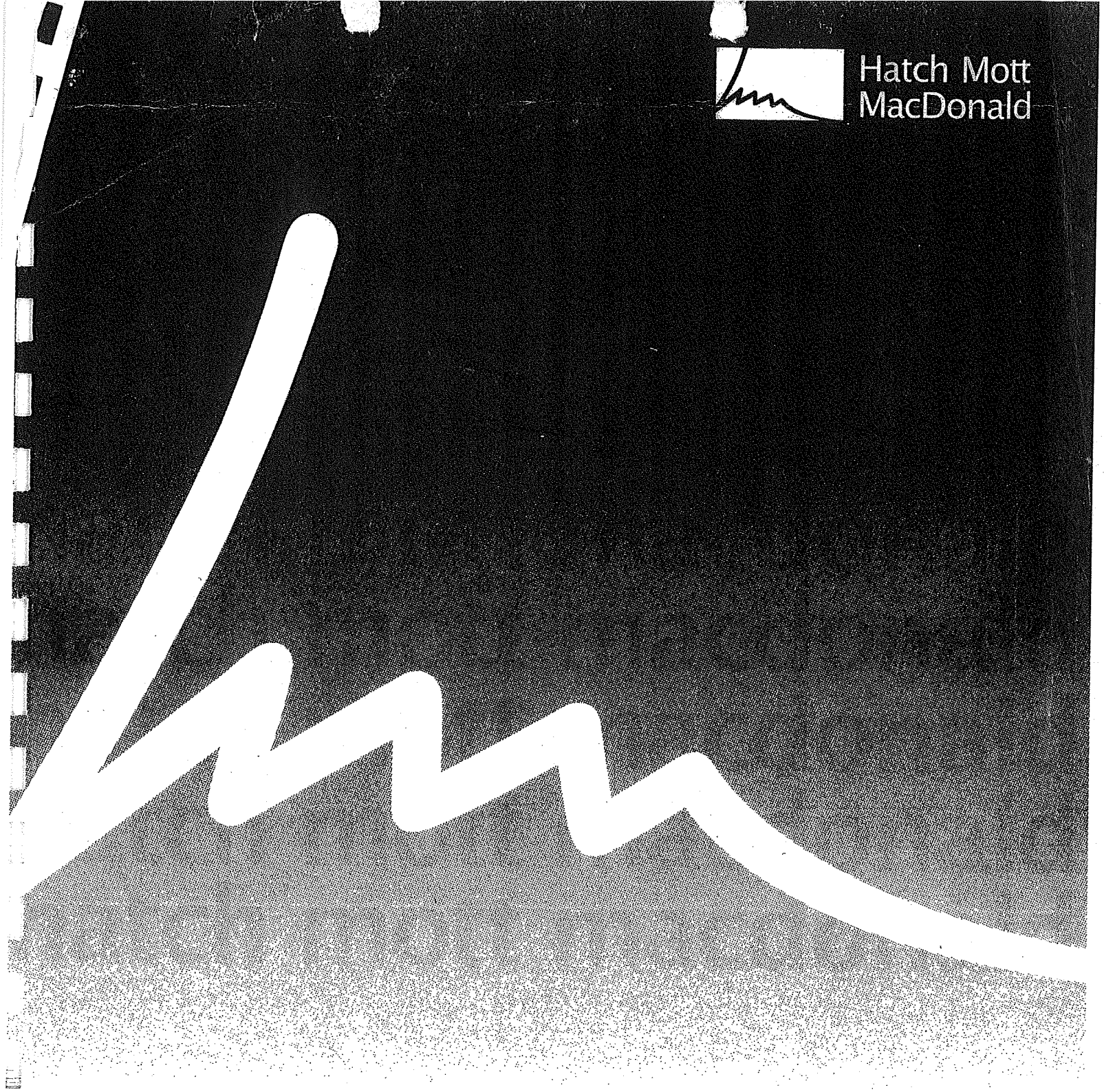

Hatch Mott MacDonald

Wilentz, Goldman & Spitzer
Elevation Survey and Groundwater Sample Results
February 2003

North Brunswick Gulf, North Brunswick, New Jersey
NJDEP Case No. 01-08-30-1546-07, HMM No. D1390A.AA.01

Hatch Mott MacDonald

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February 26, 2003

Ms. Cynthia DeSousa
Wilentz, Goldman & Spitzer
90 Woodbridge Center Drive
Suite 900, Box 10
Woodbridge, NJ 07095-0958

RE: Elevation Survey and Groundwater Sample Results
North Brunswick Gulf
HMM # D1390AAA01

Dear Ms. DeSousa:

Hatch Mott MacDonald (formerly Killam Associates) has completed a limited site investigation at the North Brunswick Gulf service station located at 1696 Georges Road (Route 130) in North Brunswick, New Jersey. The purpose of the investigation was to obtain additional information on groundwater flow and contaminant migration patterns related to damage to an unleaded gasoline underground storage tank located at the facility. Specifically, this damage occurred on August 30, 2001 during drilling activities performed as part of a Phase II Site Assessment conducted by Environmental Compliance Monitoring, Inc. (ECM). Figure 1 is a facility site plan showing the location of the damaged UST.

The investigation included the sampling of the existing four monitoring wells and site surveying to establish the relative elevations of a former intermittent surface seep and the product piping trench leading northward from the damaged UST. The presence of the seepage point suggests the occurrence of a perched or seasonally elevated water table that may have allowed contaminant migration through the piping trench bedding material toward monitoring well MW-1 after the UST was punctured. According to Mr. Walter Lapp, this seep has occurred periodically in the past and was located at the southern edge of the former concrete pad overlying the USTs. In 1997, the Middlesex County Public Health Department had tested the seep for total petroleum hydrocarbons and iron. Elevated iron concentrations were detected but there was no evidence of petroleum hydrocarbons. It is believed that this seepage of water, as observed by Mr. Lapp, may have been caused by the water table rising to intersect the ground surface at this location.

Elevation Survey

As part of the groundwater investigation HMM surveyed the elevations of the North Brunswick Gulf groundwater well casings (MW-1 – MW-4), various ground elevations around the UST and piping trench excavations, base elevations of the

piping trench bedding material (piping trench is located on the west side of the existing dispenser island), elevation of the water within the open UST excavation, and the elevation of the reported former location of the groundwater seepage point on October 24, 2002. To be consistent with previous surveys at the site, the top of the PVC casing at MW-1 was used as the datum, with an assumed elevation of 100 feet.

The elevation survey was performed to confirm elevations of various site features as presented in the May 2002 Preliminary Site Investigation/Remedial Action Report (PSI/RAR) prepared by Red Hawk Environmental Consulting, Ltd. (Red Hawk) of Wrightstown and in order to better understand site groundwater flow patterns. The surveyed elevations are summarized on Table 1 and the locations surveyed along with corresponding elevations have been plotted on Figure 2.

Groundwater Flow

Prior to sampling, groundwater measurements were taken from each well using an interface probe designed to detect separate-phase product on October 24, 2002. The interface probe was additionally used to sound each of the wells (check the total depth of the well). The interface probe was decontaminated in between each well to eliminate the potential for cross contamination. All depth to water and sounding measurements were measured from the established well top of casing survey point. A summary of the measured depths to water and computed groundwater elevations for October 24, 2002 as well as historical groundwater elevation data for the site is provided in Table 2. Separate-phase product was detected in MW-2 at a thickness of 0.01 feet. Following the detection of separate-phase product, a dedicated Teflon bailer was used to check for any visible separate-phase floating product in MW-2. Only a petroleum-sheen was noted on the outside of the bailer and no measurable quantities of separate-phase product were observed within the bailer.

Groundwater elevation measurements were computed from water levels obtained from the monitoring wells on October 24, 2002. Using the computed groundwater elevations, a groundwater contour map was generated and is provided as Figure 3. The highest computed groundwater elevation was recorded in monitoring well MW-4 (93.70 feet). The lowest groundwater elevation was measured to be in MW-3 (86.69 feet). As illustrated on Figure 3, a component of groundwater flow direction is towards the northwest and a component of groundwater flow direction is to the southwest.

Groundwater Monitoring Well Sample Results – October 2002

The monitoring wells at the Gulf Station were sampled on October 24, 2002. Groundwater samples were collected from four monitoring wells (MW-1 – MW-4) and were analyzed for BTEX, MTBE, and TBA. In addition, NJDEP-required field and trip blanks were also obtained. A representative from Red Hawk was present on-site and split-sampling was performed.

Prior to sampling, groundwater measurements were taken from each well using an interface probe designed to detect separate-phase product. A summary of the

groundwater elevations for the site is provided as Table 2. Separate-phase product was noted in MW-2 at a thickness of 0.01 feet.

Using the water level measurements, the well casing volumes were calculated and three well volumes were purged from each well using a centrifugal pump, dedicated tubing and a check valve. Insufficient water was available to get three volumes from wells MW-2, MW-3 and MW-4, due to poor recharge. A small quantity of separate-phase product was observed in the Teflon tubing used to purge MW-2 after completion of purging this well. This separate-phase product was collected in a vial for observation. The product was observed to contain silt, was black in color and exhibited gasoline odors.

The groundwater samples were collected using pre-cleaned, dedicated Teflon bailers and latex gloves. Upon groundwater sample acquisition, the samples were placed in pre-cleaned laboratory bottles and stored in a cooler maintained at a temperature of four degrees Celsius. All sampling protocol was in accordance with the May 1992 edition of the NJDEP Field Sampling Procedures Manual.

Additional groundwater sampling information for the October 24, 2002 sampling event is provided in Appendix A. The complete Reduced Deliverables Laboratory Data Deliverables Package of Groundwater Laboratory Analytical Results, including all QA/QC documentation, for the October 24, 2002 groundwater sampling episode are included in Appendix B. Tabulated data summarizing monitoring well analytical results for October 24, 2002, are provided in Table 3.

BTEX results indicated concentrations of benzene in MW-1 (6,600 µg/l) and MW-2 (2,600 µg/l) above the NJDEP GWQS. Benzene was non detect in MW-3 and MW-4. Toluene (24,000 ug/l in MW-1, 8,600 ug/l in MW-2), ethylbenzene (3,200 ug/l in MW-1, 2,100 ug/l in MW-2) and xylenes (19,000 ug/l in MW-1, 11,000 ug/l in MW-2 also exceeded GWQS in wells MW-1 and MW-2. BTEX compounds were non-detectable in wells MW-3 and MW-4. MTBE was detected above NJDEP GWQS in MW-1 (14,000 µg/l), MW-2 (420 µg/l), MW-3 (6,800 µg/l), and MW-4 (650 µg/l). TBA was detected at concentrations in MW-3 (3,600 µg/l), and MW-4 (1,100 µg/l) above the NJDEP GWQS. TBA was non detect in wells MW-1 and MW-2.

UST Excavation Water Sample Results – January 2003

Due to several significant precipitation events, the water level in the open UST excavation increased beginning in mid to late December. After heavy rains on January 1, 2003, the rising water reached the top of the excavation and began to discharge from the southern end of the pit onto Washington Place.

On January 3, 2003, Ms. Kathy Katz from the NJDEP Bureau of Underground Storage Tanks directed Redhawk to remove water from the open excavation as an emergency measure to address the discharge from the excavation onto Washington Place. It has been reported that some water was pumped from the excavation into a vac truck by Environmental Maintenance, under the direction of Redhawk on January 3, 2003. The volume of water removed is not known at this time. In addition,

NJDEP granted approval to temporarily discharge the water from the UST excavation to a nearby storm sewer. Prior to any discharge to the sewer, the water will be treated through a carbon filtration treatment system. Redhawk/EnvironmentalMaintenance has constructed and is operating the remedial system.

In response to the rising water levels, HMM sampled water in the excavation on January 2, 2003. Two samples (Water-1 and Water-2) were collected from the UST excavation and the samples were analyzed for BTEX, MTBE, and TBA. Refer to Figure 1, for these sample locations. The samples were collected in accordance with the NJDEP Field Procedures Manual and were transported directly from the field to Accutest Laboratories (NJ Laboratory Certification Number 12129) of Dayton, New Jersey for analysis. The complete Reduced Deliverables Laboratory Data Deliverables Package of Groundwater Laboratory Analytical Results, including all QA/QC documentation, for the January 2, 2003 groundwater sampling episode are included in Appendix C.

Both water samples (Water-1 and Water-2) contained benzene, MTBE, and TBA concentrations above the GWQS. Specifically, concentrations of benzene (310 µg/l), MTBE (267 µg/l), and TBA (639 µg/l) were detected at location Water-1 and benzene (308 µg/l), MTBE (265 µg/l), and TBA (623 µg/l) were detected at location Water-2. Toluene, ethylbenzene, and xylenes (total) were additionally detected at both sample locations at levels below the GWQS. The laboratory analytical results of the water samples obtained from the UST excavation are included in Table 3.

Findings/Recommendations

Based on the results of the site survey and groundwater sampling at the North Brunswick Gulf service station, the following findings are presented:

As indicated previously on Figure 3, groundwater level measurements from October 24th indicate a two-component groundwater flow direction with flow in both northwesterly and southwesterly directions with the highest water level occurring at well MW-4. Although not presented on a contour map, Redhawk's water level measurements from February 25, 2002 show a similar pattern. This pattern is significantly different from the uniform southerly flow direction shown on Redhawk's groundwater contour map for March 8, 2002 (Figure 4, May 2002 Preliminary Site Assessment/Remedial Action Report). The March 8, 2002 contour map showed groundwater flow towards the south/southeast with an average hydraulic gradient of 5.2 x 10-2 feet/foot. For ease in review, a copy of Figure 4 from the May 2002 PSA/RAR is provided in Appendix D. This suggests a variable groundwater flow pattern for the site, which could have allowed contamination from the damaged tank discharge to migrate in a direction ranging from north/northwest to south depending on changes in groundwater levels at the site.

The site survey indicated an elevation of 98.63 feet above mean sea level at the former groundwater seepage point. This is above the elevation of the piping trench, which ranged from 97.42 to 98.28 feet above mean sea level. If the seepage point represents the seasonal high water table, then, during seasonal high water combined

with a northwesterly groundwater flow direction, the piping trench could have received contaminated groundwater and/or floating product from the area of discharge. Available groundwater monitoring data is summarized in Table 2. The table indicates that the highest recorded water level was 93.70 feet above mean sea level in MW-4 on October 24, 2002. Although this is not an extensive database, the water table would have to rise to approximately elevation 98 feet to intercept the seepage point and the piping trench.

However, it should be noted that the water level in the excavation was at approximately 96 feet above mean sea level on January 2, 2003. This is a 5 foot increase from the water level of 91.11 feet measured on October 24, 2002. Since the water had reached the top of the bank at the southern end of the excavation, it is not known if the water level would have risen further if it had been contained within the pit. HMM did not have access to the monitoring wells on January 2nd and could not determine if the water level observed in the excavation also reflected the elevation of the water table.

From the groundwater sampling event, the BTEX compounds exceeded Groundwater Quality Standards in MW-1 and MW-2. MTBE exceeded the GWQS in all four wells and TBA exceeded the GWQS in wells MW-3 and MW-4. Appendix E includes previous well sampling results obtained by Redhawk in February and March 2002. Comparison with the October 2002 data indicates an increasing trend in MTBE and TBA concentrations in wells MW-3 and MW-4. Appendix E also includes the groundwater sampling results obtained by ECM on August 30, 2001 when the UST was damaged. Samples SB-4 and SB-6 were collected prior to the tank being damaged. Sample SB-6 contained MTBE at 460 ug/l and TBA at 2100 ug/l. This sample location was on the north side of the USTs, approximately 10 feet from where boring SB-7 subsequently damaged the UST. However, sample SB-4, located on the east side of the USTs and closer to wells MW-3 and MW-4, contained only 19 ug/l of MTBE and TBA was below detection limits. This suggests that, prior to damage to the tank, groundwater contamination above GWQS did not extend to the south beyond the location of SB-4. Therefore, the elevated MTBE and TBA concentrations in wells MW-3 and MW-4 can be attributed to the release from the damaged UST and additional remediation is warranted in this area. The results of the UST excavation water samples collected on January 2, 2003 further support the need for additional remediation. In addition, the extent of the plume in this area has not been delineated and off-site wells are recommended.

Hatch Mott MacDonald

If you have any questions or require additional information, please feel free to contact us

Very truly yours,

Hatch Mott MacDonald

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Vice President
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daniel.toder@hatchmott.com

DRT:rjd

Table 1
North Brunswick Gulf
North Brunswick, New Jersey

SURVEY DATA
Ocober 24, 2002

						H-ANGLE				V-ANGLE						
BS	HI	FS	TH	BH	"R"	deg	min	sec	dec degrees	deg	min	sec	dec degrees	H-DIST	ELEV	DESCRIPTION
STATION 1																
5.12	105.12														100.00	MW-1
	105.12	4.84													100.28	MW-1 Ground
	105.12	5.82													99.30	MW-2
	105.12	5.55													99.57	MW-2 Ground
	105.12	9.41													95.71	MW-3
	105.12	8.97													96.15	MW-3 Ground
	105.12	7.60													97.52	MW-4
	105.12	8.61													96.51	MW-4 Ground
	105.12	4.55													100.57	SW Building Corner (PK Nail)
	105.12	4.96													100.16	SE Building Corner (PK Nail)
	105.12	5.12													100.00	MW-1
	105.12	6.30													98.82	E-3 (PK nail)
	105.12	5.33													99.79	E-1
	105.12	5.79													99.33	E-2
	105.12	6.30													98.82	E-3 (PK Nail)
															98.63*	Approx elev. of seep
	105.12	6.68													98.44	E-4
	105.12	7.95													97.17	E-5
	105.12	9.18													95.94	E-6
	105.12	11.13													93.99	E-7
	105.12	14.01													91.11	Excavation Water Elevation
	105.12	6.67													98.45	E-8
	105.12	5.89													99.23	E-9
	105.12	5.56													99.56	E-10
	105.12	5.36													99.76	E-11
	105.12	5.28													99.84	E-12
	105.12	4.89													100.23	E-13
	105.12	7.16													97.96	E-4A
	105.12	7.70													97.42	PT-1
	105.12	7.31													97.81	PT-2
	105.12	7.66													97.46	PT-3
	105.12	6.84													98.28	PT-4
	105.12	4.54													100.58	SW Building Corner
	105.12	4.96													100.16	SE Building Corner
	105.12	4.66													100.46	Concrete pad Kiosk South
	105.12	4.65													100.47	Concrete pad Kiosk North
	105.12	4.83													100.29	AP-2

Table 1
North Brunswick Gulf
North Brunswick, New Jersey

SURVEY DATA
Ocober 24, 2002

						H-ANGLE				V-ANGLE						
BS	HI	FS	TH	BH	"R"	deg	min	sec	dec degrees	deg	min	sec	dec degrees	H-DIST	ELEV	DESCRIPTION
	105.12	4.82													100.30	AP-3
	105.12	4.75													100.37	AP-4

* This elevation was interpolated between points E-3 and E-4.

Table 2

North Brunswick Gulf
North Brunswick, New Jersey

Groundwater Elevations

Well No.	Date Installed	Total Depth of Well	Screened Interval (ft)	TOC Elev. (ft)	GS Elevation (ft)	DTW (ft) 02/27/02	GW Elev. (ft) 02/27/02	DTW (ft) 02/28/02	GW Elev. (ft) 02/28/02	DTW (ft) 03/08/02	GW Elev. (ft) 03/8/02	DTW (ft) 03/09/02	GW Elev. (ft) 03/09/02
Monitoring Wells													
MW-1	2/21/2002	20.27	5.33-20.33	100.00	100.33	8.57	91.43	8.60	91.40	8.48	91.52	8.49	91.51
MW-2	2/21/2002	20.29	5.33-20.33	99.29	99.62	8.79	90.50	9.51	89.78	8.48	90.81	9.35	89.94
MW-3	2/22/2002	20.24	5.47-20.47	95.70	96.17	9.59	86.11	9.74	85.96	9.53	86.17	9.46	86.24
MW-4	2/22/2002	21.45	5-20	97.55	96.52	18.52	79.03	18.49	79.06	9.18	88.37	17.99	79.56

Notes:
All elevations are relative to on-site assumed elevation of 100 feet..
TOPC = Top of protective casing
TOC = Top of casing
TOS = Top of screen
GS = Ground Surface
ft BGS = Feet below ground surface
Bold text = Groundwater (GW) elevation corrected due to presence of free product.
Free product thickness was measured to be 0.01 feet in MW-2

Table 2

North Brunswick Gulf
North Brunswick, New Jersey

Groundwater Elevations

Well No.	Date Installed	Total Depth of Well	Sreened Interval (ft)	TOC Elev. (ft)	GS Elevation (ft)	DTW (ft) 03/15/02	GW Elev. (ft) 03/15/02	DTW (ft) 03/25/02	GW Elev. (ft) 03/25/02	DTW (ft) 10/24/02	GW Elev. (ft) 10/24/02
Monitoring Wells											
MW-1	2/21/2002	20.27	5.33-20.33	100.00	100.33	8.33	91.67	7.77	92.23	7.40	92.60
MW-2	2/21/2002	20.29	5.33-20.33	99.29	99.62	8.39	90.90	7.35	91.94	6.99	**92.30**
MW-3	2/22/2002	20.24	5.47-20.47	95.70	96.17	9.33	86.37	9.28	86.42	9.01	86.69
MW-4	2/22/2002	21.45	5-20	97.55	96.52	10.25	87.30	4.53	93.02	3.85	93.70

Notes:
All elevations are relative to on-site assumed elevation of 100 feet..
TOPC = Top of protective casing
TOC = Top of casing
TOS = Top of screen
GS = Ground Surface
ft BGS = Feet below ground surface
Bold text = Groundwater (GW) elevation corrected due to presence of free product.
Free product thickness was measured to be 0.01 feet in MW-2

Table 3

North Brunswick Gulf
North Brunswick, New Jersey

Groundwater Sample Results

ANALYSIS:	SAMPLE NO. DATE	MW-1 10/24/2002	MW-2 10/24/2002	MW-3 10/24/2002	MW-4 10/24/2002	Water-1 UST PIT 1/2/2003	Water-2 UST PIT 1/2/2003	Field blank 10/24/2002	Trip blank 10/23/2002
	Groundwater Quality Standards								
VOLATILE ORGANICS:									
Benzene	1	**6800**	**2600**	ND	ND	**310**	**308**	ND	ND
Toluene	1000	**24000**	**8600**	ND	ND	420	410	2	ND
Ethylbenzene	700	**3200**	**2100**	ND	ND	31.9	30.9	ND	ND
Xylenes (Total)	1,000	**19000**	**11000**	ND	ND	566	562	0.9	ND
MTBE	70	**14000**	**420**	**6800**	**650**	**267**	**265**	5.1	ND
TBA	100	<1700	<680	**3600**	**1100**	**639**	**623**	ND	ND

Notes:
All results are shown in ug/l unless otherwise indicated.
NJDEP GWQS shown are for Class IIA aquifers.
ND = Compound not detected in the sample.
Shaded/bold = Parameter exceeds GWQS.

Table 2
Analytical Hits Summary for Water Samples – August 2001
North Brunswick Gulf
Project #1269

Sample Identification Laboratory Identification Sample Date Sample Time	SB-4 (W) 299670 8/30/01 11:20	SB-6 (W) 298015 8/30/01 13:15	SB-7 (W) 298016 8/30/01 14:30	GWQS (µg/L)
VOLATILE ORGANICS				
Benzene	ND	***29***	***190***	1
Toluene	ND	1.9	46	1,000
Ethylbenzene	ND	6.3	81	700
Xylenes (Total)	ND	4.7	55	1,000
Tertiary Butyl Alcohol	ND	***2,100***	***5,100***	100
Methyl Tertiary Butyl Ether	19	***460***	***1,400***	70
Tentatively Identified Compounds	0.0	57	***2,270***	500*
METALS				
Lead	***468***	***987***	NT	10

Notes:

All results reported in micrograms per liter (µg/L).

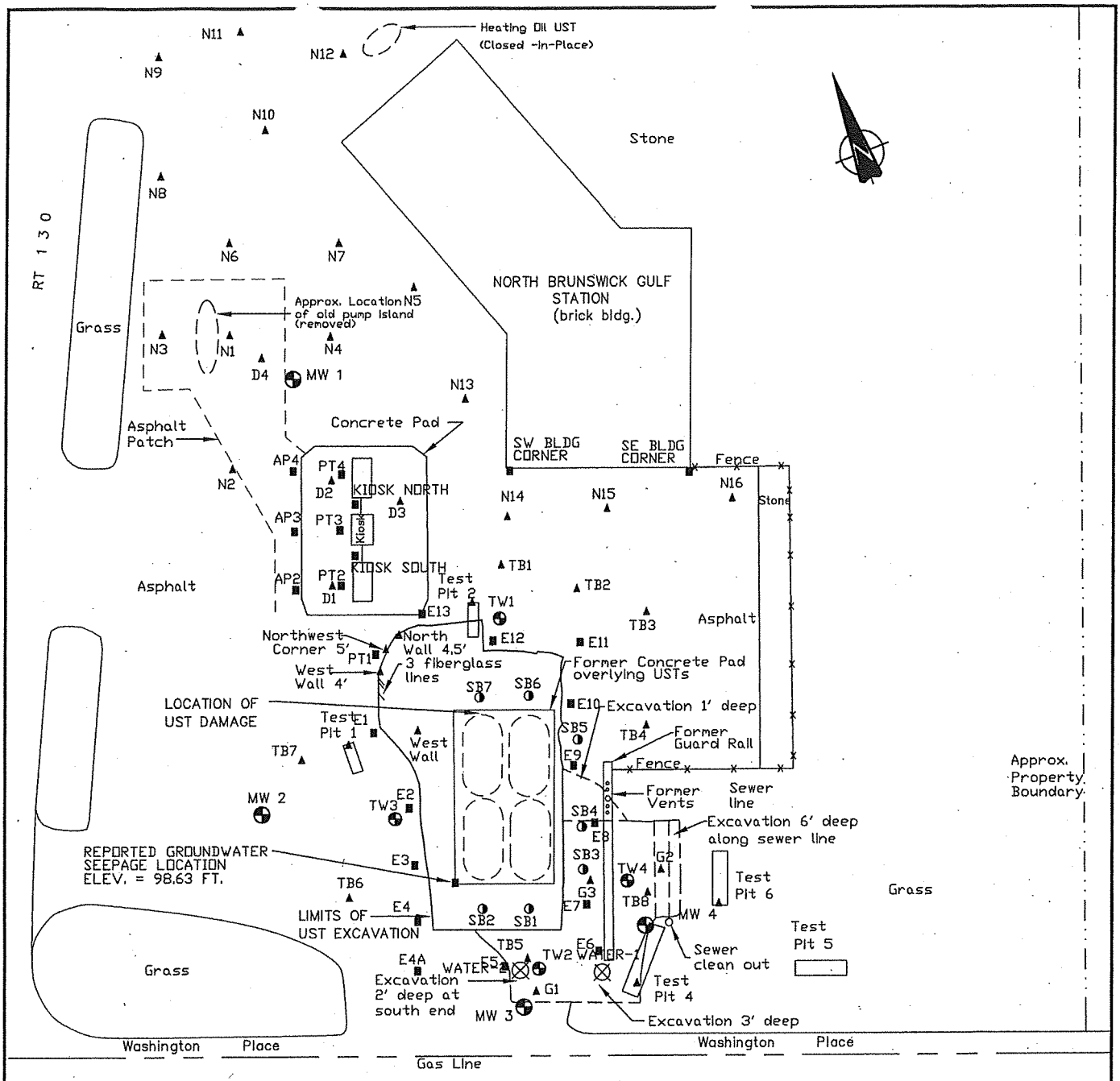
GWQS : NJDEP Ground Water Quality Standard.

BOLD : Reported value exceeds the listed associated GWQS for that compound.

ND : Not Detected above laboratory method detection limit and associated criteria.

NT : Not Tested.

500* : GWQS is relative to the total non-carcinogenic synthetic organic compounds (SOCs).



LEGEND

MW 2	GROUNDWATER MONITORING WELL
TW1	TEMPORARY WELL
SB1	SOIL BORING
N7	SOIL SAMPLE LOCATION
G1	SOIL SAMPLE LOCATION
■	SURVEYED ELEVATION (10/24/02) RELATIVE TO ASSUMED DATUM OF 100 FEET

SOURCE: BASE MAP ADAPTED FROM FIGURE 2 (FACILITY LAYOUT) IN THE MAY 2002 PRELIMINARY SITE INVESTIGATION/REMEDIAL ACTION REPORT PREPARED BY REDHAWK ENVIRONMENTAL CONSULTING, LTD.

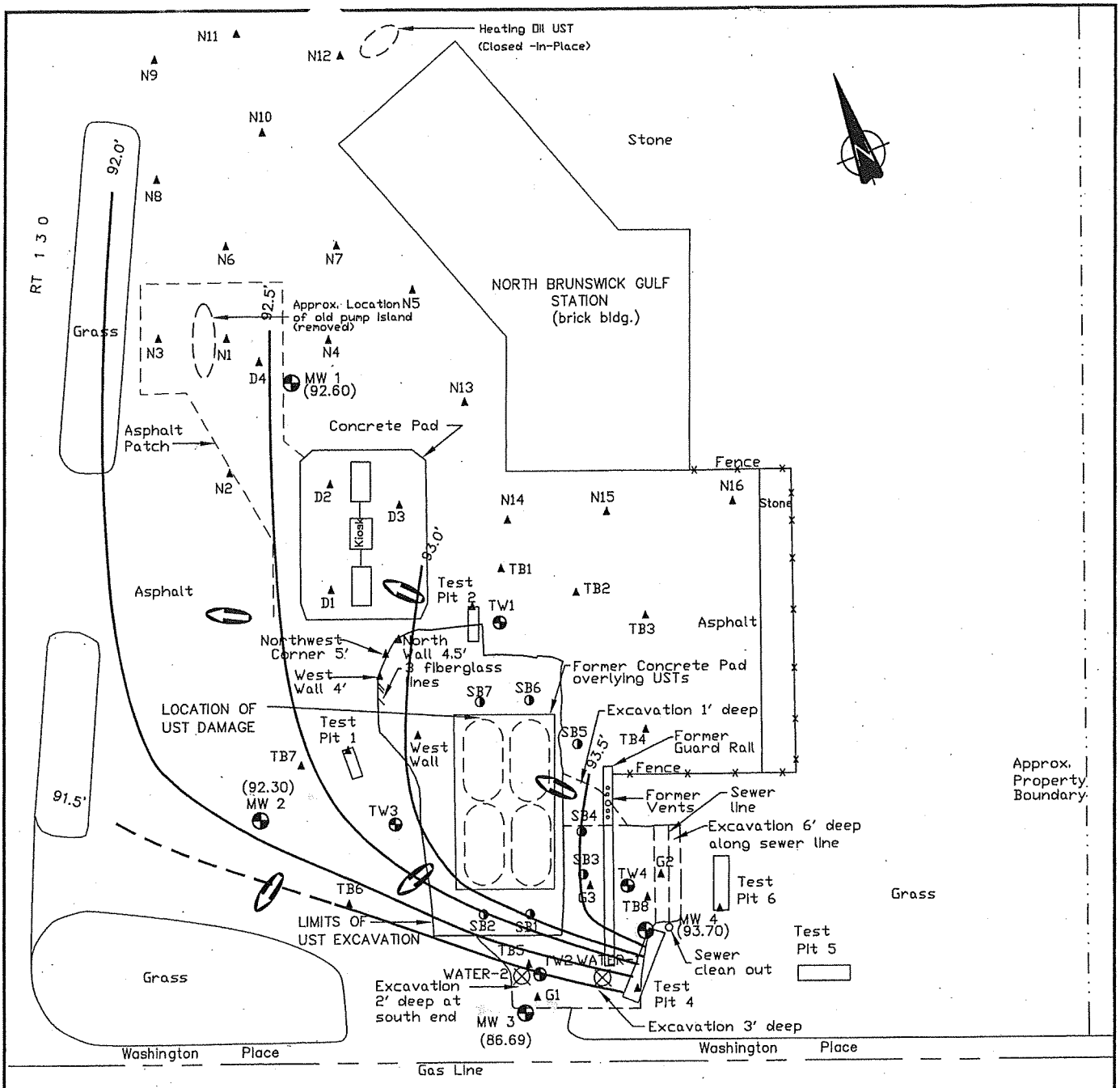
30 0 30 60
SCALE IN FEET

Hatch Mott MacDonald
27 Bleeker Street
Millburn, New Jersey 07041

WILENTZ GOLDMAN & SPITZER
NORTH BRUNSWICK GULF, NORTH BRUNSWICK, NEW JERSEY
SPOT ELEVATIONS
FIGURE 2

Designed	Drawn	Checked	Approved	Date

P:\31390\caddrawings\Site Plan.dwg 11/26/02 4:42 pm



LEGEND

MW 2	GROUNDWATER MONITORING WELL
TW1	TEMPORARY WELL
SB1	SOIL BORING
N7	SOIL SAMPLE LOCATION
G1	SOIL SAMPLE LOCATION
(93.70)	GROUNDWATER ELEVATION (FEET)
92.5'	GROUNDWATER CONTOUR
	GROUNDWATER FLOW DIRECTION

SOURCE: BASE MAP ADAPTED FROM FIGURE 2 (FACILITY LAYOUT) IN THE MAY 2002 PRELIMINARY SITE INVESTIGATION/REMEDIAL ACTION REPORT PREPARED BY REDHAWK ENVIRONMENTAL CONSULTING, LTD.

Hatch Mott MacDonald

27 Bleeker Street
Millburn, New Jersey 07041

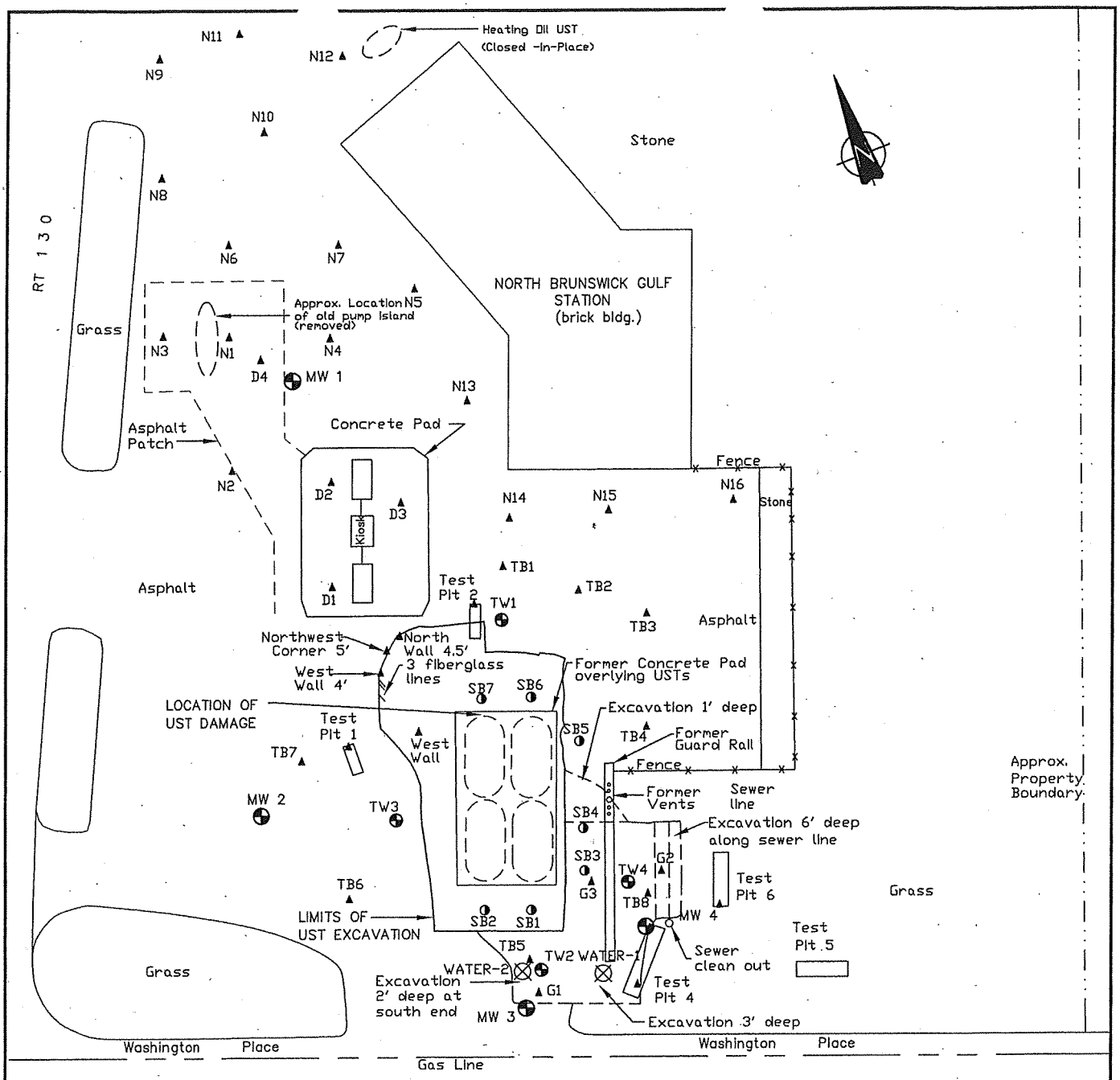
WILENTZ GOLDMAN & SPITZER
NORTH BRUNSWICK GULF, NORTH BRUNSWICK, NEW JERSEY

GROUNDWATER CONTOUR MAP
10/24/02

FIGURE 3

Designed	Drawn	Checked	Approved	Date

P:\31390\caddrawings\Site Plan.dwg 11/26/02 4:42 pm



LEGEND

MW 2	GROUNDWATER MONITORING WELL
TW1	TEMPORARY WELL
SB1	SOIL BORING
N7	SOIL SAMPLE LOCATION
G1	SOIL SAMPLE LOCATION
WATER-1	GROUNDWATER SAMPLE LOCATION (JANUARY 2003)

SOURCE: BASE MAP ADAPTED FROM FIGURE 2 (FACILITY LAYOUT) IN THE MAY 2002 PRELIMINARY SITE INVESTIGATION/REMEDIAL ACTION REPORT PREPARED BY REDHAWK ENVIRONMENTAL CONSULTING, LTD.

30 0 30 60
SCALE IN FEET

P:\313900\caddrawings\Site Plan.dwg 11/26/02 4:42 pm

Hatch Mott MacDonald
27 Bleeker Street
Millburn, New Jersey 07041

WILENTZ GOLDMAN & SPITZER
NORTH BRUNSWICK GULF, NORTH BRUNSWICK, NEW JERSEY
SITE PLAN
FIGURE 1

Designed	Drawn	Checked	Approved	Date

North Brunswick Gulf (313900)									
Field Personnel: Jim Moore, Dan Flatin, Frank Jasiulewicz						*Time On-Site: 0800*			
Date: October 24, 2002						*Weather Conditions: Overcast, 50's*			
Well ID:	Total Depth of Well	Depth to Free Product (if any)	Depth to Water	PID Reading (ppm)	Time	1 Well Volume	3 Well Volumes	Total Amount Purged (gallons)	Post-Purge Depth to Water
MW-1	20.22	ND	7.40	146	0847	8.4	25.2	26	8.60
MW-2	23.20	6.98	6.99	148	0853	10.6	31.8	20	20.12
MW-3	23.40	ND	9.01	3.9	0858	9.4	28.2	20	19.45
MW-4	21.53	ND	3.85	1.8	0905	11.5	34.6	24	19.96

	Pumping Times		Pre-Purge Chemistry				Post-Purge Chemistry			
Well ID	Start	End	pH	Conduct-ivity (µS)	DO	°C	pH	Conduct-ivity (µS)	DO	°C
MW-1	1027	1047	6.26	136	3.25	16.3	6.11	128	3.17	18.9
MW-2	1027	1056	5.62	523	9.00	17.1	5.66	500	7.75	16.6
MW-3	0942	1007	4.70	554	3.27	14.7	5.18	605	6.01	17.6
MW-4	0931	1006	4.52	845	4.58	16.7	4.57	707	1.85	19.0

North Brunswick Gulf (313900)							
	Sample Data						
Well ID:	Sample Time	Pre-Sample Depth to Water	pH	Conductivity (µS)	DO	°C	Post-Sample Depth to Water
MW-1	1130	7.41	6.12	117	3.78	18.3	7.50
MW-2	1200	9.43	5.53	639	3.23	18.3	9.72
MW-3	1250	15.97	5.59	478	4.11	18.1	16.21
MW-4	1235	15.70	5.45	475	6.83	16.3	16.09
FB	1127	NA	NA	NA	NA	NA	NA

SEVERN TRENT STL

11/18/2002

Hatch Mott MacDonald - Millburn
27 Bleeker St.-P.O. Box 1008
Millburn, NJ 07041-1008

Attention: Mr. Dan Toder

Laboratory Results
Job No. C130 - NorthBrunswick Gulf

Dear Mr. Toder:

Enclosed are the results you requested for the following sample(s) received at our laboratory on October 25, 2002.

Lab No.	Client ID	Analysis Required
386437	MW-1	BTEX(GC/MS)w/MTBE&TBA
386438	MW-2	BTEX(GC/MS)w/MTBE&TBA
386439	MW-3	BTEX(GC/MS)w/MTBE&TBA
386440	MW-4	BTEX(GC/MS)w/MTBE&TBA
386441	Field_Blank	BTEX(GC/MS)w/MTBE&TBA
386442	Trip_Blank	BTEX(GC/MS)w/MTBE&TBA

An invoice for our services is also enclosed. If you have any questions please contact your Project Manager, Deanna Doster, at (732) 549-3900.

Very Truly Yours,

Michael J. Urban

Michael J. Urban
Laboratory Manager

Analytical Results Summary

Client ID: **MW-2**
Site: NorthBrunswick Gulf

Lab Sample No: **386438**
Lab Job No: C130

Date Sampled: 10/24/02
Date Received: 10/25/02
Date Analyzed: 10/30/02
GC Column: DB624
Instrument ID: VOAMS7.i
Lab File ID: v49640.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 100.0

VOLATILE ORGANICS - GC/MS
METHOD 624

Parameter	Analytical Result Units: ug/l	Method Detection Limit Units: ug/l
Benzene	2600	29
Toluene	8600	24
Ethylbenzene	2100	15
Xylene (Total)	11000	18
TBA	ND	680
MTBE	420	26

Client ID: **MW-4**
Site: NorthBrunswick Gulf

Lab Sample No: **386440**
Lab Job No: C130

Date Sampled: 10/24/02
Date Received: 10/25/02
Date Analyzed: 10/30/02
GC Column: DB624
Instrument ID: VOAMS7.i
Lab File ID: v49644.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 5.0

VOLATILE ORGANICS - GC/MS
METHOD 624

Parameter	Analytical Result Units: ug/l	Method Detection Limit Units: ug/l
Benzene	ND	1.4
Toluene	ND	1.2
Ethylbenzene	ND	0.8
Xylene (Total)	ND	0.9
TBA	1100	34
MTBE	650	1.3

Client ID: **Trip_Blank**
Site: NorthBrunswick Gulf

Lab Sample No: **386442**
Lab Job No: C130

Date Sampled: 10/23/02
Date Received: 10/25/02
Date Analyzed: 10/30/02
GC Column: DB624
Instrument ID: VOAMS7.i
Lab File ID: v49646.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 624

Parameter	Analytical Result Units: ug/l	Method Detection Limit Units: ug/l
Benzene	ND	0.3
Toluene	ND	0.2
Ethylbenzene	ND	0.2
Xylene (Total)	ND	0.2
TBA	ND	6.8
MTBE	ND	0.3

General Information

Chain of Custody

Laboratory Chronicles

Methodology Review

Metals Analysis:

Metals analyses are performed by any of four techniques specified by a Method Code provided on each data report page, as follows:

P - Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP)

A - Flame Atomic Absorption

F - Furnace Atomic Absorption

CV - Manual Cold Vapor (Mercury)

Water samples are digested and analyzed using EPA methods provided in "Methods for Chemical Analysis of Water and Wastewater" (EPA 600/4-79-020). Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition); samples are digested according to Method 3050B "Acid Digestion of Soil, Sediments and Sludges."

Specific method references for ICP analyses are water Method 200.7 and solid Method 6010B. Mercury analyses are conducted by the manual cold vapor technique specified by water Method 245.1 and solid Method 7471A. Other specific Atomic Absorption method references are as follows:

	Water Test Method		Solid Test Method	
Element	Flame	Furnace	Flame	Furnace
Aluminum	202.1	202.2	7020	--
Antimony	204.1	204.2	7040	7041
Arsenic	--	206.2	--	7060
Barium	208.1	--	7080	--
Beryllium	210.1	210.2	7090	7091
Cadmium	213.1	213.2	7130	7131
Calcium	215.1	--	7140	--
Chromium, Total	218.1	218.2	7190	7191
Chromium, (+6)	218.4	218.5	7197	7195
Cobalt	219.1	219.2	7200	7201
Copper	220.1	220.2	7210	--
Iron	236.1	236.2	7380	--
Lead	239.1	239.2	7420	7421
Magnesium	242.1	--	7450	--
Manganese	243.1	243.2	7460	--
Nickel	249.1	249.2	7520	--
Potassium	258.1	--	7610	--
Selenium	--	270.2	--	7740
Silver	272.1	272.2	7760	--
Sodium	273.1	--	7770	--
Tin	283.1	283.2	7870	--
Thallium	279.1	279.2	7840	7841
Vanadium	286.1	286.2	7910	7911
Zinc	289.1	289.2	7950	--

Data Reporting Qualifiers

Non-Conformance Summary

Non-conformance Summary, Page 2 of 2
STL Edison Job Number: C130

Metals Analysis:

All data conforms with method requirements _____; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

_____

_____

_____

_____

_____

See continuation page if checked ( )

Total Petroleum Hydrocarbons:

All data conforms with method requirements _____; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

_____

_____

_____

See continuation page if checked ( )

General Chemistry/Disposal Parameters:

All data conforms with method requirements _____; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

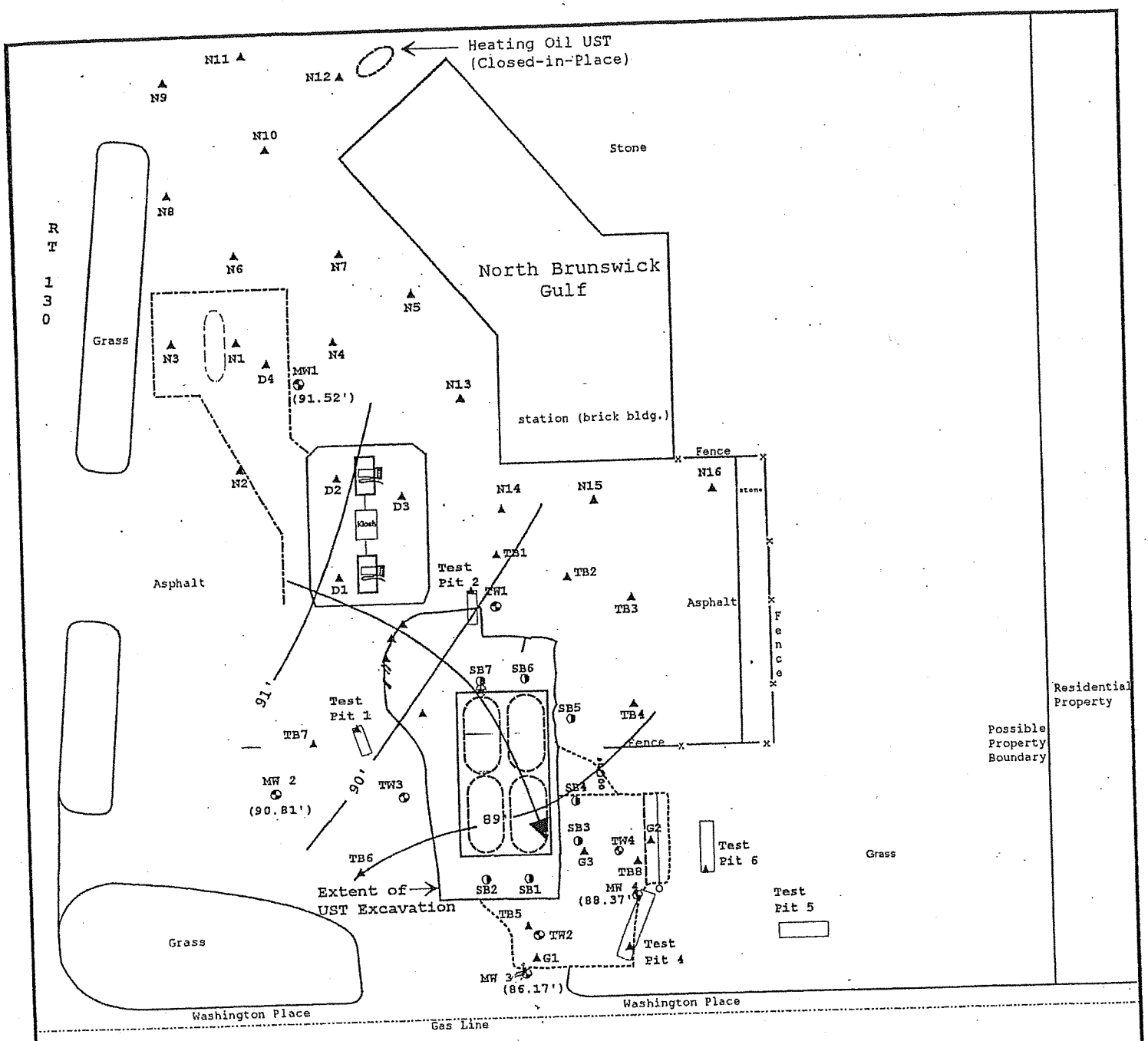
_____

_____

_____

See continuation page if checked ( )

Signature of
Laboratory Manager: _____ Date: 11/15/02



KEY

- ▲ Soil Sample Location
- ⊙ Monitoring & Temporary Well
- ◑ Location of ECM Boring
- ⊛ Approximate Location of Tank Damage
- → Direction of Groundwater Flow
- (90.81') Elevation of Water Table in Feet

approximate north

0' 30'

APPROXIMATE SCALE IN FEET

RedHawk Environmental
2845 Hale Hollow Road
Bridgewater Corners, VT 05035
214 Skyesville Road
Wrightstown, NJ 08562

File : NBGWT4

REVISION DATE: 4/25/02

Figure 4 Water Table Gradient
3/8/02
North Brunswick Gulf
1696 Georges Road
North Brunswick, NJ