MLW

EXXON COMPANY, U.S.A.
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RECEIVED
MAR 11 1998
Winston-Salem
Regional Office

MARKETING DEPARTMENT
ENVIRONMENTAL ENGINEERING

J.F. (FRANK) MEDLIN
SENIOR STAFF ENGINEER

March 9, 1998

Re: Exxon Retail Location: 4-3998 Intermediate
Greensboro, Guilford County E280
Groundwater Incident #: 10001

Ms. Sherri Knight
NCDENR – Division of Water Quality
585 Waughtown Street
Winston-Salem, North Carolina 27107

Dear Ms. Knight:

A revised CSA was requested by your office in a letter to Exxon dated February 24, 1998 to resolve the definition of dissolved hydrocarbons to the south of the site. Additionally, that letter also requested that new sampling methodology consistent with the January 2, 1998 guidelines be utilized in "hot spot" areas.

The attached tables and maps showing well locations, gauging results, and sampling results are presented for your review. The groundwater sampling results indicated that dissolved hydrocarbons are defined to the south through sampling of MW-9. Dissolved hydrocarbons from MW-7 may not be from the Exxon site as there is a Shell retail gasoline station located on that property.

Based on this data, Exxon is requesting that your office reconsider the request for a revised CSA report, and consider the extent of dissolved hydrocarbons at this site defined.

Select groundwater monitor wells will be sampled on a semi-annual basis, scheduled for June and December; and remediation system off-gas on a quarterly basis all in accordance with parameters established in the January 2, 1998 guidelines Monitoring reports will be submitted to your office, on a semi-annual basis.

As an alternative of obtaining additional soil samples in "hot spot" areas, we propose to continue to operate the AAS/SVE remediation system.

Trust fund pre-approval forms for the above tasks are attached for your review.

Please contact me at the letterhead address with any questions or comments.

Sincerely,

FOR EXXON COMPANY, U.S.A.

James F. Medlin

JFM:ejn

attachments

c: File
Kelly Gage, Guilford County Health Department
Griffith Enterprises, Inc.

PRE-APPROVAL
TASK AUTHORIZATION FORM
Department of Environment, & Natural Resources
Division of Water Quality

Site Name Exxon Location 4-3998 Site Rank Intermediate Incident # 10001
City Greensboro County Guilford
Owner/Operator/Landowner/Attorney-in-fact Exxon Company, U.S.A.
Name of Consulting Firm Griffith Enterprises, Inc.
Name of Project Manager (consultant) Alan Griffith
Date of Proposal (consultant) March 9, 1998 Proposal Number (consultant) 4-3998-1
Consultant Phone (336) 712-0290 Consultant Fax (336) 712-0884
Regional Office Winston-Salem Incident Manager (if known) Gene Mao
Site Status √ Commercial _____ Non-Commercial
Has State Trust Fund Eligibility been determined? √ Yes or _____ No
TASK AUTHORIZATION NUMBER (assigned by region) _____

This submittal Replaced by 3/25/98 forms Requesting $30,930.00 MLW

TOTAL AMOUNT NOT TO EXCEED (this task authorization) _____

Note to reimbursement claimants: Proposals are required to elaborate on the costs for the tasks listed below and describe the scope of work and the rationale for conducting these activities. Pre-approval from the appropriate regional office for tasks that could have been reasonably anticipated or for tasks that were inadvertently omitted in the original task authorization, also requires a "CHANGE ORDER FORM" to be submitted and approved by the appropriate regional office. Written justification(s) must be provided to the regional office before a change order can be granted. When all authorized work is completed and the claim is to be compiled, it is **required** that a copy of the approved and signed (by the region) "TASK AUTHORIZATION FORM" and any previously approved "CHANGE ORDER FORM" with written justification be incorporated into the claim. Claims will not be processed without these documents. *Final reimbursement of costs associated with the above authorized amount may vary depending on eligibility status of the site (i.e., deductibles, apportionment, etc.). Costs associated with developing and submitting a proposal, the task authorization or change order form are not reimbursable.*

Task Amt. Number	Requested Amt. (Consultant)	Approved Amt. (Regional Office)	Task Number	Requested Amt. (Consultant	Approved (Regional Office)
4.000	$600				
4.031	$1,600				
4.070	$400				
4.070	$770				
4.090	$8,200				
4.100	$1,260				
6.000	$200				
6.100	$3,600				
7.000	300				
			TOTAL	$16,160	

INCIDENT MANAGER AUTHORIZATION _____ DATE _____

GROUNDWATER SUPERVISOR AUTHORIZATION _____ DATE _____

DEADLINE FOR TASK COMPLETION _____

PROPOSAL FOR PRE-APPROVAL OF SITE MONITORING
AND OPERATION OF REMEDIATION SYSTEM
JANUARY 2, 1998 TO DECEMBER 31, 1998

EXXON Location 4-3998
4701 W. Market St
Greensboro, Guilford County, North Carolina
Incident # 10001
Site Rank: Intermediate

Task	Description	Cost	Grand Total
4.000	Reimbursement (5 tasks x 4 packages x $30/task)	$ 600	
4.031	Labor to sample monitoring wells (8 wells x 2 events x $100/well)	$ 1,600	
4.070	Labor to sample remediation system (1 off-gas x 4 quarters x $100/event)	$ 400	
4.090	Analytical &shipping for air effluent sampling • quarterly sampling of remediation sytem (4 events) x $225 per event for EPA 602 & TPH+$250 shipping = $1150	$ 1,150	
4.090	Analytical & shipping for • semi-annual sampling of monitoring wells (8 wells x 2 events) x $70/sample for 602 plus x $325/sample MADEP EPH/VPH x $30/sample for Lead (3030c) +$250 shipping = $1,850	$ 7,050	
4.100	Mileage and travel for well sampling (180 miles x 4 quarters x $1.75/mile)	$ 1,260	
6.000	Reimbursement for reports (8 tasks x $25/task)	$ 200	
6.101	Quarterly reporting (4 quarters x $900/report)	$ 3,600	
7.000	Reimbursement (12 tasks x $25/task)	$ 300	
			$16,160

TABLE 1
GROUND WATER ELEVATION DATA
EXXON RETAIL LOCATION 4-3998
4701 WEST MARKET STREET
GREENSBORO, NORTH CAROLINA

	MW-1		MW-2		MW-3		MW-4	
	96.50		96.56		96.92		97.92	
DATE	DEPTH TO GROUND WATER	GROUND WATER ELEVATION	DEPTH TO GROUND WATER	GROUND WATER ELEVATION	DEPTH TO GROUND WATER	GROUND WATER ELEVATION	DEPTH TO GROUND WATER	GROUND WATER ELEVATION
8/20/92	23.45	73.05	22.99	73.57	24.49	72.43	24.50	73.42
3/25/93	18.77	77.73	18.90	77.66	20.91	76.01	22.62	75.30
6/11/93	19.23	77.27	18.85	77.71	20.74	76.18	21.36	76.56
4/13/94	19.79	76.71	19.06	77.50	21.60	75.32	22.74	75.18
6/9/94	21.97	74.53	21.40	75.16	23.24	73.68	23.26	74.66
6/14/95	22.65	73.85	22.70*	73.86	23.96*	72.96	24.28	73.64
9/18/95	23.73	72.77	24.06*	72.50	25.22*	71.70	24.82	73.10
12/6/95	22.20	74.30	21.70	74.86	23.60	73.32	24.26	73.66
12/14/95	22.10	74.40	21.62	74.94	23.44*	96.92	24.22	73.70
3/27/96	19.56	76.94	19.25	77.31	21.16	75.76	n/a	n/a
6/26/96	20.39	76.11	20.15	76.41	21.70	75.22	n/a	n/a
6/17/97	18.28	78.22	18.08	78.48	19.7	77.22	20.26	77.66
12/16/97	**21.84**	**74.66**	**21.05**	**75.51**	**23.02**	**73.90**	**22.92**	**75.00**

	MW-5		MW-6		MW-7		DW-8	
	97.24		96.15		98.64		98.00	
DATE	DEPTH TO GROUND WATER	GROUND WATER ELEVATION	DEPTH TO GROUND WATER	GROUND WATER ELEVATION	DEPTH TO GROUND WATER	GROUND WATER ELEVATION	DEPTH TO GROUND WATER	GROUND WATER ELEVATION
3/25/93	22.05	75.19	21.10	75.05	26.60	72.04	9.50	88.50
6/11/93	21.88	75.36	20.71	75.44	25.61	73.03	22.41	75.59
4/13/94	22.74	74.50	21.62	74.53	--	--	--	--
6/9/94	24.19	73.05	23.08	73.07	27.30	71.34	25.31	72.69
6/14/95	25.02	72.22	23.90	72.25	27.78	70.86	25.40	72.60
9/18/95	25.82	71.42	24.86	71.29	27.35	71.29	25.57	72.43
12/6/95	24.77	72.47	23.73	72.42	27.60	71.04	25.18	72.82
12/14/95	24.68	72.56	23.66	72.49	27.47	71.17	25.11	72.89
3/27/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
6/26/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
12/16/97	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**24.25**	**73.75**

	MW-9		MW -Moore		0P-1			
	94.56		98.10		96.79			
DATE	DEPTH TO GROUND WATER	GROUND WATER ELEVATION	DEPTH TO GROUND WATER	GROUND WATER ELEVATION	DEPTH TO GROUND WATER	GROUND WATER ELEVATION		
4/13/94	--	--	--	--	21.06	75.73		
6/9/94	--	--	--	--	23.04	73.75		
6/14/95	--	--	--	--	23.94	72.85		
11/13/95	--	--	23.90	74.20	--	--		
12/6/95	**20.64	73.92	23.12	74.98	--	--		
12/14/95	19.19	75.37	--	--	--	--		
3/27/96	n/a	n/a	--	--	--	--		
6/26/96	n/a	n/a	--	--	--	--		
12/16/97	**18.45**	**76.11**	**--**	**--**	**24.22**	**72.57**		

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TABLE 1
GROUND WATER ELEVATION DATA
EXXON RETAIL LOCATION 4-3998
4701 WEST MARKET STREET
GREENSBORO, NORTH CAROLINA

	AS-1 96.38		EP-1 96.31					
DATE	DEPTH TO GROUND WATER	GROUND WATER ELEVATION	DEPTH TO GROUND WATER	GROUND WATER ELEVATION				
4/13/94	20.90	75.48	20.77	75.54				
6/9/94	22.65	73.73	22.56	73.75				
6/14/95	23.54	72.84	DRY	--				

Notes:

Depth to ground water measured in feet below top of casing.

Elevations are relative to an on-site reference point which has been assigned an elevation of 100.00 feet.

"--" = Gauging data not available

* = Free product film detected in monitor well (<0.01 feet thick)

** = Ground water not at static level

n/a = well not gauged

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TABLE 2
EPA METHOD 602 AND LEAD GROUND WATER ANALYTICAL RESULTS
EXXON RETAIL LOCATION 4-3998
4701 WEST MARKET STREET
GREENSBORO, NORTH CAROLINA

MONITOR WELL ID	DATE	EXPANDED EPA METHOD 602							METHOD 504.1	METHOD 3030C
		TOTAL BTEX	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES	MTBE	IPE	EDB	LEAD
MW-1	8/20/92	65,900	5000	35000	3900	22000	<500	--	--	--
	3/25/93	44,600	3500	21000	3100	17000	<250	--	--	--
	6/22/93	44,600	4200	18000	3400	19000	<500	--	--	--
	6/9/94	62,450	6150	22500	5000	28800	96	900	<10	5
	6/14/95	<1	<1	<1	<1	<1	<10	465	--	--
	9/18/95	50,500	4,000	24,000	3,000	19,500	<5,000	<5,000	--	--
	12/6/95	47,700	4,500	18,000	3,600	21,600	<225	1,230	--	--
	3/27/96	15,350	2,340	3,420	1,350	8,240	<450	945	<0.503	<3.0
	6/26/96	32,280	3,420	7,980	2,640	18,240	<200	1,030	<20	<3.0
	6/17/97	25,730	3,000	4,800	2,430	15500	ND	950	ND	ND
	12/16/97	**4,250**	**1,110**	**560**	**780**	**1800**	**90**	**130**	**0**	**ND**
MW-2	8/20/92	13,900	1400	4900	1600	6000	<250	--	--	--
	3/25/93	16,400	2000	7300	1200	5900	<250	--	--	--
	6/22/93	76,800	8100	40000	4700	24000	<2500	--	--	--
	6/9/94	70,520	7160	33500	4560	25300	390	280	<10	3
	6/14/95	234,900	14,000	112,000	17,100	91,800	<225	1,710	--	--
	9/18/95	56,000	4,500	25,000	4,000	22,500	<1,000	1,600	--	--
	12/6/95	5,553	788	2,900	315	1,550	<225	292	--	--
	3/27/96	136,800	22,000	72,000	7,200	35,600	<900	10,800	0.70	<3.0
	6/26/96	103,000	16,000	60,000	4,500	22,500	<10000	<10000	<1000	<3.0
	6/17/97	86,800	13,100	46,000	4,100	23,600	ND	6,000	ND	ND
	12/16/97	**90,550**	**14,000**	**49,500**	**4,050**	**23,000**	**1,350**	**4,050**	**0.22**	**ND**
MW-3	8/20/92	84,800	11000	41000	4800	26000	<500	--	--	--
	3/25/93	67,300	9700	35000	3600	19000	<1000	--	--	--
	6/22/93	88,900	13000	50000	3900	22000	<2500	--	--	--
	6/9/94	114,700	12600	65400	4500	32200	<1000	2580	<50	678
	6/14/95	308,200	25,200	157,000	18,000	108,000	<225	2,740	--	390
	9/18/95	125,000	15,000	73,000	6,000	31,000	<5,000	<5,000	--	372
	12/6/95	156,600	19,800	94,500	6,300	36,000	<4500	7,650	--	147
	3/27/96	158,400	23,400	80,100	8,100	46,800	<900	11,200	59	1,400
	6/26/96	106,750	14,300	49,000	5,650	37,800	<5000	7,300	<500	1,010
	6/17/97	39,381	3,550	19,100	2,181	14,550	ND	1,140	ND	376
	12/16/97	**97,200**	**16,400**	**49,300**	**4,500**	**27,000**	**450**	**4,720**	**35**	**956**

TABLE 2
EPA METHOD 602 AND LEAD GROUND WATER ANALYTICAL RESULTS
EXXON RETAIL LOCATION 4-3998
4701 WEST MARKET STREET
GREENSBORO, NORTH CAROLINA

MONITOR WELL ID	DATE	EXPANDED EPA METHOD 602							METHOD 504.1	METHOD 3030C
		TOTAL BTEX	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES	MTBE	IPE	EDB	LEAD
MW-4	8/20/92	4	<2.0	<2.0	<2.0	4	<10	--	--	--
	3/25/93	17.6	1.9	4.7	<1.0	11	<10	--	--	--
	6/22/93	17.5	1.5	<1.0	<1.0	16	<10	--	--	--
	6/9/94	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<10	<1.0	4
	6/14/95	71	6	9	3	53	<10	<10	--	--
	9/18/95	33	4	<1.0	<1.0	29	<10	33	--	--
	6/17/97	112.2	11.4	ND	15.8	85.0	ND	ND	--	--
	12/16/97	**175.0**	**22.0**	**2.0**	**14.0**	**137.0**	**ND**	**2**	**ND**	**ND**
MW-5	3/25/93	<1.0	<1.0	<1.0	<1.0	<1.0	<10	--	--	--
	6/22/93	<1.0	<1.0	<1.0	<1.0	<1.0	<10	--	--	--
	6/9/94	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<10	<1.0	13
	6/14/95	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<10	--	--
	9/18/95	2	<1.0	1	<1.0	1	<10	27	--	--
MW-6	3/25/93	<1.0	<1.0	<1.0	<1.0	<1.0	<10	--	--	--
	6/22/93	<1.0	<1.0	<1.0	<1.0	<1.0	<10	--	--	--
	6/9/94	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<10	<1.0	13
	6/14/95	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<10	--	--
	9/18/95	<1.0	<1.0	<1.0	<1.0	<1.0	<10	14	--	--
MW-7	3/25/93	9.1	1.9	1.9	1.9	3.4	36.0	--	--	--
	6/22/93	<5.0	<5.0	<5.0	<5.0	<5.0	<50	--	--	--
	6/9/94	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<10	<1.0	20
	6/14/95	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<10	--	26
	9/18/95	2	<1.0	1	<1.0	1	10	16	--	15
	12/16/97	**11**	**7**	**4**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<0.02**	**7**
DW-8	3/25/93	<1.0	<1.0	<1.0	<1.0	<1.0	<10	--	--	--
	6/22/93	<1.0	<1.0	<1.0	<1.0	<1.0	<10	--	--	--
	6/9/94	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<10	<1.0	4
	6/14/95	2	<1	1	<1	1	<10	<10	--	--
	9/18/95	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<10	--	--
	12/16/97	**14**	**2**	**6**	**<1.0**	**6**	**<1.0**	**<1.0**	**<0.02**	**5**
MW-9	12/6/95	823	36	7	110	670	<10	38	--	--
	12/16/97	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<0.02**	**5**

TABLE 2
EPA METHOD 602 AND LEAD GROUND WATER ANALYTICAL RESULTS
EXXON RETAIL LOCATION 4-3998
4701 WEST MARKET STREET
GREENSBORO, NORTH CAROLINA

MONITOR WELL ID	DATE	EXPANDED EPA METHOD 602							METHOD 504.1 EDB	METHOD 3030C LEAD
		TOTAL BTEX	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES	MTBE	IPE		
OP-1	**12/16/97**	**561**	**320**	**10**	**57**	**174**	**45**	**10**	**<0.02**	**<3**
MW-1A*	11/20/92	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--
(MW-Moore	11/13/95	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--
T15A NCAC 2L STANDARD			**1**	**1,000**	**29**	**530**	**200**	**NS**	**0.0004**	**15**

SVES SAMPLING

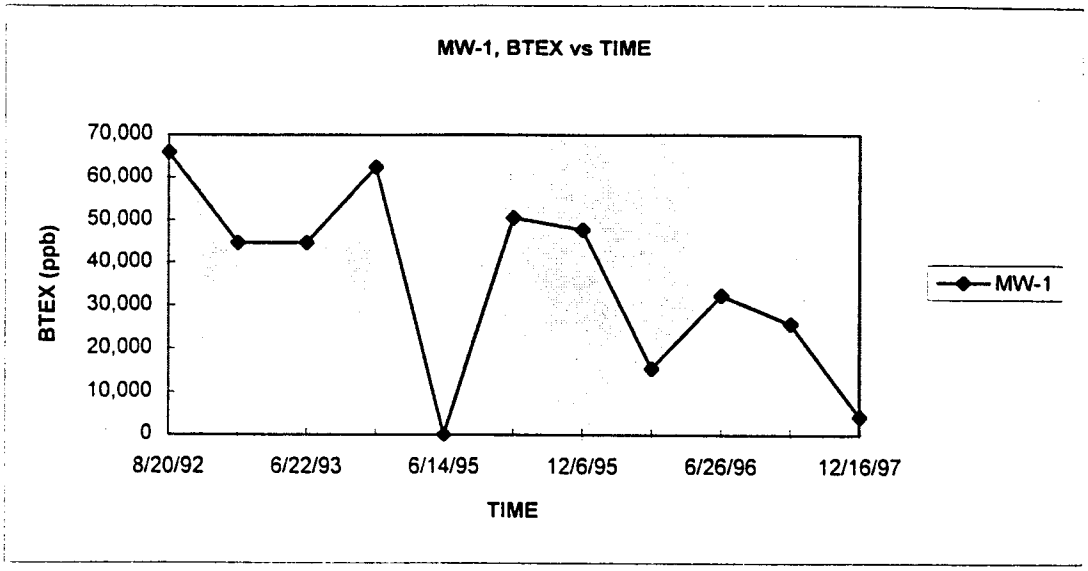
Date	Benzene (ppm)	Toluene (ppm)	Ethyl-benz (ppm)	Tot-Xylenes (ppm)	Total VOCs (TPH, ppm)	Air Velocity (fps)	Benzene (lbs/day)	VOCs (lbs/day)
6/12/96	*2.91*	*2.50*	*<0.5*	*1.07*	*44.50*	*38.26*	*0.03*	*0.52*
12/16/97	--	--	--	--	***3.60***	--	--	--

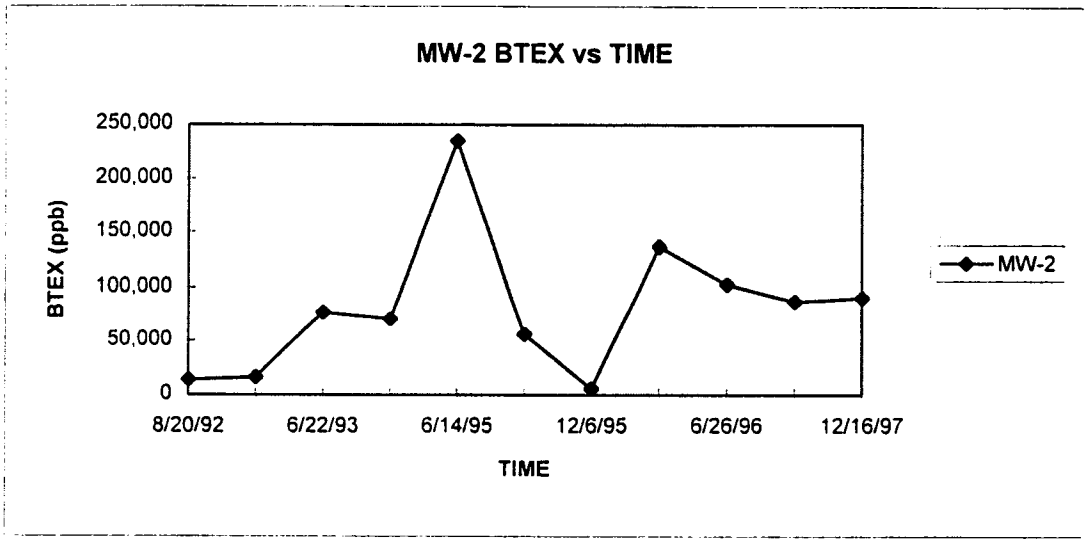
Results in micrograms per liter (ug/l) EDB = Ethylene dibromide

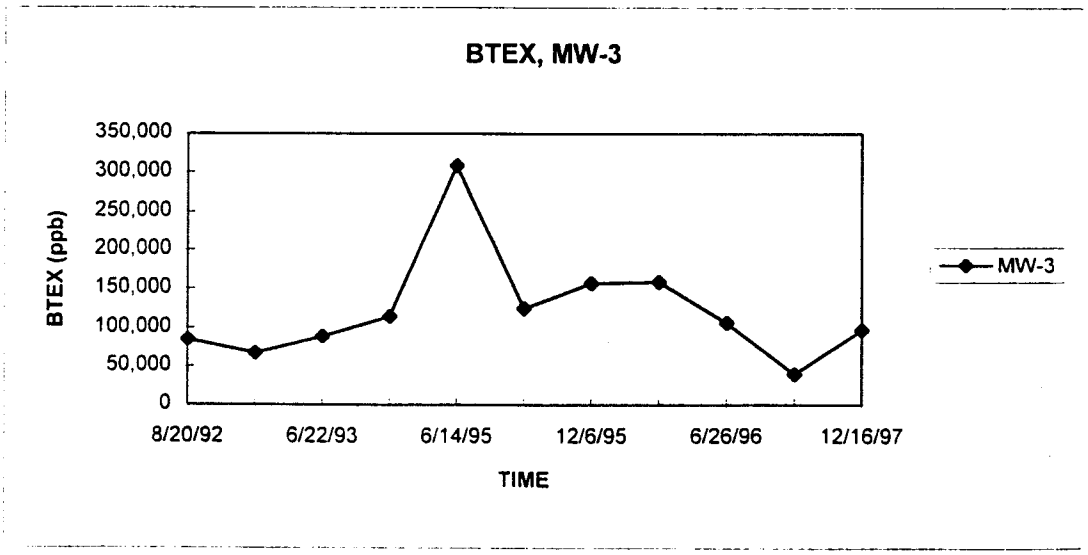
MTBE = Methy tert-butyl ether "--" = not analyzed

IPE = Isopropyl ether * - Source: Groundwater Investigation - Bath and Kitchen Menagerie, Greensboro, North Carolina, 11-27-92, Pyramid Environmental,Inc.

BTEX Graphs


MW-1, BTEX vs TIME
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
BTEX (ppb)
8/20/92
6/22/93
6/14/95
12/6/95
6/26/96
12/16/97
TIME
MW-1

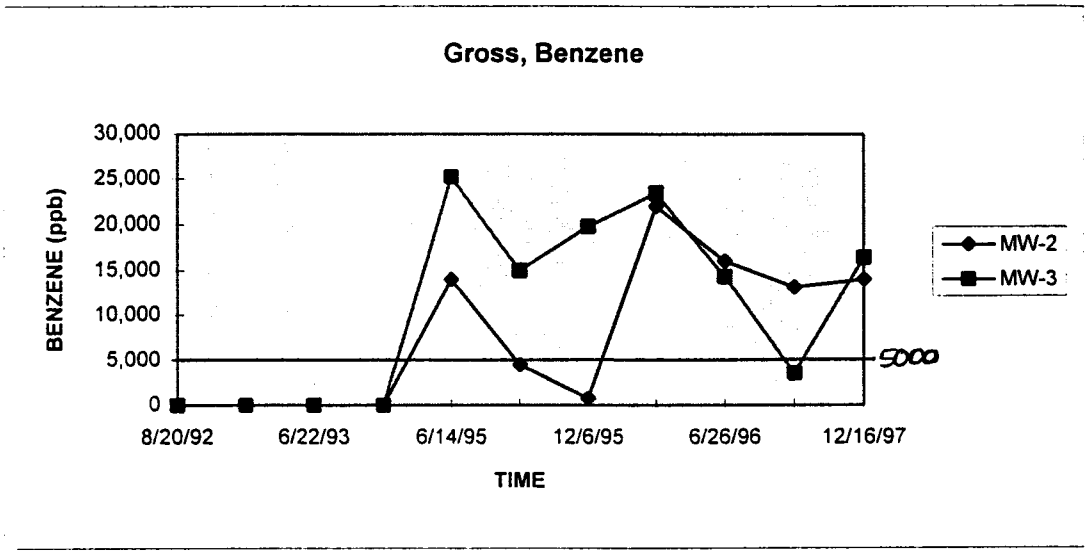

MW-2 BTEX vs TIME
250,000
200,000
150,000
100,000
50,000
0
BTEX (ppb)
8/20/92
6/22/93
6/14/95
12/6/95
6/26/96
12/16/97
TIME
MW-2


BTEX, MW-3
350,000
300,000
250,000
200,000
150,000
100,000
50,000
0
BTEX (ppb)
8/20/92
6/22/93
6/14/95
12/6/95
6/26/96
12/16/97
TIME
MW-3

BTEX / Gross Levels Graphs

Gross Groundwater Levels (ppb)
From 1998 Guidelines (p.60)

Benzene	Toluene	E-Benz	Xylenes	MTBE	IPE	EDB	Lead
5000	257500	29000	87500	200000	70000	50	15



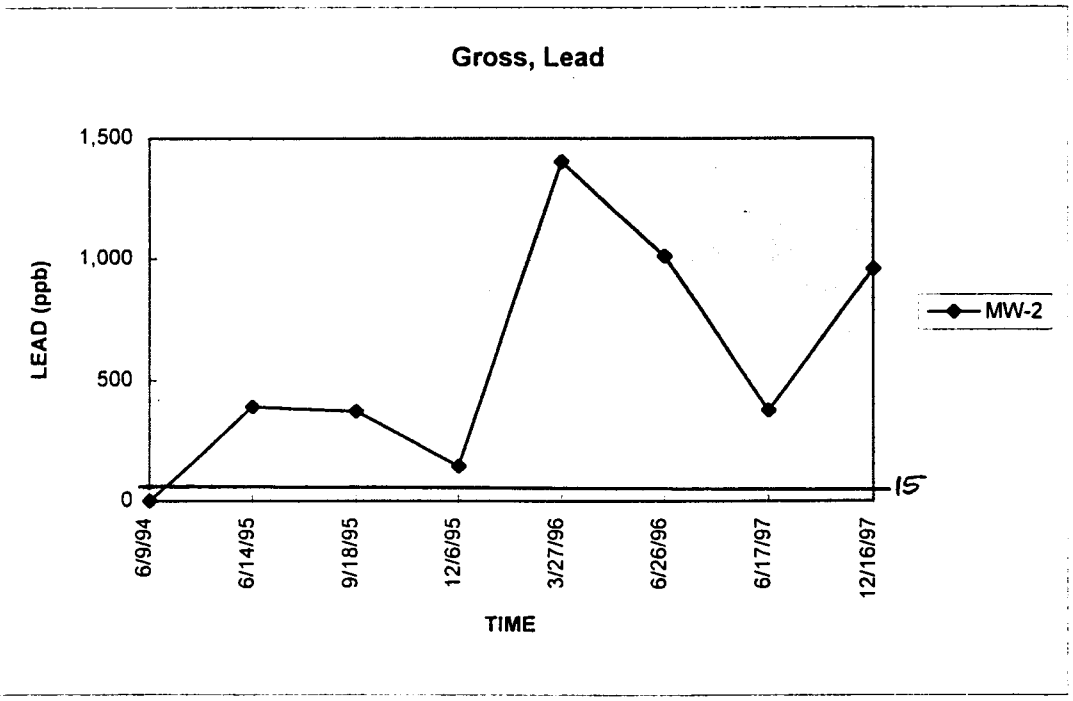


TABLE 3
SYSTEM OPERATING SCHEDULE
EXXON RETAIL LOCATION 4-3998
4701 WEST MARKET STREET
GREENSBORO, NORTH CAROLINA

Line	Date	Operation	SVE air vel. (f/m)	AAS press. psi	SVE vac. in H2O
1	4/29/96	system start-up	6059	9	30
2	5/25/96	shut system down; maint. on carbon drums			
3	6/14/96	system check	6090	5.5	25
4	6/20/96	installed carbon drums in parallel, relocated vacuum relief valve			
5		flow into carbon drums about 100 cfm each			
6	8/5/96	system check, hour meter 2135.11	10000+	7	25
7	8/26/96	system down, high level switch failed. Switch backordered			
8	10/29/96	system still down, awaiting delivery of high level switch			
9	11/7/96	installed new high-level switch.			
10	11/19/96	wired new high level switch moisture knock out tank.			
11		system still off.			
12	12/2/96	system test. Hour meter 2279.87. Lubricated blower impellers.	10000+	7	25
13	1/7/96	system re-start. Note to get new vac. rel valve set for 10 in-Hg.		9.5	20
14		Current valve set for 14 in-Hg.			
15	1/27/97	hour meter 2755.44	7904	7	22
16	2/31/97	hour meter 3549.23. Turned AS compressor off due to dirty filter	10000+	7.5	23
17	3/31/97	hour meter 4406.29	10000+	7.5	23
18	4/25/97	hour meter 4804.34	10000+	off	27
19		compressor off, filter needs to be replaced.			
20	5/16/97	hour meter 5293.04	10000+	off	24
21		compressor off, waiting on filter			
22	6/21/97	hour meter 6155.59	10000+	off	26
23		replaced compressor filter, compressor inoperable			
24		rebuilding kit for compressor ordered			
25	7/1/97	system restarted			
26	7/31/97	system check. Hour meter 7096.29	10000+	7	23
27	8/25/97	system check. Hour meter 7697.47	10000+	7	23
28	9/25/97	system check. Hour meter 8603.90	10000+	7	25
29		air filter on SVE needs to be replaced. Will order this week.			
30		Assembly model: CSL-850-200, element #850			
31	10/17/97	system check. Hour meter 8940.50	10000+	7	25
32		replaced SVE filter; system serviced			
33		one drum on site contains dirt and concrete debris from bollard instl.			
34		six unlabeled drums (empty) ...not Griffith's			
35	11/30/97	system check. Hour meter 10,087.31	10000+	7	25
36		checked SVE filter-OK; system serviced			
37		compressor filter needs to be replaced, Gast #3080 P-121-T338			
38	12/18/97	system check. Hour meter 10,421.38			25
39		shut down system due to faulty compressor impeller			
40					
41					

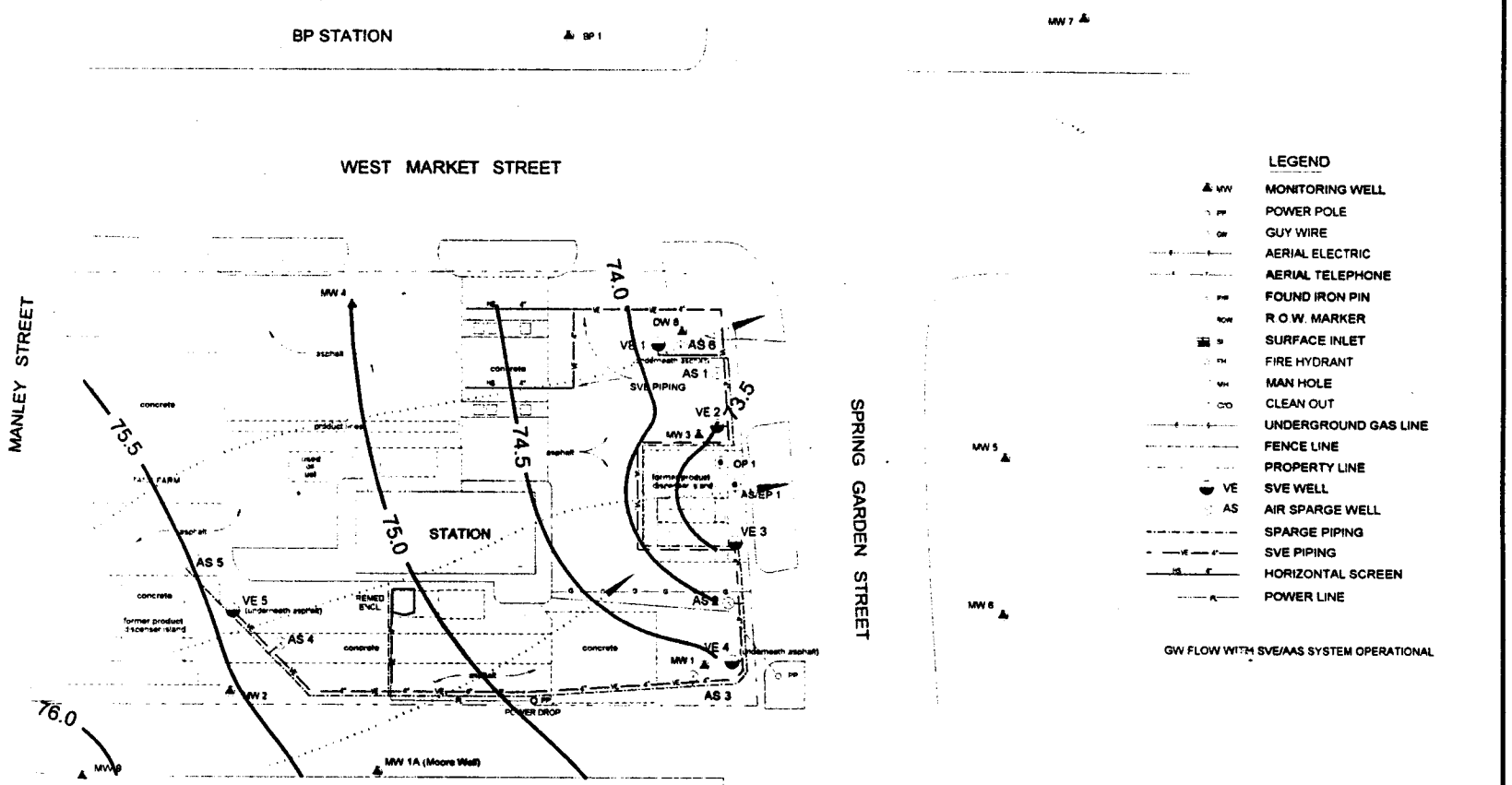
TABLE 4
SUMMARY ANALYSIS OF GROUNDWATER vs DENR "GROSS" LEVELS
EXXON RAS #4-3998
4701 WEST MARKET STREET
GREENSBORO, NORTH CAROLINA

JUNE 17, 1997

Well Designation	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total BTEX	MTBE	IPE	EDB	Lead
MW-1	1110	560	780	1800	4250	90	130	ND	ND
MW-2	**14000**	49500	4050	23000	90550	1350	4050	0.22	ND
MW-3	**16400**	49300	4500	27000	97200	450	4720	**35**	**956**
MW-4	22	2	14	137	175	ND	2	ND	ND
NC 2L	*1*	*1000*	*29*	*530*	*NA*	*200*	*70***	*0.0004*	*15*
"GROSS"	*5000*	*257500*	*29000*	*87500*	*NA*	*200000*	*70000*	*0.4*	*15*

*** INTERIM STANDARD*

BOLD INDICATES GREATER THAN DENR "GROSS" STANDARD, PER PAGE 60, SOIL AND GROUNDWATER GUIDELINES, 1/1998



NOTE: AIR SPARGE WELL AS/EP 1 WAS INSTALLED FOR THE PILOT TEST AND WAS CONNECTED TO THE SYSTEM.

FIGURE 3
GROUNDWATER FLOW NET 12/97
EXXON RAS #4-3998
4701 WEST MARKET ST., GREENSBORO, NC

Reference map by EA Engineering, Science, and Technology

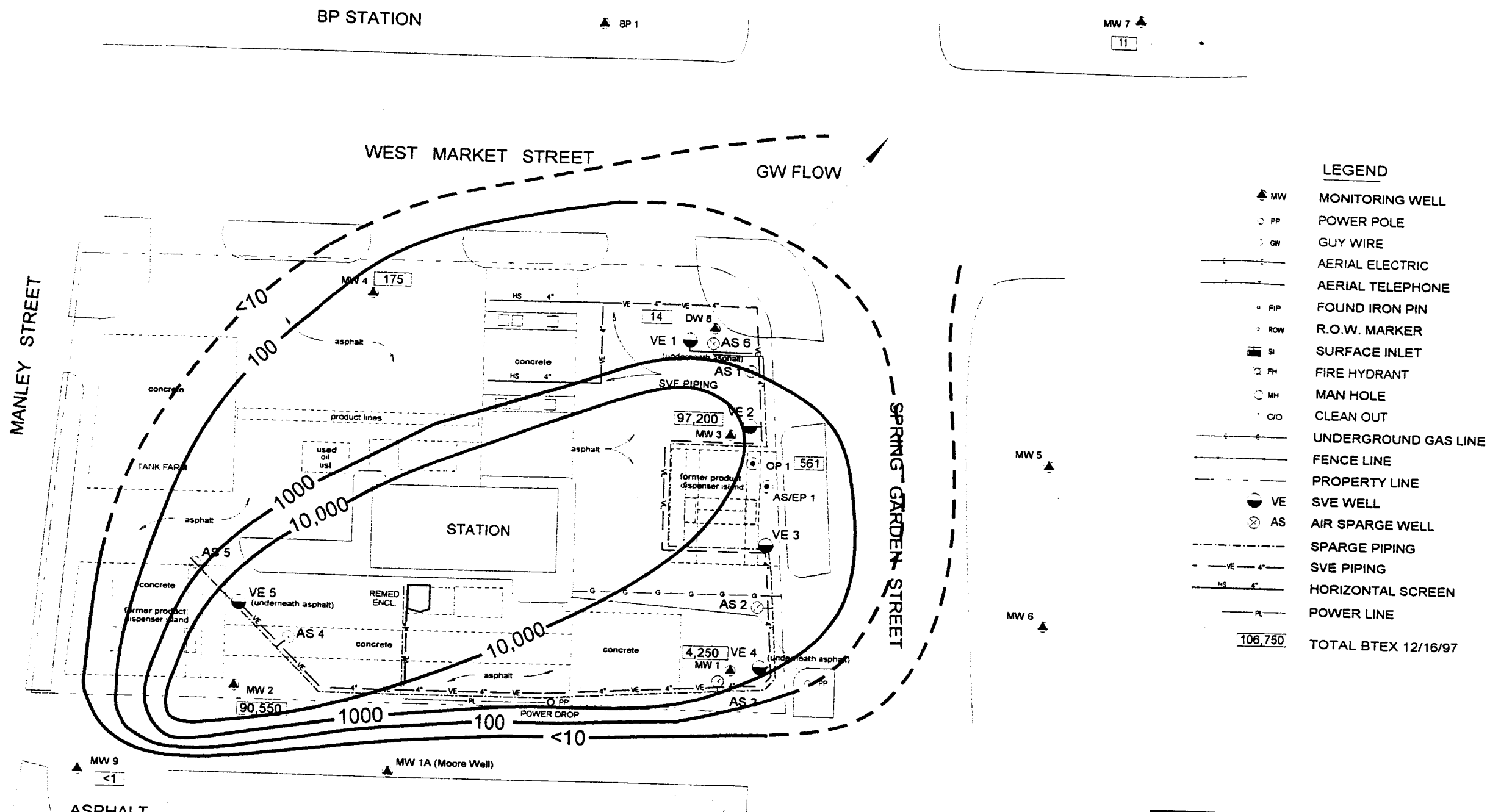
Nightingale Geologic Consultants, P.C.
Charlotte North Carolina, U.S.A.

0 20 40
1 inch = 40 feet

Prepared For:
Exxon Company, U.S.A.
Charlotte, North Carolina, U.S.A.

File Name: 43998sm4.dw2 Date: 1/1998

Approved: Scale: 1 in. = 40 ft.



NOTE: AIR SPARGE WELL AS/EP 1 WAS INSTALLED FOR THE PILOT TEST AND WAS CONNECTED TO THE SYSTEM.

FIGURE 2
TOTAL BTEX ISOPLETH MAP
EXXON RAS #4-3998
4701 WEST MARKET ST., GREENSBORO, NC

Reference map by EA Engineering, Science, and Technology

Nightingale Geologic Consultants, P.C.
Charlotte, North Carolina, U.S.A.

0 20 40
(IN FEET)
1 inch = 40 feet

Prepared For:
Exxon Company, U.S.A.
Charlotte, North Carolina, U.S.A.

File Name: 43998sm4.dw2
Date: 1/1998
Approved:
Scale: 1 in. = 40 ft.