

**REPORT ON THE
INVESTIGATION OF SUBSURFACE
PETROLEUM CONTAMINATION**

AT FORMER

**PLAINFIELD AUTO PARTS
PLAINFIELD, VT 05667
VT DEC SITE #90-552**

SEPTEMBER 30, 1993

PREPARED FOR:

**GARY GRAVES
ROUTE 2, BOX 190
PLAINFIELD, VT 05667**

PREPARED BY:

**Griffin International Inc.
2B Dorset Lane
Williston, VT 05495
(802) 879-7708**

Griffin Project #8934417

TABLE OF CONTENTS

<u>SECTION</u>	<u>Page</u>
I. INTRODUCTION	1
II. SITE HISTORY	1
III. INVESTIGATIVE PROCEDURES	2
A. Monitoring Well Installation	
B. Soil Screening	
C. Water Table and Product Measurements	
D. Groundwater Sampling and Analysis	
IV. RECEPTOR SURVEY AND RISK ASSESSMENT	3
V. CONCLUSIONS	4
VI. RECOMMENDATIONS	5
APPENDIX A: Location Map	
Site Map	
Groundwater Contour Map	
Contaminant Distribution Map	
APPENDIX B: Well Logs	
APPENDIX C: Laboratory Results	
APPENDIX D: Water Level and Product Thickness Data	

I. INTRODUCTION

This report describes the investigation of subsurface petroleum contamination at former Plainfield Auto Parts on Route 2 in Plainfield, VT. The investigation was conducted by Griffin International Inc. (Griffin) for Gary Graves of Plainfield, VT. This investigation was requested by the State of Vermont Department of Environmental Conservation (VTDEC) due to a suspected release of petroleum at this site discovered on April 13, 1993 during the removal of three underground fuel storage tanks. A previous release of petroleum was suspected in 1990 when one underground storage tank was removed. Approval was given by telephone on August 20, 1993 by Chuck Schwer of VT DEC to proceed with the work outlined herein prior to completion of the work plan for the site. The site (VTDEC Site #90-552) is owned by Gary Graves of Rt. 2, Plainfield, VT. (see location map in Appendix A.)

II. SITE HISTORY

On April 13, 1993, a 4000-gallon capacity underground storage tank (UST 1), a 2000-gallon capacity underground storage tank (UST 2), and a 1000 gallon capacity underground storage tank (UST 3) were removed from the site of the former Plainfield Auto Parts and adjacent Peck's Plainfield General Store. All Three tanks had reportedly been used for storage of gasoline. A gasoline pump island and piping associated with UST 1 and UST 2 were also removed. No new tanks were installed at the site, and there are not reportedly any other USTs at this site. UST 1, UST 2, and the pump island were reportedly used to dispense fuel for retail sales. The use of UST 3 was not determined. The USTs were of single wall steel construction. The age of the former tanks are not known but are suspected to be over 20 years.

During the excavation, there was a strong odor of gasoline coming from contaminated soils. Inspection of the water drawn from a previously installed monitoring well at the south end of UST 1 indicated a mild petroleum odor and light sheens. Construction characteristics of this well were not known as to the location of the well screen relative to the water table. During the removal of UST 1, this monitoring well was destroyed.

Inspection of UST 1 and its surrounding soils revealed significant contamination of the soils on the south east corner nearest the former tank pump island. Another 4000 gallon UST had resided directly west of UST 1 and had been removed reportedly more than a year ago, because it was reportedly accumulating water. Soils on the west side were slightly contaminated but probably consisted of clean fill from the removal of the former UST to the west. The water table resided at about six feet below grade. Sheens appeared on water which collected in the UST 1 pit. Inspection of UST 1 did not reveal any defects. The tank was slightly rusty, but otherwise did not exhibit any signs of leaking.

Upon excavation of UST 2, it was discovered to be touching UST 3 on its east side. UST 3 was approximately six inches from the basement wall of Peck's Plainfield General Store. UST 2 or UST 3 did not exhibit any signs of leaks, although they were somewhat rusty and pitted. The water table in this location was also about six feet below grade. Soils around UST 2 and UST 3

where moderately contaminated along the western side and in general became less contaminated towards UST 3. Water that collected in the UST 2/3 tank pit did not exhibit sheens.

Excavation of the pump island revealed significant contamination with Volatile Organic Compound (VOC) concentrations detected at 250 to 300 ppm from the surface down to about nine feet below grade. The water table was at about six feet below grade. The owner was not aware of any leaks occurring at the pump island in the past.

III. INVESTIGATIVE PROCEDURES

In order to define the extent of subsurface petroleum contamination at the site, Griffin installed three monitoring wells at the time the USTs were removed on April 13, 1993. These wells were distributed so that the groundwater flow direction and gradient could be determined at the site. The locations of the wells are indicated on the Site Map in Appendix A. Depths to groundwater were measured in the wells, and then water samples were collected for laboratory analysis. The soil from the pits where the monitoring wells were installed were screened for VOCs with a PID.

A. Monitoring Well Installation

Three monitoring wells (MW-1 through MW-3) were installed by Griffin. Well MW-1 was installed in the UST 1 excavation. Well MW 2 was installed in the pump island excavation, and well MW 3 was installed in the UST 2/3 excavation. The wells are constructed of two inch diameter, 0.010" slot, PVC well screen and attached solid PVC riser. On site material was used to fill around the wells. Well construction details are listed on the well logs in Appendix B.

B. Soil Screening

Soil samples collected from the three excavations were screened for VOCs using a HNU PI101 PID, and logged by the tank closure inspector at the time of closure. Subsurface materials encountered in all three excavations consisted primarily of nine feet of sand and gravel underlain by gray very silty clay. VOC concentrations in the UST 1 pit ranged from 5 to 25 ppm on the west side of the pit to 220 ppm on the south east side of the pit. VOC concentrations in the UST 2/3 pit ranged from 3 to 15 ppm on the east side of UST 3 near the Peck's store foundation to 150 ppm on the west side of the pit where UST 2 resided. Excavation to about four feet below the bottom of former UST 2; revealed that the VOC concentration dropped from 150 ppm, near the top of the clay layer, to non detectable by three feet into the clay. The pump island excavation revealed significant contamination with VOC concentrations from 250 to 300 ppm from the surface to about nine feet below grade. Detailed lithologic descriptions and VOC concentrations are listed on the well logs in Appendix B.

C. Water Table and Product Measurements

Water table elevations in each monitoring well were measured on August 23, 1993. The water table elevations are based on an arbitrary datum by assigning an elevation of 100 feet to the

top of the MW-3 well casing. Elevations are plotted on the Groundwater Contour Map in Appendix A. The map indicates that groundwater is flowing southwest. The average hydraulic gradient in the vicinity of the monitoring wells is calculated to be 5.3 percent.

No free product was detected in any of the monitoring wells. All groundwater level data are recorded on the Liquid Level chart in Appendix D.

D. Groundwater Sampling and Analysis

On August 23, 1993, Griffin collected groundwater samples from all of the monitoring wells. Laboratory results are summarized below in Table 1. Laboratory report forms are presented in Appendix C. All samples collected were analyzed for volatile petroleum compounds according to EPA method 8020. All samples were collected according to Griffin's groundwater sampling protocol. Duplicate, trip blank, and equipment blank samples taken during the sampling indicate that adequate quality assurance/quality control was maintained during sample collection and analysis.

Significant contaminant levels were found in MW-2, which is the well in the former pump island excavation. MW-2 contained total contaminant levels of 27,332 parts per billion (ppb). Benzene, ethylbenzene, toluene, xylenes, and MTBE were all above Vermont Drinking Water Standards. Well MW-1 contained 2791 ppb total contaminants with only xylenes above the Vermont Drinking Water Standards. Well MW-3 contained 186 ppb total contaminants with no contaminant above Vermont Drinking Water Standards. Total BTEX + MTBE contaminant levels are shown for each well in the Contaminant Distribution Map in Appendix A.

IV. RECEPTOR SURVEY AND RISK ASSESSMENT

Griffin conducted a visual survey of the site to identify local potential receptors of any subsurface petroleum contaminants. The site is located in a residential/commercial area of Plainfield. Residences line the south side of Route 2. Residences in the immediate area appear to be cross gradient of the contaminated area. A wet land borders the site to the west and north.

The area is served by a municipal water supply and sewer which are not considered potential receptors. There are no known local water supplies in the relative area.

The most likely sensitive receptor appears to be the structures at the site. The Plainfield Auto Parts is of slab construction. The Peck's Plainfield General Store is a dry stone foundation construction. Both structures were inspected on April 13, 1993 and on August 23, 1993 for signs of contamination. The portion of the Peck's Store basement adjacent to the former UST 3 was screened with a PID. The basement sump was also screened. This sump is located directly on the interior side of the wall adjacent to UST 3. No sheen was noticed on the water in the sump; no VOCs were detected in the basement of Peck's during the screening. Gary Graves, who lives on the South side of Route 2, stated that he has never noticed any petroleum odors in his house. There are no known reports of structures experiencing petroleum contamination in the area.

Table 1.

Groundwater Quality Summary
Plainfield Auto Parts
Plainfield, Vermont

Monitoring Well: MW-1

PARAMETER	Date of Sample Collection			Vermont Drinking Water Standard
	8/23/93			
Benzene	ND			5.0*
Chlorobenzene	ND			100**
1,2-DCB	ND			-
1,3-DCB	ND			-
1,4-DCB	ND			-
Ethylbenzene	74.3			680**
Toluene	407			2420**
Xylenes	2310			400**
Total BTEX	2791.3			-
MTBE	ND			40**
BTEX+MTBE	2791.3			-

Monitoring Well: MW-2

PARAMETER	Date of Sample Collection			Vermont Drinking Water Standard
	8/23/93			
Benzene	782			5.0*
Chlorobenzene	ND			100**
1,2-DCB	ND			-
1,3-DCB	ND			-
1,4-DCB	ND			-
Ethylbenzene	1900			680**
Toluene	7790			2420**
Xylenes	13300			400**
Total BTEX	23772			-
MTBE	3560			40**
BTEX+MTBE	27332			-

Monitoring Well: MW-3

PARAMETER	Date of Sample Collection			Vermont Drinking Water Standard
	8/23/93			
Benzene	ND			5.0*
Chlorobenzene	ND			100**
1,2-DCB	ND			-
1,3-DCB	ND			-
1,4-DCB	ND			-
Ethylbenzene	TBQ			680**
Toluene	TBQ			2420**
Xylenes	172			400**
Total BTEX	172			-
MTBE	13.6			40**
BTEX+MTBE	185.6			-

All values reported in ug/L

ND - None Detected

TBQ - Trace, Below Quantitation Limits

* - Maximum Contaminant Level

** - Health Advisory Levels

The wet land was inspected, and no signs of petroleum contamination were noticed.

Based on the investigation, it is unlikely that any potential receptors will be adversely affected by the contamination at this site.

V. CONCLUSIONS

On the basis of this investigation, Griffin has concluded the following:

- 1) There has been a release of petroleum (probably gasoline) at this site. The amounts and duration of the release(s) are unknown.
- 2) The source of the release was not obvious, because the three USTs removed did not appear to be leaking. However, the presence of severe contamination beneath the former pump island, along with the high degree of contamination in the groundwater collected from MW -2, suggests that the pump island may have been the primary source of the contamination. The previously removed UST that had been collecting water may also have been a contaminant source.
- 3) Soils at the site consist principally of a nine foot thickness of sand and gravel underlain by very silty clay. Groundwater at the site apparently flows southwest at a gradient of 5.3 percent.
- 4) The silty clay below the area will likely prevent significant vertical migration of contaminants.
- 5) No free product was noticed in the three monitoring wells installed by Griffin at the time of sampling.
- 6) Dissolved petroleum compounds were detected in all of the monitoring wells. Contaminant levels were higher than Vermont Groundwater Enforcement Standards for BTEX and MTBE in MW-2. The level of xylenes in MW-1 was above Vermont Groundwater Enforcement Standards. Contaminant levels in MW 3 were all below Vermont Groundwater Enforcement Standards.
- 8) Reportedly no other USTs exist at this site.
- 9) Contaminated soils were backfilled into the excavations at the site. All known sources of petroleum contamination have been removed from the site.
- 10) The extent of the contamination is well defined upgradient from the likely source by the monitoring wells analysis and collected field data. The down gradient extent of the contaminant plume is not well defined, but the threat of exposure of area persons and structures from contaminants appears to be small.

RECOMMENDATIONS

On the basis of the above conclusions, Griffin recommends the following:

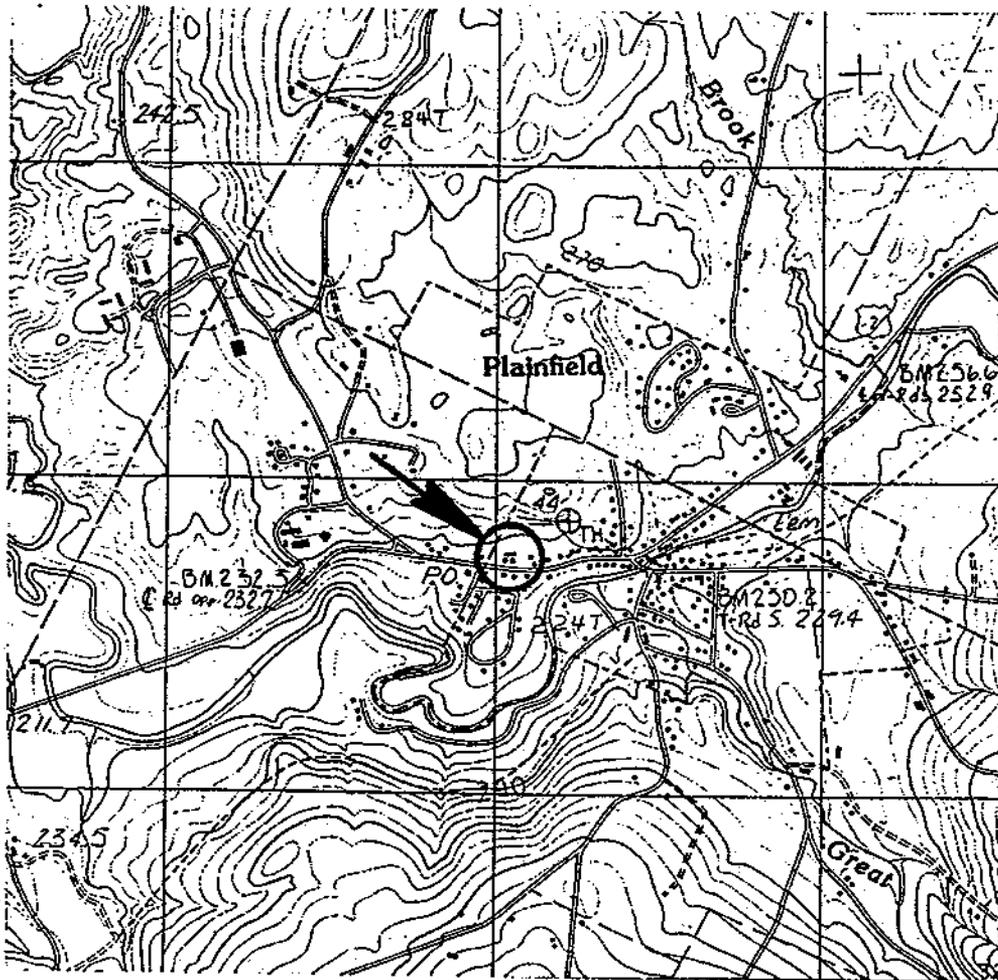
1) Because of the presence of dissolved hydrocarbon compounds which exceed Vermont drinking water standards in two of the monitoring wells at the site, all of the wells at the site should be sampled again in November 1993.

2) Once a clear trend of declining contamination concentrations in the wells can be defined, and contaminant concentrations fall below Vermont Ground Water Enforcement Standards, we would recommend that the site be closed and removed from the VTDEC Active Hazardous Waste Sites List.

3) Active remediation is not recommended at this time.

APPENDIX A

SITE LOCATION MAP
SITE MAP
GROUNDWATER CONTOUR MAP
CONTAMINANT DISTRIBUTION MAP



QUADRANGLE LOCATION

JOB #: 4934352

SOURCE: USGS



PLAINFIELD AUTO

PLAINFIELD,

VERMONT

SITE LOCATION MAP

DATE: 9/30/93

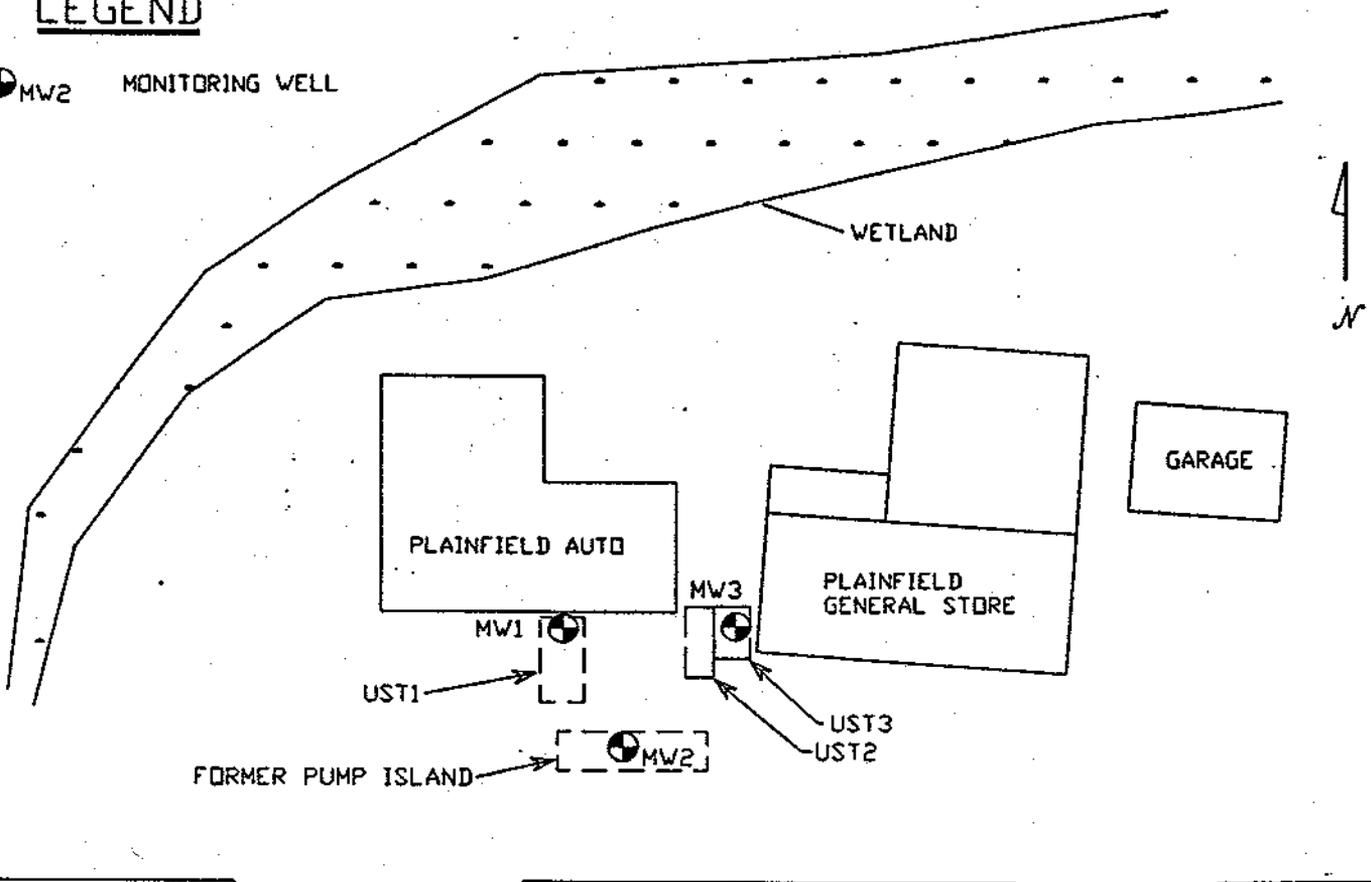
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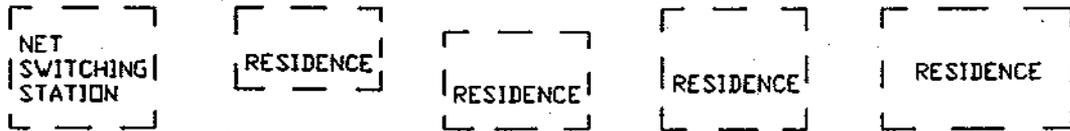
DRN: SB APP: PS

LEGEND

MW2 MONITORING WELL



U.S. ROUTE 2 PLAINFIELD, VERMONT



JOB #: 4934352



PLAINFIELD AUTO

PLAINFIELD,

VERMONT

SITE PLAN

DATE: 9/30/93

DWG.#: 1 OF 4

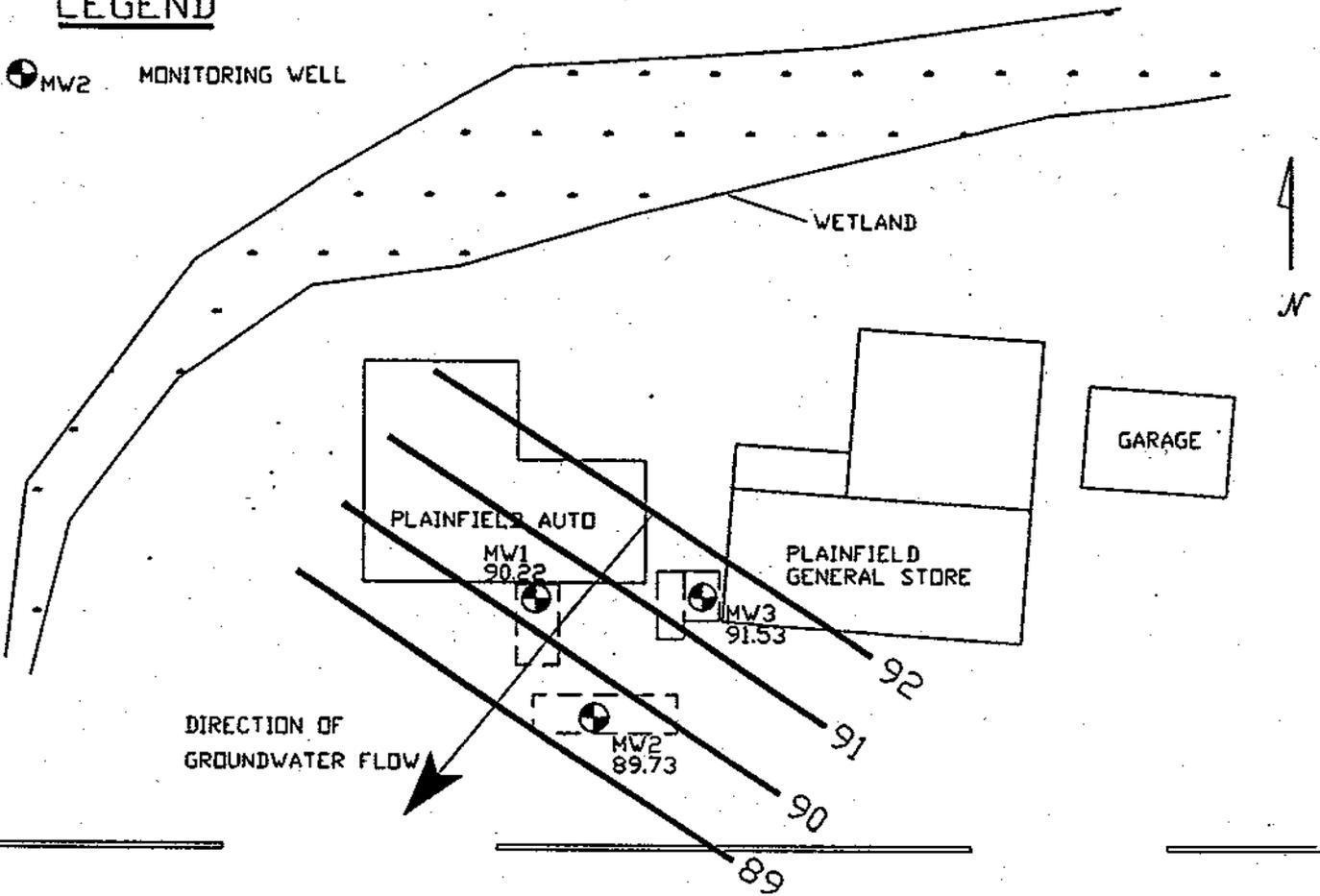
SCALE: 1"=40'

DRN: SB

APP: PS

LEGEND

MW2 MONITORING WELL



U.S. ROUTE 2 PLAINFIELD, VERMONT

NET SWITCHING STATION

RESIDENCE

RESIDENCE

RESIDENCE

RESIDENCE

JOB #: 4934352



PLAINFIELD AUTO

PLAINFIELD, VERMONT

GROUNDWATER CONTOUR MAP

DATE: 9/30/93

DWG. #: 2 OF 4

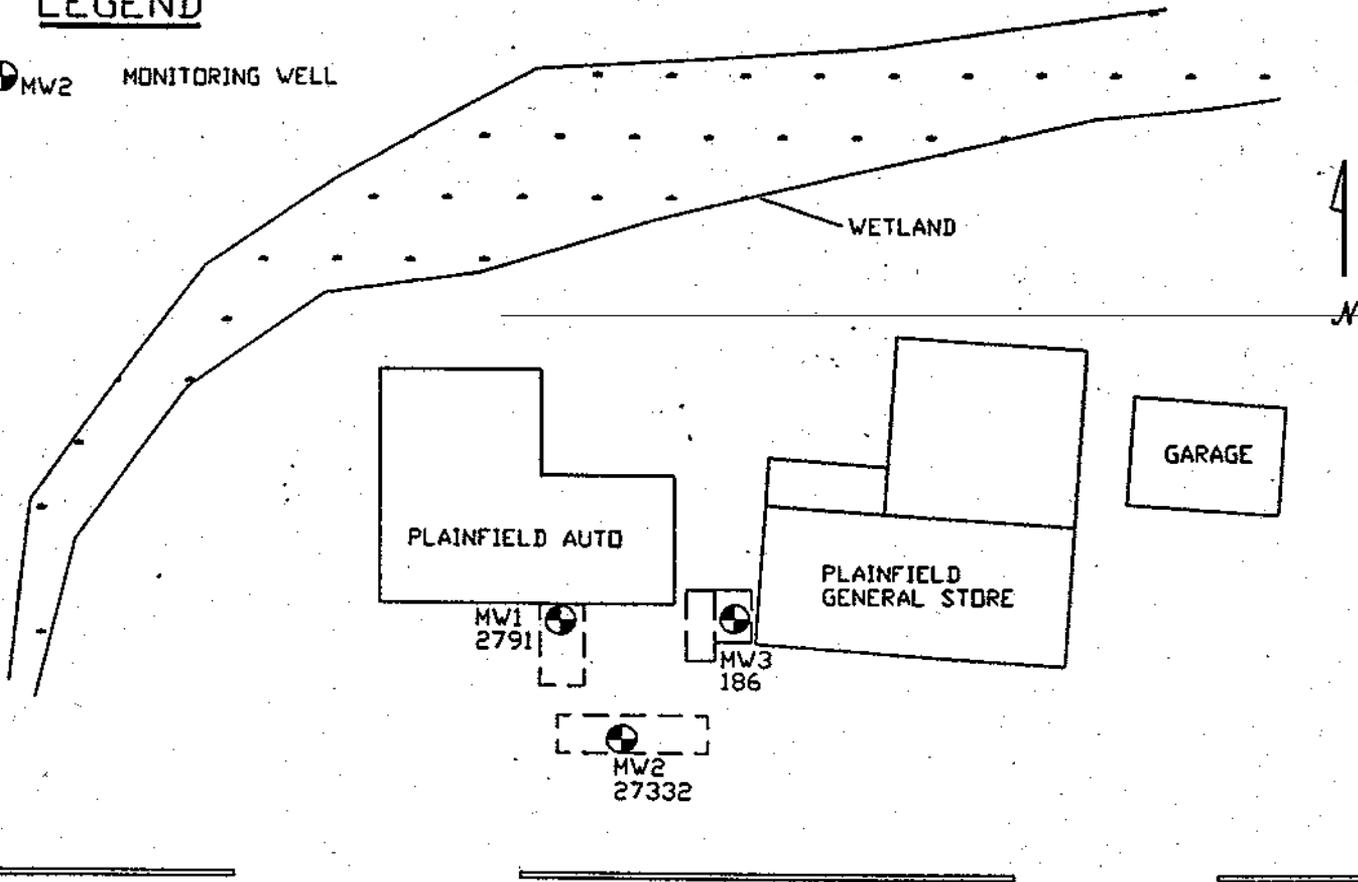
SCALE: 1"=40'

DRN.: SB

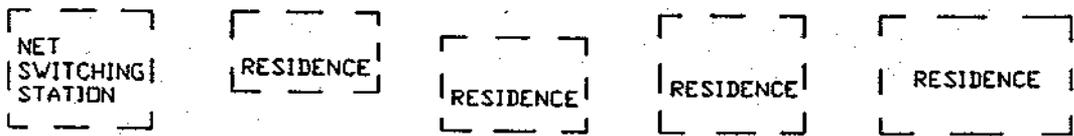
APP.: PS

LEGEND

MW2 MONITORING WELL



U.S. ROUTE 2 PLAINFIELD, VERMONT



JOB #: 4934352



PLAINFIELD AUTO

PLAINFIELD, VERMONT

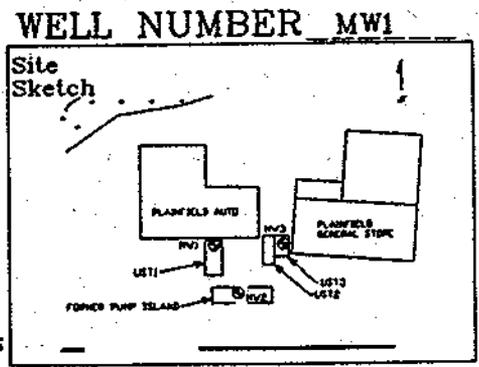
BTEX AND MTBE CONTAMINANT
CONCENTRATION MAP (PPb)

DATE: 9/30/93 | DWG.#: 3 OF 4 | SCALE: 1"=40' | DRN: SB | APP: PS

APPENDIX B

WELL LOGS

PROJECT Plainfield Auto
 LOCATION Plainfield, Vermont
 DATE DRILLED 4/13/93 TOTAL DEPTH OF HOLE 9'
 DIAMETER 6"
 SCREEN DIA. 2" LENGTH 5' SLOT SIZE 0.010"
 CASING DIA. 2" LENGTH 3.5' TYPE sch 40 pvc
 DRILLING CO. Calkins Const. DRILLING METHOD Back Hoe Pits
 DRILLER _____ LOG BY P. SCHUYLER

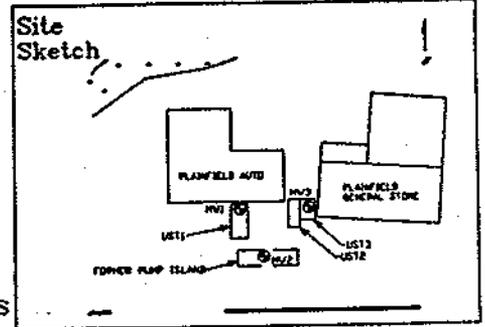


GRIFFIN INTERNATIONAL, INC

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0		TOP CAP			0
1			0'-9' 30-220 ppm	0' - 9' sand and gravel	1
2		BACKFILL			2
3		WELL RISER			3
4		WELL SCREEN			4
5					5
6					6
7				7.54' WATER TABLE	7
8		BOTTOM CAP			8
9				BASE OF WELL AT 8.5'	9
10		UNDISTURBED NATIVE SOIL		END OF EXPLORATION AT 9'	10
11					11
12					12
13					13
14					14
15					15
16					16
17					17
18					18
19					19
20					20
21					21
22					22
23					23
24					24
25					25

WELL NUMBER MW2

PROJECT Plainfield Auto
 LOCATION Plainfield, Vermont
 DATE DRILLED 4/13/93 TOTAL DEPTH OF HOLE 9'
 DIAMETER 6"
 SCREEN DIA. 2" LENGTH 5' SLOT SIZE 0.010"
 CASING DIA. 2" LENGTH 3.5' TYPE sch 40 pvc
 DRILLING CO. Calkins Const DRILLING METHOD Back Hoe Pits
 DRILLER _____ LOG BY P. SCHUYLER

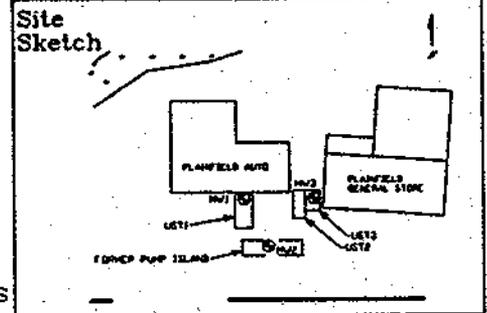


GRIFFIN INTERNATIONAL, INC

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0		TOP CAP			0
1		WELL RISER	0'-9' 200-250 ppm	0' - 9' sand and gravel	1
2		BACKFILL			2
3					3
4					4
5		WELL SCREEN			5
6					6
7		BOTTOM CAP			7
8				8.69' WATER TABLE	8
9		UNDISTURBED NATIVE SOIL			9
10				BASE OF WELL AT 7.5'	10
11				END OF EXPLORATION AT 9'	11
12				9' - silty clay	12
13					13
14					14
15					15
16					16
17					17
18					18
19					19
20					20
21					21
22					22
23					23
24					24
25					25

PROJECT Plainfield Auto
 LOCATION Plainfield, Vermont
 DATE DRILLED 4/13/93 TOTAL DEPTH OF HOLE 13'
 DIAMETER 6"
 SCREEN DIA. 2" LENGTH 5' SLOT SIZE 0.010"
 CASING DIA. 2" LENGTH 2.5' TYPE sch 40 pvc
 DRILLING CO. Calkins Const. DRILLING METHOD Back Hoe Pits
 DRILLER _____ LOG BY P. SCHUYLER

WELL NUMBER MW3

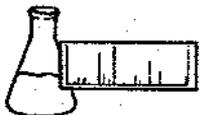


GRIFFIN INTERNATIONAL, INC

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0		TOP CAP			0
1		WELL RISER	0'-6' 50 ppm	0'-6' sand and gravel	1
2		BACKFILL			2
3		WELL SCREEN	6'-9' 100 ppm		3
4					4
5			9'-12' 150 ppm		5
6		BOTTOM CAP			6
7			12'-13' 0 ppm	6'-9' sand and gravel	7
8				8.47' WATER TABLE	8
9					9
10				9'-12' gray, very silty clay	10
11					11
12					12
13		UNDISTURBED NATIVE SOIL		BASE OF WELL AT 7.5' END OF EXPLORATION AT 13'	13
14					14
15					15
16					16
17					17
18					18
19					19
20					20
21					21
22					22
23					23
24					24
25					25

APPENDIX C

LABORATORY RESULTS



ENDYNE, INC.

RECEIVED SEP 8 1993

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

REPORT OF LABORATORY ANALYSIS

CLIENT: Griffin International
PROJECT NAME: Plainfield Auto
REPORT DATE: September 7, 1993
DATE SAMPLED: August 23, 1993

PROJECT CODE: GIPA1409
REF.#: 50,424 - 50,429

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Chain of custody indicated samples were preserved with HCl.

All samples were prepared and analyzed by requirements outlined in the referenced method and within the specified holding times. All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced method. Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy was monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

Individual sample performance was monitored by the addition of surrogate analytes to each sample. All surrogate recovery data was determined to be within laboratory QA/QC guidelines unless otherwise noted.

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

enclosures



Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7003

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Plainfield Auto
REPORT DATE: September 7, 1993
DATE SAMPLED: August 23, 1993
DATE RECEIVED: August 23, 1993
ANALYSIS DATE: September 4, 1993

PROJECT CODE: GIPA1409
REF.#: 50,428
STATION: MW #1
TIME SAMPLED: 11:20
SAMPLER: B. Schuyler

<u>Parameter</u>	<u>Detection Limit (ug/L)¹</u>	<u>Concentration (ug/L)</u>
Benzene	10	ND ²
Chlorobenzene	10	ND
1,2-Dichlorobenzene	10	ND
1,3-Dichlorobenzene	10	ND
1,4-Dichlorobenzene	10	ND
Ethylbenzene	10	74.3
Toluene	10	407.
Xylenes	10	2,310.
MTBE	100	ND

Bromobenzene Surrogate Recovery: 116%

NUMBER OF UNIDENTIFIED PEAKS FOUND: >25

NOTES:

- 1 Detection limit raised due to high levels of contaminants. Sample run at 10% dilution.
- 2 None detected



RECEIVED SEP 8 1993

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Plainfield Auto
REPORT DATE: September 7, 1993
DATE SAMPLED: August 23, 1993
DATE RECEIVED: August 23, 1993
ANALYSIS DATE: September 4, 1993

PROJECT CODE: GIPA1409
REF.#: 50,425
STATION: MW #2
TIME SAMPLED: 10:50
SAMPLER: B. Schuyler

<u>Parameter</u>	<u>Detection Limit (ug/L)¹</u>	<u>Concentration (ug/L)</u>
Benzene	100	782.
Chlorobenzene	100	ND ²
1,2-Dichlorobenzene	100	ND
1,3-Dichlorobenzene	100	ND
1,4-Dichlorobenzene	100	ND
Ethylbenzene	100	1,900.
Toluene	100	7,790.
Xylenes	100	13,300.
MTBE	1000	3,560.

Bromobenzene Surrogate Recovery: 115%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 15

NOTES:

- 1 Detection limit raised due to high levels of contaminants. Sample run at 1% dilution.
- 2 None detected



Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4238
FAX 879-7103

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Plainfield Auto
REPORT DATE: September 7, 1993
DATE SAMPLED: August 23, 1993
DATE RECEIVED: August 23, 1993
ANALYSIS DATE: September 4, 1993

PROJECT CODE: GIPA1409
REF.#: 50,426
STATION: MW #3
TIME SAMPLED: 11:05
SAMPLER: B. Schuyler

<u>Parameter</u>	<u>Detection Limit (ug/L)¹</u>	<u>Concentration (ug/L)</u>
Benzene	10	ND ²
Chlorobenzene	10	ND
1,2-Dichlorobenzene	10	ND
1,3-Dichlorobenzene	10	ND
1,4-Dichlorobenzene	10	ND
Ethylbenzene	10	TBQ ³
Toluene	10	TBQ
Xylenes	10	172.
MTBE	100	ND

Bromobenzene Surrogate Recovery: 124%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 18

NOTES:

- 1 Detection limit raised due to high levels of contaminants. Sample run at 10% dilution.
- 2 None detected
- 3 Trace below quantitation limits



RECEIVED SEP 8 1993
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Plainfield Auto
REPORT DATE: September 7, 1993
DATE SAMPLED: August 23, 1993
DATE RECEIVED: August 23, 1993
ANALYSIS DATE: September 3, 1993

PROJECT CODE: GIPA1409
REF.#: 50,424
STATION: Trip Blank
TIME SAMPLED: 7:30
SAMPLER: B. Schuyler

<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	ND ¹
Chlorobenzene	1	ND
1,2-Dichlorobenzene	1	ND
1,3-Dichlorobenzene	1	ND
1,4-Dichlorobenzene	1	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	10	ND

Bromobenzene Surrogate Recovery: 107%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected



ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

RECEIVED SEP 8 1993

CLIENT: Griffin International
PROJECT NAME: Plainfield Auto
REPORT DATE: September 7, 1993
DATE SAMPLED: August 23, 1993
DATE RECEIVED: August 23, 1993
ANALYSIS DATE: September 4, 1993

PROJECT CODE: GIPA1409
REF.#: 50,429
STATION: Equipment Blank
TIME SAMPLED: 11:30
SAMPLER: B. Schuyler

<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	ND ¹
Chlorobenzene	1	ND
1,2-Dichlorobenzene	1	ND
1,3-Dichlorobenzene	1	ND
1,4-Dichlorobenzene	1	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	10	ND

Bromobenzene Surrogate Recovery: 108%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected



ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Plainfield Auto
REPORT DATE: September 7, 1993
DATE SAMPLED: August 23, 1993
DATE RECEIVED: August 23, 1993
ANALYSIS DATE: September 4, 1993

PROJECT CODE: GIPA1409
REF.#: 50,427
STATION: Duplicate
TIME SAMPLED: 11:05
SAMPLER: B. Schuyler

<u>Parameter</u>	<u>Detection Limit (ug/L)¹</u>	<u>Concentration (ug/L)</u>
Benzene	10	ND ²
Chlorobenzene	10	ND
1,2-Dichlorobenzene	10	ND
1,3-Dichlorobenzene	10	ND
1,4-Dichlorobenzene	10	ND
Ethylbenzene	10	TBQ ³
Toluene	10	TBQ
Xylenes	10	193.
MTBE	100	ND

Bromobenzene Surrogate Recovery: 124%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 18

NOTES:

- 1 Detection limit raised due to high levels of contaminants. Sample run at 10% dilution.
- 2 None detected
- 3 Trace below quantitation limit

CHAIN-OF-CUSTODY RECORD

007260

RECEIVED SEP 5 1993

Project Name: <i>PLANNED HOLE</i>	Reporting Address: <i>GRIFIN</i>	Billing Address: <i>GRIFIN</i>
Site Location: <i>PLANNED</i>	Company: <i>PTPA SCHUYLER</i>	Sampler Name: <i>PTPA SCHUYLER</i>
Endyne Project Number: <i>GZPA/409</i>	Contact Name/Phone #: <i>879-1708</i>	Phone #: <i>879-7708</i>

Lab #	Sample Location	Matrix	G R A B	C O M P	Date/Time	Sample Containers		Field Results/Remarks	Analysis Required	Sample Preservation	Rush
						No.	Type/Size				
50424	TRIP BLANK	W	✓		8/23/93 07:30	2	40ml		20	91cc	
50425	MW #2				10:50						
50426	MW #3				11:05						
50427	DUPLICATE				11:05						
50428	MW #1				11:20						
50429	EQUIPMENT BLANK				11:30						

Relinquished by: Signature <i>Benn [Signature]</i>	Received by: Signature <i>JM Kelly</i>	Date/Time <i>8/23/93 1:00 PM</i>
Relinquished by: Signature	Received by: Signature	Date/Time

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Metals (Specify)	21	EPA 624	26	EPA 8270 B/N or Acid
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	EPA 625 B/N or A	27	EPA 8010/8020
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	EPA 418.1	28	EPA 8080 Pest/PCB
4	Nitrite N	9	BOD ₅	14	Turbidity	19	BTEX	24	EPA 608 Pest/PCB		
5	Nitrate N	10	Alkalinity	15	Conductivity	20	EPA 601/602 + MTBE	25	EPA 8240		
29	TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)										
30	Other (Specify):										

APPENDIX D

WATER LEVEL DATA

