JL

GZA
GeoEnvironmental, Inc.

Engineers and Scientists

April 20, 2004
GZA File No. 20.0150501

Wisconsin Department of Natural Resources
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Milwaukee, Wisconsin 53212

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Wisconsin, 53072
262-691-2662
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Attention: Mr. Thomas Wentland

Subject: Children's Play Area Planned Temporary Renovations
Henry W. Maier Festival Park
200 North Harbor Drive
Milwaukee, Wisconsin
FID No. 241306120 , BRRTs # 02-41-001212 , Action : 99

Dear Mr. Wentland:

On behalf of Milwaukee World Festivals, Inc. (MWF), GZA GeoEnvironmental, Inc. (GZA) is providing the Wisconsin Department of Natural Resources (WDNR) with the plans for temporary renovations of the Children's Play Area at the Henry W. Maier Festival Park located on North Harbor Drive in Milwaukee, Wisconsin ("Site"). Two phases of construction were completed at the Site by MWF between October 2001 and June 2003. Prior to construction, soil and groundwater samples were collected across the Site and documented in GZA's September 14, 2001 *Subsurface Environmental Evaluation of Proposed Improvements, Henry W. Maier Festival Park, 200 North Harbor Drive, Milwaukee, Wisconsin* report. The construction was performed under GZA's October 2, 2001 *Materials Management Plan* and WDNR's October 18, 2001 *Grant of Exemption to Construct on an Abandoned Landfill ("Grant of Exemption")*. GZA documented general compliance of the construction phases with the *Grant of Exemption* and *Materials Management Plan* in our July 25, 2003 *Construction Documentation Report*.

In preparation for future modifications to the Children's Play Area, additional shallow soil samples were collected to supplement data obtained during pre-construction sampling from three soil borings (B-36, B-37 and B-38) completed near the Children's Play Area. The sampling conducted, results of laboratory analyses and planned temporary renovations are documented below.

Soil Sampling in the Children's Play Area

Supplemental soil samples were collected from the shallow subsurface on December 21, 2001, using a hand auger. A total of seven hand-auger borings (P1 through P7) were extended to a depth of 3 to 4 feet below the ground surface. The locations of the borings are shown on the attached Figure No. 1. Soil samples were field screened using a photo-ionization detector (PID) and were submitted for laboratory analyses for constituents previously detected at elevated concentrations across the Site including petroleum volatile

organic compounds (PVOCs) in accordance with EPA Method 8021, polynuclear aromatic hydrocarbons (PAHs) in accordance with EPA Method 8310, three of the RCRA metals (arsenic, lead, mercury) in accordance with EPA Methods 6010B and 7471A and cyanide in accordance with EPA Method 9012A. Great Lakes Analytical of Oak Creek, Wisconsin performed the analyses of the soil samples. Laboratory analytical results are summarized on Table 1, and applicable direct contact standards and guidance levels are provided for comparison.

Supplemental Soil Sampling Analytical Results

Field screening of soil samples did not result in the detection of PID readings above 1 instrument unit. Lead was detected at concentrations above the Non-Industrial Direct Contact Residual Contaminant Level (RCL) provided in Wisconsin Administrative Code Chapter NR 720 in each of the samples collected except those from borings P1 and P2. Benzo(a)pyrene was detected in each of the seven soil samples at concentrations above the Non-Industrial Direct Contact RCL[1], and benzo(a)anthracene, benzo(b)fluoranthene, dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene were also detected at concentrations above the Non-Industrial Direct Contact PAH RCLs in up to six of the seven samples collected.

Children's Play Area Temporary Renovation Plans

Renovation work conducted at the Children's Play Area involving subsurface disturbance will be performed in general accordance with the methodologies and procedures previously approved by the WDNR in the *Grant of Exemption* and *Material Management Plan*. Work in 2004 will involve dismantling the present wooden play equipment, removing the soil mounds that characterize the Children's Play Area, landfilling the excavated soil and restoring the surface to near current grades adjacent to the mounds. During this work, GZA environmental staff will observe the excavation activities, field screen excavated soil and document soil conditions.

The soil mounds in the Children's Play Area will be excavated to about 8 inches below grade. GZA anticipates that between 1,000 and 1,500 cubic yards of soil will be generated and transported off the Site for disposal at the Superior Emerald Ridge Landfill under the profile used for the previous construction phases during 2001 through 2003. To minimize direct contact potential with soil underlying the mound, the excavation will be backfilled with approximately 4 inches of compacted gravel base course. A layer of durable landscape fabric will be placed immediately overlying the compacted gravel. Wood chips will then be placed to bring the excavation to grade. During this festival season, temporary programming may occur in this area; however, no construction of permanent Children's Play Area equipment will occur this year.

[1] Wisconsin Department of Natural Resources, 1997, Soil Cleanup levels for Polycyclic Aromatic Hydrocarbons (PAHs), Interim Guidance.

Permanent modifications to the Children's Play Area that will be made in the future will be communicated to WDNR in advance of the work in accordance with the request made in WDNR's October 18, 2001 *Grant of Exemption.*

If you have any questions, please feel free to contact the undersigned at (262) 691-2662.

Very truly yours,

GZA GeoEnvironmental, Inc.

Bernard G. Fenelon, P.G.
Senior Project Manager
Hydrogeologist

John C. Osborne, P.G.
Principal/District Manager
Hydrogeologist

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Attachments: Table 1 – Supplemental Soil Analytical Results
Figure No. 1 - Soil Sample Location Map

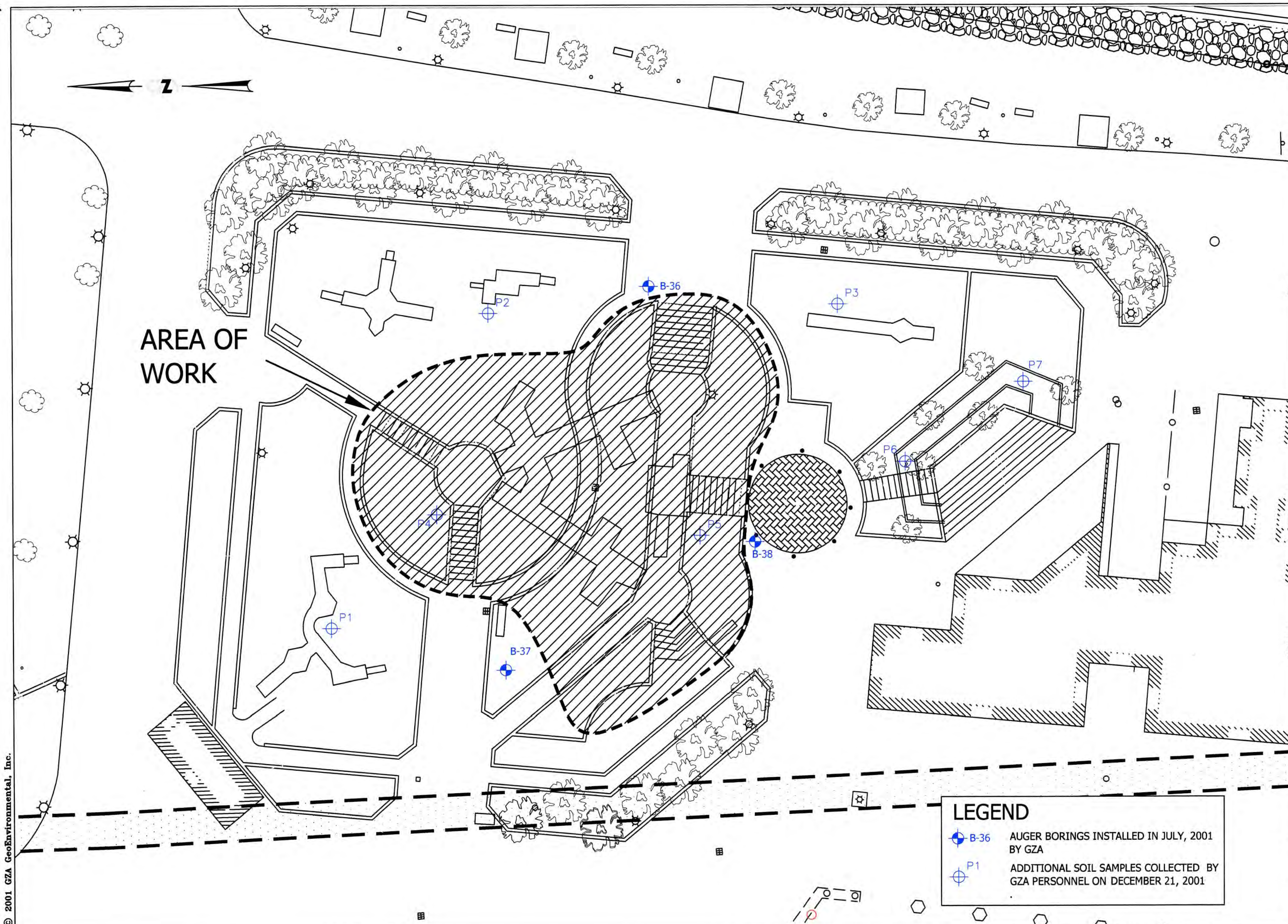
c: Ms. Pamela Mylotta, Wisconsin Department of Natural Resources
Mr. Edward Witte, Esq., Foley and Lardner
Mr. Robert Gosse, Milwaukee World Festival, Inc.

TABLE 1
SUPPLEMENTAL SOIL ANALYTICAL RESULTS
Children's Play Area
Henry W. Maier Festival Park
Milwaukee, Wisconsin

Parameter	Units	RCLs	P1	P2	P3	P4	P5	P6	P7
Cyanide	mg/kg		<0.293	<0.276	**0.734**	<0.291	**1.09**	<0.286	**1.1**
VOCs									
Benzene	µg/kg	5.5	<25.0	<25.0	<25.0	<25.0	**47.3**	<25.0	<25.0
Ethylbenzene	µg/kg	2,900	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Methyl tert-butyl ether	µg/kg		<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Naphthalene	µg/kg		**53.9**	**26.3**	<25.0	<25.0	**138**	**70**	**129.0**
Toluene	µg/kg	1,500	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
1,2,4-Trimethylbenzene	µg/kg		<25.0	<25.0	<25.0	<25.0	**28.9**	<25.0	<25.0
1,3,5-Trimethylbenzene	µg/kg		<25.0	<25.0	<25.0	<25.0	**38**	<25.0	<25.0
Total Xylenes	µg/kg	4,100	<25.0	<25.0	**32.3**	**36.3**	**34.3**	<25.0	<25.0
RCRA Metals									
Arsenic	mg/kg	0.039	<2.93	<2.76	<2.66	<2.91	<2.82	<2.86	<2.72
Lead	mg/kg	50	**6.88**	**34**	**88.2**	**58.6**	**72.8**	**82.5**	**57.5**
Mercury	mg/kg		<0.0469	0.0689	**0.12**	**0.228**	**0.097**	**0.187**	**0.122**
PAHs									
Acenaphthene	µg/kg	900,000	<117	<2,210	**1,130**	**586**	**558**	**720**	**482**
Acenaphthylene	µg/kg	18,000	<235	<4,420	<213	<233	<225	<229	<217
Anthracene	µg/kg	5,000,000	<117	<2,210	<106	**127**	**269**	**296**	<109
Benzo (a) anthracene	µg/kg	88	<58.7	**1,210**	**774**	**266**	**414**	**494**	**213**
Benzo (a) pyrene	µg/kg	8.8	**42.5**	**1,130**	**933**	**322**	**456**	**612**	**252**
Benzo (b) fluoranthene	µg/kg	88	<58.7	**1,200**	**933**	**318**	**462**	**606**	**258**
Benzo (ghi) perylene	µg/kg	1,800	<117	<2,210	**927**	**235**	**197**	**193**	**149**
Benzo (k) fluoranthene	µg/kg	880	<117	<2,210	**411**	**170**	**205**	**267**	**119**
Chrysene	µg/kg	8,800	<117	<2,210	**962**	**325**	**463**	**596**	**234**
Dibenzo (a,h) anthracene	µg/kg	8.8	**31.1**	**676**	**539**	**169**	**222**	**383**	**139**
Fluoranthene	µg/kg	600,000	<117	**3,700**	<106	**977**	**1,590**	**1,690**	**754**
Fluorene	µg/kg	600,000	<117	<2,210	<106	<116	<113	<114	<109
Indeno (1,2,3-cd) pyrene	µg/kg	88	<58.7	<1,100	**599**	**202**	**294**	**417**	**167**
1-Methylnaphthalene	µg/kg	1,100,000	<117	<2,210	**979**	**309**	**460**	**644**	**283**
2-Methylnaphthalene	µg/kg	600,000	<117	<2,210	**1,050**	**273**	**232**	**566**	**260**
Naphthalene	µg/kg	20,000	<117	<2,210	**230**	<116	<113	**184**	<109
Phenanthrene	µg/kg	18,000	<117	**2,350**	<106	**580**	**776**	**806**	**418**
Pyrene	µg/kg	50,000	<117	<2,210	**875**	**809**	**1,750**	**1,260**	**568**

Notes:

1. GZA GeoEnvironmental, Inc. (GZA) collected soil samples collected on December 21, 2001. Soil samples were analyzed by Great Lakes Analytical, Inc. of Oak Creek, Wisconsin (WDNR No. 999917160) using Method 8021 for VOCs; Method 9012A for cyanide; Method 6010B for arsenic and lead; Method 7471A for mercury; and Method 8310 for PAHs.
2. Results are presented in units of milligrams per kilogram (mg/kg) and micrograms per kilogram (µg/kg), as indicated.
3. Detections are presented in **bold**, with detections exceeding the Residual Contaminant Levels (RCLs) presented in red.
3. VOCs - volatile organic compounds; and PAH - polynuclear aromatic hydrocarbons.
4. Wisconsin Administrative Code (WAC) Chapter NR 720 RCLs are provided for reference for VOCs and metals where established. The metals RCLs are non-industrial direct contact standards.
5. The RCLs for PAH compounds are the Non-Industrial Direct Contact (D. C.) RCLs provided in the April 1997 WDNR Soil Cleanup Levels for Polycyclic Aromatic Hydrocarbons (PAHs) Interim Guidance.



LEGEND

B-36	AUGER BORINGS INSTALLED IN JULY, 2001 BY GZA
P1	ADDITIONAL SOIL SAMPLES COLLECTED BY GZA PERSONNEL ON DECEMBER 21, 2001

REV. NO.	DESCRIPTION	BY	DATE

PROJ MGR: BGF
DESIGNED BY: DPS
REVIEWED BY:

OPERATOR: JAC
DATE: 7/14/03

APPROXIMATE SCALE 1"=30'
0 15' 30' 60'

GZA GeoEnvironmental, Inc.
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HENRY W. MAIER FESTIVAL PARK
MILWAUKEE, WISCONSIN

SOIL SAMPLE LOCATION MAP B-36 THROUGH B-38 AREA

JOB NO. 150501.50

FIGURE NO. 1

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Drawing Name: J:\500TO599\150501\DRAWINGS\50\PLAYAREA.DWG Last Modified: Apr 16, 2004 – 10:02am Plotted on: Apr 20, 2004 – 6:47am by cjm

Letter of Transmittal

Type of Submittal:
_____LUST ____ _ERP _____VPLE _____other (describe):

To: Mr. Thomas Wentland
Wisconsin Department of Natural Resources
4041 North Richards Street
Milwaukee, Wisconsin 53212

FROM: **Name** Bernard G. Fenelon, P.G.
Company GZA GeoEnvironmental, Inc.
Address N4140 DuPlainville Road
Pewaukee, WI 53072
Phone (262) 691-2662
Date April 20, 2004

FOR: **Site Name** Henry W. Maier Festival Park
Address 200 North Harbor Drive
Milwaukee, Wisconsin
FID # 241306120
BRRTS #

Check type(s) of documents enclosed. Submittals are tracked & filed based on information you provide. Include FID & BRRTS numbers assigned to this site. Identify the intent of document(s) you are submitting in order to speed processing. Please attach required fees to this form.

Are you requesting Department Review? **Y ( )** **N *(X)***

✓	TYPE OF DOCUMENT/REPORT:	FEE	DNR CODE (office use only)
	Notification of Release	none	01
	Tank Closure/Site Assessment *where release(s) have been detected**	none	33
	Site Investigation Workplan	$500 if review is requested	35, 135~
	Site Investigation Report ____ groundwater impacts above ES ____no groundwater impacts or gw impacts below ES *(if petroleum constituents only, case will be transferred to Department of Commerce)*	$750 if review is requested	37, 137~, 76, 96
	Request to Transfer Case to Department of Commerce	none	76
	Off-Site Determination Request	$500 mandatory	638~
	Remedial Action Options Plan	$750 if review is requested	39,143~
	NR 720.19 Site Specific Clean-Up Goal Proposal	$750 if review is requested	67,68~
	NR 718 Landspreading Request	$500 mandatory	61~
	"Notification to Treat or Dispose" of Contaminated Soil/Water	none	99
	Injection/Infiltration Request	$500 mandatory	63~
	Quarterly Report or Update	$500 if review is requested	43, 43~
	O & M Form 4400-194	$300 if review is requested	92, 192~
	Remedial Action Options Report	$750 if review is requested	41, 41~
	Closure Review Request	$750 mandatory	79~
	NR 700.11 Simple Site Closure Request	$250 mandatory	183~
	"Draft Deed Affidavit" or "Restriction required for close-out"	none	99
	"Well Abandonment Forms"	none	99
	Remedial Design Report	$750 if review is requested	147, 148~
	Construction Documentation Reports	$250 if review is requested	151, 152~
	Long Term Monitoring Plan	$300 if review is requested	24, 25~
	Voluntary Party Liability Exemption (VPLE) Application	$250 mandatory	662
	VPLE "Phase I/II Assessments" or "Additional Reports"	computed hourly	99
	Tax Cancellation Agreement	$500 mandatory	654
	Negotiated Agreement	$1000 mandatory	630
	Lender Assessment	$500 mandatory	686
	Negotiation and Cost Recovery (municipalities only)	fee for each service, mandatory	90~
	General Liability Clarification Request	$500 mandatory	684
	Lease Letter Request - Single Property	$500 mandatory	646
	Lease Letter Request - Multiple Properties	$1000 mandatory	646
	Request for Other Technical Assistance	$500 mandatory	90~
X	Other (please describe) **Children's Play Area Planned Temporary Renovations**		

* Closure reports for sites where no releases have been detected should be sent directly to "Clean Closures" c/o DNR Remediation & Redevelopment Program, P.O. Box 7921, Madison, WI 53707

Remarks:

cc: Ms. Pamela Mylotta (WDNR), Mr. Edward Witte (Foley & Lardner), Mr. Robert Gosse (Milwaukee World Festival)