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November 18, 1999

Mr. Peter Doshau
New York Dept. of Environmental Conservation
200 White Plains Road
Tarrytown, NY 10591

Re: Gateway Office Parcel, White Plains, New York
Environmental Summary Letter
ERL Project No. 07561-05

Dear Peter:

Environmental Risk Limited has prepared this summary letter in accordance with our discussion on September 17, 1999. At that meeting, we discussed the existing site conditions and historical environmental issues related to the Gateway Office parcel located in White Plains, New York. The objective of the meeting was to determine the State's requirements to resolve the environmental conditions in order for the ownership of the property to be transferred.

At that meeting it was suggested that a No Further Action Letter (NFAL) from the New York State Department of Environmental Conservation (NYSDEC) could be issued. The NFAL would be dependent on a concise summary of environmental information and activities completed at the property and that a round of groundwater samples was collected and analyzed for BTEX and MTBE. Specifically, you requested:

- The collection and analysis of groundwater samples for BTEX and MTBE.
- The current status of the removed/excavated debris piles.
- The relationship of the reported 1989, 1990, and 1991 spills.
- The current status of the 2,000 and 10,000 gallon UST located in the southwestern corner of the building.
- The status of the gas/filling station located along the northern portion of the Gateway Office Building.
- The direction of groundwater flow.

The attached summary is submitted on behalf of our client CIGNA Investments, Inc., the current site owner, since who is considering a property transfer. The property is being considered for transfer. In anticipation of a No Further Action Letter, ERL would be pleased to provide you with further documentation or, if required, meet you at your office to discuss the findings.

If you have any questions, please do not hesitate to contact either Mr. David Purington or me at 860-242-9933.

Very truly yours,

ENVIRONMENTAL RISK LIMITED

Richard J. Desrosiers, L.E.P.
Senior Associate, Hydrogeology

RJD/ceb/st
s\ltr\misc\7561-05-whiteplains-nydec
Attachments
cc: John Morgan, CIGNA Investments, Inc.

1.0 Site Description

The Gateway Office Building property (referred hereafter as the "Site") to consists of three parcels consisting of 1) the Gateway Office Building; 2) a surface parking lot; and 3) the White Plains bus transportation center and 5-story multi-level "Gateway Garage", located in downtown White Plains, New York. The Site comprises three city blocks and is located on approximately 5 acres. The property is bounded by the following streets: to the east by North Lexington Avenue, to the west by Ferris Avenue and Bank Street; to the north by Water Street; to the south by Main Street; and New Street and Hamilton Avenue divide the parcels.

2.0 Historical Overview

ERL recently prepared a Phase I Environmental Site Assessment of the premises for CIGNA. The following site history has been derived from Sanborn maps reviewed as part of our Phase I research. The Transportation Center/Garage was part of the City of White Plains renewal project undertaken in the late 1960's/early 1970's.

Surface Parking Lot

- In the 1880's the lot included dwellings, a railroad roundhouse, lumber storage yard and a fire station.
- In the early 1900's, rail spurs replaced the roundhouse.
- In 1930 a large feed storage warehouse was present.
- In 1950 a beer storage warehouse was shown.
- In 1987, the parcel was shown as being vacant land.

Transportation Center/Garage

- In the late 1880's the garage parcel included dwellings and sheds, but was mostly vacant.
- In the early 1900's there was little change, including the addition of a rail spur.
- In 1911 the site was occupied by the Standard Oil Company with three 18,000 gallon capacity aboveground storage tanks.
- In the 1930's the oil company is gone, and two underground storage tanks were shown in addition to a coal yard.
- In the 1950, the site includes a coal yard, with two additional USTs at the former oil company area (which is now being used as an asphalt company).
- 1987 show the parcel shown as a parking garage and bus station.

Gateway Office Building

- In 1885, residential dwellings were to the northeast and retail stores to the southeast. The Union Hotel is in the southwest corner. Adjacent use was residential and commercial.
- In1889, no changes except an addition to the central building.
- In 1894, a second addition to the central building and two new residential buildings.
- In 1900, to the east a large storage shed, and an addition to the southern building.
- In 1905, no obvious changes.

- In 1911, a dry goods store replaces all the south-central buildings.
- In 1930, a plumbing supply/storage business replaces the western rail line.
- In 1950, an auto sales/service facility occupies the former rail line to the north; the hotel is gone and two gasoline (filling) stations are present along Hamilton Avenue.
- In 1987 and 1995, "Gateway Tower" occupies the central and western portion.

3.0 Areas of Concern and Resolution

ERL's review of the environmental investigations conducted between 1991 through 1995 indicates that all Areas of Concern (AOCs) have been fully investigated. This summary provides a general overview on the environmental conditions at each AOC and describes the resolution.

Transportation Center/Gateway Garage

In 1993, BCM advanced six borings through the garage floor to groundwater. Several of the borings identified a fill layer (black sand and gravel, cinders/gravel/asphalt and black cinders) to a depth of 5 to 9 feet below the concrete. BCM concluded that the materials discovered were consistent with the prior site usage. The data from this testing event is summarized in Attachment A. No MTBE or BTEX was detected in a groundwater sample collected in September 1999 from a well through the garage floor.

Discussion: *These materials are effectively isolated by the capping effect of the garage structure. BCM concluded that the current conditions would not require further action to achieve risk-based objectives. Thus, No further investigation or remedial activities are warranted.*

Surface Parking Lot

A magnetic survey was completed across the lot and identified two anomalies consistent with USTs and two three-foot diameter "circular debris pits". In 1993, BCM completed an investigation of these areas and encountered one UST, miscellaneous debris, including what appeared to be a pump island. Contaminated soil was associated with the UST, debris and the "circular pits". BCM recommended that the UST and debris be removed.

A May 1995 report by Camp Dresser & McKee describes the removal of an underground fuel oil storage tank and contaminated tank grave soils as well as "fuel island debris". CDM determined that the UST capacity was 1000-gallons, and did not require registration with the NYDEC. Confirmation samples were collected during the excavation. The samples indicated residual contamination was still present and additional excavations were warranted. Additional soils were removed. At the conclusion of the second effort, all confirmation samples were below NYDEC criteria. The final UST excavation was 17.5 feet x 10 feet by 5 to 7 feet deep. [Note groundwater was recorded approximately 30 feet below grade in 1993.] The debris area was excavated 16 feet x 17 feet by 7 feet deep. Confirmation samples indicated that the sidewall and the pit bottom were below the analytical detection limits.

Discussion: *Confirmation testing of the excavation areas showed that all constituents of concern were effectively removed.*

A May 1995 Malcolm Pirnie Inc., (MPI) correspondence describes the findings of a March 1995 investigation, which assess the extent of soil and potential groundwater contamination at the vacant lot (now surface parking lot). In all, 20 boreholes (including several in the vicinity of the above UST and pits) were advanced. Metals, PCBs, and polynuclear aromatic hydrocarbons (PAH) were reported at varying concentrations and locations, often in layers. The locations were delineated as Zone A, B, and C (see Figure 1.0).

Concentrations detected in zone A, located in the northern portion were either below the NYSDEC Clean-Up Goal or below background. The bulk of the contaminants detected were located in the upper two feet interval. Concentrations detected in zone B, located in the southern and western northern portion, slightly exceeding the NYSDEC Clean-Up Goal for mercury and background for magnesium in the 0 to 2-foot range below grade. PAH were also reported at the 4 to 6 foot intervals exceeding the NYSDEC Clean-Up Goal. Concentrations detected in zone C, located in the eastern portion, exceeded the NYSDEC Clean-Up Goal for PAH and PCB compounds at the 0 to 2 foot interval (Attachment B).

MPI made suggestions as to the handling of these soils in the event of construction activities, which included recommendations for some off-site disposal and for some "push-around" management. ERL has been unable to obtain any documentation concerning soils handling or disposal which may have occurred during the 1995 parking lot re-construction program.

Discussion: *While it is unknown as to the disposition of any of the materials observed in many of the boreholes by MPI, the current constructed features of the surface parking lot effectively isolate any underlying materials. During the re-installation of the monitoring wells, no fill or disturbed soil was encountered below the pavement sub-base fill.*

4.0 Groundwater Quality and Flow Direction

In October 1999, ERL re-installed two monitoring wells (MW-1A and MW-3A) in close proximity to the former wells located in the surface lot. Soil samples were collected at these locations and fill was encountered at 0 to 2 foot below pavement. Clean natural fine sand was recorded below the fill. One week after the wells were installed, ERL collected groundwater samples from these two wells plus the existing well (MW-2) located at the Gateway Garage (see Figure 2.0). The samples were submitted to a certified laboratory for MTBE and BTEX constituents via EPA Method 8260.

Prior to groundwater collection, ERL surveyed a reference elevation to the top of each well casing from a temporary bench-mark. The depth to groundwater was measured and subtracted from the reference elevation to determine the groundwater elevation as shown on figure 2.0. This data was used to develop a groundwater contour plan which indicates that groundwater flows to the northwest with a hydraulic gradient of 0.038 ft/ft.

The analytical data (Attachment C) indicated that no constituents were detected above the method detection limits, including MTBE and BTEX.

5.0 Existing Underground Storage Tanks and Spill Reports at the Gateway Office Building

One active tank, 10,000-gallons, No. 2 fuel, presumably installed 1985, is located west of the southwestern corner of the office tower for use in providing back-up fuel to the building heating system and emergency generator. An integrity test was performed (January 1999) and the tank passed the test.

One 2,000-gallons, No. 2 fuel was abandoned-in-place. In 1991, fuel was observed in the manway around the fill port. (Note a VISTA report indicated leaking UST events in 1989, 1990, and 1991). An integrity test was conducted and the tank failed. An October 14, 1991 letter from ESE Consultants describes the results of a sampling program at the 2,000-gallon UST. One bottom sample, exhibited elevated levels of TPH (15,900 ppm) which ESE attributed to spillage that occurred during excavation. Four other samples reported levels of TPH ranging 50 to 100 ppm. In August 1999, ERL advanced soil borings to 10 feet below grade around the two USTs. The retrieved soil cores did not indicate odors or evidence of petroleum. Eight samples were submitted for analysis. Of these samples all were reported below the detection limit for volatile organics and five of these sample exhibited low levels of TPH (25 to 46 parts per million). Such levels are common in urban settings and do not indicate that any significant amount of petroleum is present in the area sampled.

6.0 Former Gasoline/Filling Stations on the Gateway Office Parcel.

No site specific investigations were completed at the former stations due to physical constraints including utilities, sidewalk, and the building structure. Monitoring well MW-1A is considered downgradient of the western station. No BTEX constituents were detected in the October 1999 sampling event. Thus, residual contamination (if present) from the former station does not appear to be present. The foundation excavations for the Gateway Office Tower most likely removed much or all of the former stations and associated soil.

Discussion: *While it is unknown as to the disposition of the former stations, the current office building isolates any underlying materials.*

NORTH LEXINGTON AVENUE

WATER STREET

NEW STREET

HAMILTON AVENUE

MAIN STREET

GATEWAY GARAGE/TRANSPORTATION CENTER

COVERED ARCADE

MPI - AREA C

MW-3 REMOVED

MW-3A

SURFACE PARKING LOT

MPI - AREA A

MW-1A

MW-1 REMOVED

MPI - AREA B

MW-2

GATEWAY OFFICE TOWER

ABANDONED 2,000 GALLON UST

SS-4

SS-3

SS-1

SS-2

10,000 GALLON UST

APPROXIMATE LOCATION GAS/FILLING STATIONS 1950 SANBORN MAP

FERRIS AVENUE

BANK STREET

LEGEND

- UST AND DEBRIS PIT EXCAVATION AREAS, CDM MAY 1995
- PREVIOUS MONITORING WELLS, INSTALLED BCM 1993
- SOIL BORINGS, BCM 1993
- SOIL BORINGS, MALCOM PIRNIE 1995
- SOIL BORINGS, ERL 1999
- MONITORING WELLS INSTALLED BY ERL OCTOBER 1999

0 15 60 120

APPROXIMATE SCALE 1" = 60'

NOTE: MAP COMPILED FROM VARIOUS SOURCES
LOCATIONS AND BOUNDARIES APPROXIMATE

FIGURE 1-1
AREAS OF CONCERN

1 NORTH LEXINGTON AVENUE
WHITE PLAINS, NEW YORK

ENVIRONMENTAL RISK LIMITED

COMPILED BY: BCM	DATE: 11-4-99
REVIEWED BY: RJD	DRAWN BY: MRH
JOB NO: 07561-02	FILENAME: 7561SLM3

NORTH LEXINGTON AVENUE

WATER STREET

GATEWAY GARAGE/TRANSPORTATION CENTER

NEW STREET

COVERED ARCADE

MPI – AREA C

MW–3 REMOVED

76.18 MW–3A

SURFACE PARKING LOT

MPI – AREA A

MW–1A 76.0

MW–1 REMOVED

MPI – AREA B

MW–2 62.70

HAMILTON AVENUE

GATEWAY OFFICE TOWER

ABANDONED 2,000 GALLON UST

SS–4

SS–3

SS–1

SS–2

UST

UST

10,000 GALLON UST

MAIN STREET

APPROXIMATE LOCATION GAS/FILLING STATIONS 1950 SANBORN MAP

FERRIS AVENUE

BANK STREET

76.00 GROUNDWATER ELEVATION (10–29–99)

64 GROUNDWATER CONTOUR INTERVAL

GROUNDWATER FLOW DIRECTION

LEGEND

UST AND DEBRIS PIT EXCAVATION AREAS, CDM MAY 1995

PREVIOUS MONITORING WELLS, INSTALLED BCM 1993

SOIL BORINGS, BCM 1993

SOIL BORINGS, MALCOM PIRNIE 1995

SOIL BORINGS, ERL 1999

MONITORING WELLS INSTALLED BY ERL OCTOBER 1999

0 15 60 120

APPROXIMATE SCALE 1" = 60'

NOTE: MAP COMPILED FROM VARIOUS SOURCES
LOCATIONS AND BOUNDARIES APPROXIMATE

FIGURE 2.0
AREAS OF CONCERN

1 NORTH LEXINGTON AVENUE
WHITE PLAINS, NEW YORK

ENVIRONMENTAL RISK LIMITED

COMPILED BY: BCM	DATE: 11–4–99
REVIEWED BY: RJD	DRAWN BY: MRH
JOB NO: 07561–02	FILENAME: 7561SLM4

ATTACHMENT A

Transportation Center/Gateway Garage Soil Data

GATEWAY PARKING GARAGE SOIL BORINGS

BCM Project No. 08-4216-40

ANALYTE	SP-01		SP-02			SP-03		SP-04				SP-05		SP-06		STATE
	7'-9'	9'-11'	7'-9'	9'-11'	13'-15'	9'-11'	11'-13'	1'-3'	5'-7'	9'-11'	11'-13	5'-7'*	9'-11'*	5'-7'*	11'-13'	STANDARD**
TPH (MG/KG)	ND	ND	144	ND	ND	ND	ND	ND	ND	ND	52.2	7420	882	26100	ND	NONE
BASE NEUTRAL PRIORITY POLLUTANTS (ug/kg)																
Acenaphthene	ND	180J	ND	ND	ND	ND	ND	ND	ND	38J	ND	2000J	530J	<19600	ND	50,000
Anthracene	ND	630J	82J	ND	ND	ND	ND	ND	ND	110J	650J	<14600	960J	<19600	ND	50,000
Benzo(a)anthracene	ND	924	250J	ND	ND	50J	ND	73J	130J	260J	1480	<14600	2200J	<19600	ND	224(a)
Benzo(a)pyrene	100J	737	250J	ND	ND	51J	ND	72J	120J	260J	1200J	<14600	2500J	<19600	ND	61(b)
Benzo(b)fluoranthene	160J	869	310J	50J	ND	66J	ND	ND	170J	359	1480	<14600	4100J	<19600	ND	1,100
Benzo(k)fluoranthene	ND	340J	120J	ND	ND	ND	ND	ND	56J	96J	730J	<14600	1300J	<19600	ND	1,100
Benzo(g,h,i)perylene	ND	270J	140J	ND	ND	39J	ND	ND	70J	140J	510J	<14600	1200J	<19600	ND	50,000
Chrysene	110J	858	ND	35J	ND	95J	ND	63J	110J	240J	1100J	<14600	2100J	<19600	ND	400
Dibenzo(a,h)anthracene	ND	110J	ND	ND	ND	ND	ND	ND	ND	ND	190J	<14600	<4980	<19600	ND	14(c)
Fluoranthene	240J	1870	530J	85J	ND	86J	ND	120J	230J	559	2860	2100J	5140	<19600	ND	50,000
Fluorene	ND	220J	ND	ND	ND	ND	ND	ND	ND	39J	180J	2200J	710J	<19600	ND	50,000
Indeno(1,2,3-cd)pyrene	76J	310J	150J	ND	ND	39J	ND	ND	82J	150J	600J	<14600	1300J	<19600	ND	3,200
Naphthalene	ND	79J	ND	ND	ND	ND	ND	ND	ND	ND	ND	14000J	1300J	<19600	ND	13,000
Phenanthrene	200J	2090	320J	52J	ND	39J	ND	63J	100J	432	1800	5000J	4200J	<19600	ND	50,000
Pyrene	240J	1760	450J	63J	ND	83J	ND	120J	210J	496	2440	2600J	5590	<19600	ND	50,000
Sum of detected PAH concentrations	1,126	11,247	2,602	285	ND	548	ND	511	1,288	3,179	15,220	27,900	33,130	–	ND	None

* Detection limits on these samples were elevated significantly by high TPH. PAHs were detected but are below the instrument detection limit.

** NYSDEC TAGM Determination of Soil Cleanup Objectives and Cleanup Levels, January 24, 1994.

(a) Soil cleanup objective to protect groundwater is 3,000 ug/kg.
(b) Soil cleanup objective to protect groundwater is 11,000 ug/kg.
(c) Soil cleanup objective to protect groundwater is 165,000,000 ug/kg.

= Compound was detected below the method quantification limit.

Table 2

SUMMARY OF ANALYTICAL RESULTS

FOR SOILS

(Results Reported If Detected in ug/kg, unless noted otherwise)

	MW-2	SP1	SP-2	SP-3	BACKGROUND CONCENTRATIONS(a)	STATE STANDARD (c)
PCB-1260	ND	-	88 J	4,700 J		10,000 (d)
Metals (mg/kg)						
Arsenic	1.06	NA	NA	NA	4.8 (<0.1 - 73)	7.5 (3-12) (e)
Selenium	1.14	NA	NA	NA	0.3 (<0.1 - 3.9)	2 (0.1-3.9)
Mercury	3.63	NA	NA	NA	0.081 (0.01 - 3.4)	0.1
Chromium	9.92	NA	NA	NA	33 (1 - 1000)	10 (1.5-40) (e)
Copper	8.37	NA	NA	NA	13 (<1 - 700)	25 (1-50)
Zinc	47.0	NA	NA	NA	40 (<5 - 2,900)	20 (9-50)
Lead	14.0	ND	593	292	14 (<10 - 300)	SB (200-500) (f)
Semivolatile Priority Pollutants					STATE STANDARD (b)	STATE STANDARD (c)
Acenaphthene	67.5 J	-	900 J	ND	–	50,000
Anthracene	283 J	-	1,770 J	735 J	1,000	50,000
Benzo(a)anthracene	588	-	4,690	1,690 J	220 (human health)	224 (g)
Benzo(a)pyrene	436	-	3,930	1,330 J	61 (human health)	61 (h)
Benzo(b)fluoranthene	610	-	5,200	2,050 J	220 (human health)	1,100
Benzo(k)fluoranthene	ND	-	ND	651 J	.04 (in extract)	1,100
Benzo(g,h,i)perylene	196 J	-	2,030 J	ND	–	50,000
bis(2-Ethylhexyl) phthalate	75.2 J		ND	ND	–	50,000
Chrysene	468	-	3,680 J	1,570 J	.04 (in extract)	400
Diethylphthalate	58.8 JB	-	ND	ND	–	7,100
Fluoranthene	1,200	-	9,760	3,980	1,000	50,000
Fluorene	91.5 J	-	697 J	ND	1,000	50,000
Indeno(1,2,3-cd)pyrene	240 J	-	2,280 J	ND	0.04 (in extract)	3,200

Table 2 (CONTINUED)

SUMMARY OF ANALYTICAL RESULTS

FOR SOILS

(Results Reported If Detected In ug/kg)

	MW-3	SP1	SP-2	SP-3		STATE STANDARD	STATE STANDARD (c)
Phenanthrene	752	-	6,840	3,490 J	1,000	-	50,000
Pyrene	1,060	-	9,510	4,700	1,000	-	50,000
Purgeable Organics							
Chloroform	-	-	1.27 J*	-		-	300
Methylene Chloride	6.54 B	-	6.39 B	-		-	100
Tetrachloroethene (PCE)	-	-	5.07 J	-		-	1,400
Toluene	1.09 J	-	2.53 J	2.41 J		-	1,500
library Search - Semivolatiles							
unknown	41,560(17)	-	9,100(2)	67(6)			
unknown PAHs	4,730 (2)	-	3,700 (2)	11,730 (6)			
hexachlorophenyl	-	-	1,750 (2)	-			
unknown C14H10Cl4	-	-	-	860			
unknown dimethyl alkane	-	230	-	-			
unknown methyl-phenanthrene PAH	-	-	7,100	-			
unknown dimethyl-phenanthrene PAH	-	-	930	-			
2,5-dimethyl-phenanthrene	-	-	-	900			
4-fluoro-4,1'-biphenyl	4,200	-	-	-			

	B-5	B-6	B-7	B-8	STATE STANDARD	STATE STANDARD (c)
diethylphthalate	ND	ND	50.1 JB	64.9 JB		7,100
methylene chloride	ND	ND	ND	4.19 JB		100
dimethyl alkane C10H22	-	10	-	-		
trimethyl silanol	-	5	-	-		
unknown	5	5	25	-		
unknown alkene	-	-	6	-		
unknown C5H2O	-	7	-	-		
unknown dimethyl alkane	14	-	8	-		
unknown fatty acid amide	-	820	-	120		

Table 2 (CONTINUED FOOTNOTES)

SUMMARY OF ANALYTICAL RESULTS

FOR SOILS

(Results Reported If Detected in ug/kg)

SB - Site Background

NA - Not Analyzed

J - J Value - (Estimated concentration below qualification limit)

B = detected in laboratory blank

Number in parentheses represents the number of individual compounds included in the total concentration indicated. This comment applies to Library Searches.

(a) Mean background concentration in the eastern United States from USGS Professional Paper 1270. Range is provided in parenthesis.

(b) NYDEC Guidance Value for protection of Groundwater from fuel oil contaminated soil, unless otherwise noted.

NF- None Found

(c) NYSDEC TAGM Determination of Soil Cleanup Objectives and Cleanup Levels, January 24, 1994.

(d) Subsurface

(e) New York State background range is given in parentheses. Other background ranges in parentheses represent Eastern USA values. Except for mercury, recommended soil cleanup objectives are the values presented or site background. Cleanup to site background is not an option for mercury.

(f) Range represents background in metropolitan or suburban areas.

(g) Soil cleanup objective to protect groundwater is 3,000 ug/kg.

(h) Soil cleanup objective to protect groundwater is 11,000 ug/kg.

ATTACHMENT B

Surface Parking Lot Data

TABLE 1

CIGNA: GATEWAY VACANT LOT
AREA A

Description	A-02	A-24	A-46	A-68	A3-810-A1-810		
Depth (feet)	0 to 2	2 to 4	4 to 6	6 to 8	8 to 10		
PARAMETER	CONCENTRATION (mg/kg)					CLEANUP GOAL[1] (mg/kg)	EASTERN USA SOIL BACKGROUND[1] (mg/kg)
METALS							
Aluminum	3500	3800	4400	4400	3200	SB	33,000
Antimony	ND	ND	ND	ND	ND	SB	NA
Arsenic	0.71	ND	ND	ND	ND	7.5 or SB	3-12**
Barium	35	36	43	42	37	300 or SB	15-600
Beryllium	ND	ND	ND	ND	ND	0.16(HEAST) or SB	0-1.75
Cadmium	ND	ND	ND	ND	ND	1 or SB	0.1-1
Calcium	36000	21000	23000	23000	30000	SB	130-35,000**
Chromium	6.5	6.4	8.9	9.4	6.1	10 or SB	1.5-40**
Cobalt	3.3	3.5	3.7	3.8	2.9	30 or SB	2.5-60**
Copper	11	11	12	14	11	25 or SB	1-50
Iron	6100	6700	7000	7400	6000	2000 or SB	2000-550,000
Lead	14	4.6	3.7	4.5	4.9	SB***	***
Magnesium	21000	12000	14000	15000	16000	SB	100-5000
Manganese	110	120	110	140	99	SB	50-5000
Mercury	ND	ND	ND	ND	ND	0.1	0.001-0.2
Nickel	5.6	7.2	6.9	7	6.7	13 or SB	0.5-25
Potassium	1200	1300	1700	1800	1400	SB	8500-43,000**
Selenium	ND	ND	ND	ND	ND	2 or SB	0.1-3.9
Silver	ND	ND	ND	ND	ND	SB	NA
Sodium	64	59	77	75	74	SB	6000-8000
Thallium	ND	ND	ND	ND	ND	SB	NA
Vanadium	9.3	10	12	12	8.9	150 or SB	1-300
Zinc	63	22	24	24	20	20 or SB	9-50
SEMI-VOLATILES							
Acenaphthylene	0.053	ND	ND	ND	ND	41	N/A
Anthracene	0.1	ND	ND	ND	ND	700	N/A
Phenanthrene	0.33	ND	ND	0.083	ND	220	N/A
Di-n-butylphthalate	ND	0.059	ND	ND	ND	8.1	N/A
Pyrene	0.41	ND	ND	0.072	ND	665	N/A
Fluoranthene	0.44	ND	ND	0.093	0.035	1900	N/A
Benzo[a]anthracene	0.21	ND	ND	ND	ND	3	N/A
Chrysene	0.22	ND	ND	ND	ND	0.4	N/A
bis(2-Ethylhexyl)phthalate	0.064	ND	0.083	0.2	0.3	435	N/A
Benzo[b]fluoranthene	0.16	ND	ND	ND	ND	1.1	N/A
Benzo[k]fluoranthene	0.21	ND	ND	ND	ND	1.1	N/A
Benzo[a]pyrene	0.2	ND	ND	ND	ND	11	N/A
Indeno[1,2,3-cd]pyrene	0.12	ND	ND	ND	ND	3.2	N/A
Dibenz[a,h]anthracene	0.05	ND	ND	ND	ND	165,000	N/A
Benzo[g,h,i]perylene	0.13	ND	ND	ND	ND	800	N/A
PCBs	ND	ND	ND	ND	ND	10*	N/A
TPHs	ND	ND	ND	ND	ND	NA	N/A

ND = Not Detected
NA = Not Available
N/A = Not Applicable
SB = Soil Background

[1] NYSDEC, 1994
* for total PCBs
** NYS background
*** Background levels for lead vary widely. Average levels in undeveloped, rural areas may range from 4-61 ppm. Averagebackground levels in metropolitan or suburban areas or near highways are much higher and typically range from 200-500 ppm.

TABLE 1 (continued)

CIGNA: GATEWAY VACANT LOT
AREA B

Description	B-02	B-24	B-46 DL	B-68		
Depth (feet)	0 to 2	2 to 4	4 to 6	6 to 8		
PARAMETER	CONCENTRATION (mg/kg)				CLEANUP GOAL[1] (mg/kg)	EASTERN USA SOIL BACKGROUND[11] (mg/kg)
METALS						
Aluminum	93	12000	9300	6200	SB	33,000
Antimony	ND	ND	ND	ND	SB	NA
Arsenic	3.8	1.9	0.61	ND	7.5 or SB	3-12**
Barium	0.41	140	70	43	300 or SB	15-600
Beryllium	0.0061	1.68	0.32	ND	0.16(HEAST) or SB	0-1.75
Cadmium	ND	0.33	ND	ND	1 or SB	0.1-1
Calcium	37	13000	11000	20000	SB	130-35,000**
Chromium	0.25	19	12	10	10 or SB	1.5-40**
Cobalt	0.12	5.8	6.2	4.8	30 or SB	2.5-60**
Copper	0.61	26	21	15	25 or SB	1-50
Iron	300	17000	13000	9800	2000 or SB	2000-550,000
Lead	0.4	190	90	35	SB***	***
Magnesium	43	5200	4200	13000	SB	100-5000
Manganese	6.6	300	280	180	SB	50-5000
Mercury	0.3	ND	ND	ND	0.1	0.001-0.2
Nickel	0.26	16	13	9.1	13 or SB	0.5-25
Potassium	13	1600	1600	1500	SB	8500-43,000**
Selenium	ND	ND	ND	ND	2 or SB	0.1-3.9
Silver	ND	ND	ND	ND	SB	NA
Sodium	3.3	230	120	98	SB	6000-8000
Thallium	ND	ND	ND	ND	SB	NA
Vanadium	0.32	23	19	14	150 or SB	1-300
Zinc	0.64	140	66	43	20 or SB	9-50
SEMI-VOLATILES						
Naphthalene	ND	ND	0.55	ND	13	N/A
2-Methylnapthalene	ND	ND	0.073	ND	36.4	N/A
Acenaphthene	ND	ND	0.66	ND	90	N/A
Acenaphthylene	0.2	ND	0.089	ND	41	N/A
Anthracene	0.22	0.11	1.4	ND	700	N/A
Dibenzofuran	ND	ND	0.35	ND	6.2	N/A
Fluorene	ND	ND	0.58	ND	350	N/A
Phenanthrene	0.62	0.39	5.2	0.11	220	N/A
Carbazole	0.1	0.05	0.77	ND	140[2]	N/A
Di-n-butylphthalate	0.15	ND	0.1	0.21	8.1	N/A
Pyrene	1.1	0.76	11	0.27	665	N/A
Fluoranthene	1.1	0.64	5	0.2	1900	N/A
Benzo[a]anthracene	0.63	0.4	4.9	0.14	3	N/A
Chrysene	0.75	0.47	4.7	0.16	0.4	N/A
bis(2-Ethylhexyl)phthalate	0.051	ND	ND	ND	435	N/A
Benzo[b]fluoranthene	0.72	0.36	5.3	0.2	1.1	N/A
Benzo[k]fluoranthene	0.54	0.21	3.9	0.22	1.1	N/A
Benzo[a]pyrene	0.64	0.31	5.1	0.23	11	N/A
Indeno[1,2,3-cd]pyrene	0.38	0.21	3.9	0.11	3.2	N/A
Dibenz[a,h]anthracene	0.22	0.13	2	ND	165,000	N/A
Benzo[g,h,i]perylene	0.37	0.23	4.2	0.12	800	N/A

TABLE 1 (continued)

CIGNA: GATEWAY VACANT LOT
AREA B

Description Depth (feet)	B-02 0 to 2	B-24 2 to 4	B-46 DL 4 to 6	B-68 6 to 8		
PARAMETER	CONCENTRATION (mg/kg)				CLEANUP GOAL[1] (mg/kg)	EASTERN USA SOIL BACKGROUND[1] (mg/kg)
PCBs						
Aroclor 1254	0.046	0.041	ND	0.88	10*	N/A
TPHs	0.35	0.31	0.18	0.25	NA	N/A

ND = Not Detected
NA = Not Available
N/A = Not Applicable
SB = Soil Background

[1] NYSDEC, 1994
[2] Value is a Risk-based concentration for industrial soil
* for total PCBs
** NYS background
*** Background levels for lead vary widely. Average levels in undeveloped, rural areas may range from 4-61 ppm. Averagebackground levels in metropolitan or suburban areas or near highways are much higher and typically range from 200-500 ppm.

TABLE 1 (continued)

CIGNA: GATEWAY VACANT LOT
AREA C

Description	C-02 DL	C-24	C-46	C-68		
Depth (feet)	0 to 2	2 to 4	4 to 6	6 to 8		
PARAMETER	CONCENTRATION (mg/kg)				CLEANUP GOAL[1] (mg/kg)	EASTERN USA SOIL BACKGROUND[11] (mg/kg)
METALS						
Aluminum	5000	7200	7100	6500	SB	33,000
Antimony	ND	ND	ND	ND	SB	NA
Arsenic	3.7	1.9	0.67	0.88	7.5 or SB	3-12**
Barium	66	230	170	60	300 or SB	15-600
Beryllium	ND	ND	ND	ND	0.16(HEAST) or SB	0-1.75
Cadmium	ND	0.4	0.74	0.39	1 or SB	0.1-1
Calcium	30000	26000	13000	30000	SB	130-35,000**
Chromium	7.1	9.7	10	12	10 or SB	1.5-40**
Cobalt	2.7	4	4.6	4.2	30 or SB	2.5-60**
Copper	19	14	16	16	25 or SB	1-50
Iron	7100	9800	9900	9800	2000 or SB	2000-550,000
Lead	61	75	54	29	SB***	***
Magnesium	9200	5400	6800	9900	SB	100-5000
Manganese	190	180	210	170	SB	50-5000
Mercury	ND	ND	ND	0.68	0.1	0.001-0.2
Nickel	6.5	9	10	9.4	13 or SB	0.5-25
Potassium	810	1500	1600	1700	SB	8500-43,000**
Selenium	ND	ND	ND	ND	2 or SB	0.1-3.9
Silver	ND	ND	ND	ND	SB	NA
Sodium	170	130	110	190	SB	6000-8000
Thallium	ND	ND	ND	ND	SB	NA
Vanadium	11	16	16	15	150 or SB	1-300
Zinc	59	95	75	38	20 or SB	9-50
SEMI-VOLATILES						
Naphthalene	0.39	0.091	ND	ND	13	N/A
2-Methylnapthalene	0.13	ND	ND	ND	36.4	N/A
Acenaphthene	1.1	0.31	ND	ND	90	N/A
Acenaphthylene	0.26	0.13	0.48	ND	41	N/A
Anthracene	2.1	0.7	0.42	0.12	700	N/A
Dibenzofuran	0.48	0.21	ND	ND	6.2	N/A
Fluorene	0.93	0.32	0.046	ND	350	N/A
Phenanthrene	8.9	2.2	0.55	0.43	220	N/A
Carbazole	0.91	1.3	0.072	0.057	140[2]	N/A
Di-n-butylphthalate	ND	0.091	0.064	ND	8.1	N/A
Pyrene	21	3.7	2.1	0.076	665	N/A
Fluoranthene	14	3.3	2.2	0.66	1900	N/A
Benzo[a]anthracene	11	2.1	1.3	0.36	3	N/A
Chrysene	5.4	2.3	1.3	0.44	0.4	N/A
bis(2-Ethylhexyl)phthalate	0.21	ND	0.14	0.7	435	N/A
Benzo[b]fluoranthene	9	1.9	1.2	0.3	1.1	N/A
Benzo[k]fluoranthene	3.8	1.4	0.83	0.23	1.1	N/A
Benzo[a]pyrene	3.9	1.7	1	0.28	11	N/A
Indeno[1,2,3-cd]pyrene	3.8	1.3	0.67	0.18	3.2	N/A
Dibenz[a,h]anthracene	2	0.67	0.4	0.1	165,000	N/A
Benzo[g,h,i]perviene	4.1	1.4	0.68	0.2	800	N/A

TABLE 1 (continued)

CIGNA: GATEWAY VACANT LOT
AREA C

Description Depth (feet)	C-02 DL 0 to 2	C-24 2 to 4	C-46 4 to 6	C-68 6 to 8		
PARAMETER	CONCENTRATION (mg/kg)				CLEANUP GOAL[1] (mg/kg)	EASTERN USA SOIL BACKGROUND[1] (mg/kg)
PCBs						
Aroclor 1242	ND	0.12	ND	ND	10*	N/A
Aroclor 1260	1.2	0.21	0.14	ND	10*	N/A
TPHs	0.33	0.3	0.18	0.13	NA	N/A

ND = Not Detected
NA = Not Available
N/A = Not Applicable
SB = Soil Background

[1] NYSDEC, 1994
[2] Value is a Risk-based concentration for industrial soil
* for total PCBs
** NYS background
*** Background levels for lead vary widely. Average levels in undeveloped, rural areas may range from 4-61 ppm. Averagebackground levels in metropolitan or suburban areas or near highways are much higher and typically range from 200-500 ppm.

TABLE 2
SUMMARY OF OF GROUNDWATER SAMPLING RESULTS
CONSTITUENTS OF CONCERN
GATEWAY VACANT LOT

Parameter	Concentration (ug/L) MW – 1 Total	MW – 1 Dissolved	MW – 2 Total	MW – 2 Dissolved	MW – 3 Total	MW – 3 Dissolved	SW Total	SW Dissolved	NYS Groundwater Action Level (ug/L)
METALS									
aluminum	22,000	3,100	13,000		16,000				22,000
barium	310	170	710	290	450	120	68	71	1,000
cadmium			16						5
calcium	160,000	140,000	180,000	110,000	200,000	92,000	53,000	56,000	NE
chromium	41		20		28				50
cobalt	100	65	21		78				NE
copper	110		120		72				200
iron	44,000	4,300	46,000		29,000				300
lead	58		36		37				15
magnesium	69,000	53,000	57,000	19,000	110,000	52,000	12,000	12,000	35,000
manganese	1,500	900	1,500	910	1,100	6.8	13	14	300
mercury		1.1							2
nickel	69	22	22		53				700
potassium	10,000	4,900	15,000	11,000	10,000	4,000	4,300	4,200	NE
selenium	6.2								10
sodium	48,000	48,000	580,000	580,000	430,000	310,000	59,000	62,000	20,000
vanadium	59	9.5	38		46				250
zinc	150	89	130		120	31			300
Total Petroleum Hydrocarbons (mg/L)	0.55	NA	0.60	NA	ND	NA	0.50	NA	
Semivolatiles									
bis(2-ethylhexyl)phthalate	10	NA		NA		NA	6 J	NA	50.0
Volatiles									
trichloroethylene	9	NA		NA		NA		NA	5.0
carbon disulfide							300		3,500.0

Note:
NE – not established.
– exceeds NYS Groundwater Action Level.
NA – not applicable.
Blank space indicates compound analyzed for but not detected.
NYS Groundwater Action Levels are for Inactive Hazardous Waste Sites.

ATTACHMENT C

BTEX, MTBE Groundwater Data

YORK
ANALYTICAL LABORATORIES, INC.

Technical Report

prepared for

Environmental Risk Limited
120 Mountain Avenue
Bloomfield, CT 06002
Attention: Mr. Rich Desrosiers

Report Date: 11/8/1999
Re: Client Project ID: 07561-05
York Project No.: 99100683

CT License No. PH-0723 New York License No. 10854 Mass. License No. M-CT106 Rhode Island License No. 93 EPA I.D. No. CT00106

ONE RESEARCH DRIVE STAMFORD, CT 06906 (203) 325-1371 FAX (203) 357-0166

Report Date: 11/8/1999
Client Project ID: 07561-05

York Project No.: 99100683

Environmental Risk Limited
120 Mountain Avenue
Bloomfield, CT 06002
Attention: Mr. Rich Desrosiers

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on 10/29/99. The project was identifed as your project "07561-05 ".

The analysis was conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables .

The results of the analysis are summarized in the following table(s).

Analysis Results

Client Sample ID			MW-1A		MW-2	
York Sample ID			99100683-01		99100683-02	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles-8021+MTBE water	SW846-8260	ug/L	---	---	---	---
Benzene			Not detected	1	Not detected	1
Bromobenzene			Not detected	1	Not detected	1
Bromochloromethane			Not detected	1	Not detected	1
Bromodichloromethane			Not detected	1	Not detected	1
Bromoform			Not detected	1	Not detected	1
Bromomethane			Not detected	10	Not detected	10
n-Butylbenzene			Not detected	1	Not detected	1
sec-Butylbenzene			Not detected	1	Not detected	1
tert-Butylbenzene			Not detected	1	Not detected	1
Carbon tetrachloride			Not detected	1	Not detected	1
Chlorobenzene			Not detected	1	Not detected	1
Chloroethane			Not detected	1	Not detected	1
Chloroform			Not detected	1	Not detected	1
Chloromethane			Not detected	10	Not detected	10
2-Chlorotoluene			Not detected	1	Not detected	1
4-Chlorotoluene			Not detected	1	Not detected	1
Dibromochloromethane			Not detected	1	Not detected	1
1,2-Dibromo-3-chloropropane			Not detected	1	Not detected	1

YORK

Client Sample ID			MW-3A	
York Sample ID			99100683-03	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
Bromochloromethane			Not detected	1
Bromodichloromethane			Not detected	1
Bromoform			Not detected	1
Bromomethane			Not detected	10
n-Butylbenzene			Not detected	1
sec-Butylbenzene			Not detected	1
tert-Butylbenzene			Not detected	1
Carbon tetrachloride			Not detected	1
Chlorobenzene			Not detected	1
Chloroethane			Not detected	1
Chloroform			Not detected	1
Chloromethane			Not detected	10
2-Chlorotoluene			Not detected	1
4-Chlorotoluene			Not detected	1
Dibromochloromethane			Not detected	1
1,2-Dibromo-3-chloropropane			Not detected	1
1,2-Dibromoethane			Not detected	1
Dibromomethane			Not detected	1
1,2-Dichlorobenzene			Not detected	1
1,3-Dichlorobenzene			Not detected	1
1,4-Dichlorobenzene			Not detected	1
Dichlorodifluoromethane			Not detected	1
1,1-Dichloroethane			Not detected	1
1,2-Dichloroethane			Not detected	1
1,1-Dichloroethylene			Not detected	1
1,2-Dichloroethylene (Total)			Not detected	1
1,2-Dichloropropane			Not detected	1
1,3-Dichloropropane			Not detected	1
2,2-Dichloropropane			Not detected	1
1,1-Dichloropropylene			Not detected	1
cis-1,3-Dichloropropylene			Not detected	1
trans-1,3-Dichloropropylene			Not detected	1
Ethylbenzene			Not detected	1
Hexachlorobutadiene			Not detected	1
Isopropylbenzene			Not detected	1
p-Isopropyltoluene			Not detected	1
Methylene chloride			Not detected	1
Naphthalene			Not detected	1
n-Propylbenzene			Not detected	1
Styrene			Not detected	1
1,1,1,2-Tetrachloroethane			Not detected	1
1,1,2,2-Tetrachloroethane			Not detected	1
Tetrachloroethylene			Not detected	1
Toluene			Not detected	1
1,2,3-Trichlorobenzene			Not detected	1
1,2,4-Trichlorobenzene			Not detected	1
1,1,1-Trichloroethane			Not detected	1
1,1,2-Trichloroethane			Not detected	1
Trichloroethylene			Not detected	1
Trichlorofluoromethane			Not detected	1
1,2,3-Trichlorpropane			Not detected	1

YORK

Client Sample ID			MW-1A		MW-2	
York Sample ID			99100683-01		99100683-02	
Matrix			WATER		WATER	
Parameter	Method	Units	Results	MDL	Results	MDL
1,2-Dibromoethane			Not detected	1	Not detected	1
Dibromomethane			Not detected	1	Not detected	1
1,2-Dichlorobenzene			Not detected	1	Not detected	1
1,3-Dichlorobenzene			Not detected	1	Not detected	1
1,4-Dichlorobenzene			Not detected	1	Not detected	1
Dichlorodifluoromethane			Not detected	1	Not detected	1
1,1-Dichloroethane			Not detected	1	Not detected	1
1,2-Dichloroethane			Not detected	1	Not detected	1
1,1-Dichloroethylene			Not detected	1	Not detected	1
1,2-Dichloroethylene (Total)			Not detected	1	Not detected	1
1,2-Dichloropropane			Not detected	1	Not detected	1
1,3-Dichloropropane			Not detected	1	Not detected	1
2,2-Dichloropropane			Not detected	1	Not detected	1
1,1-Dichloropropylene			Not detected	1	Not detected	1
cis-1,3-Dichloropropylene			Not detected	1	Not detected	1
trans-1,3-Dichloropropylene			Not detected	1	Not detected	1
Ethylbenzene			Not detected	1	Not detected	1
Hexachlorobutadiene			Not detected	1	Not detected	1
Isopropylbenzene			Not detected	1	Not detected	1
p-Isopropyltoluene			Not detected	1	Not detected	1
Methylene chloride			Not detected	1	Not detected	1
Naphthalene			Not detected	1	Not detected	1
n-Propylbenzene			Not detected	1	Not detected	1
Styrene			Not detected	1	Not detected	1
1,1,1,2-Tetrachloroethane			Not detected	1	Not detected	1
1,1,2,2-Tetrachloroethane			Not detected	1	Not detected	1
Tetrachloroethylene			Not detected	1	Not detected	1
Toluene			Not detected	1	Not detected	1
1,2,3-Trichlorobenzene			Not detected	1	Not detected	1
1,2,4-Trichlorobenzene			Not detected	1	Not detected	1
1,1,1-Trichloroethane			Not detected	1	Not detected	1
1,1,2-Trichloroethane			Not detected	1	Not detected	1
Trichloroethylene			Not detected	1	Not detected	1
Trichlorofluoromethane			Not detected	1	Not detected	1
1,2,3-Trichlorpropane			Not detected	1	Not detected	1
1,2,4-Trimethylbenzene			Not detected	1	Not detected	1
1,3,5-Trimethylbenzene			Not detected	1	Not detected	1
Vinyl chloride			Not detected	10	Not detected	10
o-Xylene			Not detected	1	Not detected	1
p- & m-Xylenes			Not detected	1	Not detected	1
Methyl tert-butyl ether (MTBE)			Not detected	1	Not detected	1

Client Sample ID			MW-3A	
York Sample ID			99100683-03	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
Volatiles-8021+MTBE water	SW846-8260	ug/L	---	---
Benzene			Not detected	1
Bromobenzene			Not detected	1

YORK

Client Sample ID			MW-3A	
York Sample ID			99100683-03	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
1,2,4-Trimethylbenzene			Not detected	1
1,3,5-Trimethylbenzene			Not detected	1
Vinyl chloride			Not detected	10
o-Xylene			Not detected	1
p- & m-Xylenes			Not detected	1
Methyl tert-butyl ether (MTBE)			Not detected	1

Units Key:

For Waters/Liquids: mg/L = ppm ; ug/L = ppb For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

Notes:

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. If dilution factor is reported at the end of the compound list, the MDL is determined by multiplying the MDL times the listed dilution factor.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.

Approved By: Robert Q. Bradley
Managing Director

Date: 11/8/1999

YORK

YORK
ANALYTICAL LABORATORIES, INC.
ONE RESEARCH DRIVE
STAMFORD, CT 06906
(203) 325-1371 FAX (203) 357-0166

Field Chain-of-Custody Record

Company Name	Report To:	Invoice To:	Project ID/No.	Sample Collected By (Signature) / Name (Printed)
ERL	Rich Desroisers	Accounting Carla Tracy	07561-05 P.O. # 990696	Robert J. Helfrich / Bob Helfrich

Sample No.	Location/ID	Date Sampled	Sample Matrix: Water	Soil	Air	OTHER	ANALYSES REQUESTED	Container Description(s)
	MW-1A	10-29-99	X				8021(B) Aromatics & MTBE	2x40ml vials
	MW-2	↓	X				↓ Run Full 8021B + MTBE as per Bob Helfrich 11/1/99	↓
	MW-3A	↓	X					
	Drum 1 & 3	10-29-99		X			HOLD	2x40ml vials

Chain-of-Custody Record

Bottles Relinquished from Lab by	Date/Time	Sample Relinquished by	Date/Time	Sample Received by	Date/Time
		Bob Helfrich	10-29-99 1:19	Linda A. Bleau	10/29/99
Bottles Received in Field by	Date/Time	Sample Relinquished by	Date/Time	Sample Received in LAB by	Date/Time

Comments/Special Instructions

Turn-Around Time
X Standard ___ RUSH(define)_____