd)pyrene	BRL	10

EPA 625 BASE/NEUTRAL EXTRACTABLES
continued

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Isophrone	BRL	10
Naphthalene	BRL	10
Nitrobenzene	BRL	10
N-Nitrosodi-n-propylamine	BRL	10
PCB 1016	BRL	10
PCB 1221	BRL	10
PCB 1232	BRL	10
PCB 1242	BRL	10
PCB 1248	BRL	10
PCB 1254	BRL	10
PCB 1260	BRL	10
Phenanthrene	BRL	10
Pyrene	BRL	10
Toxaphene	BRL	10
1,2,4-Trichlorobenzene	BRL	10

BRL = Below Reporting Limit

Surrogate Recovery, %	
Nitrobenzene	72

	Results	Method #	Performed by
Sample ID: SW 5			
Total Petroleum Hydrocarbons, mg/L	2	SM 503 E	AF 5/30/89, 0950
Total Metals:			
Arsenic, mg/L	<0.01	206.2	SM 5/27/89, 1200
Barium, mg/L	0.02	200.7	SM 5/28/89, 1127
Cadmium, mg/L	<0.01	200.7	SM 5/27/89, 2247
Chromium, mg/L	<0.01	200.7	SM 5/27/89, 2247
Lead, mg/L	<0.01	206.2	SM 5/27/89, 1200
Mercury, mg/L	<0.002	245.1	PW 5/25/89, 1950
Selenium, mg/L	<0.01	206.2	SM 5/27/89, 1200
Silver, mg/L	<0.01	206.2	SM 5/27/89, 1200

continued

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Sample ID: SW 5

Date extracted: NA
Date analyzed: 5/30/89

EPA 624 VOLATILE COMPOUNDS

Compound Name	Concentration ppb. (ug/l)	Reporting Limit ppb. (ug/l)
Chloromethane	BRL	10
Bromomethane	BRL	10
Vinyl chloride	BRL	1
Chloroethane	BRL	10
Dichloromethane	BRL	10
Trichlorofluoromethane	BRL	10
1,1-Dichloroethene	BRL	10
1,1-Dichloroethane	BRL	10
Trans-1,2-dichloroethene	BRL	10
Chloroform	BRL	10
1,2-Dichloroethane	BRL	3
1,1,1-Trichloroethane	BRL	10
Carbon tetrachloride	BRL	3
Bromodichloromethane	BRL	10
1,2-Dichloropropane	BRL	10
Cis-1,3-dichloropropene	BRL	10
Trichloroethene	BRL	3
Dibromochloromethane	BRL	10
1,1,2-Trichloroethane	BRL	10
Benzene	BRL	1
Trans-1,3-dichloropropene	BRL	10
2-Chloroethylvinylether	BRL	10
Bromoform	BRL	10
Tetrachloroethene	BRL	3
1,1,2,2-Tetrachloroethane	BRL	3
Toluene	BRL	10
Chlorobenzene	BRL	10
Ethylbenzene	BRL	10
1,2-Dichlorobenzene	BRL	10
1,3-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10

BRL = Below Reporting Limit

Surrogate Recoveries, %

1,2-Dichloroethane-d4	74
Toluene-d8	102
Bromofluorobenzene	102

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Sample ID: SW 5

Date extracted: 5/23/89
Date analyzed: 5/31/89

EPA 625 BASE/NEUTRAL EXTRACTABLES

Compound Name	Concentration ppb. (ug/l)	Reporting Limit ppb. (ug/l)
Acenaphthene	BRL	10
Acenaphthlyene	BRL	10
Anthracene	BRL	10
Aldrin	BRL	10
Benzo(a)anthracene	BRL	10
Benzo(b)fluoranthene	BRL	10
Benzo(k)fluoranthene	BRL	10
Benzo(ghi)perylene	BRL	10
Benzyl butyl phthalate	BRL	10
Beta-BHC	BRL	10
Delta-BHC	BRL	10
Bis(2-chloroethyl)ether	BRL	10
Bis(2-chloroethoxy)methane	BRL	10
Bis(2-ethylhexyl)phthalate	BRL	10
Bis(2-chloroisopropyl)ether	BRL	10
4-Bromophenyl phenyl ethyl	BRL	10
Chlordane	BRL	10
2-Chloronaphthalene	BRL	10
4-Chlorophenyl phenyl ether	BRL	10
Chrysene	BRL	10
4,4'-DDD	BRL	10
4,4'-DDE	BRL	10
4,4'-DDT	BRL	10
Dibenzo(a,h)anthracene	BRL	10
Di-n-butylphthalate	BRL	10
1,3-Dichlorobenzene	BRL	10
1,2-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10
3,3'-Dichlorobenzidine	BRL	10
Dieldrin	BRL	10
Diethyl phthalate	BRL	10
Dimethyl phthalate	BRL	10
2,4-Dinitrotoluene	BRL	10
2,6-Dinitrotoluene	BRL	10
Di-n-octylphthalate	BRL	10
Endosulfan sulfate	BRL	10
Endrin aldehyde	BRL	10
Fluorene	BRL	10
Heptachlor	BRL	10
Heptachlor epoxide	BRL	10
Hexachlorobenzene	BRL	10
Hexachlorobutadiene	BRL	10
Hexachloroethane	BRL	10
Ideno(1,2,3-cd)pyrene	BRL	10

EPA 625 BASE/NEUTRAL EXTRACTABLES
continued

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Isophrone	BRL	10
Naphthalene	BRL	10
Nitrobenzene	BRL	10
N-Nitrosodi-n-propylamine	BRL	10
PCB 1016	BRL	10
PCB 1221	BRL	10
PCB 1232	BRL	10
PCB 1242	BRL	10
PCB 1248	BRL	10
PCB 1254	BRL	10
PCB 1260	BRL	10
Phenanthrene	BRL	10
Pyrene	BRL	10
Toxaphene	BRL	10
1,2,4-Trichlorobenzene	BRL	10

BRL = Below Reporting Limit

Surrogate Recovery, %	
Nitrobenzene	78

	Results	Method #	Performed by
Sample ID: SB 10, 10'			
Total Petroleum Hydrocarbons, %	0.018	SM 503 E	AF 5/30/89, 0950
TCLP Metals:			
Arsenic, mg/L	<0.01	206.2	SM 5/27/89, 1200
Barium, mg/L	0.22	200.7	SM 5/28/89, 1127
Cadmium, mg/L	<0.01	200.7	SM 5/27/89, 2247
Chromium, mg/L	<0.01	200.7	SM 5/27/89, 2247
Lead, mg/L	2.70	206.2	SM 5/27/89, 1200
Mercury, mg/L	<0.002	245.1	PW 5/25/89, 1950
Selenium, mg/L	<0.01	206.2	SM 5/27/89, 1200
Silver, mg/L	<0.01	206.2	SM 5/27/89, 1200

continued

SW 8240 VOLATILE COMPOUNDS BY TCLP/624
continued

Compound Name	Concentration ppb, (ug/L)	Reporting Limit ppb, (ug/L)
Acrolein	BRL	0.66
Acrylonitrile	BRL	0.66
Dibromomethane	BRL	0.66
1,4-Dichloro-2-butane	BRL	0.66
Dichlorodifluoromethane	BRL	0.66
Ethanol	BRL	0.66
Ethyl methacrylate	BRL	0.66
Idomethane	BRL	0.66

BRL = Below Reporting Limit

Surrogate Recoveries, %	
1,2-Dichloroethane-d4	78
Toluene-d8	93
Bromofluorobenzene	112

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	Results	Method #	Performed by
Total Petroleum Hydrocarbons, %	0.041	SM 503 E	AF 5/30/89, 0950

continued

SW 8240 VOLATILE COMPOUNDS
continued

Compound Name	Concentration ppm, (mg/kg)	Reporting Limit ppm, (mg/kg)
Acrolein	BRL	0.66
Acrylonitrile	BRL	0.66
Dibromomethane	BRL	0.66
1,4-Dichloro-2-butane	BRL	0.66
Dichlorodifluoromethane	BRL	0.66
Ethanol	BRL	0.66
Ethyl methacrylate	BRL	0.66
Idomethane	BRL	0.66

BRL = Below Reporting Limit

Surrogate Recoveries,	%
1,2-Dichloroethane-d4	91
Toluene-d8	131
Bromofluorobenzene	138

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Sample ID: SB 10, 15'

Date extracted: NA
Date analyzed: 6/1/89

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm, (mg/kg)	Reporting Limit ppm, (mg/kg)
Phenol	BRL	0.66
Bis(2-chloroethyl)ether	BRL	0.66
2-Chlorophenol	BRL	0.66
1,3-Dichlorobenzene	BRL	0.66
1,4-Dichlorobenzene	BRL	0.66
Benzyl alcohol	BRL	1.30
1,2-Dichlorobenzene	BRL	0.66
2-Methylphenol	BRL	0.66
Bis(2-chloroisopropyl)ether	BRL	0.66
4-Methylphenol	BRL	0.66
N-Nitrosodi-N-propylamine	BRL	0.66
Hexachloroethane	BRL	0.66
Nitrobenzene	BRL	0.66
Isophorone	BRL	0.66
2-Nitrophenol	BRL	0.66
2,4-Dimethylphenol	BRL	0.66
Benzoic acid	BRL	3.30
Bis(2-chloroethoxy)methane	BRL	0.66
2,4-Dichlorophenol	BRL	0.66
1,2,4-Trichlorobenzene	BRL	0.66
Naphthalene	BRL	0.66
4-Chloroaniline	BRL	1.30
Hexachlorobutadiene	BRL	0.66
4-Chloro-3-methylphenol	BRL	0.66
2-Methylnaphthalene	BRL	0.66
Hexachlorocyclopentadiene	BRL	0.66
2,4,6-Trichlorophenol	BRL	0.66
2,4,5-Trichlorophenol	BRL	0.66
2-Chloronaphthalene	BRL	0.66
2-Nitroaniline	BRL	3.30
Dimethylphthalate	BRL	0.66
Acenaphthylene	BRL	0.66
3-Nitroaniline	BRL	3.30
Acenaphthene	BRL	0.66
2,4-Dinitrophenol	BRL	3.30
4-Nitrophenol	BRL	0.66
Dibenzofuran	BRL	0.66
2,4-Dinitrotoluene	BRL	0.66
2,6-Dinitrotoluene	BRL	0.66
Diethylphthalate	BRL	0.66

-Continued-

SW 8270 Base-Neutral and Acid Extractable Compounds
(Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Limit ppm, (mg/kg)
4-Chlorophenyl-phenylether	BRL	0.66
Fluorene	BRL	0.66
4-Nitroaniline	BRL	3.30
4,6-Dinitro-2-methylphenol	BRL	3.30
N-Nitrosodiphenylamine	BRL	0.66
4-Bromophenyl-phenylether	BRL	0.66
Hexachlorobenzene	BRL	0.66
Pentachlorophenol	BRL	3.30
Phenanthrene	BRL	0.66
Anthracene	BRL	0.66
Di-n-butylphthalate	BRL	0.66
Fluoroanthene	BRL	0.66
Pyrene	BRL	0.66
Benzylbutylphthalate	BRL	0.66
3,3'-Dichlorobenzidine	BRL	1.30
Benzo(a)anthracene	BRL	0.66
Bis(2-ethylhexyl)phthalate	BRL	0.66
Chrysene	BRL	0.66
Di-n-octylphthalate	BRL	0.66
Benzo(b)fluoranthene	BRL	0.66
Benzo(k)fluroanthene	BRL	0.66
Benzo(a)pyrene	BRL	0.66
Indeno(1,2,3-cd)pyrene	BRL	0.66
Dibenzo(a,h)anthracene	BRL	0.66
Benzo(g,h,i)perylene	BRL	0.66

BRL = Below Reporting Limit

Surrogate recoveries, %

Nitrobenzene-d5	101
2-Fluorobiphenyl	107
Terphenyl-d14	122

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	Results	Method #	Performed by
Total Petroleum Hydrocarbons, %	0.771	SM 503 E	AF 5/30/89, 0950

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Sample ID: SB 11, 10'

Date extracted: May 25, 1989
Date analyzed: May 31, 1989

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Limit ppm, (mg/kg)
Chloromethane	BRL	0.3
Bromomethane	BRL	0.3
Vinyl chloride	BRL	0.3
Chloroethane	BRL	0.3
Dichloromethane	BRL	0.3
Acetone	BRL	3.0
Carbon disulfide	BRL	0.3
1,1-Dichloroethene	BRL	0.3
1,1-Dichloroethane	BRL	0.3
2-Butanone	BRL	0.3
Trans-1,2-dichloroethene	BRL	0.3
Chloroform	BRL	0.3
1,2-Dichloroethane	BRL	0.3
1,1,1-Trichloroethane	BRL	0.3
Carbon tetrachloride	BRL	0.3
Bromodichloromethane	BRL	0.3
1,2-Dichloropropane	BRL	0.3
Vinyl acetate	BRL	0.3
Cis-1,3-dichloropropene	BRL	0.3
Trichloroethene	BRL	0.3
Dibromochloromethane	BRL	0.3
1,1,2-Trichloroethane	BRL	0.3
Benzene	BRL	0.3
Trans-1,3-dichloropropane	BRL	0.3
2-Chloroethylvinylether	BRL	0.3
Bromoform	BRL	0.3
2-Hexanone	BRL	0.3
4-Methyl-2-pentanone	BRL	0.3
Tetrachloroethene	BRL	0.3
1,1,2,2-Tetrachloroethane	BRL	0.3
Toluene	BRL	0.3
Chlorobenzene	BRL	0.3
Ethylbenzene	BRL	0.3
Styrene	BRL	0.3
Total xylenes	BRL	0.3
1,2-Dichlorobenzene	BRL	0.3
1,3-Dichlorobenzene	BRL	0.3
1,4-Dichlorobenzene	BRL	0.3

-continued-

SW 8240 VOLATILE COMPOUNDS
continued

Compound Name	Concentration ppm, (mg/kg)	Reporting Limit ppm, (mg/kg)
Acrolein	BRL	0.66
Acrylonitrile	BRL	0.66
Dibromomethane	BRL	0.66
1,4-Dichloro-2-butane	BRL	0.66
Dichlorodifluoromethane	BRL	0.66
Ethanol	BRL	0.66
Ethyl methacrylate	BRL	0.66
Idomethane	BRL	0.66

BRL = Below Reporting Limit

Surrogate Recoveries,	%
1,2-Dichloroethane-d4	84
Toluene-d8	90
Bromofluorobenzene	108

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Sample ID: SB 11, 10'

Date extracted: NA
Date analyzed: 6/1/89

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm, (mg/kg)	Reporting Limit ppm, (mg/kg)
Phenol	BRL	0.66
Bis(2-chloroethyl)ether	BRL	0.66
2-Chlorophenol	BRL	0.66
1,3-Dichlorobenzene	BRL	0.66
1,4-Dichlorobenzene	BRL	0.66
Benzyl alcohol	BRL	1.30
1,2-Dichlorobenzene	BRL	0.66
2-Methylphenol	BRL	0.66
Bis(2-chloroisopropyl)ether	BRL	0.66
4-Methylphenol	BRL	0.66
N-Nitrosodi-N-propylamine	BRL	0.66
Hexachloroethane	BRL	0.66
Nitrobenzene	BRL	0.66
Isophorone	BRL	0.66
2-Nitrophenol	BRL	0.66
2,4-Dimethylphenol	BRL	0.66
Benzoic acid	BRL	3.30
Bis(2-chloroethoxy)methane	BRL	0.66
2,4-Dichlorophenol	BRL	0.66
1,2,4-Trichlorobenzene	BRL	0.66
Naphthalene	BRL	0.66
4-Chloroaniline	BRL	1.30
Hexachlorobutadiene	BRL	0.66
4-Chloro-3-methylphenol	BRL	0.66
2-Methylnaphthalene	BRL	0.66
Hexachlorocyclopentadiene	BRL	0.66
2,4,6-Trichlorophenol	BRL	0.66
2,4,5-Trichlorophenol	BRL	0.66
2-Chloronaphthalene	BRL	0.66
2-Nitroaniline	BRL	3.30
Dimethylphthalate	BRL	0.66
Acenaphthylene	BRL	0.66
3-Nitroaniline	BRL	3.30
Acenaphthene	BRL	0.66
2,4-Dinitrophenol	BRL	3.30
4-Nitrophenol	BRL	0.66
Dibenzofuran	BRL	0.66
2,4-Dinitrotoluene	BRL	0.66
2,6-Dinitrotoluene	BRL	0.66
Diethylphthalate	BRL	0.66

-Continued-

SW 8270 Base-Neutral and Acid Extractable Compounds
(Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Limit ppm, (mg/kg)
4-Chlorophenyl-phenylether	BRL	0.66
Fluorene	BRL	0.66
4-Nitroaniline	BRL	3.30
4,6-Dinitro-2-methylphenol	BRL	3.30
N-Nitrosodiphenylamine	BRL	0.66
4-Bromophenyl-phenylether	BRL	0.66
Hexachlorobenzene	BRL	0.66
Pentachlorophenol	BRL	3.30
Phenanthrene	BRL	0.66
Anthracene	BRL	0.66
Di-n-butylphthalate	BRL	0.66
Fluoroanthene	BRL	0.66
Pyrene	**	0.66
Benzylbutylphthalate	BRL	0.66
3,3'-Dichlorobenzidine	BRL	1.30
Benzo(a)anthracene	BRL	0.66
Bis(2-ethylhexyl)phthalate	BRL	0.66
Chrysene	BRL	0.66
Di-n-octylphthalate	BRL	0.66
Benzo(b)fluoranthene	**	0.66
Benzo(k)fluroanthene	BRL	0.66
Benzo(a)pyrene	**	0.66
Indeno(1,2,3-cd)pyrene	BRL	0.66
Dibenzo(a,h)anthracene	BRL	0.66
Benzo(g,h,i)perylene	BRL	0.66

BRL = Below Reporting Limit

Surrogate recoveries, %

Nitrobenzene-d5	73
2-Fluorobiphenyl	114
Terphenyl-d14	76

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	Results	Method #	Performed by
Total Petroleum Hydrocarbons, %	0.067	SM 503 E	AF 5/30/89, 0950

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Sample ID: SB 12, 10'

Date extracted: May 25, 1989
Date analyzed: May 31, 1989

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Limit ppm, (mg/kg)
Chloromethane	BRL	0.3
Bromomethane	BRL	0.3
Vinyl chloride	BRL	0.3
Chloroethane	BRL	0.3
Dichloromethane	BRL	0.3
Acetone	BRL	3.0
Carbon disulfide	BRL	0.3
1,1-Dichloroethene	BRL	0.3
1,1-Dichloroethane	BRL	0.3
2-Butanone	BRL	0.3
Trans-1,2-dichloroethene	BRL	0.3
Chloroform	BRL	0.3
1,2-Dichloroethane	BRL	0.3
1,1,1-Trichloroethane	BRL	0.3
Carbon tetrachloride	BRL	0.3
Bromodichloromethane	BRL	0.3
1,2-Dichloropropane	BRL	0.3
Vinyl acetate	BRL	0.3
Cis-1,3-dichloropropene	BRL	0.3
Trichloroethene	BRL	0.3
Dibromochloromethane	BRL	0.3
1,1,2-Trichloroethane	**	0.3
Benzene	**	0.3
Trans-1,3-dichloropropane	BRL	0.3
2-Chloroethylvinylether	BRL	0.3
Bromoform	BRL	0.3
2-Hexanone	BRL	0.3
4-Methyl-2-pentanone	BRL	0.3
Tetrachloroethene	BRL	0.3
1,1,2,2-Tetrachloroethane	BRL	0.3
Toluene	**	0.3
Chlorobenzene	BRL	0.3
Ethylbenzene	BRL	0.3
Styrene	BRL	0.3
Total xylenes	BRL	0.3
1,2-Dichlorobenzene	BRL	0.3
1,3-Dichlorobenzene	BRL	0.3
1,4-Dichlorobenzene	BRL	0.3

-continued-

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Sample ID: SB 12, 10'

SW 8240 VOLATILE COMPOUNDS
continued

Compound Name	Concentration ppm. (mg/kg)	Reporting Limit ppm. (mg/kg)
Acrolein	BRL	0.66
Acrylonitrile	BRL	0.66
Dibromomethane	BRL	0.66
1,4-Dichloro-2-butane	BRL	0.66
Dichlorodifluoromethane	BRL	0.66
Ethanol	BRL	0.66
Ethyl methacrylate	BRL	0.66
Idomethane	BRL	0.66

BRL = Below Reporting Limit
** = Detected But Below Reporting Limit

Surrogate Recoveries,	%
1,2-Dichloroethane-d4	78
Toluene-d8	92
Bromofluorobenzene	102

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Sample ID: SB 12, 10'

Date extracted: NA
Date analyzed: 6/1/89

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm, (mg/kg)	Reporting Limit ppm, (mg/kg)
Phenol	BRL	0.66
Bis(2-chloroethyl)ether	BRL	0.66
2-Chlorophenol	BRL	0.66
1,3-Dichlorobenzene	BRL	0.66
1,4-Dichlorobenzene	BRL	0.66
Benzyl alcohol	BRL	1.30
1,2-Dichlorobenzene	BRL	0.66
2-Methylphenol	BRL	0.66
Bis(2-chloroisopropyl)ether	BRL	0.66
4-Methylphenol	BRL	0.66
N-Nitrosodi-N-propylamine	BRL	0.66
Hexachloroethane	BRL	0.66
Nitrobenzene	BRL	0.66
Isophorone	BRL	0.66
2-Nitrophenol	BRL	0.66
2,4-Dimethylphenol	BRL	0.66
Benzoic acid	BRL	3.30
Bis(2-chloroethoxy)methane	BRL	0.66
2,4-Dichlorophenol	BRL	0.66
1,2,4-Trichlorobenzene	BRL	0.66
Naphthalene	BRL	0.66
4-Chloroaniline	BRL	1.30
Hexachlorobutadiene	BRL	0.66
4-Chloro-3-methylphenol	BRL	0.66
2-Methylnaphthalene	65	0.66
Hexachlorocyclopentadiene	BRL	0.66
2,4,6-Trichlorophenol	BRL	0.66
2,4,5-Trichlorophenol	BRL	0.66
2-Chloronaphthalene	BRL	0.66
2-Nitroaniline	BRL	3.30
Dimethylphthalate	BRL	0.66
Acenaphthylene	BRL	0.66
3-Nitroaniline	BRL	3.30
Acenaphthene	8	0.66
2,4-Dinitrophenol	BRL	3.30
4-Nitrophenol	BRL	0.66
Dibenzofuran	BRL	0.66
2,4-Dinitrotoluene	BRL	0.66
2,6-Dinitrotoluene	BRL	0.66
Diphenylaniline	BRL	0.66

-Continued-

SW 8270 Base-Neutral and Acid Extractable Compounds
(Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Limit ppm, (mg/kg)
4-Chlorophenyl-phenylether	BRL	0.66
Fluorene	9	0.66
Anilinebiphenyl	20	3.30
4,6-Dinitro-2-methylphenol	BRL	3.30
N-Nitrosodiphenylamine	BRL	0.66
4-Bromophenyl-phenylether	BRL	0.66
Hexachlorobenzene	BRL	0.66
Pentachlorophenol	BRL	3.30
Phenanthrene	30	0.66
Anthracene	33	0.66
Di-n-butylphthalate	47	0.66
Fluoroanthene	11	0.66
Pyrene	11	0.66
Benzylbutylphthalate	BRL	0.66
3,3'-Dichlorobenzidine	BRL	1.30
Benzo(a)anthracene	9	0.66
Bis(2-ethylhexyl)phthalate	BRL	0.66
Chrysene	BRL	0.66
Di-n-octylphthalate	BRL	0.66
Benzo(b)fluoranthene	9	0.66
Benzo(k)fluroanthene	9	0.66
Benzo(a)pyrene	4	0.66
Indeno(1,2,3-cd)pyrene	3	0.66
Dibenzo(a,h)anthracene	BRL	0.66
Benzo(g,h,i)perylene	3	0.66

BRL = Below Reporting Limit

Surrogate recoveries, %

Nitrobenzene-d5	117
2-Fluorobiphenyl	110
Terphenyl-d14	128

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Sample ID: SB 12, 15'

	Results	Method #	Performed by
Total Petroleum Hydrocarbons, %	0.867	SM 503 E	AF 5/30/89, 0950
TCLP Metals:			
Arsenic, mg/L	<0.01	206.2	SM 5/27/89, 1200
Barium, mg/L	1.09	200.7	SM 5/28/89, 1127
Cadmium, mg/L	<0.01	200.7	SM 5/27/89, 2247
Chromium, mg/L	<0.01	200.7	SM 5/27/89, 2247
Lead, mg/L	0.08	206.2	SM 5/27/89, 1200
Mercury, mg/L	<0.002	245.1	PW 5/25/89, 1950
Selenium, mg/L	<0.01	206.2	SM 5/27/89, 1200
Silver, mg/L	0.03	206.2	SM 5/27/89, 1200

continued

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Sample ID: SB 12, 15'

Date extracted: 5/25/89
Date analyzed: 5/31/89

SW 8240 VOLATILE COMPOUNDS BY TCLP/624

Compound Name	Concentration ppb, (ug/L)	Reporting Limit ppb, (ug/L)
Chloromethane	BRL	0.3
Bromomethane	BRL	0.3
Vinyl chloride	BRL	0.3
Chloroethane	BRL	0.3
Dichloromethane	BRL	0.3
Acetone	BRL	3.0
Carbon disulfide	BRL	0.3
1,1-Dichloroethene	BRL	0.3
1,1-Dichloroethane	BRL	0.3
2-Butanone	BRL	0.3
Trans-1,2-dichloroethene	BRL	0.3
Chloroform	BRL	0.3
1,2-Dichloroethane	BRL	0.3
1,1,1-Trichloroethane	**	0.3
Carbon tetrachloride	BRL	0.3
Bromodichloromethane	BRL	0.3
1,2-Dichloropropane	BRL	0.3
Vinyl acetate	BRL	0.3
Cis-1,3-dichloropropene	BRL	0.3
Trichloroethene	BRL	0.3
Dibromochloromethane	BRL	0.3
1,1,2-Trichloroethane	**	0.3
Benzene	BRL	0.3
Trans-1,3-dichloropropane	BRL	0.3
2-Chloroethylvinylether	BRL	0.3
Bromoform	BRL	0.3
2-Hexanone	BRL	0.3
4-Methyl-2-pentanone	BRL	0.3
Tetrachloroethene	BRL	0.3
1,1,2,2-Tetrachloroethane	BRL	0.3
Toluene	BRL	0.3
Chlorobenzene	BRL	0.3
Ethylbenzene	BRL	0.3
Styrene	BRL	0.3
Total xylenes	BRL	0.3
1,2-Dichlorobenzene	BRL	0.3
1,3-Dichlorobenzene	BRL	0.3
1,4-Dichlorobenzene	BRL	0.3

continued

SW 8240 VOLATILE COMPOUNDS BY TCLP/624
continued

Compound Name	Concentration ppb, (ug/L)	Reporting Limit ppb, (ug/L)
Acrolein	BRL	0.66
Acrylonitrile	BRL	0.66
Dibromomethane	BRL	0.66
1,4-Dichloro-2-butane	BRL	0.66
Dichlorodifluoromethane	BRL	0.66
Ethanol	BRL	0.66
Ethyl methacrylate	BRL	0.66
Idomethane	BRL	0.66

BRL = Below Reporting Limit
** = Detected but below Reporting Limit

Surrogate Recoveries,	%
1,2-Dichloroethane-d4	80
Toluene-d8	93
Bromofluorobenzene	108

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Sample ID: SB 12, 15'

Date extracted: 5/22/89
Date analyzed: 5/31/89

SW 8270 BASE/NEUTRAL EXTRACTABLES BY TCLP/625

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Acenaphthene	BRL	10
Acenaphthlyene	BRL	10
Anthracene	BRL	10
Aldrin	BRL	10
Benzo(a)anthracene	BRL	10
Benzo(b)fluoranthene	BRL	10
Benzo(k)fluoranthene	BRL	10
Benzo(ghi)perylene	BRL	10
Benzyl butyl phthalate	BRL	10
Beta-BHC	BRL	10
Delta-BHC	BRL	10
Bis(2-chloroethyl)ether	BRL	10
Bis(2-chloroethoxy)methane	BRL	10
Bis(2-ethylhexyl)phthalate	BRL	10
Bis(2-chloroisopropyl)ether	BRL	10
4-Bromophenyl phenyl ethyl	BRL	10
Chlordane	BRL	10
2-Chloronaphthalene	BRL	10
4-Chlorophenyl phenyl ether	BRL	10
Chrysene	BRL	10
4,4'-DDD	BRL	10
4,4'-DDE	BRL	10
4,4'-DDT	BRL	10
Dibenzo(a,h)anthracene	BRL	10
Di-n-butylphthalate	BRL	10
1,3-Dichlorobenzene	BRL	10
1,2-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10
3,3'-Dichlorobenzidine	BRL	10
Dieldrin	BRL	10
Diethyl phthalate	BRL	10
Dimethyl phthalate	BRL	10
2,4-Dinitrotoluene	BRL	10
2,6-Dinitrotoluene	BRL	10
Di-n-octylphthalate	BRL	10
Endosulfan sulfate	BRL	10
Endrin aldehyde	BRL	10
Fluorene	BRL	10
Heptachlor	BRL	10
Heptachlor epoxide	BRL	10
Hexachlorobenzene	BRL	10
Hexachlorobutadiene	BRL	10
Hexachloroethane	BRL	10
Ideno(1,2,3-cd)pyrene	BRL	10

SW 8270 BASE/NEUTRAL EXTRACTABLES BY TCLP/625
continued

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Isophrone	BRL	10
Naphthalene	BRL	10
Nitrobenzene	BRL	10
N-Nitrosodi-n-propylamine	BRL	10
PCB 1016	BRL	10
PCB 1221	BRL	10
PCB 1232	BRL	10
PCB 1242	BRL	10
PCB 1248	BRL	10
PCB 1254	BRL	10
PCB 1260	BRL	10
Phenanthrene	BRL	10
Pyrene	BRL	10
Toxaphene	BRL	10
1,2,4-Trichlorobenzene	BRL	10

BRL = Below Reporting Limit

Surrogate Recovery, %	
Nitrobenzene	73

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Sample ID: MW 9, 10'

	Results	Method #	Performed by
Total Petroleum Hydrocarbons, %	0.198	SM 503 E	AF 5/30/89, 0950
TCLP Metals:			
Arsenic, mg/L	<0.01	206.2	SM 5/27/89, 1200
Barium, mg/L	1.28	200.7	SM 5/28/89, 1127
Cadmium, mg/L	<0.01	200.7	SM 5/27/89, 2247
Chromium, mg/L	<0.01	200.7	SM 5/27/89, 2247
Lead, mg/L	0.10	206.2	SM 5/27/89, 1200
Mercury, mg/L	<0.002	245.1	PW 5/25/89, 1950
Selenium, mg/L	<0.01	206.2	SM 5/27/89, 1200
Silver, mg/L	0.02	206.2	SM 5/27/89, 1200

continued

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Sample ID: MW 9, 10'

Date extracted: 5/25/89
Date analyzed: 6/1/89

SW 8240 VOLATILE COMPOUNDS BY TCLP/624

Compound Name	Concentration ppb, (ug/L)	Reporting Limit ppb, (ug/L)
Chloromethane	BRL	0.3
Bromomethane	BRL	0.3
Vinyl chloride	BRL	0.3
Chloroethane	BRL	0.3
Dichloromethane	BRL	0.3
Acetone	BRL	3.0
Carbon disulfide	BRL	0.3
1,1-Dichloroethene	BRL	0.3
1,1-Dichloroethane	BRL	0.3
2-Butanone	BRL	0.3
Trans-1,2-dichloroethene	BRL	0.3
Chloroform	**	0.3
1,2-Dichloroethane	BRL	0.3
1,1,1-Trichloroethane	BRL	0.3
Carbon tetrachloride	BRL	0.3
Bromodichloromethane	BRL	0.3
1,2-Dichloropropane	BRL	0.3
Vinyl acetate	BRL	0.3
Cis-1,3-dichloropropene	BRL	0.3
Trichloroethene	BRL	0.3
Dibromochloromethane	BRL	0.3
1,1,2-Trichloroethane	BRL	0.3
Benzene	**	0.3
Trans-1,3-dichloropropane	BRL	0.3
2-Chloroethylvinylether	BRL	0.3
Bromoform	BRL	0.3
2-Hexanone	BRL	0.3
4-Methyl-2-pentanone	BRL	0.3
Tetrachloroethene	BRL	0.3
1,1,2,2-Tetrachloroethane	BRL	0.3
Toluene	0.90	0.3
Chlorobenzene	BRL	0.3
Ethylbenzene	**	0.3
Styrene	BRL	0.3
Total xylenes	1.00	0.3
1,2-Dichlorobenzene	BRL	0.3
1,3-Dichlorobenzene	BRL	0.3
1,4-Dichlorobenzene	BRL	0.3

continued

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Sample ID: MW 9, 10'

SW 8240 VOLATILE COMPOUNDS BY TCLP/624
continued

Compound Name	Concentration ppb, (ug/L)	Reporting Limit ppb, (ug/L)
Acrolein	BRL	0.66
Acrylonitrile	BRL	0.66
Dibromomethane	BRL	0.66
1,4-Dichloro-2-butane	BRL	0.66
Dichlorodifluoromethane	BRL	0.66
Ethanol	BRL	0.66
Ethyl methacrylate	BRL	0.66
Idomethane	BRL	0.66

BRL = Below Reporting Limit
** = Detected but Below Reporting Limit

Surrogate Recoveries,	%
1,2-Dichloroethane-d4	71
Toluene-d8	94
Bromofluorobenzene	92

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Sample ID: MW 9, 10'

Date extracted: 5/22/89
Date analyzed: 5/31/89

SW 8270 BASE/NEUTRAL EXTRACTABLES BY TCLP/625

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Acenaphthene	BRL	10
Acenaphthlyene	BRL	10
Anthracene	BRL	10
Aldrin	BRL	10
Benzo(a)anthracene	BRL	10
Benzo(b)fluoranthene	BRL	10
Benzo(k)fluoranthene	BRL	10
Benzo(ghi)perylene	BRL	10
Benzyl butyl phthalate	BRL	10
Beta-BHC	BRL	10
Delta-BHC	BRL	10
Bis(2-chloroethyl)ether	BRL	10
Bis(2-chloroethoxy)methane	BRL	10
Bis(2-ethylhexyl)phthalate	BRL	10
Bis(2-chloroisopropyl)ether	BRL	10
4-Bromophenyl phenyl ethyl	BRL	10
Chlordane	BRL	10
2-Chloronaphthalene	BRL	10
4-Chlorophenyl phenyl ether	BRL	10
Chrysene	BRL	10
4,4'-DDD	BRL	10
4,4'-DDE	BRL	10
4,4'-DDT	BRL	10
Dibenzo(a,h)anthracene	BRL	10
Di-n-butylphthalate	BRL	10
1,3-Dichlorobenzene	BRL	10
1,2-Dichlorobenzene	BRL	10
1,4-Dichlorobenzene	BRL	10
3,3'-Dichlorobenzidine	BRL	10
Dieldrin	BRL	10
Diethyl phthalate	BRL	10
Dimethyl phthalate	BRL	10
2,4-Dinitrotoluene	BRL	10
2,6-Dinitrotoluene	BRL	10
Di-n-octylphthalate	BRL	10
Endosulfan sulfate	BRL	10
Endrin aldehyde	BRL	10
Fluorene	BRL	10
Heptachlor	BRL	10
Heptachlor epoxide	BRL	10
Hexachlorobenzene	BRL	10
Hexachlorobutadiene	BRL	10
Hexachloroethane	BRL	10
Ideno(1,2,3-cd)pyrene	BRL	10

SW 8270 BASE/NEUTRAL EXTRACTABLES BY TCLP/625
continued

Compound Name	Concentration ppb, (ug/l)	Reporting Limit ppb, (ug/l)
Isophrone	BRL	10
Naphthalene	BRL	10
Nitrobenzene	BRL	10
N-Nitrosodi-n-propylamine	BRL	10
PCB 1016	BRL	10
PCB 1221	BRL	10
PCB 1232	BRL	10
PCB 1242	BRL	10
PCB 1248	BRL	10
PCB 1254	BRL	10
PCB 1260	BRL	10
Phenanthrene	BRL	10
Pyrene	BRL	10
Toxaphene	BRL	10
1,2,4-Trichlorobenzene	BRL	10

BRL = Below Reporting Limit

Surrogate Recovery, %	
Nitrobenzene	80

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Sample ID: MW 10, 10'

	Results	Method #	Performed by
Total Petroleum Hydrocarbons, %	0.068	SM 503 E	AF 5/30/89, 0950

continued

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Sample ID: MW 10, 10'

Date extracted: May 25, 1989
Date analyzed: May 31, 1989

SW 8240 VOLATILE COMPOUNDS

Compound Name	Concentration ppm, (mg/kg)	Reporting Limit ppm, (mg/kg)
Chloromethane	BRL	0.3
Bromomethane	BRL	0.3
Vinyl chloride	BRL	0.3
Chloroethane	BRL	0.3
Dichloromethane	BRL	0.3
Acetone	BRL	3.0
Carbon disulfide	BRL	0.3
1,1-Dichloroethene	BRL	0.3
1,1-Dichloroethane	BRL	0.3
2-Butanone	BRL	0.3
Trans-1,2-dichloroethene	BRL	0.3
Chloroform	BRL	0.3
1,2-Dichloroethane	BRL	0.3
1,1,1-Trichloroethane	BRL	0.3
Carbon tetrachloride	BRL	0.3
Bromodichloromethane	BRL	0.3
1,2-Dichloropropane	BRL	0.3
Vinyl acetate	BRL	0.3
Cis-1,3-dichloropropene	BRL	0.3
Trichloroethene	BRL	0.3
Dibromochloromethane	BRL	0.3
1,1,2-Trichloroethane	BRL	0.3
Benzene	BRL	0.3
Trans-1,3-dichloropropane	BRL	0.3
2-Chloroethylvinylether	BRL	0.3
Bromoform	BRL	0.3
2-Hexanone	BRL	0.3
4-Methyl-2-pentanone	BRL	0.3
Tetrachloroethene	BRL	0.3
1,1,2,2-Tetrachloroethane	BRL	0.3
Toluene	BRL	0.3
Chlorobenzene	BRL	0.3
Ethylbenzene	BRL	0.3
Styrene	BRL	0.3
Total xylenes	BRL	0.3
1,2-Dichlorobenzene	BRL	0.3
1,3-Dichlorobenzene	BRL	0.3
1,4-Dichlorobenzene	BRL	0.3

-continued-

SW 8240 VOLATILE COMPOUNDS
continued

Compound Name	Concentration ppm, (mg/kg)	Reporting Limit ppm, (mg/kg)
Acrolein	BRL	0.66
Acrylonitrile	BRL	0.66
Dibromomethane	BRL	0.66
1,4-Dichloro-2-butane	BRL	0.66
Dichlorodifluoromethane	BRL	0.66
Ethanol	BRL	0.66
Ethyl methacrylate	BRL	0.66
Idomethane	BRL	0.66

BRL = Below Reporting Limit

Surrogate Recoveries, %	
1,2-Dichloroethane-d4	77
Toluene-d8	83
Bromofluorobenzene	92

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Sample ID: MW 10, 10'

Date extracted: NA
Date analyzed: 6/1/89

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound Name	Concentration ppm. (mg/kg)	Reporting Limit ppm. (mg/kg)
Phenol	BRL	0.66
Bis(2-chloroethyl)ether	BRL	0.66
2-Chlorophenol	BRL	0.66
1,3-Dichlorobenzene	BRL	0.66
1,4-Dichlorobenzene	BRL	0.66
Benzyl alcohol	BRL	1.30
1,2-Dichlorobenzene	BRL	0.66
2-Methylphenol	BRL	0.66
Bis(2-chloroisopropyl)ether	BRL	0.66
4-Methylphenol	BRL	0.66
N-Nitrosodi-N-propylamine	BRL	0.66
Hexachloroethane	BRL	0.66
Nitrobenzene	BRL	0.66
Isophorone	BRL	0.66
2-Nitrophenol	BRL	0.66
2,4-Dimethylphenol	BRL	0.66
Benzoic acid	BRL	3.30
Bis(2-chloroethoxy)methane	BRL	0.66
2,4-Dichlorophenol	BRL	0.66
1,2,4-Trichlorobenzene	BRL	0.66
Naphthalene	BRL	0.66
4-Chloroaniline	BRL	1.30
Hexachlorobutadiene	BRL	0.66
4-Chloro-3-methylphenol	BRL	0.66
2-Methylnaphthalene	0.98	0.66
Hexachlorocyclopentadiene	BRL	0.66
2,4,6-Trichlorophenol	BRL	0.66
2,4,5-Trichlorophenol	BRL	0.66
2-Chloronaphthalene	BRL	0.66
2-Nitroaniline	BRL	3.30
Dimethylphthalate	BRL	0.66
Acenaphthylene	BRL	0.66
3-Nitroaniline	BRL	3.30
Acenaphthene	BRL	0.66
2,4-Dinitrophenol	BRL	3.30
4-Nitrophenol	BRL	0.66
Dibenzofuran	BRL	0.66
2,4-Dinitrotoluene	BRL	0.66
2,6-Dinitrotoluene	BRL	0.66
Diethylphthalate	BRL	0.66

-Continued-

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Sample ID: MW 10, 10'

SW 8270 Base-Neutral and Acid Extractable Compounds
(Continued)

Compound Name	Concentration ppm, (mg/kg)	Reporting Limit ppm, (mg/kg)
4-Chlorophenyl-phenylether	BRL	0.66
Fluorene	BRL	0.66
4-Nitroaniline	BRL	3.30
4,6-Dinitro-2-methylphenol	BRL	3.30
N-Nitrosodiphenylamine	BRL	0.66
4-Bromophenyl-phenylether	BRL	0.66
Hexachlorobenzene	BRL	0.66
Pentachlorophenol	BRL	3.30
Phenanthrene	BRL	0.66
Anthracene	BRL	0.66
Di-n-butylphthalate	BRL	0.66
Fluoroanthene	BRL	0.66
Pyrene	BRL	0.66
Benzylbutylphthalate	BRL	0.66
3,3'-Dichlorobenzidine	BRL	1.30
Benzo(a)anthracene	BRL	0.66
Bis(2-ethylhexyl)phthalate	BRL	0.66
Chrysene	BRL	0.66
Di-n-octylphthalate	BRL	0.66
Benzo(b)fluoranthene	BRL	0.66
Benzo(k)fluroanthene	BRL	0.66
Benzo(a)pyrene	BRL	0.66
Indeno(1,2,3-cd)pyrene	BRL	0.66
Dibenzo(a,h)anthracene	BRL	0.66
Benzo(g,h,i)perylene	BRL	0.66

BRL = Below Reporting Limit

Surrogate recoveries, %

Nitrobenzene-d5	97
2-Fluorobiphenyl	110
Terphenyl-d14	129

DATA REVIEW AND CERTIFICATION

The information given in this analytical report has been reviewed and is certified to have been prepared according to the methods cited herein.

Donald E. Cerrat 05/31/99

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

NATIONAL ENVIRONMENTAL TESTING, INC.

NET Midwest, Inc.
Rockford Division
3548 35th Street
Rockford, IL 61109
Tel: (815) 874-2171
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ANALYTICAL REPORT

Mr. John Buchanan
PILKO & ASSOCIATES
2707 No.Loop West, Ste.960
Houston Texas 77008

06-22-89

Sample No: 63071

SAMPLE DESCRIPTION: MW-2 (Water)
Navistar-Rock Island

Date Taken: 06-06-89 1215

Date Received: 06-06-89 1645

Oil & Grease, hydrocarbon	1.3	mg/L
Lead	0.01	mg/L

Tom Gartner, Manager
Rockford Division

NATIONAL ENVIRONMENTAL TESTING, INC.

NET Midwest, Inc.
Rockford Division
3548 35th Street
Rockford, IL 61109
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ANALYTICAL REPORT

Mr. John Buchanan
PIERO & ASSOCIATES
2707 No.Loop West, Ste.960
Houston Texas 77008

06-12-89

Sample No. 63077

SAMPLE DESCRIPTION: TW-2 (Water)
Navistar-Rock Island

Date Taken: 06-08-89 1215

Date Received: 06-06-89 1045

VOLATILE COMPOUNDS

Acrolein	<5000.	ug/L
Acrylonitrile	<5000.	ug/L
Benzene	6,400.	ug/L
Bromodichloromethane	<500.	ug/L
Bromoform	<500.	ug/L
Bromomethane	<5000.	ug/L
Carbon tetrachloride	<500.	ug/L
Chlorobenzene	<500.	ug/L
Chloroethane	<5000.	ug/L
2-Chloroethyl vinyl ether	<500.	ug/L
Chloroform	<500.	ug/L
Chloromethane	<5000.	ug/L
Dibromochloromethane	<500	ug/L
1,2-Dichlorobenzene	<500.	ug/L
1,3-Dichlorobenzene	<500.	ug/L
1,4-Dichlorobenzene	<500.	ug/L
1,1-Dichloroethane	<500.	ug/L
1,2-Dichloroethane	<500.	ug/L
1,1-Dichloroethene	<500.	ug/L
trans-1,2-Dichloroethene	<500.	ug/L
cis-1,2-Dichloroethene	<500.	ug/L
1,2-Dichloropropane	<500.	ug/L
cis-1,3-Dichloropropene	<500.	ug/L
trans-1,3-Dichloropropene	<500.	ug/L
Ethylbenzene	650.	ug/L

Tony Gartner, Manager
Rockford Division

NET NATIONAL ENVIRONMENTAL TESTING, INC.®

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ANALYTICAL REPORT

Mr. John Buchanan
PILKO & ASSOCIATES
2707 No.Loop West, Ste.960
Houston Texas 77008

06-22-89

Sample No. [illegible]

SAMPLE DESCRIPTION: MW-2 (Water)
Navistar,Rock Island

Date Taken: 06-08-89 1110

Date Received: 06-06-89 1645

Methylene chloride	<2500.	ug/L
1,1,2,2-Tetrachloroethane	<500.	ug/L
Tetrachloroethene	<500.	ug/L
Toluene	2,300.	ug/L
1,1,1-Trichloroethane	<500.	ug/L
1,1,2-Trichloroethane	<500.	ug/L
Trichloroethene	<500.	ug/L
Vinyl chloride	<5000.	ug/L
Xylenes	2,050.	ug/L

Toni Gartner, Manager
Rockford Division

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Rockford, IL 61109
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ANALYTICAL REPORT

Mr. John Buchanan
GILKO & ASSOCIATES
2707 No.Loop West, Ste.960
Houston Texas 77008

06-22-89

Sample No: 13077

SAMPLE DESCRIPTION: Equipment Blank
Navistar/Rock Island

Date Taken: 06-08-89 1200

Date Received: 06-08-89 [illegible]

Oil & Grease, hydrocarbon	<1.0	mg/L
Lead	<0.01	mg/L

Tom Gartner, Manager
Rockford Division

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ANALYTICAL REPORT

Mr. John Buchanan
FILKO & ASSOCIATES
2707 No.Loop West, Ste.960
Houston Texas 77008

06-22-89

Sample No: 63072

SAMPLE DESCRIPTION. Equipment Blank
Navistar/Rock Island

Date Taken: 06-06-89 1200

Date Received: 06-06-89 1545

VOLATILE COMPOUNDS

Acrolein	<50.	ug/L
Acrylonitrile	<50.	ug/L
Benzene	<5.0	ug/L
Bromodichloromethane	<5.0	ug/L
Bromoform	<5.0	ug/L
Bromomethane	<50.	ug/L
Carbon tetrachloride	<5.0	ug/L
Chlorobenzene	<5.0	ug/L
Chloroethane	<50.	ug/L
2-Chloroethyl vinyl ether	<5.0	ug/L
Chloroform	<5.0	ug/L
Chloromethane	<50.	ug/L
Dibromochloromethane	<5.0	ug/L
1,2-Dichlorobenzene	<5.0	ug/L
1,3-Dichlorobenzene	<5.0	ug/L
1,4-Dichlorobenzene	<5.0	ug/L
1,1-Dichloroethane	<5.0	ug/L
1,2-Dichloroethane	<5.0	ug/L
1,1-Dichloroethene	<5.0	ug/L
trans-1,2-Dichloroethene	<5.0	ug/L
cis-1,2-Dichloroethene	<5.0	ug/L
1,2-Dichloropropane	<5.0	ug/L
cis-1,3-Dichloropropene	<5.0	ug/L
trans-1,3-Dichloropropene	<5.0	ug/L
Ethylbenzene	<5.0	ug/L

Toni Gartner, Manager
Rockford Division

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ANALYTICAL REPORT

Mr. John Buchanan
PILKO & ASSOCIATES
2707 No. Loop West, Ste 860
Houston Texas 77008

06-22-89

Sample No: 55572

SAMPLE DESCRIPTION: Equipment Blank
Navy Pier Rock Island

Date Taken: 06-06-89 1200

Date Received: 06-06-89 1315

Methylene chloride	<25.	ug/L
1,1,2,2-Tetrachloroethane	<5.0	ug/L
Tetrachloroethene	<5.0	ug/L
Toluene	<5.0	ug/L
1,1,1-Trichloroethane	<5.0	ug/L
1,1,2-Trichloroethane	<5.0	ug/L
Trichloroethene	<5.0	ug/L
Vinyl chloride	<50.	ug/L
Xylenes	<5.0	ug/L

Toni Gartner, Manager
Rockford Division

ATTACHMENT 3

LABORATORY QUALITY ASSURANCE REPORT

Pilko/Navistar, QA
213-80703-01, 02, 03

Parameter	Orig	Dup	RPD	Spike Recovery
Beryllium	.024	.025	4.1	106
Beryllium	0.24	0.23	4.3	131
Beryllium	0.38	0.38	0	161
Beryllium	0.08	0.08	0	106
Beryllium	0.15	0.15	0	96
Arsenic	<0.01	<0.01	0	83
Arsenic	<0.01	<0.01	0	84
Arsenic	<0.01	<0.01	0	82
Arsenic	0.04	0.04	0	100
Arsenic	0.04	0.04	0	100
Antimony	<0.01	<0.01	0	100
Antimony	0.03	0.03	0	124
Antimony	0.01	0.01	0	106
Antimony	0.03	0.04	28.6	114
Cadmium	0.20	0.20	0	98
Cadmium	0.17	0.17	0	116
Cadmium	0.26	0.26	0	145
Cadmium	0.09	0.10	10.5	105
Cadmium	0.19	0.18	5.4	92
Chromium	<0.01	<0.01	0	90
Chromium	<0.01	<0.01	0	90
Chromium	<0.01	<0.01	0	105
Chromium	0.18	0.18	0	104
Chromium	0.18	0.19	5.4	98
Copper	0.65	0.66	1.5	96
Copper	<0.01	<0.01	0	88
Copper	<0.01	<0.01	0	104
Copper	0.16	0.16	0	105
Copper	0.32	0.32	0	99
Lead	.024	.028	15.4	90
Lead	<0.01	<0.01	0	92
Lead	0.01	0.01	0	90
Lead	0.01	0.02	50	102
Mercury	<0.002	<0.002	0	91
Mercury	<0.002	<0.002	0	84
Mercury	<0.002	<0.002	0	116
Mercury	<0.002	<0.002	0	118
Nickel	0.27	0.27	0	109
Nickel	0.54	0.54	0	114
Nickel	0.14	0.14	0	106
Nickel	0.65	0.64	1.6	112
Nickel	0.64	0.62	3.2	146
Selenium	0.08	0.08	0	72
Selenium	0.08	0.08	0	74
Selenium	0.09	0.07	25	86
Selenium	0.11	0.09	20	97
Silver	0.03	0.02	33.3	110
Silver	<0.01	<0.01	0	90
Silver	0.14	0.16	13.3	90

Pilko/Navistar, QA
213-80703-01, 02, 03

Parameter	Orig	Dup	RPD	Spike Recovery
Silver	0.04	0.04	0	94
Silver	0.06	0.06	0	86
Thallium	<0.01	<0.01	0	88
Thallium	<0.01	<0.01	0	98
Thallium	<0.01	<0.01	0	113
Thallium	<0.01	<0.01	0	64
Thallium	<0.01	<0.01	0	89
Zinc	0.25	0.25	0	104
Zinc	0.22	0.22	0	114
Zinc	0.27	0.27	0	144
Zinc	0.36	0.37	2.7	100
Zinc	0.36	0.36	0	94
Cyanide	<0.05	<0.05	0	112
Cyanide	<0.05	<0.05	0	112
Cyanide	0.11	0.11	0	108
Cyanide	<0.05	<0.05	0	83
Cyanide	<0.05	<0.05	0	103

RPD = Relative Percent Deviation

Pilko/Navistar, QA
213-80703-01, 02, 03

Q.A. REPORT

EPA 624 VOLATILE COMPOUNDS

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
Chloromethane	BDL	BDL	BDL	NS	10
Bromomethane	BDL	BDL	BDL	NS	10
Vinyl chloride	BDL	BDL	BDL	NS	1
Chloroethane	BDL	BDL	BDL	NS	10
Dichloromethane	BDL	BDL	BDL	NS	5
Acetone	BDL	BDL	BDL	NS	10
Carbon disulfide	BDL	BDL	BDL	NS	5
Trichlorofluoromethane	BDL	BDL	BDL	NS	5
1,1-Dichloroethene	BDL	BDL	BDL	74	5
1,1-Dichloroethane	BDL	BDL	BDL	85	5
Trans-1,2-dichloroethene	BDL	BDL	BDL	81	5
Chloroform	BDL	BDL	BDL	107	5
1,2-Dichloroethane	BDL	BDL	BDL	84	3
2-Butanone	BDL	BDL	BDL	NS	5
1,1,1-Trichloroethane	BDL	BDL	BDL	119	5
Carbon tetrachloride	**	**	BDL	100	3
Vinyl acetate	BDL	BDL	BDL	NS	10
Bromodichloromethane	BDL	BDL	BDL	77	5
1,2-Dichloropropane	BDL	BDL	BDL	NS	5
Cis-1,3-dichloropropene	BDL	BDL	BDL	84	3
Trichloroethene	BDL	BDL	BDL	NS	5
Dibromochloromethane	BDL	BDL	BDL	88	5
1,1,2-Trichloroethane	BDL	BDL	BDL	95	5
Benzene	**	**	17	140	1
Trans-1,3-dichloropropene	BDL	BDL	BDL	80	5
2-Chloroethylvinylether	BDL	BDL	BDL	NS	10
Bromoform	BDL	BDL	BDL	82	5
2-Hexanone	BDL	BDL	BDL	NS	10
4-Methyl-2-pentanone	BDL	BDL	BDL	NS	10
Tetrachloroethene	BDL	BDL	BDL	89	3
1,1,2,2-Tetrachloroethane	BDL	BDL	BDL	91	3
Toluene	BDL	BDL	**	88	5
Chlorobenzene	BDL	BDL	BDL	93	5
Ethylbenzene	BDL	BDL	**	96	5
Styrene	BDL	BDL	BDL	NS	5
Total xylenes	BDL	BDL	73	NS	5
1,2-Dichlorobenzene	BDL	BDL	BDL	86	10
1,3-Dichlorobenzene	BDL	BDL	BDL	82	10
1,4-Dichlorobenzene	BDL	BDL	BDL	83	10

BDL = Below Detection Limit

Surrogate Recoveries, %	Original	Dup	Spike Recovery
1,2-Dichloroethane-d4	86	94	88
Toluene-d8	94	103	96
Bromofluorobenzene	92	102	91

Pilko/Navistar
213-80703-01, 02, 03

Q.A. REPORT

SW 8240 VOLATILE COMPOUNDS

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
Chloromethane	BDL	BDL	BDL	NS	0.3
Bromomethane	BDL	BDL	BDL	NS	0.3
Vinyl chloride	BDL	BDL	BDL	NS	0.3
Chloroethane	BDL	BDL	BDL	40	0.3
Dichloromethane	BDL	BDL	BDL	NS	0.3
Acetone	BDL	BDL	BDL	NS	3.0
Carbon disulfide	BDL	BDL	BDL	NS	0.3
1,1-Dichloroethene	BDL	BDL	BDL	94	0.3
1,1-Dichloroethane	BDL	BDL	BDL	95	0.3
Trans-1,2-dichloroethene	BDL	BDL	BDL	NS	0.3
Chloroform	BDL	BDL	BDL	101	0.3
1,2-Dichloroethane	BDL	BDL	BDL	86	0.3
2-Butanone	BDL	BDL	BDL	NS	3.0
1,1,1-Trichloroethane	BDL	BDL	BDL	104	0.3
Carbon tetrachloride	BDL	BDL	BDL	NS	0.3
Vinyl acetate	BDL	BDL	BDL	NS	1.5
Bromodichloromethane	BDL	BDL	BDL	84	0.3
1,2-Dichloropropane	BDL	BDL	BDL	165	0.3
Cis-1,3-dichloropropene	BDL	BDL	BDL	99	0.3
Trichloroethene	BDL	BDL	BDL	118	0.3
Dibromochloromethane	BDL	BDL	BDL	93	0.3
1,1,2-Trichloroethane	BDL	BDL	BDL	108	0.3
Benzene	BDL	BDL	BDL	131	0.3
Trans-1,3-dichloropropene	BDL	BDL	BDL	98	0.3
2-Chloroethylvinylether	BDL	BDL	BDL	NS	0.3
Bromoform	BDL	BDL	BDL	82	0.3
2-Hexanone	BDL	BDL	BDL	NS	0.3
4-Methyl-2-pentanone	BDL	BDL	BDL	NS	0.3
Tetrachloroethene	BDL	BDL	BDL	106	0.3
1,1,2,2-Tetrachloroethane	BDL	BDL	BDL	NS	0.3
Toluene	BDL	BDL	BDL	112	0.3
Chlorobenzene	BDL	BDL	BDL	103	0.3
Ethylbenzene	BDL	BDL	BDL	107	0.3
Styrene	BDL	BDL	BDL	NS	0.3
Total xylenes	BDL	BDL	BDL	NS	0.3

BDL = Below Detection Limit

Surrogate Recoveries, %	Original	Dup	% Spike Rec.
1,2-Dichloroethane-d4	96	100	96
Toluene-d8	106	110	106
Bromofluorobenzene	97	104	104

Pilko/Navistar
213-80703-01, 02, 03

Q.A. REPORT

SW 8240 VOLATILE COMPOUNDS

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
Chloromethane	BDL	BDL	BDL	NS	0.3
Bromomethane	BDL	BDL	BDL	NS	0.3
Vinyl chloride	BDL	BDL	BDL	NS	0.3
Chloroethane	BDL	BDL	BDL	NS	0.3
Dichloromethane	BDL	BDL	BDL	NS	0.3
Acetone	BDL	BDL	BDL	NS	3.0
Carbon disulfide	BDL	BDL	BDL	NS	0.3
1,1-Dichloroethene	BDL	BDL	BDL	75	0.3
1,1-Dichloroethane	BDL	BDL	BDL	82	0.3
Trans-1,2-dichloroethene	BDL	BDL	BDL	NS	0.3
Chloroform	BDL	BDL	BDL	94	0.3
1,2-Dichloroethane	BDL	BDL	BDL	76	0.3
2-Butanone	BDL	BDL	BDL	NS	3.0
1,1,1-Trichloroethane	BDL	BDL	BDL	100	0.3
Carbon tetrachloride	BDL	BDL	BDL	86	0.3
Vinyl acetate	BDL	BDL	BDL	NS	1.5
Bromodichloromethane	BDL	BDL	BDL	68	0.3
1,2-Dichloropropane	BDL	BDL	BDL	152	0.3
Cis-1,3-dichloropropene	BDL	BDL	BDL	85	0.3
Trichloroethene	BDL	BDL	BDL	86	0.3
Dibromochloromethane	BDL	BDL	BDL	93	0.3
1,1,2-Trichloroethane	BDL	BDL	BDL	110	0.3
Benzene	BDL	BDL	BDL	163	0.3
Trans-1,3-dichloropropene	BDL	BDL	BDL	85	0.3
2-Chloroethylvinylether	BDL	BDL	BDL	NS	0.3
Bromoform	BDL	BDL	BDL	87	0.3
2-Hexanone	BDL	BDL	BDL	NS	0.3
4-Methyl-2-pentanone	BDL	BDL	BDL	NS	0.3
Tetrachloroethene	BDL	BDL	BDL	98	0.3
1,1,2,2-Tetrachloroethane	BDL	BDL	BDL	93	0.3
Toluene	BDL	BDL	BDL	130	0.3
Chlorobenzene	BDL	BDL	BDL	88	0.3
Ethylbenzene	BDL	BDL	BDL	130	0.3
Styrene	BDL	BDL	BDL	NS	0.3
Total xylenes	BDL	BDL	BDL	NS	0.3

BDL = Below Detection Limit

Surrogate Recoveries, %	Original	Dup	% Spike Rec.
1,2-Dichloroethane-d4	95	MI	88
Toluene-d8	96	MI	96
Bromofluorobenzene	98	MI	93

MI = Matrix Interference

Pilko/Navistar
213-80703-01, 02, 03

Q.A. REPORT

SW 8240 VOLATILE COMPOUNDS

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
Chloromethane	BDL	BDL	BDL	NS	0.3
Bromomethane	BDL	BDL	BDL	NS	0.3
Vinyl chloride	BDL	BDL	BDL	NS	0.3
Chloroethane	BDL	BDL	BDL	48	0.3
Dichloromethane	BDL	BDL	BDL	NS	0.3
Acetone	BDL	BDL	BDL	NS	3.0
Carbon disulfide	BDL	BDL	BDL	NS	0.3
1,1-Dichloroethene	BDL	BDL	BDL	114	0.3
1,1-Dichloroethane	BDL	BDL	BDL	112	0.3
Trans-1,2-dichloroethene	BDL	BDL	BDL	NS	0.3
Chloroform	BDL	BDL	BDL	139	0.3
1,2-Dichloroethane	BDL	BDL	BDL	109	0.3
2-Butanone	BDL	BDL	BDL	NS	3.0
1,1,1-Trichloroethane	BDL	BDL	BDL	151	0.3
Carbon tetrachloride	BDL	BDL	BDL	116	0.3
Vinyl acetate	BDL	BDL	BDL	NS	1.5
Bromodichloromethane	BDL	BDL	BDL	103	0.3
1,2-Dichloropropane	BDL	BDL	BDL	196	0.3
Cis-1,3-dichloropropene	BDL	BDL	BDL	125	0.3
Trichloroethene	BDL	BDL	BDL	117	0.3
Dibromochloromethane	BDL	BDL	BDL	123	0.3
1,1,2-Trichloroethane	BDL	BDL	BDL	132	0.3
Benzene	BDL	BDL	BDL	125	0.3
Trans-1,3-dichloropropene	BDL	BDL	BDL	122	0.3
2-Chloroethylvinylether	BDL	BDL	BDL	NS	0.3
Bromoform	BDL	BDL	BDL	101	0.3
2-Hexanone	BDL	BDL	BDL	NS	0.3
4-Methyl-2-pentanone	BDL	BDL	BDL	NS	0.3
Tetrachloroethene	BDL	BDL	BDL	116	0.3
1,1,2,2-Tetrachloroethane	BDL	BDL	BDL	112	0.3
Toluene	BDL	BDL	BDL	117	0.3
Chlorobenzene	BDL	BDL	BDL	117	0.3
Ethylbenzene	BDL	BDL	BDL	121	0.3
Styrene	BDL	BDL	BDL	NS	0.3
Total xylenes	BDL	BDL	BDL	NS	0.3

BDL = Below Detection Limit

Surrogate Recoveries, %	Original	Dup	% Spike Rec.
1,2-Dichloroethane-d4	92	91	98
Toluene-d8	90	93	100
Bromofluorobenzene	91	94	93

Pilko/Navistar
213-80703-01, 02, 03

Q.A. REPORT

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
Phenol	BDL	BDL	BDL	NS	0.66
Bis(2-chloroethyl)ether	BDL	BDL	BDL	NS	0.66
2-Chlorophenol	BDL	BDL	BDL	NS	0.66
1,3-Dichlorobenzene	BDL	BDL	BDL	NS	0.66
1,4-Dichlorobenzene	BDL	BDL	BDL	NS	0.66
Benzyl alcohol	BDL	BDL	BDL	NS	1.30
1,2-Dichlorobenzene	BDL	BDL	BDL	NS	0.66
2-Methylphenol	BDL	BDL	BDL	NS	0.66
Bis(2-chloroisopropyl)ether	BDL	BDL	BDL	NS	0.66
4-Methylphenol	BDL	BDL	BDL	NS	0.66
N-Nitrosodi-n-propylamine	BDL	BDL	BDL	NS	0.66
Hexachloroethane	BDL	BDL	BDL	NS	0.66
Nitrobenzene	BDL	BDL	BDL	NS	0.66
Isophorone	BDL	BDL	BDL	NS	0.66
2-Nitrophenol	BDL	BDL	BDL	NS	0.66
2,4-Dimethylphenol	BDL	BDL	BDL	90	0.66
Benzoic acid	BDL	BDL	BDL	NS	3.30
Bis(2-chloroethoxy)methane	BDL	BDL	BDL	NS	0.66
2,4-Dichlorophenol	BDL	BDL	BDL	NS	0.66
1,2,4-Trichlorobenzene	BDL	BDL	BDL	NS	0.66
Naphthalene	BDL	BDL	BDL	NS	0.66
4-Chloroaniline	BDL	BDL	BDL	NS	1.30
Hexachlorobutadiene	BDL	BDL	BDL	NS	0.66
4-Chloro-3-methylphenol	BDL	BDL	BDL	NS	0.66
2-Methylnaphthalene	BDL	BDL	BDL	NS	0.66
Hexachlorocyclopentadiene	BDL	BDL	BDL	NS	0.66
2,4,6-Trichlorophenol	BDL	BDL	BDL	NS	0.66
2,4,5-Trichlorophenol	BDL	BDL	BDL	NS	0.66
2-Chloronaphthalene	BDL	BDL	BDL	NS	0.66
2-Nitroaniline	BDL	BDL	BDL	NS	3.30
Dimethylphthalate	BDL	BDL	BDL	NS	0.66
Acenaphthylene	BDL	BDL	BDL	88	0.66
3-Nitroaniline	BDL	BDL	BDL	NS	3.30
Acenaphthene	BDL	BDL	BDL	NS	0.66
2,4-Dinitrophenol	BDL	BDL	BDL	NS	3.30
4-Nitrophenol	BDL	BDL	BDL	NS	0.66
Dibenzofuran	BDL	BDL	BDL	NS	0.66
2,4-Dinitrotoluene	BDL	BDL	BDL	NS	0.66
2,6-Dinitrotoluene	BDL	BDL	BDL	NS	0.66
Diethylphthalate	BDL	BDL	BDL	NS	0.66

Continued

Pilko/Navistar
213-80703-01, 02, 03

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
4-Chlorophenyl-phenylether	BDL	BDL	BDL	NS	0.66
Fluorene	BDL	BDL	BDL	NS	0.66
4-Nitroaniline	BDL	BDL	BDL	NS	3.30
4,6-Dinitro-2-methylphenol	BDL	BDL	BDL	NS	3.30
N-Nitrosodiphenylamine	BDL	BDL	BDL	NS	0.66
4-Bromophenyl-phenylether	BDL	BDL	BDL	NS	0.66
Hexachlorobenzene	BDL	BDL	BDL	NS	0.66
Pentachlorophenol	BDL	BDL	BDL	NS	3.30
Phenanthrene	BDL	BDL	BDL	50	0.66
Anthracene	BDL	BDL	BDL	NS	0.66
Di-n-butylphthalate	BDL	BDL	BDL	NS	0.66
Fluoroanthene	BDL	BDL	BDL	NS	0.66
Pyrene	BDL	BDL	BDL	NS	0.66
Benzylbutylphthalate	BDL	BDL	BDL	NS	0.66
3,3'-Dichlorobenzidine	BDL	BDL	BDL	NS	1.30
Benzo(a)anthracene	BDL	BDL	BDL	NS	0.66
Bis(2-ethylhexyl)phthalate	BDL	BDL	BDL	NS	0.66
Chrysene	BDL	BDL	BDL	NS	0.66
Di-n-octylphthalate	BDL	BDL	BDL	NS	0.66
Benzo(b)fluoranthene	BDL	BDL	BDL	NS	0.66
Benzo(k)fluroanthene	BDL	BDL	BDL	NS	0.66
Benzo(a)pyrene	BDL	BDL	BDL	NS	0.66
Indeno(1,2,3-cd)pyrene	BDL	BDL	BDL	NS	0.66
Dibenzo(a,h)anthracene	BDL	BDL	BDL	NS	0.66
Benzo(g,h,i)perylene	BDL	BDL	BDL	NS	0.66

BDL = Below Detection Limit

Pilko/Navistar
213-80703-01, 02, 03

Q.A. REPORT

EPA 625 Base-Neutral and Acid Extractable Compounds

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
Phenol	BDL	BDL	BDL	NS	10
Bis(2-chloroethyl)ether	BDL	BDL	BDL	NS	10
2-Chlorophenol	BDL	BDL	BDL	NS	10
1,3-Dichlorobenzene	BDL	BDL	BDL	NS	10
1,4-Dichlorobenzene	BDL	BDL	BDL	NS	10
Benzyl alcohol	BDL	BDL	BDL	NS	10
1,2-Dichlorobenzene	BDL	BDL	BDL	NS	10
2-Methylphenol	BDL	BDL	BDL	NS	10
Bis(2-chloroisopropyl)ether	BDL	BDL	BDL	NS	10
4-Methylphenol	BDL	BDL	BDL	NS	10
N-Nitrosodi-n-propylamine	BDL	BDL	BDL	NS	10
Hexachloroethane	BDL	BDL	BDL	NS	10
Nitrobenzene	BDL	BDL	BDL	NS	10
Isophorone	BDL	BDL	BDL	NS	10
2-Nitrophenol	BDL	BDL	BDL	NS	10
2,4-Dimethylphenol	BDL	BDL	BDL	NS	10
Benzoic acid	BDL	BDL	BDL	NS	10
Bis(2-chloroethoxy)methane	BDL	BDL	BDL	NS	10
2,4-Dichlorophenol	BDL	BDL	BDL	NS	10
1,2,4-Trichlorobenzene	BDL	BDL	BDL	NS	10
Naphthalene	BDL	BDL	BDL	NS	10
4-Chloroaniline	BDL	BDL	BDL	NS	10
Hexachlorobutadiene	BDL	BDL	BDL	NS	10
4-Chloro-3-methylphenol	BDL	BDL	BDL	NS	10
2-Methylnaphthalene	BDL	BDL	BDL	NS	10
Hexachlorocyclopentadiene	BDL	BDL	BDL	NS	10
2,4,6-Trichlorophenol	BDL	BDL	BDL	103	10
2,4,5-Trichlorophenol	BDL	BDL	BDL	NS	10
2-Chloronaphthalene	BDL	BDL	BDL	NS	10
2-Nitroaniline	BDL	BDL	BDL	NS	10
Dimethylphthalate	BDL	BDL	BDL	NS	10
Acenaphthylene	BDL	BDL	BDL	112	10
3-Nitroaniline	BDL	BDL	BDL	NS	10
Acenaphthene	BDL	BDL	BDL	NS	10
2,4-Dinitrophenol	BDL	BDL	BDL	NS	10
4-Nitrophenol	BDL	BDL	BDL	NS	10
Dibenzofuran	BDL	BDL	BDL	NS	10
2.4-Dinitrotoluene	BDL	BDL	BDL	NS	10
2,6-Dinitrotoluene	BDL	BDL	BDL	NS	10
Diethylphthalate	BDL	BDL	BDL	NS	10

Continued

Pilko/Navistar
213-80703-01, 02, 03

EPA 625 Base-Neutral and Acid Extractable Compounds (Continued)

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
4-Chlorophenyl-phenylether	BDL	BDL	BDL	NS	10
Fluorene	BDL	BDL	BDL	NS	10
4-Nitroaniline	BDL	BDL	BDL	NS	10
4,6-Dinitro-2-methylphenol	BDL	BDL	BDL	NS	10
N-Nitrosodiphenylamine	BDL	BDL	BDL	NS	10
4-Bromophenyl-phenylether	BDL	BDL	BDL	NS	10
Hexachlorobenzene	BDL	BDL	BDL	NS	10
Pentachlorophenol	BDL	BDL	BDL	NS	10
Phenanthrene	BDL	BDL	BDL	72	10
Anthracene	BDL	BDL	BDL	NS	10
Di-n-butylphthalate	BDL	BDL	BDL	NS	10
Fluoroanthene	BDL	BDL	BDL	NS	10
Pyrene	BDL	BDL	BDL	NS	10
Benzylbutylphthalate	BDL	BDL	BDL	NS	10
3,3'-Dichlorobenzidine	BDL	BDL	BDL	NS	10
Benzo(a)anthracene	BDL	BDL	BDL	NS	10
Bis(2-ethylhexyl)phthalate	BDL	BDL	BDL	NS	10
Chrysene	BDL	BDL	BDL	NS	10
Di-n-octylphthalate	BDL	BDL	BDL	NS	10
Benzo(b)fluoranthene	BDL	BDL	BDL	NS	10
Benzo(k)fluroanthene	BDL	BDL	BDL	NS	10
Benzo(a)pyrene	BDL	BDL	BDL	NS	10
Indeno(1,2,3-cd)pyrene	BDL	BDL	BDL	NS	10
Dibenzo(a,h)anthracene	BDL	BDL	BDL	NS	10
Benzo(g,h,i)perylene	BDL	BDL	BDL	NS	10

BDL = Below Detection Limit

Pilko/Navistar
213-80703-01, 02, 03

Q.A. REPORT

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
Phenol	BDL	BDL	BDL	NS	0.66
Bis(2-chloroethyl)ether	BDL	BDL	BDL	NS	0.66
2-Chlorophenol	BDL	BDL	BDL	NS	0.66
1,3-Dichlorobenzene	BDL	BDL	BDL	NS	0.66
1,4-Dichlorobenzene	BDL	BDL	BDL	NS	0.66
Benzyl alcohol	BDL	BDL	BDL	NS	1.30
1,2-Dichlorobenzene	BDL	BDL	BDL	NS	0.66
2-Methylphenol	BDL	BDL	BDL	NS	0.66
Bis(2-chloroisopropyl)ether	BDL	BDL	BDL	NS	0.66
4-Methylphenol	BDL	BDL	BDL	NS	0.66
N-Nitrosodi-n-propylamine	BDL	BDL	BDL	NS	0.66
Hexachloroethane	BDL	BDL	BDL	NS	0.66
Nitrobenzene	BDL	BDL	BDL	NS	0.66
Isophorone	BDL	BDL	BDL	NS	0.66
2-Nitrophenol	BDL	BDL	BDL	NS	0.66
2,4-Dimethylphenol	BDL	BDL	BDL	111	0.66
Benzoic acid	BDL	BDL	BDL	NS	3.30
Bis(2-chloroethoxy)methane	BDL	BDL	BDL	NS	0.66
2,4-Dichlorophenol	BDL	BDL	BDL	NS	0.66
1,2,4-Trichlorobenzene	BDL	BDL	BDL	NS	0.66
Naphthalene	BDL	BDL	BDL	NS	0.66
4-Chloroaniline	BDL	BDL	BDL	NS	1.30
Hexachlorobutadiene	BDL	BDL	BDL	NS	0.66
4-Chloro-3-methylphenol	BDL	BDL	BDL	NS	0.66
2-Methylnaphthalene	BDL	BDL	BDL	NS	0.66
Hexachlorocyclopentadiene	BDL	BDL	BDL	NS	0.66
2,4,6-Trichlorophenol	BDL	BDL	BDL	94	0.66
2,4,5-Trichlorophenol	BDL	BDL	BDL	NS	0.66
2-Chloronaphthalene	BDL	BDL	BDL	NS	0.66
2-Nitroaniline	BDL	BDL	BDL	NS	3.30
Dimethylphthalate	BDL	BDL	BDL	NS	0.66
Acenaphthylene	BDL	BDL	BDL	64	0.66
3-Nitroaniline	BDL	BDL	BDL	NS	3.30
Acenaphthene	BDL	BDL	BDL	NS	0.66
2,4-Dinitrophenol	BDL	BDL	BDL	NS	3.30
4-Nitrophenol	BDL	BDL	BDL	NS	0.66
Dibenzofuran	BDL	BDL	BDL	NS	0.66
2,4-Dinitrotoluene	BDL	BDL	BDL	NS	0.66
2,6-Dinitrotoluene	BDL	BDL	BDL	NS	0.66
Diethylphthalate	BDL	BDL	BDL	NS	0.66

Continued

Pilko/Navistar
213-80703-01, 02, 03

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
4-Chlorophenyl-phenylether	BDL	BDL	BDL	NS	0.66
Fluorene	BDL	BDL	BDL	NS	0.66
4-Nitroaniline	BDL	BDL	BDL	NS	3.30
4,6-Dinitro-2-methylphenol	BDL	BDL	BDL	NS	3.30
N-Nitrosodiphenylamine	BDL	BDL	BDL	NS	0.66
4-Bromophenyl-phenylether	BDL	BDL	BDL	NS	0.66
Hexachlorobenzene	BDL	BDL	BDL	NS	0.66
Pentachlorophenol	BDL	BDL	BDL	NS	3.30
Phenanthrene	BDL	BDL	BDL	NS	0.66
Anthracene	BDL	BDL	BDL	NS	0.66
Di-n-butylphthalate	BDL	BDL	BDL	NS	0.66
Fluoroanthene	BDL	BDL	BDL	73	0.66
Pyrene	BDL	BDL	BDL	NS	0.66
Benzylbutylphthalate	BDL	BDL	BDL	NS	0.66
3,3'-Dichlorobenzidine	BDL	BDL	BDL	NS	1.30
Benzo(a)anthracene	BDL	BDL	BDL	NS	0.66
Bis(2-ethylhexyl)phthalate	BDL	BDL	BDL	NS	0.66
Chrysene	BDL	BDL	BDL	NS	0.66
Di-n-octylphthalate	BDL	BDL	BDL	NS	0.66
Benzo(b)fluoranthene	BDL	BDL	BDL	NS	0.66
Benzo(k)fluroanthene	BDL	BDL	BDL	NS	0.66
Benzo(a)pyrene	BDL	BDL	BDL	NS	0.66
Indeno(1,2,3-cd)pyrene	BDL	BDL	BDL	NS	0.66
Dibenzo(a,h)anthracene	BDL	BDL	BDL	NS	0.66
Benzo(g,h,i)perylene	BDL	BDL	BDL	NS	0.66

BDL = Below Detection Limit

Pilko/Navistar
213-80703-01, 02, 03

Q.A. REPORT

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
Phenol	BDL	BDL	BDL	NS	0.66
Bis(2-chloroethyl)ether	BDL	BDL	BDL	NS	0.66
2-Chlorophenol	BDL	BDL	BDL	NS	0.66
1,3-Dichlorobenzene	BDL	BDL	BDL	60	0.66
1,4-Dichlorobenzene	BDL	BDL	BDL	NS	0.66
Benzyl alcohol	BDL	BDL	BDL	NS	1.30
1,2-Dichlorobenzene	BDL	BDL	BDL	NS	0.66
2-Methylphenol	BDL	BDL	BDL	NS	0.66
Bis(2-chloroisopropyl)ether	BDL	BDL	BDL	NS	0.66
4-Methylphenol	BDL	BDL	BDL	NS	0.66
N-Nitrosodi-n-propylamine	BDL	BDL	BDL	NS	0.66
Hexachloroethane	BDL	BDL	BDL	NS	0.66
Nitrobenzene	BDL	BDL	BDL	NS	0.66
Isophorone	BDL	BDL	BDL	72	0.66
2-Nitrophenol	BDL	BDL	BDL	NS	0.66
2,4-Dimethylphenol	BDL	BDL	BDL	NS	0.66
Benzoic acid	BDL	BDL	BDL	NS	3.30
Bis(2-chloroethoxy)methane	BDL	BDL	BDL	NS	0.66
2,4-Dichlorophenol	BDL	BDL	BDL	64	0.66
1,2,4-Trichlorobenzene	BDL	BDL	BDL	NS	0.66
Naphthalene	BDL	BDL	BDL	NS	0.66
4-Chloroaniline	BDL	BDL	BDL	NS	1.30
Hexachlorobutadiene	BDL	BDL	BDL	60	0.66
4-Chloro-3-methylphenol	BDL	BDL	BDL	NS	0.66
2-Methylnaphthalene	BDL	BDL	BDL	NS	0.66
Hexachlorocyclopentadiene	BDL	BDL	BDL	NS	0.66
2,4,6-Trichlorophenol	BDL	BDL	BDL	NS	0.66
2,4,5-Trichlorophenol	BDL	BDL	BDL	NS	0.66
2-Chloronaphthalene	BDL	BDL	BDL	NS	0.66
2-Nitroaniline	BDL	BDL	BDL	NS	3.30
Dimethylphthalate	BDL	BDL	BDL	NS	0.66
Acenaphthylene	BDL	BDL	BDL	NS	0.66
3-Nitroaniline	BDL	BDL	BDL	NS	3.30
Acenaphthene	BDL	BDL	BDL	NS	0.66
2,4-Dinitrophenol	BDL	BDL	BDL	NS	3.30
4-Nitrophenol	BDL	BDL	BDL	NS	0.66
Dibenzofuran	BDL	BDL	BDL	NS	0.66
2,4-Dinitrotoluene	BDL	BDL	BDL	NS	0.66
2,6-Dinitrotoluene	BDL	BDL	BDL	NS	0.66
Diethylphthalate	BDL	BDL	BDL	104	0.66

Continued

Pilko/Navistar
213-80703-01, 02, 03

SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
4-Chlorophenyl-phenylether	BDL	BDL	BDL	NS	0.66
Fluorene	BDL	BDL	BDL	NS	0.66
4-Nitroaniline	BDL	BDL	BDL	NS	3.30
4,6-Dinitro-2-methylphenol	BDL	BDL	BDL	NS	3.30
N-Nitrosodiphenylamine	BDL	BDL	BDL	NS	0.66
4-Bromophenyl-phenylether	BDL	BDL	BDL	NS	0.66
Hexachlorobenzene	BDL	BDL	BDL	112	0.66
Pentachlorophenol	BDL	BDL	BDL	NS	3.30
Phenanthrene	BDL	BDL	BDL	98	0.66
Anthracene	BDL	BDL	BDL	NS	0.66
Di-n-butylphthalate	BDL	BDL	BDL	NS	0.66
Fluoroanthene	BDL	BDL	BDL	NS	0.66
Pyrene	BDL	BDL	BDL	70	0.66
Benzylbutylphthalate	BDL	BDL	BDL	NS	0.66
3,3'-Dichlorobenzidine	BDL	BDL	BDL	NS	1.30
Benzo(a)anthracene	BDL	BDL	BDL	NS	0.66
Bis(2-ethylhexyl)phthalate	BDL	BDL	BDL	NS	0.66
Chrysene	BDL	BDL	BDL	NS	0.66
Di-n-octylphthalate	BDL	BDL	BDL	NS	0.66
Benzo(b)fluoranthene	BDL	BDL	BDL	NS	0.66
Benzo(k)fluroanthene	BDL	BDL	BDL	117	0.66
Benzo(a)pyrene	BDL	BDL	BDL	NS	0.66
Indeno(1,2,3-cd)pyrene	BDL	BDL	BDL	NS	0.66
Dibenzo(a,h)anthracene	BDL	BDL	BDL	NS	0.66
Benzo(g,h,i)perylene	BDL	BDL	BDL	NS	0.66

BDL = Below Detection Limit

Pilko/Navistar
213-80703-01, 02, 03

Q. A. REPORT

EPA 608 Pesticides

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
Alpha-BHC	BDL	BDL	BDL	NS	0.05
Beta-BHC	BDL	BDL	BDL	NS	0.05
Lindane	BDL	BDL	BDL	NS	0.05
Delta-BHC	BDL	BDL	BDL	NS	0.05
Heptachlor	BDL	BDL	BDL	63	0.05
Aldrin	BDL	BDL	BDL	63	0.05
Heptachlor epoxide	BDL	BDL	BDL	NS	0.05
Endosulfan I	BDL	BDL	BDL	NS	0.05
Dieldrin	BDL	BDL	BDL	82	0.10
p,p'-DDE	BDL	BDL	BDL	52	0.10
Endrin	BDL	BDL	BDL	NS	0.10
Endosulfan II	BDL	BDL	BDL	NS	0.10
p,p'-DDD	BDL	BDL	BDL	56	0.10
Endrin aldehyde	BDL	BDL	BDL	NS	0.10
Endosulfan sulfate	BDL	BDL	BDL	NS	0.10
p,p'-DDT	BDL	BDL	BDL	123	0.10
Chlordane	BDL	BDL	BDL	NS	0.50
Toxaphene	BDL	BDL	BDL	NS	1.00
PCB 1016	BDL	BDL	BDL	NS	0.50
PCB 1221	BDL	BDL	BDL	NS	0.50
PCB 1232	BDL	BDL	BDL	NS	0.50
PCB 1242	BDL	BDL	BDL	NS	0.50
PCB 1248	BDL	BDL	BDL	NS	0.50
PCB 1254	BDL	BDL	BDL	NS	1.00
PCB 1260	BDL	BDL	BDL	NS	1.00

BDL = Below Detection Limit

Pilko/Navistar
213-80703-01, 02, 03

Q.A. REPORT

SW 8080 PESTICIDES

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
Alpha-BHC	BDL	BDL	BDL	NS	1
Beta-BHC	BDL	BDL	BDL	NS	1
Lindane	BDL	BDL	BDL	NS	1
Delta-BHC	BDL	BDL	BDL	NS	1
Heptachlor	BDL	BDL	BDL	114	1
Aldrin	BDL	BDL	BDL	131	1
Heptachlor epoxide	BDL	BDL	BDL	NS	1
Endosulfan I	BDL	BDL	BDL	NS	1
Dieldrin	BDL	BDL	BDL	NS	1
p,p'-DDE	BDL	BDL	BDL	NS	1
Endrin	BDL	BDL	BDL	NS	1
Endosulfan II	BDL	BDL	BDL	108	1
p,p'-DDD	BDL	BDL	BDL	NS	1
Endrin aldehyde	BDL	BDL	BDL	NS	1
Endosulfan sulfate	BDL	BDL	BDL	NS	1
p,p'-DDT	BDL	BDL	BDL	NS	1
Chlordane	BDL	BDL	BDL	NS	5
Toxaphene	BDL	BDL	BDL	NS	5
PCB 1016	BDL	BDL	BDL	NS	5
PCB 1221	BDL	BDL	BDL	NS	5
PCB 1232	BDL	BDL	BDL	NS	5
PCB 1242	BDL	BDL	BDL	NS	5
PCB 1248	BDL	BDL	BDL	NS	5
PCB 1254	BDL	BDL	BDL	NS	5
PCB 1260	BDL	BDL	BDL	NS	5

BDL = Below Detection Limit

Pilko/Navistar
213-80703-01, 02, 03

Q.A. REPORT

SW 8080 PESTICIDES

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
Alpha-BHC	BDL	BDL	BDL	NS	1
Beta-BHC	BDL	BDL	BDL	NS	1
Lindane	BDL	BDL	BDL	NS	1
Delta-BHC	BDL	BDL	BDL	NS	1
Heptachlor	BDL	BDL	BDL	116	1
Aldrin	BDL	BDL	BDL	115	1
Heptachlor epoxide	BDL	BDL	BDL	NS	1
Endosulfan I	BDL	BDL	BDL	NS	1
Dieldrin	BDL	BDL	BDL	NS	1
p,p'-DDE	BDL	BDL	BDL	121	1
Endrin	BDL	BDL	BDL	NS	1
Endosulfan II	BDL	BDL	BDL	NS	1
p,p'-DDD	BDL	BDL	BDL	116	1
Endrin aldehyde	BDL	BDL	BDL	NS	1
Endosulfan sulfate	BDL	BDL	BDL	NS	1
p,p'-DDT	BDL	BDL	BDL	NS	1
Chlordane	BDL	BDL	BDL	NS	5
Toxaphene	BDL	BDL	BDL	NS	5
PCB 1016	BDL	BDL	BDL	NS	5
PCB 1221	BDL	BDL	BDL	NS	5
PCB 1232	BDL	BDL	BDL	NS	5
PCB 1242	BDL	BDL	BDL	NS	5
PCB 1248	BDL	BDL	BDL	NS	5
PCB 1254	BDL	BDL	BDL	NS	5
PCB 1260	BDL	BDL	BDL	NS	5

BDL = Below Detection Limit

Empty Shuttle Lab Seal No. 1074 Shuttle Opened in field by SWM Shuttle Resealed by J--

Sealed by _____ Date _____ Seal no. 1074 Date 5-1-88 Seal no. ~~1074~~ 1073 Date 05/04/88

CHAIN OF CUSTODY RECORD

PAGE 4 OF 7

PROJECT NO.: 1050/643

LOCATION: NAVISTAR

DATE: 05/04/88

SAMPLE DUE DATE:

TIME	SAMPLER	CONTAINERS	SAMPLE TYPE: GRAB	COMPOSITE	SOIL	WATER	SAMPLE I.D..	Volatiles	Pesticides	PCBs	Base Neutral	Acid Extract					SPLIT (Y) (N)
								PRIORITY pollutants									
11:40	JWM	1			X		SB-7 10-11 ft	✓	✓	✓	✓	✓					
11:45	↓	1			X		SB-7 12-13 ft	✓	✓	✓	—	✓					
11:50		1			X		SB-7 15-16 ft	✓	✓	✓	✓	✓					
12:00		1			X		SB-7 20-21 ft	✓	✓	✓	✓	✓	HOLD				

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME	SAMPLE CONDITIONS
JWM Fed Ex	05/04	4:30	Gary Bradt	5/5/88	900	

Professional Service Industries, Inc.

Quality Assurance Report

TESTED FOR: **PILKO & ASSOICATES**
2707 N. Loop West
Suite 960
Houston, TX 77008

ATTN: John Buchanan

PROJECT: Navistar

DATE: June 9, 1988

OUR REPORT NO.: 213-80703-01, 02, and 03

REMARKS:

The attached QA report applies to all of the samples from Navistar submitted on May 5, 10, and 11, 1988 under our report numbers 213-80703-01, 02, and 03.

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

Pilko/Navistar, QA
213-80703-01, 02, 03

Parameter	Orig	Dup	RPD	Spike Recovery
Beryllium	.024	.025	4.1	106
Beryllium	0.24	0.23	4.3	131
Beryllium	0.38	0.38	0	161
Beryllium	0.08	0.08	0	106
Beryllium	0.15	0.15	0	96
Arsenic	<0.01	<0.01	0	83
Arsenic	<0.01	<0.01	0	84
Arsenic	<0.01	<0.01	0	82
Arsenic	0.04	0.04	0	100
Arsenic	0.04	0.04	0	100
Antimony	<0.01	<0.01	0	100
Antimony	0.03	0.03	0	124
Antimony	0.01	0.01	0	106
Antimony	0.03	0.04	28.6	114
Cadmium	0.20	0.20	0	98
Cadmium	0.17	0.17	0	116
Cadmium	0.26	0.26	0	145
Cadmium	0.09	0.10	10.5	105
Cadmium	0.19	0.18	5.4	92
Chromium	<0.01	<0.01	0	90
Chromium	<0.01	<0.01	0	90
Chromium	<0.01	<0.01	0	105
Chromium	0.18	0.18	0	104
Chromium	0.18	0.19	5.4	98
Copper	0.65	0.66	1.5	96
Copper	<0.01	<0.01	0	88
Copper	<0.01	<0.01	0	104
Copper	0.16	0.16	0	105
Copper	0.32	0.32	0	99
Lead	.024	.028	15.4	90
Lead	<0.01	<0.01	0	92
Lead	0.01	0.01	0	90
Lead	0.01	0.02	50	102
Mercury	<0.002	<0.002	0	91
Mercury	<0.002	<0.002	0	84
Mercury	<0.002	<0.002	0	116
Mercury	<0.002	<0.002	0	118
Nickel	0.27	0.27	0	109
Nickel	0.54	0.54	0	114
Nickel	0.14	0.14	0	106
Nickel	0.65	0.64	1.6	112
Nickel	0.64	0.62	3.2	146
Selenium	0.08	0.08	0	72
Selenium	0.08	0.08	0	74
Selenium	0.09	0.07	25	86
Selenium	0.11	0.09	20	97
Silver	0.03	0.02	33.3	110
Silver	<0.01	<0.01	0	90
Silver	0.14	0.16	13.3	90

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Parameter	Orig	Dup	RPD	Spike Recovery
Silver	0.04	0.04	0	94
Silver	0.06	0.06	0	86
Thallium	<0.01	<0.01	0	88
Thallium	<0.01	<0.01	0	98
Thallium	<0.01	<0.01	0	113
Thallium	<0.01	<0.01	0	64
Thallium	<0.01	<0.01	0	89
Zinc	0.25	0.25	0	104
Zinc	0.22	0.22	0	114
Zinc	0.27	0.27	0	144
Zinc	0.36	0.37	2.7	100
Zinc	0.36	0.36	0	94
Cyanide	<0.05	<0.05	0	112
Cyanide	<0.05	<0.05	0	112
Cyanide	0.11	0.11	0	108
Cyanide	<0.05	<0.05	0	83
Cyanide	<0.05	<0.05	0	103

RPD = Relative Percent Deviation

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Q.A. REPORT

EPA 624 VOLATILE COMPOUNDS

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
Chloromethane	BDL	BDL	BDL	NS	10
Bromomethane	BDL	BDL	BDL	NS	10
Vinyl chloride	BDL	BDL	BDL	NS	1
Chloroethane	BDL	BDL	BDL	NS	10
Dichloromethane	BDL	BDL	BDL	NS	5
Acetone	BDL	BDL	BDL	NS	10
Carbon disulfide	BDL	BDL	BDL	NS	5
Trichlorofluoromethane	BDL	BDL	BDL	NS	5
1,1-Dichloroethene	BDL	BDL	BDL	74	5
1,1-Dichloroethane	BDL	BDL	BDL	85	5
Trans-1,2-dichloroethene	BDL	BDL	BDL	81	5
Chloroform	BDL	BDL	BDL	107	5
1,2-Dichloroethane	BDL	BDL	BDL	84	3
2-Butanone	BDL	BDL	BDL	NS	5
1,1,1-Trichloroethane	BDL	BDL	BDL	119	5
Carbon tetrachloride	**	**	BDL	100	3
Vinyl acetate	BDL	BDL	BDL	NS	10
Bromodichloromethane	BDL	BDL	BDL	77	5
1,2-Dichloropropane	BDL	BDL	BDL	NS	5
Cis-1,3-dichloropropene	BDL	BDL	BDL	84	3
Trichloroethene	BDL	BDL	BDL	NS	5
Dibromochloromethane	BDL	BDL	BDL	88	5
1,1,2-Trichloroethane	BDL	BDL	BDL	95	5
Benzene	**	**	17	140	1
Trans-1,3-dichloropropene	BDL	BDL	BDL	80	5
2-Chloroethylvinylether	BDL	BDL	BDL	NS	10
Bromoform	BDL	BDL	BDL	82	5
2-Hexanone	BDL	BDL	BDL	NS	10
4-Methyl-2-pentanone	BDL	BDL	BDL	NS	10
Tetrachloroethene	BDL	BDL	BDL	89	3
1,1,2,2-Tetrachloroethane	BDL	BDL	BDL	91	3
Toluene	BDL	BDL	**	88	5
Chlorobenzene	BDL	BDL	BDL	93	5
Ethylbenzene	BDL	BDL	**	96	5
Styrene	BDL	BDL	BDL	NS	5
Total xylenes	BDL	BDL	73	NS	5
1,2-Dichlorobenzene	BDL	BDL	BDL	86	10
1,3-Dichlorobenzene	BDL	BDL	BDL	82	10
1,4-Dichlorobenzene	BDL	BDL	BDL	83	10

BDL = Below Detection Limit

Surrogate Recoveries, %	Original	Dup	Spike Recovery
1,2-Dichloroethane-d4	86	94	88
Toluene-d8	94	103	96
Bromofluorobenzene	92	102	91

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Q.A. REPORT

SW 8240 VOLATILE COMPOUNDS

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
Chloromethane	BDL	BDL	BDL	NS	0.3
Bromomethane	BDL	BDL	BDL	NS	0.3
Vinyl chloride	BDL	BDL	BDL	NS	0.3
Chloroethane	BDL	BDL	BDL	40	0.3
Dichloromethane	BDL	BDL	BDL	NS	0.3
Acetone	BDL	BDL	BDL	NS	3.0
Carbon disulfide	BDL	BDL	BDL	NS	0.3
1,1-Dichloroethene	BDL	BDL	BDL	94	0.3
1,1-Dichloroethane	BDL	BDL	BDL	95	0.3
Trans-1,2-dichloroethene	BDL	BDL	BDL	NS	0.3
Chloroform	BDL	BDL	BDL	101	0.3
1,2-Dichloroethane	BDL	BDL	BDL	86	0.3
2-Butanone	BDL	BDL	BDL	NS	3.0
1,1,1-Trichloroethane	BDL	BDL	BDL	104	0.3
Carbon tetrachloride	BDL	BDL	BDL	NS	0.3
Vinyl acetate	BDL	BDL	BDL	NS	1.5
Bromodichloromethane	BDL	BDL	BDL	84	0.3
1,2-Dichloropropane	BDL	BDL	BDL	165	0.3
Cis-1,3-dichloropropene	BDL	BDL	BDL	99	0.3
Trichloroethene	BDL	BDL	BDL	118	0.3
Dibromochloromethane	BDL	BDL	BDL	93	0.3
1,1,2-Trichloroethane	BDL	BDL	BDL	108	0.3
Benzene	BDL	BDL	BDL	131	0.3
Trans-1,3-dichloropropene	BDL	BDL	BDL	98	0.3
2-Chloroethylvinylether	BDL	BDL	BDL	NS	0.3
Bromoform	BDL	BDL	BDL	82	0.3
2-Hexanone	BDL	BDL	BDL	NS	0.3
4-Methyl-2-pentanone	BDL	BDL	BDL	NS	0.3
Tetrachloroethene	BDL	BDL	BDL	106	0.3
1,1,2,2-Tetrachloroethane	BDL	BDL	BDL	NS	0.3
Toluene	BDL	BDL	BDL	112	0.3
Chlorobenzene	BDL	BDL	BDL	103	0.3
Ethylbenzene	BDL	BDL	BDL	107	0.3
Styrene	BDL	BDL	BDL	NS	0.3
Total xylenes	BDL	BDL	BDL	NS	0.3

BDL = Below Detection Limit

Surrogate Recoveries, %	Original	Dup	% Spike Rec.
1,2-Dichloroethane-d4	96	100	96
Toluene-d8	106	110	106
Bromofluorobenzene	97	104	104

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SW 8240 VOLATILE COMPOUNDS

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
Chloromethane	BDL	BDL	BDL	NS	0.3
Bromomethane	BDL	BDL	BDL	NS	0.3
Vinyl chloride	BDL	BDL	BDL	NS	0.3
Chloroethane	BDL	BDL	BDL	NS	0.3
Dichloromethane	BDL	BDL	BDL	NS	0.3
Acetone	BDL	BDL	BDL	NS	3.0
Carbon disulfide	BDL	BDL	BDL	NS	0.3
1,1-Dichloroethene	BDL	BDL	BDL	75	0.3
1,1-Dichloroethane	BDL	BDL	BDL	82	0.3
Trans-1,2-dichloroethene	BDL	BDL	BDL	NS	0.3
Chloroform	BDL	BDL	BDL	94	0.3
1,2-Dichloroethane	BDL	BDL	BDL	76	0.3
2-Butanone	BDL	BDL	BDL	NS	3.0
1,1,1-Trichloroethane	BDL	BDL	BDL	100	0.3
Carbon tetrachloride	BDL	BDL	BDL	86	0.3
Vinyl acetate	BDL	BDL	BDL	NS	1.5
Bromodichloromethane	BDL	BDL	BDL	68	0.3
1,2-Dichloropropane	BDL	BDL	BDL	152	0.3
Cis-1,3-dichloropropene	BDL	BDL	BDL	85	0.3
Trichloroethene	BDL	BDL	BDL	86	0.3
Dibromochloromethane	BDL	BDL	BDL	93	0.3
1,1,2-Trichloroethane	BDL	BDL	BDL	110	0.3
Benzene	BDL	BDL	BDL	163	0.3
Trans-1,3-dichloropropene	BDL	BDL	BDL	85	0.3
2-Chloroethylvinylether	BDL	BDL	BDL	NS	0.3
Bromoform	BDL	BDL	BDL	87	0.3
2-Hexanone	BDL	BDL	BDL	NS	0.3
4-Methyl-2-pentanone	BDL	BDL	BDL	NS	0.3
Tetrachloroethene	BDL	BDL	BDL	98	0.3
1,1,2,2-Tetrachloroethane	BDL	BDL	BDL	93	0.3
Toluene	BDL	BDL	BDL	130	0.3
Chlorobenzene	BDL	BDL	BDL	88	0.3
Ethylbenzene	BDL	BDL	BDL	130	0.3
Styrene	BDL	BDL	BDL	NS	0.3
Total xylenes	BDL	BDL	BDL	NS	0.3

BDL = Below Detection Limit

Surrogate Recoveries, %	Original	Dup	% Spike Rec.
1,2-Dichloroethane-d4	95	MI	88
Toluene-d8	96	MI	96
Bromofluorobenzene	98	MI	93

MI = Matrix Interference

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SW 8240 VOLATILE COMPOUNDS

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
Chloromethane	BDL	BDL	BDL	NS	0.3
Bromomethane	BDL	BDL	BDL	NS	0.3
Vinyl chloride	BDL	BDL	BDL	NS	0.3
Chloroethane	BDL	BDL	BDL	48	0.3
Dichloromethane	BDL	BDL	BDL	NS	0.3
Acetone	BDL	BDL	BDL	NS	3.0
Carbon disulfide	BDL	BDL	BDL	NS	0.3
1,1-Dichloroethene	BDL	BDL	BDL	114	0.3
1,1-Dichloroethane	BDL	BDL	BDL	112	0.3
Trans-1,2-dichloroethene	BDL	BDL	BDL	NS	0.3
Chloroform	BDL	BDL	BDL	139	0.3
1,2-Dichloroethane	BDL	BDL	BDL	109	0.3
2-Butanone	BDL	BDL	BDL	NS	3.0
1,1,1-Trichloroethane	BDL	BDL	BDL	151	0.3
Carbon tetrachloride	BDL	BDL	BDL	116	0.3
Vinyl acetate	BDL	BDL	BDL	NS	1.5
Bromodichloromethane	BDL	BDL	BDL	103	0.3
1,2-Dichloropropane	BDL	BDL	BDL	196	0.3
Cis-1,3-dichloropropene	BDL	BDL	BDL	125	0.3
Trichloroethene	BDL	BDL	BDL	117	0.3
Dibromochloromethane	BDL	BDL	BDL	123	0.3
1,1,2-Trichloroethane	BDL	BDL	BDL	132	0.3
Benzene	BDL	BDL	BDL	125	0.3
Trans-1,3-dichloropropene	BDL	BDL	BDL	122	0.3
2-Chloroethylvinylether	BDL	BDL	BDL	NS	0.3
Bromoform	BDL	BDL	BDL	101	0.3
2-Hexanone	BDL	BDL	BDL	NS	0.3
4-Methyl-2-pentanone	BDL	BDL	BDL	NS	0.3
Tetrachloroethene	BDL	BDL	BDL	116	0.3
1,1,2,2-Tetrachloroethane	BDL	BDL	BDL	112	0.3
Toluene	BDL	BDL	BDL	117	0.3
Chlorobenzene	BDL	BDL	BDL	117	0.3
Ethylbenzene	BDL	BDL	BDL	121	0.3
Styrene	BDL	BDL	BDL	NS	0.3
Total xylenes	BDL	BDL	BDL	NS	0.3

BDL = Below Detection Limit

Surrogate Recoveries, %	Original	Dup	% Spike Rec.
1,2-Dichloroethane-d4	92	91	98
Toluene-d8	90	93	100
Bromofluorobenzene	91	94	93

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SW 8270 Base-Neutral and Acid Extractable Compounds

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
Phenol	BDL	BDL	BDL	NS	0.66
Bis(2-chloroethyl)ether	BDL	BDL	BDL	NS	0.66
2-Chlorophenol	BDL	BDL	BDL	NS	0.66
1,3-Dichlorobenzene	BDL	BDL	BDL	NS	0.66
1,4-Dichlorobenzene	BDL	BDL	BDL	NS	0.66
Benzyl alcohol	BDL	BDL	BDL	NS	1.30
1,2-Dichlorobenzene	BDL	BDL	BDL	NS	0.66
2-Methylphenol	BDL	BDL	BDL	NS	0.66
Bis(2-chloroisopropyl)ether	BDL	BDL	BDL	NS	0.66
4-Methylphenol	BDL	BDL	BDL	NS	0.66
N-Nitrosodi-n-propylamine	BDL	BDL	BDL	NS	0.66
Hexachloroethane	BDL	BDL	BDL	NS	0.66
Nitrobenzene	BDL	BDL	BDL	NS	0.66
Isophorone	BDL	BDL	BDL	NS	0.66
2-Nitrophenol	BDL	BDL	BDL	NS	0.66
2,4-Dimethylphenol	BDL	BDL	BDL	90	0.66
Benzoic acid	BDL	BDL	BDL	NS	3.30
Bis(2-chloroethoxy)methane	BDL	BDL	BDL	NS	0.66
2,4-Dichlorophenol	BDL	BDL	BDL	NS	0.66
1,2,4-Trichlorobenzene	BDL	BDL	BDL	NS	0.66
Naphthalene	BDL	BDL	BDL	NS	0.66
4-Chloroaniline	BDL	BDL	BDL	NS	1.30
Hexachlorobutadiene	BDL	BDL	BDL	NS	0.66
4-Chloro-3-methylphenol	BDL	BDL	BDL	NS	0.66
2-Methylnaphthalene	BDL	BDL	BDL	NS	0.66
Hexachlorocyclopentadiene	BDL	BDL	BDL	NS	0.66
2,4,6-Trichlorophenol	BDL	BDL	BDL	NS	0.66
2,4,5-Trichlorophenol	BDL	BDL	BDL	NS	0.66
2-Chloronaphthalene	BDL	BDL	BDL	NS	0.66
2-Nitroaniline	BDL	BDL	BDL	NS	3.30
Dimethylphthalate	BDL	BDL	BDL	NS	0.66
Acenaphthylene	BDL	BDL	BDL	88	0.66
3-Nitroaniline	BDL	BDL	BDL	NS	3.30
Acenaphthene	BDL	BDL	BDL	NS	0.66
2,4-Dinitrophenol	BDL	BDL	BDL	NS	3.30
4-Nitrophenol	BDL	BDL	BDL	NS	0.66
Dibenzofuran	BDL	BDL	BDL	NS	0.66
2,4-Dinitrotoluene	BDL	BDL	BDL	NS	0.66
2,6-Dinitrotoluene	BDL	BDL	BDL	NS	0.66
Diethylphthalate	BDL	BDL	BDL	NS	0.66

Continued

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SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
4-Chlorophenyl-phenylether	BDL	BDL	BDL	NS	0.66
Fluorene	BDL	BDL	BDL	NS	0.66
4-Nitroaniline	BDL	BDL	BDL	NS	3.30
4,6-Dinitro-2-methylphenol	BDL	BDL	BDL	NS	3.30
N-Nitrosodiphenylamine	BDL	BDL	BDL	NS	0.66
4-Bromophenyl-phenylether	BDL	BDL	BDL	NS	0.66
Hexachlorobenzene	BDL	BDL	BDL	NS	0.66
Pentachlorophenol	BDL	BDL	BDL	NS	3.30
Phenanthrene	BDL	BDL	BDL	50	0.66
Anthracene	BDL	BDL	BDL	NS	0.66
Di-n-butylphthalate	BDL	BDL	BDL	NS	0.66
Fluoroanthene	BDL	BDL	BDL	NS	0.66
Pyrene	BDL	BDL	BDL	NS	0.66
Benzylbutylphthalate	BDL	BDL	BDL	NS	0.66
3,3'-Dichlorobenzidine	BDL	BDL	BDL	NS	1.30
Benzo(a)anthracene	BDL	BDL	BDL	NS	0.66
Bis(2-ethylhexyl)phthalate	BDL	BDL	BDL	NS	0.66
Chrysene	BDL	BDL	BDL	NS	0.66
Di-n-octylphthalate	BDL	BDL	BDL	NS	0.66
Benzo(b)fluoranthene	BDL	BDL	BDL	NS	0.66
Benzo(k)fluroanthene	BDL	BDL	BDL	NS	0.66
Benzo(a)pyrene	BDL	BDL	BDL	NS	0.66
Indeno(1,2,3-cd)pyrene	BDL	BDL	BDL	NS	0.66
Dibenzo(a,h)anthracene	BDL	BDL	BDL	NS	0.66
Benzo(g,h,i)perylene	BDL	BDL	BDL	NS	0.66

BDL = Below Detection Limit

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Q.A. REPORT

EPA 625 Base-Neutral and Acid Extractable Compounds

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
Phenol	BDL	BDL	BDL	NS	10
Bis(2-chloroethyl)ether	BDL	BDL	BDL	NS	10
2-Chlorophenol	BDL	BDL	BDL	NS	10
1,3-Dichlorobenzene	BDL	BDL	BDL	NS	10
1,4-Dichlorobenzene	BDL	BDL	BDL	NS	10
Benzyl alcohol	BDL	BDL	BDL	NS	10
1,2-Dichlorobenzene	BDL	BDL	BDL	NS	10
2-Methylphenol	BDL	BDL	BDL	NS	10
Bis(2-chloroisopropyl)ether	BDL	BDL	BDL	NS	10
4-Methylphenol	BDL	BDL	BDL	NS	10
N-Nitrosodi-n-propylamine	BDL	BDL	BDL	NS	10
Hexachloroethane	BDL	BDL	BDL	NS	10
Nitrobenzene	BDL	BDL	BDL	NS	10
Isophorone	BDL	BDL	BDL	NS	10
2-Nitrophenol	BDL	BDL	BDL	NS	10
2,4-Dimethylphenol	BDL	BDL	BDL	NS	10
Benzoic acid	BDL	BDL	BDL	NS	10
Bis(2-chloroethoxy)methane	BDL	BDL	BDL	NS	10
2,4-Dichlorophenol	BDL	BDL	BDL	NS	10
1,2,4-Trichlorobenzene	BDL	BDL	BDL	NS	10
Naphthalene	BDL	BDL	BDL	NS	10
4-Chloroaniline	BDL	BDL	BDL	NS	10
Hexachlorobutadiene	BDL	BDL	BDL	NS	10
4-Chloro-3-methylphenol	BDL	BDL	BDL	NS	10
2-Methylnaphthalene	BDL	BDL	BDL	NS	10
Hexachlorocyclopentadiene	BDL	BDL	BDL	NS	10
2,4,6-Trichlorophenol	BDL	BDL	BDL	103	10
2,4,5-Trichlorophenol	BDL	BDL	BDL	NS	10
2-Chloronaphthalene	BDL	BDL	BDL	NS	10
2-Nitroaniline	BDL	BDL	BDL	NS	10
Dimethylphthalate	BDL	BDL	BDL	NS	10
Acenaphthylene	BDL	BDL	BDL	112	10
3-Nitroaniline	BDL	BDL	BDL	NS	10
Acenaphthene	BDL	BDL	BDL	NS	10
2,4-Dinitrophenol	BDL	BDL	BDL	NS	10
4-Nitrophenol	BDL	BDL	BDL	NS	10
Dibenzofuran	BDL	BDL	BDL	NS	10
2.4-Dinitrotoluene	BDL	BDL	BDL	NS	10
2,6-Dinitrotoluene	BDL	BDL	BDL	NS	10
Diethylphthalate	BDL	BDL	BDL	NS	10

Continued

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EPA 625 Base-Neutral and Acid Extractable Compounds (Continued)

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
4-Chlorophenyl-phenylether	BDL	BDL	BDL	NS	10
Fluorene	BDL	BDL	BDL	NS	10
4-Nitroaniline	BDL	BDL	BDL	NS	10
4,6-Dinitro-2-methylphenol	BDL	BDL	BDL	NS	10
N-Nitrosodiphenylamine	BDL	BDL	BDL	NS	10
4-Bromophenyl-phenylether	BDL	BDL	BDL	NS	10
Hexachlorobenzene	BDL	BDL	BDL	NS	10
Pentachlorophenol	BDL	BDL	BDL	NS	10
Phenanthrene	BDL	BDL	BDL	72	10
Anthracene	BDL	BDL	BDL	NS	10
Di-n-butylphthalate	BDL	BDL	BDL	NS	10
Fluoroanthene	BDL	BDL	BDL	NS	10
Pyrene	BDL	BDL	BDL	NS	10
Benzylbutylphthalate	BDL	BDL	BDL	NS	10
3,3'-Dichlorobenzidine	BDL	BDL	BDL	NS	10
Benzo(a)anthracene	BDL	BDL	BDL	NS	10
Bis(2-ethylhexyl)phthalate	BDL	BDL	BDL	NS	10
Chrysene	BDL	BDL	BDL	NS	10
Di-n-octylphthalate	BDL	BDL	BDL	NS	10
Benzo(b)fluoranthene	BDL	BDL	BDL	NS	10
Benzo(k)fluroanthene	BDL	BDL	BDL	NS	10
Benzo(a)pyrene	BDL	BDL	BDL	NS	10
Indeno(1,2,3-cd)pyrene	BDL	BDL	BDL	NS	10
Dibenzo(a,h)anthracene	BDL	BDL	BDL	NS	10
Benzo(g,h,i)perylene	BDL	BDL	BDL	NS	10

BDL = Below Detection Limit

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SW 8270 Base-Neutral and Acid Extractable Compounds

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
Phenol	BDL	BDL	BDL	NS	0.66
Bis(2-chloroethyl)ether	BDL	BDL	BDL	NS	0.66
2-Chlorophenol	BDL	BDL	BDL	NS	0.66
1,3-Dichlorobenzene	BDL	BDL	BDL	NS	0.66
1,4-Dichlorobenzene	BDL	BDL	BDL	NS	0.66
Benzyl alcohol	BDL	BDL	BDL	NS	1.30
1,2-Dichlorobenzene	BDL	BDL	BDL	NS	0.66
2-Methylphenol	BDL	BDL	BDL	NS	0.66
Bis(2-chloroisopropyl)ether	BDL	BDL	BDL	NS	0.66
4-Methylphenol	BDL	BDL	BDL	NS	0.66
N-Nitrosodi-n-propylamine	BDL	BDL	BDL	NS	0.66
Hexachloroethane	BDL	BDL	BDL	NS	0.66
Nitrobenzene	BDL	BDL	BDL	NS	0.66
Isophorone	BDL	BDL	BDL	NS	0.66
2-Nitrophenol	BDL	BDL	BDL	NS	0.66
2,4-Dimethylphenol	BDL	BDL	BDL	111	0.66
Benzoic acid	BDL	BDL	BDL	NS	3.30
Bis(2-chloroethoxy)methane	BDL	BDL	BDL	NS	0.66
2,4-Dichlorophenol	BDL	BDL	BDL	NS	0.66
1,2,4-Trichlorobenzene	BDL	BDL	BDL	NS	0.66
Naphthalene	BDL	BDL	BDL	NS	0.66
4-Chloroaniline	BDL	BDL	BDL	NS	1.30
Hexachlorobutadiene	BDL	BDL	BDL	NS	0.66
4-Chloro-3-methylphenol	BDL	BDL	BDL	NS	0.66
2-Methylnaphthalene	BDL	BDL	BDL	NS	0.66
Hexachlorocyclopentadiene	BDL	BDL	BDL	NS	0.66
2,4,6-Trichlorophenol	BDL	BDL	BDL	94	0.66
2,4,5-Trichlorophenol	BDL	BDL	BDL	NS	0.66
2-Chloronaphthalene	BDL	BDL	BDL	NS	0.66
2-Nitroaniline	BDL	BDL	BDL	NS	3.30
Dimethylphthalate	BDL	BDL	BDL	NS	0.66
Acenaphthylene	BDL	BDL	BDL	64	0.66
3-Nitroaniline	BDL	BDL	BDL	NS	3.30
Acenaphthene	BDL	BDL	BDL	NS	0.66
2,4-Dinitrophenol	BDL	BDL	BDL	NS	3.30
4-Nitrophenol	BDL	BDL	BDL	NS	0.66
Dibenzofuran	BDL	BDL	BDL	NS	0.66
2,4-Dinitrotoluene	BDL	BDL	BDL	NS	0.66
2,6-Dinitrotoluene	BDL	BDL	BDL	NS	0.66
Diethylphthalate	BDL	BDL	BDL	NS	0.66

Continued

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SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
4-Chlorophenyl-phenylether	BDL	BDL	BDL	NS	0.66
Fluorene	BDL	BDL	BDL	NS	0.66
4-Nitroaniline	BDL	BDL	BDL	NS	3.30
4,6-Dinitro-2-methylphenol	BDL	BDL	BDL	NS	3.30
N-Nitrosodiphenylamine	BDL	BDL	BDL	NS	0.66
4-Bromophenyl-phenylether	BDL	BDL	BDL	NS	0.66
Hexachlorobenzene	BDL	BDL	BDL	NS	0.66
Pentachlorophenol	BDL	BDL	BDL	NS	3.30
Phenanthrene	BDL	BDL	BDL	NS	0.66
Anthracene	BDL	BDL	BDL	NS	0.66
Di-n-butylphthalate	BDL	BDL	BDL	NS	0.66
Fluoroanthene	BDL	BDL	BDL	73	0.66
Pyrene	BDL	BDL	BDL	NS	0.66
Benzylbutylphthalate	BDL	BDL	BDL	NS	0.66
3,3'-Dichlorobenzidine	BDL	BDL	BDL	NS	1.30
Benzo(a)anthracene	BDL	BDL	BDL	NS	0.66
Bis(2-ethylhexyl)phthalate	BDL	BDL	BDL	NS	0.66
Chrysene	BDL	BDL	BDL	NS	0.66
Di-n-octylphthalate	BDL	BDL	BDL	NS	0.66
Benzo(b)fluoranthene	BDL	BDL	BDL	NS	0.66
Benzo(k)fluroanthene	BDL	BDL	BDL	NS	0.66
Benzo(a)pyrene	BDL	BDL	BDL	NS	0.66
Indeno(1,2,3-cd)pyrene	BDL	BDL	BDL	NS	0.66
Dibenzo(a,h)anthracene	BDL	BDL	BDL	NS	0.66
Benzo(g,h,i)perylene	BDL	BDL	BDL	NS	0.66

BDL = Below Detection Limit

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Q.A. REPORT

SW 8270 Base-Neutral and Acid Extractable Compounds

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
Phenol	BDL	BDL	BDL	NS	0.66
Bis(2-chloroethyl)ether	BDL	BDL	BDL	NS	0.66
2-Chlorophenol	BDL	BDL	BDL	NS	0.66
1,3-Dichlorobenzene	BDL	BDL	BDL	60	0.66
1,4-Dichlorobenzene	BDL	BDL	BDL	NS	0.66
Benzyl alcohol	BDL	BDL	BDL	NS	1.30
1,2-Dichlorobenzene	BDL	BDL	BDL	NS	0.66
2-Methylphenol	BDL	BDL	BDL	NS	0.66
Bis(2-chloroisopropyl)ether	BDL	BDL	BDL	NS	0.66
4-Methylphenol	BDL	BDL	BDL	NS	0.66
N-Nitrosodi-n-propylamine	BDL	BDL	BDL	NS	0.66
Hexachloroethane	BDL	BDL	BDL	NS	0.66
Nitrobenzene	BDL	BDL	BDL	NS	0.66
Isophorone	BDL	BDL	BDL	72	0.66
2-Nitrophenol	BDL	BDL	BDL	NS	0.66
2,4-Dimethylphenol	BDL	BDL	BDL	NS	0.66
Benzoic acid	BDL	BDL	BDL	NS	3.30
Bis(2-chloroethoxy)methane	BDL	BDL	BDL	NS	0.66
2,4-Dichlorophenol	BDL	BDL	BDL	64	0.66
1,2,4-Trichlorobenzene	BDL	BDL	BDL	NS	0.66
Naphthalene	BDL	BDL	BDL	NS	0.66
4-Chloroaniline	BDL	BDL	BDL	NS	1.30
Hexachlorobutadiene	BDL	BDL	BDL	60	0.66
4-Chloro-3-methylphenol	BDL	BDL	BDL	NS	0.66
2-Methylnaphthalene	BDL	BDL	BDL	NS	0.66
Hexachlorocyclopentadiene	BDL	BDL	BDL	NS	0.66
2,4,6-Trichlorophenol	BDL	BDL	BDL	NS	0.66
2,4,5-Trichlorophenol	BDL	BDL	BDL	NS	0.66
2-Chloronaphthalene	BDL	BDL	BDL	NS	0.66
2-Nitroaniline	BDL	BDL	BDL	NS	3.30
Dimethylphthalate	BDL	BDL	BDL	NS	0.66
Acenaphthylene	BDL	BDL	BDL	NS	0.66
3-Nitroaniline	BDL	BDL	BDL	NS	3.30
Acenaphthene	BDL	BDL	BDL	NS	0.66
2,4-Dinitrophenol	BDL	BDL	BDL	NS	3.30
4-Nitrophenol	BDL	BDL	BDL	NS	0.66
Dibenzofuran	BDL	BDL	BDL	NS	0.66
2,4-Dinitrotoluene	BDL	BDL	BDL	NS	0.66
2,6-Dinitrotoluene	BDL	BDL	BDL	NS	0.66
Diethylphthalate	BDL	BDL	BDL	104	0.66

Continued

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SW 8270 Base-Neutral and Acid Extractable Compounds (Continued)

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
4-Chlorophenyl-phenylether	BDL	BDL	BDL	NS	0.66
Fluorene	BDL	BDL	BDL	NS	0.66
4-Nitroaniline	BDL	BDL	BDL	NS	3.30
4,6-Dinitro-2-methylphenol	BDL	BDL	BDL	NS	3.30
N-Nitrosodiphenylamine	BDL	BDL	BDL	NS	0.66
4-Bromophenyl-phenylether	BDL	BDL	BDL	NS	0.66
Hexachlorobenzene	BDL	BDL	BDL	112	0.66
Pentachlorophenol	BDL	BDL	BDL	NS	3.30
Phenanthrene	BDL	BDL	BDL	98	0.66
Anthracene	BDL	BDL	BDL	NS	0.66
Di-n-butylphthalate	BDL	BDL	BDL	NS	0.66
Fluoroanthene	BDL	BDL	BDL	NS	0.66
Pyrene	BDL	BDL	BDL	70	0.66
Benzylbutylphthalate	BDL	BDL	BDL	NS	0.66
3,3'-Dichlorobenzidine	BDL	BDL	BDL	NS	1.30
Benzo(a)anthracene	BDL	BDL	BDL	NS	0.66
Bis(2-ethylhexyl)phthalate	BDL	BDL	BDL	NS	0.66
Chrysene	BDL	BDL	BDL	NS	0.66
Di-n-octylphthalate	BDL	BDL	BDL	NS	0.66
Benzo(b)fluoranthene	BDL	BDL	BDL	NS	0.66
Benzo(k)fluroanthene	BDL	BDL	BDL	117	0.66
Benzo(a)pyrene	BDL	BDL	BDL	NS	0.66
Indeno(1,2,3-cd)pyrene	BDL	BDL	BDL	NS	0.66
Dibenzo(a,h)anthracene	BDL	BDL	BDL	NS	0.66
Benzo(g,h,i)perylene	BDL	BDL	BDL	NS	0.66

BDL = Below Detection Limit

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Q. A. REPORT

EPA 608 Pesticides

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
Alpha-BHC	BDL	BDL	BDL	NS	0.05
Beta-BHC	BDL	BDL	BDL	NS	0.05
Lindane	BDL	BDL	BDL	NS	0.05
Delta-BHC	BDL	BDL	BDL	NS	0.05
Heptachlor	BDL	BDL	BDL	63	0.05
Aldrin	BDL	BDL	BDL	63	0.05
Heptachlor epoxide	BDL	BDL	BDL	NS	0.05
Endosulfan I	BDL	BDL	BDL	NS	0.05
Dieldrin	BDL	BDL	BDL	82	0.10
p,p'-DDE	BDL	BDL	BDL	52	0.10
Endrin	BDL	BDL	BDL	NS	0.10
Endosulfan II	BDL	BDL	BDL	NS	0.10
p,p'-DDD	BDL	BDL	BDL	56	0.10
Endrin aldehyde	BDL	BDL	BDL	NS	0.10
Endosulfan sulfate	BDL	BDL	BDL	NS	0.10
p,p'-DDT	BDL	BDL	BDL	123	0.10
Chlordane	BDL	BDL	BDL	NS	0.50
Toxaphene	BDL	BDL	BDL	NS	1.00
PCB 1016	BDL	BDL	BDL	NS	0.50
PCB 1221	BDL	BDL	BDL	NS	0.50
PCB 1232	BDL	BDL	BDL	NS	0.50
PCB 1242	BDL	BDL	BDL	NS	0.50
PCB 1248	BDL	BDL	BDL	NS	0.50
PCB 1254	BDL	BDL	BDL	NS	1.00
PCB 1260	BDL	BDL	BDL	NS	1.00

BDL = Below Detection Limit

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Q.A. REPORT

SW 8080 PESTICIDES

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
Alpha-BHC	BDL	BDL	BDL	NS	1
Beta-BHC	BDL	BDL	BDL	NS	1
Lindane	BDL	BDL	BDL	NS	1
Delta-BHC	BDL	BDL	BDL	NS	1
Heptachlor	BDL	BDL	BDL	114	1
Aldrin	BDL	BDL	BDL	131	1
Heptachlor epoxide	BDL	BDL	BDL	NS	1
Endosulfan I	BDL	BDL	BDL	NS	1
Dieldrin	BDL	BDL	BDL	NS	1
p,p'-DDE	BDL	BDL	BDL	NS	1
Endrin	BDL	BDL	BDL	NS	1
Endosulfan II	BDL	BDL	BDL	108	1
p,p'-DDD	BDL	BDL	BDL	NS	1
Endrin aldehyde	BDL	BDL	BDL	NS	1
Endosulfan sulfate	BDL	BDL	BDL	NS	1
p,p'-DDT	BDL	BDL	BDL	NS	1
Chlordane	BDL	BDL	BDL	NS	5
Toxaphene	BDL	BDL	BDL	NS	5
PCB 1016	BDL	BDL	BDL	NS	5
PCB 1221	BDL	BDL	BDL	NS	5
PCB 1232	BDL	BDL	BDL	NS	5
PCB 1242	BDL	BDL	BDL	NS	5
PCB 1248	BDL	BDL	BDL	NS	5
PCB 1254	BDL	BDL	BDL	NS	5
PCB 1260	BDL	BDL	BDL	NS	5

BDL = Below Detection Limit

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Q.A. REPORT

SW 8080 PESTICIDES

Compound	Original	Dup	Blank	% Spike Recovery	Report Limits
Alpha-BHC	BDL	BDL	BDL	NS	1
Beta-BHC	BDL	BDL	BDL	NS	1
Lindane	BDL	BDL	BDL	NS	1
Delta-BHC	BDL	BDL	BDL	NS	1
Heptachlor	BDL	BDL	BDL	116	1
Aldrin	BDL	BDL	BDL	115	1
Heptachlor epoxide	BDL	BDL	BDL	NS	1
Endosulfan I	BDL	BDL	BDL	NS	1
Dieldrin	BDL	BDL	BDL	NS	1
p,p'-DDE	BDL	BDL	BDL	121	1
Endrin	BDL	BDL	BDL	NS	1
Endosulfan II	BDL	BDL	BDL	NS	1
p,p'-DDD	BDL	BDL	BDL	116	1
Endrin aldehyde	BDL	BDL	BDL	NS	1
Endosulfan sulfate	BDL	BDL	BDL	NS	1
p,p'-DDT	BDL	BDL	BDL	NS	1
Chlordane	BDL	BDL	BDL	NS	5
Toxaphene	BDL	BDL	BDL	NS	5
PCB 1016	BDL	BDL	BDL	NS	5
PCB 1221	BDL	BDL	BDL	NS	5
PCB 1232	BDL	BDL	BDL	NS	5
PCB 1242	BDL	BDL	BDL	NS	5
PCB 1248	BDL	BDL	BDL	NS	5
PCB 1254	BDL	BDL	BDL	NS	5
PCB 1260	BDL	BDL	BDL	NS	5

BDL = Below Detection Limit