



UNDERGROUND STORAGE TANK CLOSURE REPORT


Merit Oil of New York, Inc.
Merit "Metropolitan"
810 Metropolitan Avenue
Brooklyn, New York
Spill #95-02757

May 20, 1998

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ENGINEERING/CONSTRUCTION



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1.0 INTRODUCTION

Groundwater & Environmental Services, Inc. (GES), was contracted by Merit Oil of New York, Inc. (Merit), to document the removal of three 4,000-gallon and two 2,000-gallon gasoline single-walled steel underground storage tanks (USTs), one 550-gallon waste water single-walled steel UST, one 4,000-gallon diesel single-walled steel UST, their associated single-walled steel piping, remote fills, and dispenser islands at their "Metropolitan" gasoline station. The Site is located at 810 Metropolitan Avenue, Brooklyn, New York. Figure 1 is an annotated 7.5-minute series United States Geological Survey quadrangle map (Brooklyn, NY) showing the Site location, surface topography, drainage patterns, and cultural features. Figure 2 is a Site Plan which illustrates the conditions at the Site during closure activities. Tank decommissioning and removal activities were conducted by Merit's general contractor, Arek Petro, Inc. (Arek) of Brooklyn, New York. The UST system that was removed was replaced with five 4,000-gallon, double-walled, fiberglass gasoline USTs and one 600-gallon, double-walled, fiberglass, waste water USTs as well as double-wall fiberglass piping.

The closure activities were in compliance with applicable federal and state requirements which included observing and documenting the removal of the seven USTs, screening the soil removed from the UST excavations for petroleum hydrocarbon impact with a photoionization detector (PID), and post-excavation soil sampling and analysis. The New York City Fire Department (NYCFD) and the New York State Department of Environmental Conservation (NYSDEC) were notified of the pending closure activities prior to site work. This Site has been assigned NYSDEC Spill #95-02757 as a result of contaminated soil encountered during the UST closure activities.

2.0 HEALTH AND SAFETY

A site-specific Health and Safety Plan was prepared for all GES field personnel involved in site activities. The plan outlines the required monitoring equipment, protective clothing, action levels, anticipated compounds, and emergency responses. All sampling and supervisory activities were conducted in Level D protection. GES personnel are equipped to upgrade to Level "C" if required. Air monitoring was conducted during sampling and excavation



of the USTs using a PID. All GES field personnel involved in field investigations are trained and certified according to the Federal Occupational Safety and Health Administration requirements.

3.0 CLOSURE ACTIVITIES

UST decommissioning and removal activities were performed by Arek between June 5 and June 13, 1996. Prior to the removal of the USTs, tank bottom sludges and residual product were cleaned from the USTs by Arek and stored in Department of Transportation approved 55-gallon drums for subsequent disposition by Merit. Seven drums (325 gallons) of tank bottom sludges were removed from the Site and transported by Freehold Cartage, Inc. on November 30, 1995 to Remtech Environmental Lewisberry, Inc. of Lewisberry, Pennsylvania for disposal via incineration and recycling. The cleaned USTs were removed from the Site and transported to the yard of Charles T. King, Inc. of Brooklyn, New York, where they were recycled as scrap metal. Waste disposal documentation is provided in Appendix A. Photographs documenting UST removal and their condition are presented in Appendix B.

During UST removal, excavated soil was screened for petroleum hydrocarbon impact with a photoionization detector (PID). The PID response is an indication of ionizable compounds that may be present, but the results are neither compound specific nor quantitative. Soils that registered a PID response in excess of 100 parts per million (ppm) were stockpiled on-site for off-site disposition. A total of 897 tons of petroleum contaminated soil was excavated and removed from the Site. The soil was transported by Keystone Block Transportation Company, to E.J. Breneman, Inc. of Sinking Spring, Pennsylvania, where it was thermally processed and recycled into hot asphalt mix. Petroleum hydrocarbon stained soils that were encountered were also excavated and stockpiled for proper disposition. Following soil removal, post-excavation soil samples were collected from all UST excavations and submitted for chemical analysis. Table 1 summarizes the soil sample locations, dates, sample I.D. numbers, sample depths, and corresponding PID field screening responses.



3.1 Gasoline UST Closure

A GES Environmental Scientist, Patrick S. McMahon, was on Site on June 5 and 6, 1995 to document the removal of the five (three 4,000-gallon and two 2,000-gallon) single-walled steel gasoline USTs. The concrete encasement was removed from the top and the sides of the USTs. The USTs were then removed from the gasoline UST field. A hole was cut in the shell of each tank and the tank interiors were cleaned. The gasoline USTs had no observable corrosion, pitting, holes, or perforations. An unrecoverable amount of standing water, with a visible sheen, was observed underneath each UST in the encasement. Excavated soil from on top of the concrete encasement exhibited PID responses ranging from 1,540 ppm to 1,888 ppm and was stockpiled and covered with plastic.

3.2 Diesel UST Closure

GES Environmental Scientist, Patrick S. McMahon, was on Site June 5, 1995 to document the removal of one 4,000-gallon diesel fuel UST. The UST was enclosed in the concrete encasement, and was located at the east end of the UST field. The UST had no observable corrosion, pitting, holes, or perforations.

3.3 Waste Water UST Closure

GES Environmental Scientist, Patrick S. McMahon, was on site June 7, 1995 to document the removal of one 550-gallon waste water UST from the southeast wall of the UST concrete encasement excavation. This UST was separate from the tanks enclosed in the concrete encasement and had noticeable perforations and pitting. When the UST was uncovered by the excavator, a small amount of fluid from the tank began leaking into the excavation. The UST was immediately removed and the fluid inside it was manually drained into two 55-gallon Department of Transportation approved drums. The soil impacted by the leak was immediately excavated and stockpiled and covered with plastic for off-site disposition. Two soil samples were collected and screened with a PID. The PID readings from the sample locations were 478 ppm and 595 ppm.



3.4 Gasoline Dispenser Islands, Piping and Remote Fill Closure

GES Environmental Scientist, Patrick S. McMahon, was on site June 6 and 13, 1995 to collect post-excavation soil samples beneath the five former dispenser islands and former remote fills. Prior to sampling, the concrete pads surrounding the dispensers were demolished and removed. Excavation of soil with a PID response exceeding 100 ppm was completed to a maximum depth of 3.5 to 7.0 feet below grade for the dispenser excavations. The dispenser island samples were obtained at the bottom of each dispenser excavation. Dispenser island soil sample PID responses ranged from 27 ppm to 1,991 ppm. Two remote fill samples were collected at 2.0 feet below grade. The PID responses for these samples were 1,460 ppm and 2,071 ppm.

4.0 SOIL SAMPLING AND ANALYSIS

The post-excavation soil samples that were collected for chemical analysis were submitted to Laboratory Resources, Inc., of Teterboro, New Jersey (NY certification #11321) on June 8, 1995. A chain-of-custody accompanied all samples from the time of collection to the time they were received by the laboratory. All post-excavation soil samples were analyzed for volatile organic compounds (VOC's) via U.S. EPA approved test method 8021. In addition to the above, post-excavation soil samples collected from the 4,000-gallon diesel tank and adjacent 2,000-gallon tank area of the excavation, and from beneath the diesel dispenser island, were also analyzed for base neutral organic compounds via U.S. EPA approved test method 8270. Table 1 summarizes the soil sample locations, dates, sample I.D. numbers, sample depths, and corresponding PID field screening responses. Sample locations are shown on Figure 3. The summary laboratory analytical package is included in Appendix C. Tune data, calibration data, and chromatographs are included in the laboratory report.

4.1 Analytical Results Gasoline UST Field

The analytical results of the eighteen post-excavation soil samples collected from the gasoline UST excavation did not detect benzene in any of the eighteen samples. Toluene was detected in three samples at concentrations of 3.4 ppb, 0.60 ppb and 540 ppb, respectively. Ethylbenzene was detected in one sample at a concentration of 510 ppb. Total xylenes were detected in three samples at concentrations of 15.2 ppb, 4.8



ppb and 13,200 ppb. MTBE was detected in all eighteen of the samples in concentrations ranging from 0.88 ppb to 11,000 ppb. Naphthalene was detected in twelve of the samples ranging from 0.98 ppb to 2,500 ppb. Table 2 summarizes the analytical data for the tank excavation. All post-excavation sampling locations are illustrated in Figure 2.

4.2 Analytical Results Diesel UST Excavation

The analytical results of the three post-excavation soil samples collected from beneath the diesel UST indicate that MTBE was detected at concentrations ranging from 10 ppb to 500 ppb. Naphthalene was detected at concentrations ranging from 20 ppb to 25 ppb. Concentrations of the remaining compounds in the VOC scan were not detected. All the base/neutral compounds were detected in one sample at concentrations ranging from 440 ppb of naphthalene to 3600 ppb of phenanthrene and fluoranthene. Table 2 summarizes the analytical results for the diesel UST excavation.

4.3 Analytical Results Waste Water UST Excavation

The results of the two post-excavation soil samples obtained from beneath the waste water UST indicate that benzene, toluene, ethylbenzene, isopropylbenzene, n-propylbenzene, p-isopropyltoluene, 1,2,4-trimethylbenzene, tert-butylbenzene and sec-butylbenzene were not detected. MTBE was detected in both samples at concentrations of 120 ppb and 240 ppb. Xylene was detected in one sample at a concentration of 4.8 ppb. 1,3,5-trimethylbenzene was detected in both samples at concentrations of 6.6 ppb and 15 ppb. N-butylbenzene was detected in both samples at concentrations of 19 ppb and 40 ppb. Naphthalene was detected in both samples at concentrations of 27 ppb and 84 ppb. Table 2 summarizes the analytical results for the diesel UST excavation.

4.4 Analytical Results Dispenser Islands/Remote Fills

The analytical results of the five post-excavation soil samples collected from beneath the dispenser islands detected benzene in one sample at a concentration of 540 ppb. Toluene was found in four samples at concentrations ranging from 2.3 ppb to 52,000 ppb. Ethylbenzene was detected in three samples in concentrations ranging from 2,900 ppb to 35,000 ppb. Total xylenes were detected in three samples at



concentrations ranging from 49,000 ppb to 650,000 ppb. MTBE was detected in two samples at 1.9 ppb and at 5,000 ppb. Naphthalene was detected in four of the samples at concentrations ranging from 4.1 ppb to 230,000 ppb.

The analytical results of the two post-excavation soil samples from the remote fill area did not detect benzene. Toluene was detected in both samples at concentrations of 3,600 ppb and 17,000 ppb. Ethylbenzene was detected in both samples at concentrations of 6,500 ppb and 6,700 ppb. Total xylenes were detected in both samples at concentrations of 222,000 ppb and 450,000 ppb. Naphthalene was detected in both samples at concentrations of 39,000 ppb and 60,000 ppb. A summary of the analytical results for the dispenser islands and remote fills is included in Table 3.

5.0 SUMMARY

In June, 1995, the following were removed from the Site:

- three 4,000-gallon and two 2,000-gallon single-walled steel gasoline USTs;
- one 4,000-gallon diesel single-walled steel UST;
- one 550-gallon single-walled steel wastewater UST;
- five dispenser islands;
- remote fills; and
- all associated piping.

The former UST system was replaced by:

- four 4,000-gallon double-walled fiberglass gasoline USTs;
- one 4,000-gallon double-walled fiberglass diesel UST;
- one 600-gallon double-walled fiberglass wastewater UST



- four dispenser islands;
- new remote fills; and
- double-walled fiberglass piping.

Following removal of the USTs, dispensers, piping, remote fills and impacted soils, post-excavation soil samples were collected. In the UST excavation, 12 bottom samples and six sidewall samples were collected. One sample was collected from each dispenser island excavation (total of five). Two samples were collected from the remote fill excavation.

Applicable guidance values for the compounds which are present at the Merit "Metropolitan" site, referred to as TCLP Alternative Guidance Values, have been established by the NYSDEC and are included in their STARS Memo #1. They are as follows: benzene 14 ppb; toluene 100 ppb; ethylbenzene 100 ppb; xylenes 100 ppb; and MTBE 1,000 ppb. Two of the eighteen post-excavation soil samples collected from the former gasoline UST excavation exceeded the above-referenced guidance values. Three of the five post-excavation soil samples collected from beneath the dispenser islands exceeded the NYSDEC guidance values. Both of the post-excavation soil samples collected from the remote fill area exceeded the NYSDEC guidance values.

FIGURES

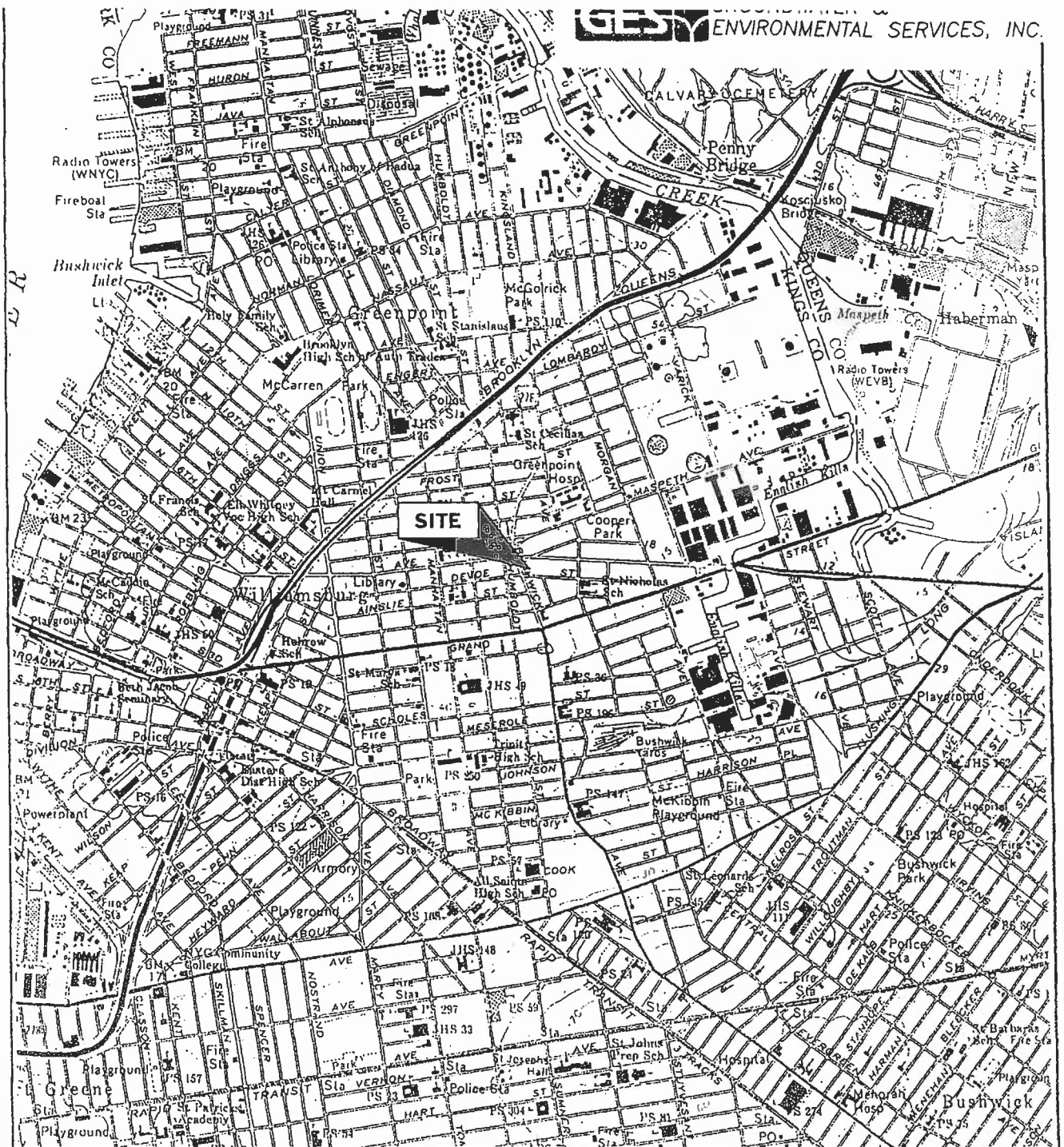
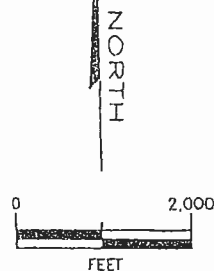


FIGURE 1
SITE LOCATION MAP
MERIT OIL OF NEW YORK, INC.
810 METROPOLITAN AVENUE
BROOKLYN, NEW YORK






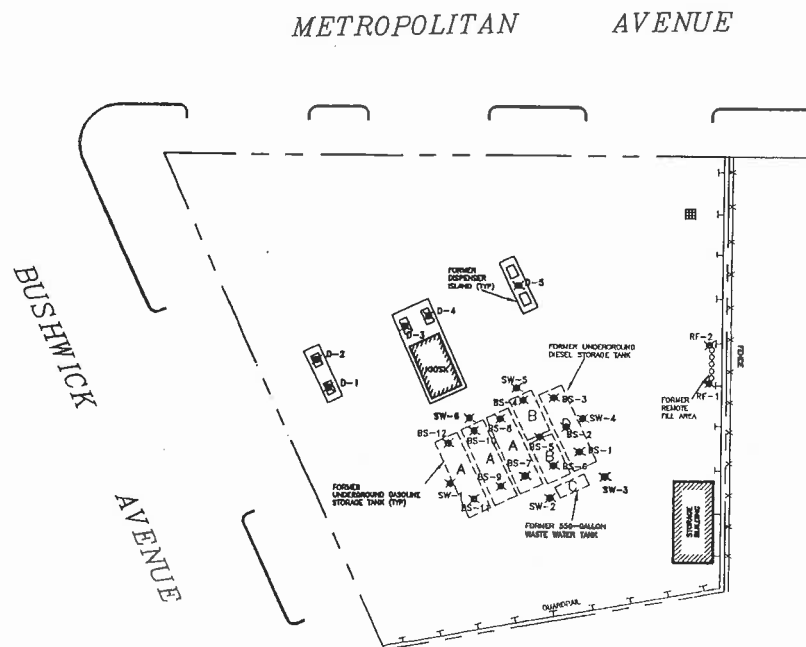
SOURCE: USGS 7.5 MINUTE SERIES
TOPOGRAPHIC QUADRANGLE 1979
BROOKLYN, N.Y.
CONTOUR INTERVAL = 10'



QUADRANGLE LOCATION



LEGEND

-  DISPENSER ISLAND
-  UNDERGROUND STORAGE TANK
-  SAMPLE LOCATION









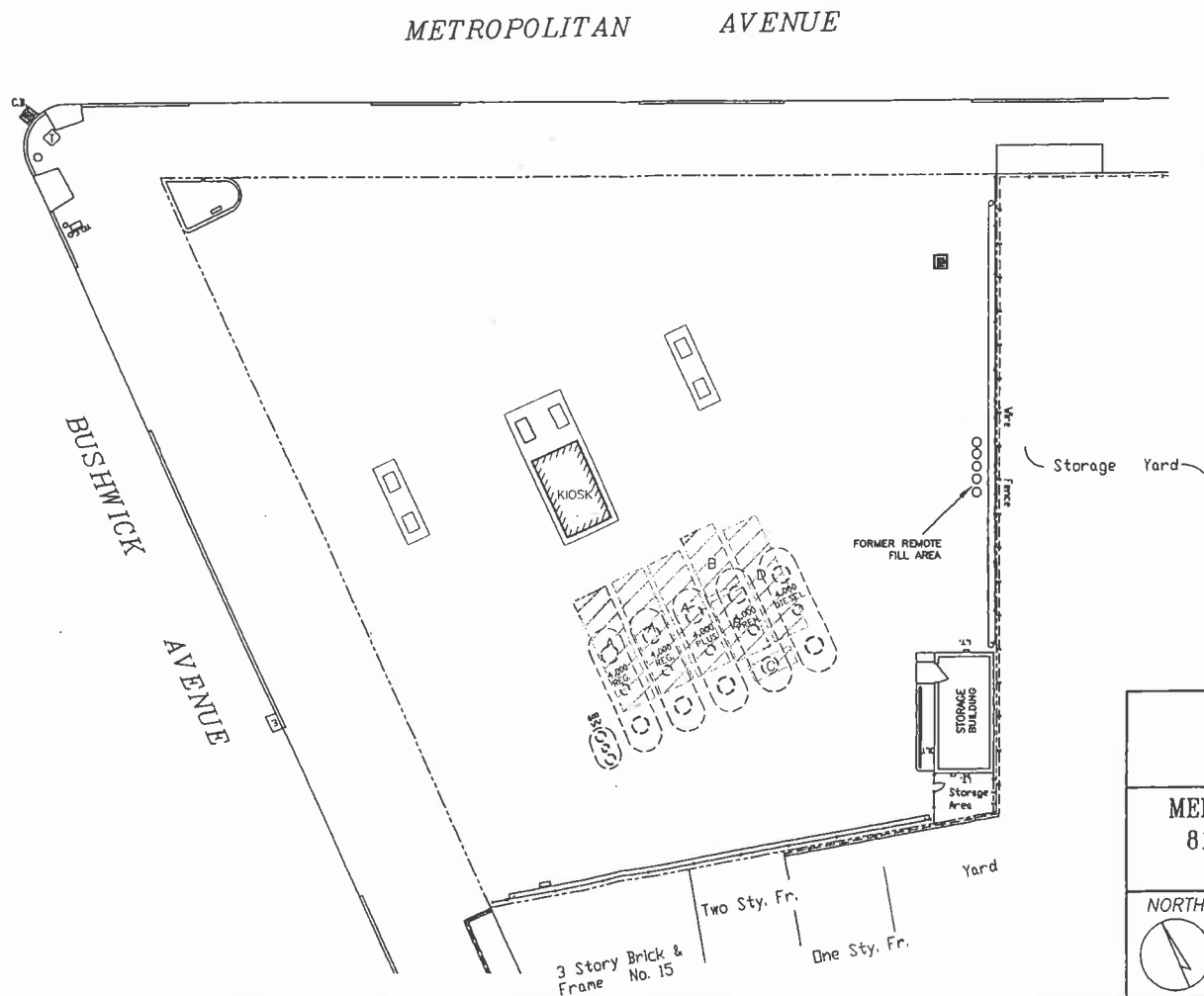
**SITE INFORMATION PLAN
JUNE 1995**

**MERIT OIL OF NEW YORK, INC.
810 METROPOLITAN AVENUE
BROOKLYN, NEW YORK**

	SCALE IN FEET 	DATE 3-23-98	SOURCE B
		DWG # RS0028A	FIGURE 3

LEGEND

-  EXISTING UNDERGROUND STORAGE TANK
-  FORMER DISPENSER ISLAND
-  FORMER 4,000 GALLON GASOLINE UNDERGROUND STORAGE TANK
-  FORMER 2,000 GALLON GASOLINE UNDERGROUND STORAGE TANK
-  FORMER 4,000 GALLON DIESEL UNDERGROUND STORAGE TANK
-  FORMER 550 GALLON WASTE WATER UNDERGROUND STORAGE TANK



SITE PLAN

MERIT OIL OF NEW YORK, INC.
810 METROPOLITAN AVENUE
BROOKLYN, NEW YORK



SCALE IN FEET
0 10 20

DATE
5-20-98
DWG #
RS0028

SOURCE
8
FIGURE
2

TABLES



TABLE 1

SUMMARY OF POST-EXCAVATION SOIL SAMPLE
COLLECTION LOCATIONS AND PID RESPONSEMerit Gasoline Station
810 Metropolitan Avenue
Brooklyn, New York

LOCATION	DEPTH	I.D.	DATE	PID
Diesel UST - South Bottom	13'	BS-1	6/13/95	84
Diesel UST - Center Bottom	13'	BS-2	6/13/95	54
Diesel UST - North Bottom	13'	BS-3	6/13/95	229
2,000-gal. USTs - South Bottom	13'	BS-4	6/13/95	402
2,000-gal. USTs - Center Bottom	13'	BS-5	6/13/95	263
2,000-gal. USTs - North Bottom	13'	BS-6	6/13/95	134
East 4,000-gal. Gasoline UST - South Bottom	13'	BS-7	6/13/95	69
East 4,000-gal. Gasoline UST - North Bottom	13'	BS-8	6/13/95	27
Center 4,000-gal. Gasoline UST - South Bottom	13'	BS-9	6/13/95	152
Center 4,000-gal. Gasoline UST - North Bottom	13'	BS-10	6/13/95	216
West 4,000-gal. Gasoline UST - South Bottom	13'	BS-11	6/13/95	50
West 4,000-gal. Gasoline UST - North Bottom	13'	BS-12	6/13/95	52
West Sidewall of Excavation	6'	SW-1	6/8/95	146
South Sidewall - West Side Waste Water Tank	8'	SW-2	6/8/95	595
South Sidewall - East Side Waste Water Tank	8'	SW-3	6/8/95	478
East Sidewall of Excavation	7'	SW-4	6/8/95	137
North Sidewall - East Side of Excavation	7'	SW-5	6/8/95	440
North Sidewall - West Side of Excavation	8'	SW-6	6/8/95	921
Diesel Dispenser	6'	D-1	6/8/95	744
West Gasoline Dispenser	4'	D-2	6/8/95	1,735
West Kiosk Gasoline Dispenser	4'	D-3	6/8/95	1,991
East Kiosk Gasoline Dispenser	4'	D-4	6/8/95	27
East Gasoline Dispenser	3.5'	D-5	6/8/95	1,677
Remote Fill - South	2'	RF-1	6/13/95	2,071
Remote Fill - North	2'	RF-2	6/13/95	1,460



TABLE 2

SUMMARY OF POST-EXCAVATION SOIL ANALYTICAL DATA
UST EXCAVATIONMerit Gasoline Station
810 Metropolitan Avenue
Brooklyn, New York

PARAMETERS		BS-1	BS-2	BS-3	BS-4	BS-5	BS-6
VOC (ug/kg)	AGV						
Benzene	14	<0.55	<2.80	<0.57	<0.56	<2.70	<2.90
Toluene	100	<0.55	<2.80	<0.57	<0.56	<2.70	3.4
Ethylbenzene	100	<0.55	<2.80	<0.57	<0.56	<2.70	<2.90
Xylenes	100	<1.65	<8.4	<1.67	<1.66	<8.2	15.2
Total BTEX	NGV	BDL	BDL	BDL	BDL	BDL	18.6
MTBE	1,000	120	500	10	4.0	330	100
Naphthalene	200	25	20	<0.57	1.3	3.6	<2.90
n-Propylbenzene	100	<0.55	<2.80	<0.57	<0.56	<2.70	3.2
1,3,5-Trimethylbenzene	100	<0.55	<2.80	<0.57	<0.56	<2.70	32
1,2,4-Trimethylbenzene	100	<0.55	<2.80	<0.57	<0.56	<2.70	7.3
Isopropylbenzene	100	<0.55	<2.80	<0.57	<0.56	<2.70	<2.90
P-Isopropyltoluene	100	<0.55	<2.80	<0.57	<0.56	<2.70	<2.90
sec-Butylbenzene	100	<0.55	<2.80	<0.57	<0.56	<2.70	<2.90
n-Butylbenzene	100	<0.55	<2.80	<0.57	<0.56	<2.70	<2.90
n-Propylbenzene	100	<0.55	<2.80	<0.57	<0.56	<2.70	3.2

AGV=NYSDEC STARS Alternative Guidance Value

J indicates that result is below method detection limit.

ug/kg is micrograms per kilogram.

BDL is below detection limits as identified in laboratory report.

NGV=no guidance value

MTBE=Methyl-tert-Butyl-Ether

exceedances are in bold



TABLE 2 - CONTINUED

SUMMARY OF POST-EXCAVATION SOIL ANALYTICAL DATA
UST EXCAVATIONMerit Gasoline Station
810 Metropolitan Avenue
Brooklyn, New York

PARAMETERS		BS-1	BS-2	BS-3	BS-4	BS-5	BS-6
BASE NEUTRALS (ug/kg)	AGV						
Naphthalene	200	<370	<370	440	430	53 J	130 J
Acenaphthene	400	<370	<370	800	79 J	<360	120 J
Fluorene	1,000	<370	<370	800	81 J	<360	120 J
Phenanthrene	1,000	<370	<370	3,600	530	230 J	1,100
Anthracene	1,000	<370	<370	1,100	110 J	57 J	270 J
Fluoranthene	1,000	<370	<370	3,600	660	300 J	1,400
Pyrene	1,000	<370	<370	2,800	590	300 J	1,400
Benzo(a)anthracene	0.04	<370	<370	2,100	320 J	170 J	930
Chrysene	0.04	<370	<370	1,800	340 J	180 J	890
Benzo(b)fluoranthene	0.04	<370	<370	1,500	310 J	160 J	810
Benzo(k)fluoranthene	0.04	<370	<370	1,100	220 J	110 J	670
Benzo(a)pyrene	0.04	<370	<370	1,500	290 J	140 J	820
Indeno(1,2,3-cd)pyrene	0.04	<370	<370	730	170 J	76 J	470
Dibenz(a,h)anthracene	1,000	<370	<370	450	56 J	<360	210 J
Benzo(g,h,i)perylene	0.04	<370	<370	750	190 J	88 J	540

AGV=NYSDEC STARS Alternative Guidance Value

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MTBE=Methyl-tert-Butyl-Ether

exceedances are in bold



TABLE 2 - CONTINUED

SUMMARY OF POST-EXCAVATION SOIL ANALYTICAL DATA
UST EXCAVATIONMerit Gasoline Station
810 Metropolitan Avenue
Brooklyn, New York

PARAMETERS		BS-7	BS-8	BS-9	BS-10	BS-11	BS-12
VOC (ug/kg)	AGV						
Benzene	14	<0.53	<0.52	<2.80	<2.90	<0.53	<0.55
Toluene	100	<0.53	<0.52	<2.80	<2.90	<0.53	<0.55
Ethylbenzene	100	<0.53	<0.52	<2.80	<2.90	<0.53	<0.55
Xylenes	100	<1.63	<1.52	<8.40	<8.70	<1.63	<1.65
Total BTEX	NGV	BDL	BDL	BDL	BDL	BDL	BDL
MTBE	1,000	1.0	0.88	290	360	11	3.4
Naphthalene	200	0.98	<0.52	4.4	<2.90	2.1	1.2
1,3,5-Trimethylbenzene	100	<0.53	<0.52	<2.80	<2.90	<0.53	<0.55
1,2,4-Trimethylbenzene	100	<0.53	<0.52	6.9	<2.90	<0.53	0.79
Isopropylbenzene	100	<0.53	<0.52	<2.80	<2.90	<0.53	<0.55
P-Isopropyltoluene	100	<0.53	<0.52	<2.80	<2.90	<0.53	<0.55
sec-Butylbenzene	100	<0.53	<0.52	<2.80	<2.90	<0.53	<0.55
n-Butylbenzene	100	<0.53	<0.52	<2.80	<2.90	<0.53	<0.55
n-Propylbenzene	100	<0.53	<0.52	<2.80	<2.90	<0.53	0.76

AGV=STARS Alternative Guidance Value

ug/kg is micrograms per kilogram.

BDL is below detection limits as identified in laboratory report.

MTBE=Methyl-tert-Butyl-Ether

exceedances are in bold

NGV=no Guidance Value



TABLE 2 - CONTINUED

SUMMARY OF POST-EXCAVATION SOIL ANALYTICAL DATA
UST EXCAVATIONMerit Gasoline Station
810 Metropolitan Avenue
Brooklyn, New York

PARAMETERS		SW-1	SW-2	SW-3	SW-4	SW-5	SW-6
VOC (ug/kg)	AGV						
Benzene	14	<0.58	<2.90	<2.80	<15.0	<61.0	<5.70
Toluene	100	0.60	<2.90	<2.80	<15.0	540	<5.70
Ethylbenzene	100	<0.58	<2.90	<2.80	<15.0	510	<5.70
Xylenes	100	<1.78	4.8	<8.5	<46.0	13,200	<16.7
Total BTEX	NGV	0.60	4.8	BDL	BDL	14,250	BDL
MTBE	1,000	3.1	240	120	3,700	11,000	270
Isopropylbenzene	100	<0.58	<2.90	<2.80	<15.0	140	<5.70
n-Butylbenzene	100	2.0	40	19	<15.0	3,000	<5.70
Naphthalene	200	2.0	27	84	<15.0	2,500	<5.70
n-Propylbenzene	100	<0.58	<2.90	<2.80	<15.0	440	<5.70
1,3,5-Trimethylbenzene	100	1.2	15	6.6	<15.0	5,100	<5.70
1,2,4-Trimethylbenzene	100	<0.58	<2.90	<2.80	<15.0	14,000	14
p-Isopropyltoluene	100	<0.58	<2.90	<2.80	<15.0	160	<5.70
Tert-butylbenzene	100	<0.58	<2.90	<2.80	<15.0	75	<5.70
sec-Butylbenzene	100	<0.58	<2.90	<2.80	<15.0	<61.0	<5.70

AGV=STARS Alternative Guidance Value

ug/kg is micrograms per kilogram.

BDL is below detection limits as identified in laboratory report.

MTBE=Methyl-tert-Butyl-Ether

exceedances are in bold

NGV=no Guidance Value



TABLE 3

SUMMARY OF POST-EXCAVATION SOIL ANALYTICAL DATA
REMOTE FILL AND DISPENSER ISLAND EXCAVATIONSMerit Gasoline Station
810 Metropolitan Avenue
Brooklyn, New York

PARAMETERS		D-1	D-2	D-3	D-4	D-5	RF-1	RF-2
VOC (ug/kg)	AGV							
Benzene	14	<1500	540	<6000	<0.70	<0.61	<1400	<3000
Toluene	100	1,800	8,900	52,000	2.3	<0.61	17,000	3,600
Ethylbenzene	100	2,900	4,400	35,000	<0.70	<0.61	6,500	6,700
Xylenes	100	107,000	49,000	650,000	<0.70	<1.81	222,000	450,000
Total BTEX	NGV	111,700	62,840	737,000	2.3	BDL	245,500	460,300
Isopropylbenzene	100	2,200	1,600	14,000	<0.70	<0.61	3,900	<3000
n-Propylbenzene	100	<1500	2,900	39,000	<0.70	<0.61	7,600	4,400
p-Isopropyltoluene	100	18,000	3,000	<6000	<0.70	<0.61	4,400	8,300
1,3,5-Trimethylbenzene	100	120,000	21,000	270,000	<0.70	<0.61	59,000	120,000
1,2,4-Trimethylbenzene	100	320,000	53,000	870,000	<0.70	<0.61	190,000	390,000
Tert-butylbenzene	100	<1500	<290	<6000	<0.70	<0.61	<1400	<3000
Methyl-tert-butyl ether (MTBE)	1000	5,000	<290	<6000	<0.70	1.9	<1400	<3000
sec-Butylbenzene	100	13,000	4,400	32,000	<0.70	<0.61	6,500	<3000
n-Butylbenzene	100	<1500	19,000	120,000	<0.70	<0.61	24,000	86,000
Naphthalene	200	110,000	24,000	230,000	4.1	<0.61	39,000	60,000

AGV=Alternative Guidance Value

E indicates that result exceeds calibration range.

J indicates that result is below the method detection limit.

- is not sampled for this parameter.

ug/kg is micrograms per kilogram.

BDL is below detection limits as identified in laboratory report.

NGV=No Guidance Value

ug/kg is micrograms per kilogram.

exceedances are in bold



TABLE 3 (continued)

SUMMARY OF POST-EXCAVATION SOIL ANALYTICAL DATA
REMOTE FILL AND DISPENSER ISLAND EXCAVATIONSMerit Gasoline Station
810 Metropolitan Avenue
Brooklyn, New York

PARAMETERS		D-1	D-2	D-3	D-4	D-5	RF-1	RF-2
Naphthalene	200	9600 E	1,500	-	-	-	-	-
Acenaphthene	400	<390	<780	-	-	-	-	-
Fluorene	1,000	<390	<780	-	-	-	-	-
Phenanthrene	1,000	130 J	2,300	-	-	-	-	-
Anthracene	1,000	<390	430 J	-	-	-	-	-
Fluoranthene	1,000	45 J	1,800	-	-	-	-	-
Pyrene	1,000	60 J	910	-	-	-	-	-
Benzo(a)anthracene	0.04	<390	580 J	-	-	-	-	-
Chrysene	0.04	<390	580 J	-	-	-	-	-
Benzo(b)fluoranthene	0.04	<390	660 J	-	-	-	-	-
Benzo(k)fluoranthene	0.04	<390	460 J	-	-	-	-	-
Benzo(a)pyrene	0.04	<390	520 J	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	0.04	<390	310 J	-	-	-	-	-
Dibenz(a,h)anthracene	1,000	<390	<780	-	-	-	-	-
Benzo(g,h,i)perylene	0.04	<390	330 J	-	-	-	-	-

AGV=Alternative Guidance Value

E indicates that result exceeds calibration range.

J indicates that result is below the method detection limit.

- is not sampled for this parameter.

ug/kg is micrograms per kilogram.

BDL is below detection limits as identified in laboratory report.

NGV=No Guidance Value

ug/kg is micrograms per kilogram.

exceedances are in bold

APPENDICES



APPENDIX A
WASTE DISPOSAL DOCUMENTATION



E.J. BRENEMAN, Inc.
GENERAL CONTRACTORS

ROAD RECYCLING • MICROSURFACING
MILLER MUNICIPAL SUPPLY
CONCRETE CURB & SIDEWALK

July 18, 1995

Environmental Professionals Inc.
285 Pinedge Drive
Berlin, NJ 08009
Attn: Leslie Nosarzewski

Re: Merit Station "Metropolitan"
810 Metropolitan Avenue
Brooklyn, NY 11211-2515

Dear Ms. Nosarzewski:

This correspondence is to officially certify that the 35 load(s) of material received by E. J. Breneman, Inc. on July 6-7, & 11-12, 1995 totaling 896.74 tons was beneficially used by thermally processing and recycling into hot mix asphalt.

Very truly yours,

E. J. Breneman, Inc.

Roger Schmidt PRES.

for

Lawrence R. Yerger -
Vice President

LRY/kbc

Contract # 6074

ENVIRONMENTAL