JUL 18 2001

ACTIVITY REPORT: GROUNDWATER SAMPLING AND ANALYSIS, SUPPLY WELL SAMPLING, AND REMEDIAL SYSTEMS OPERATION

LAKE CARMI GULF (MOBIL) EAST FRANKLIN, VERMONT

VTDEC Site #94-1640
GI #6944540, #995666

July 16, 2001

Prepared for

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Table of Contents

1. INTRODUCTION **1**

2. OPERATION OF REMEDIAL SYSTEMS **1**

3. WATER LEVEL MEASUREMENTS AND GRADIENTS **1**

4. GROUNDWATER SAMPLING AND ANALYSES **2**

5. RESIDENTIAL WATER SUPPLIES **3**

5.1. LAGROW/BENJAMIN/FEELEY SUPPLY WELL 3
5.2. GERAW / STORE SUPPLY WELL 3
5.3. EAST FRANKLIN UNION CHURCH SUPPLY WELL 4

6. FORMER GERAW SUPPLY WELL **4**

7. CONCLUSIONS **4**

8. RECOMMENDATIONS **5**

APPENDICES

Appendix A – Maps
Appendix B – Soil Vapor Extraction System Operation Data
Appendix C – Well Gauging Data
Appendix D Groundwater Quality Summary
Appendix E – Analytical Laboratory Report – Groundwater Monitoring Wells
Appendix F – Lagrow/Benjamin/Feeley Supply Well
Summary Table and Laboratory Reports
Appendix G - Geraw / Store Supply Well
Summary Table and Laboratory Reports
Appendix H - East Franklin Union Church Supply Well
Summary Table and Laboratory Reports

1. INTRODUCTION

This report summarizes, for the period March 2001 through June 2001, progress of efforts to remediate subsurface petroleum contamination at the Lake Carmi Gulf (formerly Mobil) (VTDEC Site #94-1640) located on Route 120 in East Franklin, Vermont. The report presents remedial systems operational information; results of site investigation work, as well as overburden and residential supply well water quality data collected from the site. Griffin International, Inc., (Griffin) is conducting this work for Bay Oil Company, Inc., (Bay Oil) of Bristol, Vermont. Bay Oil has undertaken remedial work at the site in cooperation with the Vermont Department of Environmental Conservation (VTDEC). Results of Griffin's site investigations and remedial system installation are described in reports submitted previously.

2. OPERATION OF REMEDIAL SYSTEMS

Remedial systems at the site include a soil vapor extraction system (SVES) and a sparging system. The SVES consists of 19 extraction wells and the sparging system consists of 19 sparge wells. During site visits, a Griffin technician checked system operation, collected data on system operating parameters, and optimized the system-balancing configuration to allow for maximum possible recovery of petroleum.

During the period of March 23, 2001 through June 29, 2001, the SVES operated continuously except for one occasion. During this same period the sparging system operated intermittently, with shutdowns likely due to brief power outages. Following a power outage, the SVES will restart if the FALCO temperatures have not fallen below the lower limits, however the sparge system requires a manual restart.

Product recovery estimates and summary figures are shown in Appendix B. During the reporting period from March 23, 2001 through June 29, 2001, the SVES removed the equivalent of approximately 14 gallons of gasoline from the subsurface. Since startup, the SVES has removed the equivalent of approximately 6,434 gallons of gasoline. Currently the SVES is recovering the equivalent of approximately 0.17 gallons of product per day. PID measurements of the FALCO influent and effluent air streams, presented in Appendix B, indicate that the hydrocarbon destruction efficiency of the FALCO is operating close to 100%.

3. WATER LEVEL MEASUREMENTS AND GRADIENTS

Water table elevation measurements were collected by Griffin from the site related monitoring wells on May 15, 2001. The depth to water in each well was subtracted from the top of casing elevation to obtain the relative water table elevation. Water level gauging data for May 15, 2001 are presented in Appendix C. No free phase product was detected in the wells on May 15, 2001.

The groundwater elevations gauged on May 15, 2001 are plotted and contoured on the Groundwater Contour Map (Appendix A). The dominant shallow groundwater flow direction at the site is towards the north-northwest at an approximate horizontal gradient of 0.04 ft/ft. A downward vertical gradient of approximately 0.10 ft/ft was calculated for the MW-19/MW-20 nested pair of monitoring wells, and approximately 0.11 ft/ft for the MW-23/MW-24 nested pair. These gradients are consistent with previous data.

On May 15, 2001, the PVC risers for monitoring wells MW-6 and MW-16 were found to have frost heaved. Following collection of water level data and groundwater samples, the PVC risers for MW-6 and MW-16 were cut down 0.13-foot and 0.24-foot respectively to allow proper placement of the roadbox covers.

4. GROUNDWATER SAMPLING AND ANALYSES

Griffin collected groundwater samples from fourteen monitoring wells (MW-1, MW-4, MW-5, MW-6, MW-9, MW-13, MW-14, MW-16, MW-19, MW-20, MW-23, MW-24, MW-25, and PZ-02) on May 15 2001. Monitoring well MW-2 was dry on this date. There was insufficient groundwater to collect a sample from PZ-01 as this monitoring well was filled with silt to approximately the water table elevation. Monitoring well PZ-02 was added to the sampling schedule as a substitute for PZ-01. The water samples were analyzed by Endyne, Inc. of Williston, Vermont, by EPA Method 8021B for the presence of benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tertiary butyl ether (MTBE), naphthalene, 1,3,5-trimethylbenzene (TMB) and 1,2,4-TMB. Results of the laboratory analyses for the monitoring wells are summarized and plotted in Appendix D. The laboratory analysis report is contained in Appendix E. Analytical results of the trip blank and duplicate samples indicate that adequate quality assurance and control were maintained during sample collection and analysis.

Select petroleum compounds targeted by EPA Method 8021B were reported at concentrations exceeding their respective Vermont Groundwater Enforcement Standards (VGES) in groundwater collected from wells in the central section of the groundwater contaminant plume (MW-1, MW-4, MW-5, MW-6, MW-9, MW-14, and PZ-02).

MTBE was reported in the groundwater sample collected from MW-16 (below the VGES). No other compounds targeted by EPA Method 8021B were reported in this sample.

No petroleum compounds targeted by EPA Methods 8021B were reported at levels exceeding the sample specific detection limits for the groundwater samples collected from monitoring wells MW-13, MW-19 (deep)/MW-20 (shallow), MW-23 (deep), and MW-25. The reported detection limits were below the VGES for the targeted compounds. No unidentified peaks (UIPs) of petroleum compounds were reported for the groundwater samples collected from these monitoring wells.

MTBE was reported in the groundwater sample collected from monitoring well MW-24 (shallow) at a concentration exceeding the VGES for this compound. The level of MTBE reported in MW-24 has decreased slightly as compared to the previous sampling conducted January 23, 2001. No UIPs were reported in this water sample. Monitoring well MW-24 is the shallow well in the nested pair (MW-23/MW-24). MTBE had historically been reported in the groundwater collected from former monitoring well MW-21, which was located approximately 70 feet upgradient from MW-24.

Using the Site Map as a base, the Total Targeted VOCs for May 15, 2001 have been plotted to generate the Contaminant Distribution Map in Appendix A. This map illustrates that the central area of the plume is under Middle Road near the intersection with Route 120. An area of slightly elevated MTBE is located in the vicinity of monitoring well MW-24, which is downgradient of the central plume with respect to the overburden groundwater flow direction. This distribution is generally consistent with recent historic data.

5. RESIDENTIAL WATER SUPPLIES

Water samples are scheduled for collection on a quarterly basis from the Lagrow/Benjamin/Feeley, the Geraw/Store, and the East Franklin Union Church supply wells and submitted for analysis of drinking water volatile organic compounds (VOCs) by EPA Method 524.2. Quarterly samples were collected from the Geraw/Store on April 6, 2001 and from the Church and Lagrow/Benjamin/Feeley supply wells on April 20, 2001.

5.1. Lagrow/Benjamin/Feeley Supply Well

This water system was put into service in August 2000. No petroleum compounds targeted by EPA Method 524.2 were reported at levels exceeding the Vermont Action Level (VAL), the Vermont Health Advisory (VHA), or the EPA Maximum Contaminant Level (MCL) standards for the water sample collected on April 20, 2001. No UIPs of petroleum compounds were reported for this sample. The laboratory reports for April 20, 2001, and a summary table are included in Appendix F.

5.2. Geraw / Store Supply Well

There is a carbon treatment system on the Geraw supply well, which also services the Lake Carmi Gulf store. Water samples are collected from the influent, mid, and effluent of the treatment system. The influent water quality results are tabulated in Appendix G. The laboratory reports are also included in Appendix G.

Concentrations of benzene and 1,2-dichloroethane (1,2-DCA) were reported in the influent water sample collected on April 6, 2001 at levels exceeding the Vermont Department of Health Vermont Action Level (VAL). No petroleum compounds targeted by the EPA Method 524.2 have been reported in the treatment system effluent water samples.

5.3. East Franklin Union Church Supply Well

Groundwater sampling of the recently installed supply well at the East Franklin Union Church commenced on October 31, 2000. A concentration of 1,2-DCA was reported in the water sample collected on April 20, 2001. The reported levels of 1,2-DCA in the water collected from the Church supply well exceed the VAL for this compound. A summary table and the laboratory report are included in Appendix H. The VTDEC is providing the East Franklin Union Church with bottled water.

6. FORMER GERAW SUPPLY WELL

During the site visit on May 15, 2001, Mr. Geraw showed Griffin the location of their former bedrock supply well. This well is located west of the Geraw residence in a pit lined with concrete walls. According to Mr. Geraw, the top of the well is in the pit approximately four feet below grade and that when their current well was put into service the pit was filled with soil to grade.

7. CONCLUSIONS

Considering the data collected to date, Griffin has reached the following conclusions:

1. Portions of the bedrock aquifer in the area of the site remains contaminated with petroleum compounds. A water treatment system is effectively removing petroleum compounds from the water supply serving the Store/Geraw residence. A shared supply well servicing the Lagrow, Benjamin, and Feeley residences has been clean (i.e. no reportable concentrations of EPA Method 524.2 compounds) for the past three sampling quarters. The East Franklin Union Church is being provided with bottled water.

2. The overburden aquifer measured on May 15, 2001, flows generally north-northwest at a shallow gradient of 0.40 ft/ft. A downward vertical gradient of approximately 0.10 ft/ft was calculated for the MW-19/MW-20 nested pair of monitoring wells, and approximately 0.11 ft/ft for the MW-23/MW-24 nested pair. These results are consistent with historic estimates.

3. Shallow groundwater at the site remains contaminated with petroleum compounds at concentrations exceeding Vermont Groundwater Enforcement Standards. Groundwater quality has improved significantly since monitoring began. This is likely due in part to the effects of the active remedial measures (soil vapor extraction and sparging) at the site.

4. The SVES and sparging system continue to recover petroleum compounds from the subsurface at diminished rates, but above the VTDEC threshold for cessation of remediation.

From March through June 2001, the SVES operated almost continously and the sparge system operated intermittently, likely due to power outages.

5. Monitoring well PZ-01 was filled with silt to approximately the water table elevation. The silt had likely accumulated in the well slowly over time, however nearby sparging action may have accelerated the process.

8. RECOMMENDATIONS

Based on the conclusions above and on historical site data, Griffin presents the following recommendations:

1. Given the overall trend toward improved groundwater quality, the frequency of groundwater monitoring should be reduced from tri-annually (three times per year) to semi-annually (two times per year). The next semi-annual groundwater-monitoring event of the overburden monitoring wells is scheduled for October/November 2001. The samples will be analyzed for VOCs by EPA Method 8021B.

2. The operation of the remedial systems should continue. The remedial system should be maintained during site visits scheduled according to the requirements of the site, normally biweekly.

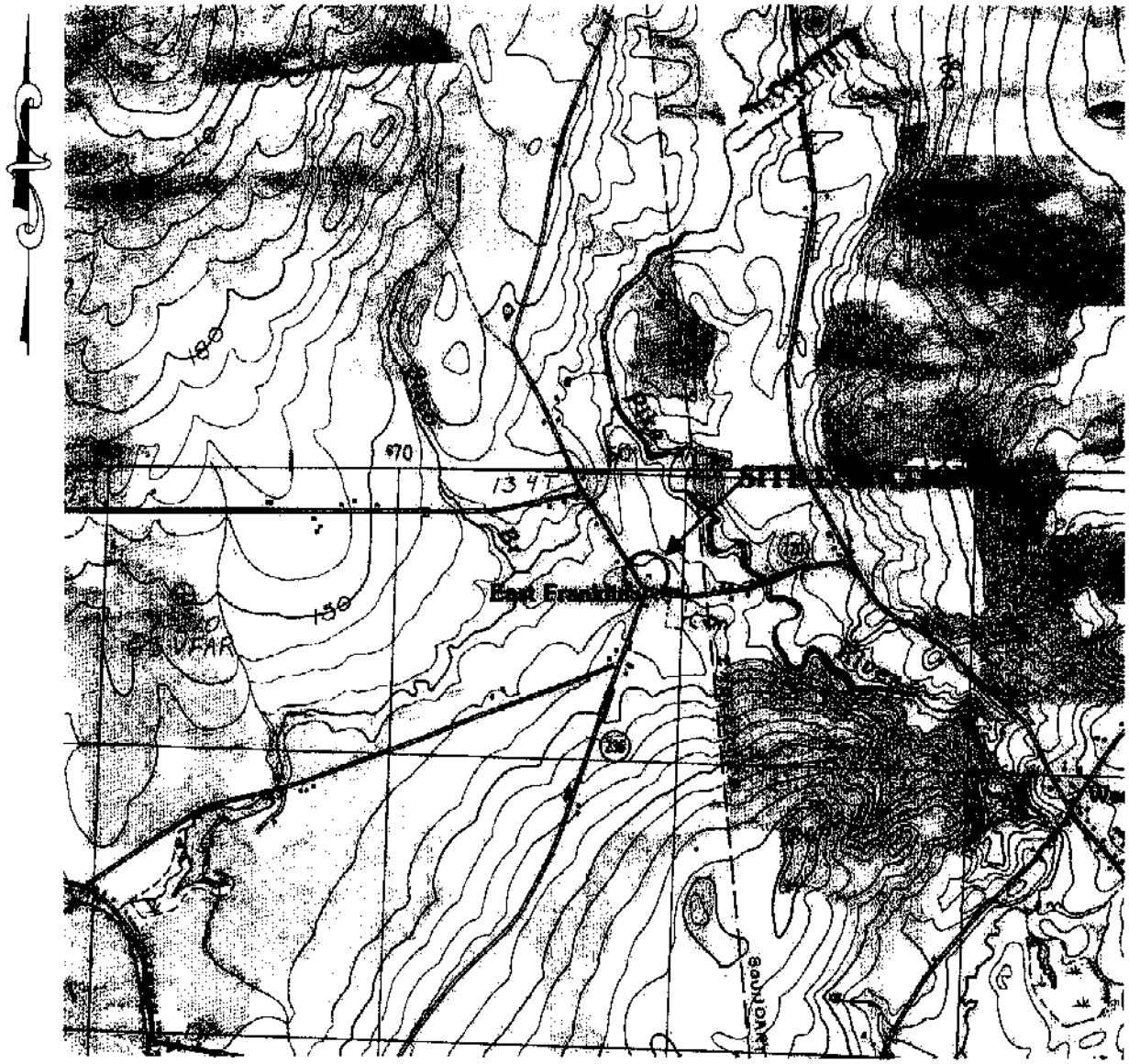
3. The next quarterly sampling of the residential water systems (Lagrow/Benjamin/Feeley, Geraw/Store, and the East Franklin Union Church) is scheduled for July 2001. The supply well samples will be analyzed for drinking water VOCs by EPA Method 524.2.

4. The silt should be removed from monitoring well PZ-01 with a surge/flush system, followed by development with a bailer. This could be accomplished during a biweekly remedial system site visit.

5. Given the proximity of the former Geraw supply well to the central area of the overburden contaminant plume and given that several area bedrock wells contain detectable concentrations of petroleum compounds, a water sample should be collected from the former Geraw supply well and analyzed for drinking water VOCs by EPA Method 524.2. To accomplish this the soil covering the well housing will need to be hand excavated. The water sample will be collected from the well with a bailer; the well will not be purged prior to sample collection. After the laboratory analytical results have been received, the former supply well should be decommissioned by filling the well with a bentonite slurry. Sealing the well with the bentonite slurry will eliminate the well as a potential avenue for the migration of petroleum contamination. Permission from the Geraws will need to be obtained to uncover, sample, and decommission the former supply well.

APPENDIX A

Maps



VTDEC Site #94-1640
Griffin Job Number: 6944540 and 995666
Source: USGS 7.5 minute quadrangle, Enosburg Falls, VT, Provisional Edition dated 1986.
Scale 1:24,000 Contour interval 6 Meters.

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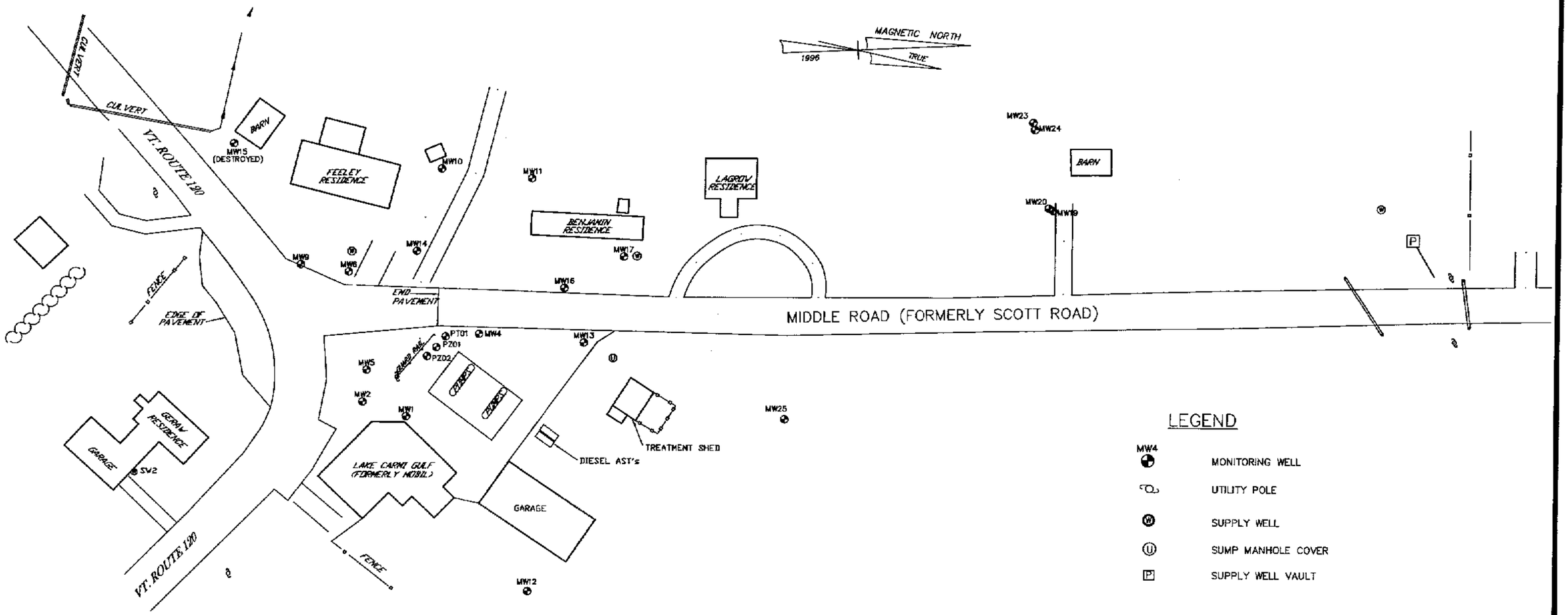
Site Location Map

Lake Carmi Gulf (Mobil)
Route 120
East Franklin, Vermont

Date: 01/15/01	Drawing: 1/1	Scale: 1"=2,000'	By: CW



SOURCE: VERMONT LAND SURVEYORS SURVEYS, OCTOBER 31,1996 AND DECEMBER 13, 2000.

VT DEC SITE #: 94-1640
JOB #: 6944540

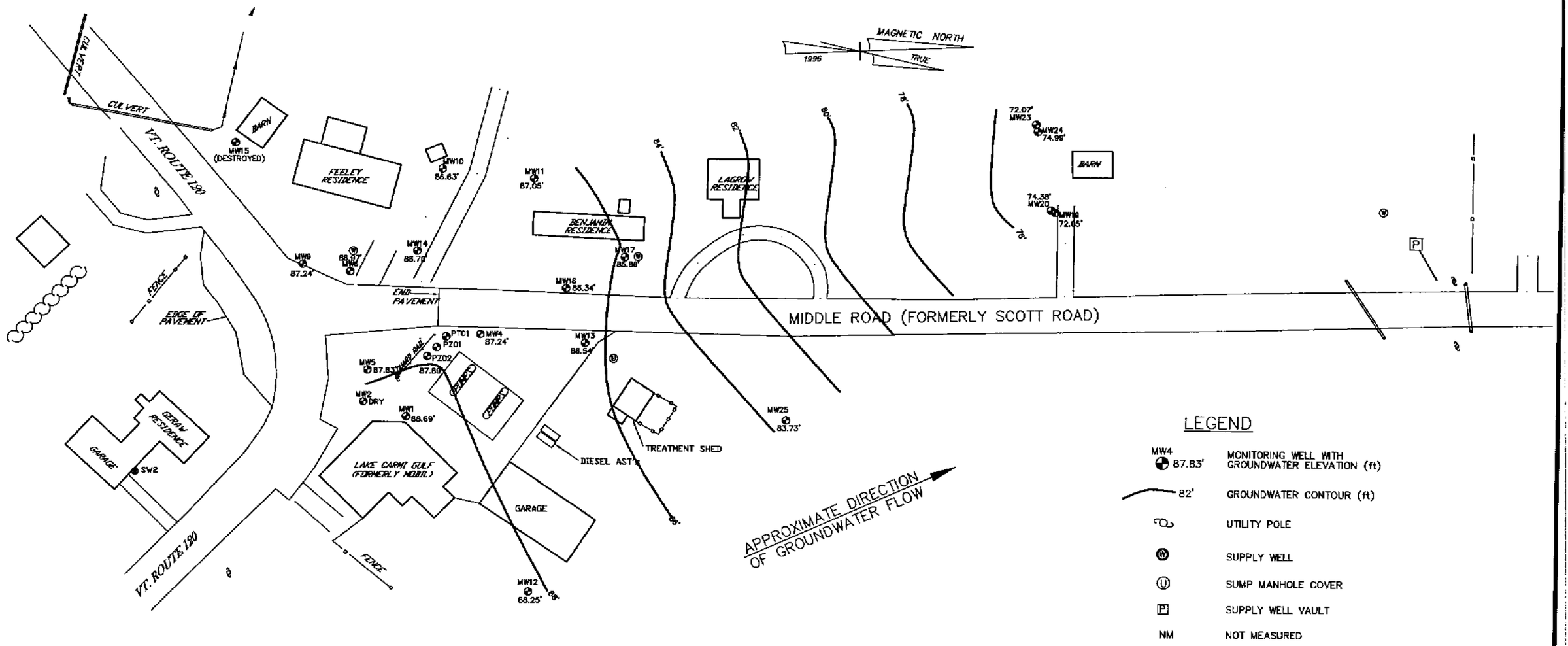
GRIFFIN INTERNATIONAL INC

LAKE CARMI

EAST FRANKLIN, VERMONT

SITE MAP

DATE: 7/10/01	DWG.#: 1	SCALE: 1" = 60'	DRN.: DM	APP.: CW



SYSTEM STATUS: VENT ON
SPARGE OFF

SOURCE: VERMONT LAND SURVEYORS SURVEYS, OCTOBER 31, 1996 AND DECEMBER 13, 2000.

VT DEC SITE #: 94-1640
JOB #: 6944540

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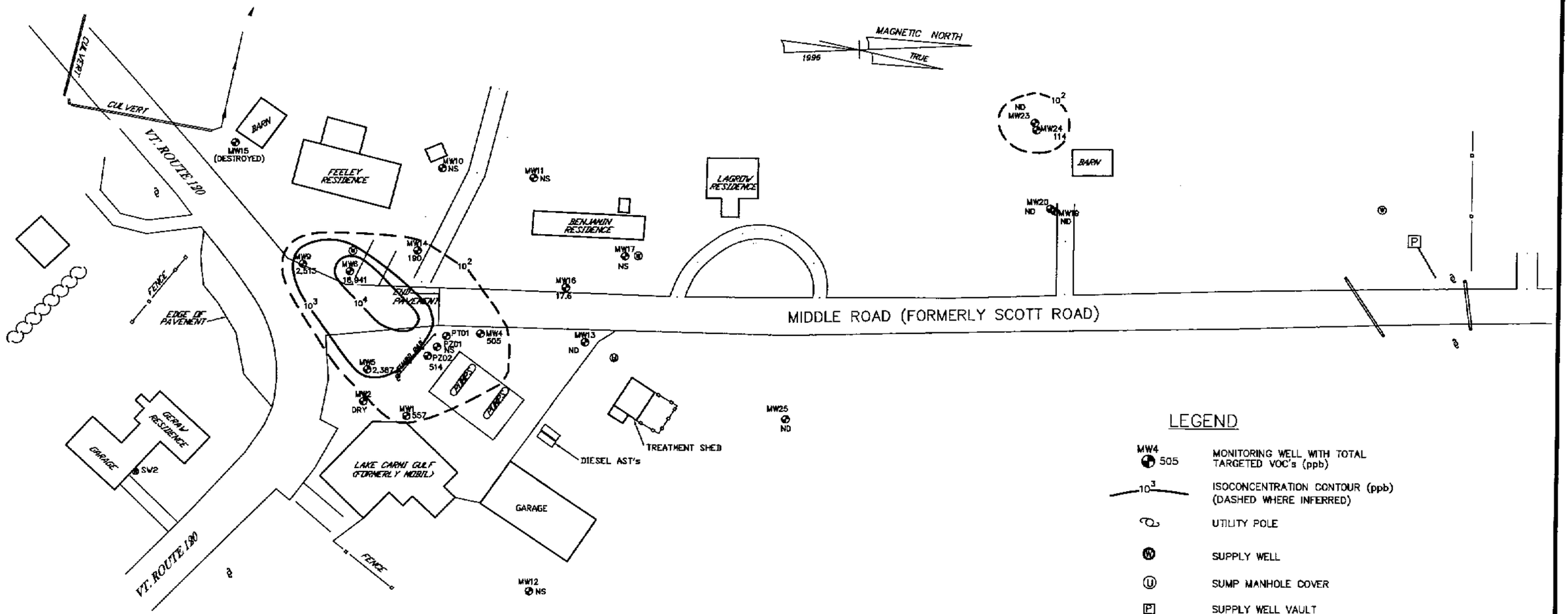
LAKE CARMI

EAST FRANKLIN, VERMONT

GROUNDWATER CONTOUR MAP

MEASURED: 5/15/01

DATE: 7/10/01	DWG.#: 3	SCALE: 1" = 60'	DRN.: DM	APP.: CW



LEGEND

MW4 505	MONITORING WELL WITH TOTAL TARGETED VOC's (ppb)
10^3	ISOCONCENTRATION CONTOUR (ppb) (DASHED WHERE INFERRED)
	UTILITY POLE
W	SUPPLY WELL
U	SUMP MANHOLE COVER
P	SUPPLY WELL VAULT
NS	NOT SAMPLED
ND	NONE DETECTED

SOURCE: VERMONT LAND SURVEYORS SURVEYS, OCTOBER 31,1996 AND DECEMBER 13, 2000.

VT DEC SITE #: 94-1640
JOB #: 6944540

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LAKE CARMI

EAST FRANKLIN, VERMONT

CONTAMINANT DISTRIBUTION MAP

SAMPLED: 5/15/01

DATE: 7/10/01	DWG.#: 4	SCALE: 1" = 60'	DRN.: DM	APP.: CW

APPENDIX B

Soil Vapor Extraction System Operational Data

Griffin International, Inc.

SVES Operational Data (Falco - 300)

Lake Carmi Gulf (Mobil)
East Franklin, VT

Date	Hr. Meter (hrs)	Comment	T1 (C)	T2 (C)	Delta T T2-T1 (C)	Flow Rate (CFM)	Influent Delta T (ppm)	PID Influent (ppm)	PID Effluent (ppm)	PID Type	Product Recovery Rate (gpd)	Total Recovery To Date
9/26/1997	2280.0	Falco 300 Installed to Replace Falco 100 and ORS Units										2781.4
9/26/1997	2281.0	no pid data	335	487	152	260	1216				17.07	2782.1
10/3/1997	2898.6	Falco down on arrival/ Faulty T2 Controller										
10/10/1997	2898.6	System Repaired/ But Left off for Pump Test										
10/13/1997	2898.6	System Restarted	331	451	120	260	960				13.48	3129.0
10/24/1997	3162.6	no pid data	331	426	95	260	760				10.67	3246.3
11/7/1997	3493.9	Sparge on	330	406	76	260	608	102	3	HNU	8.54	3364.2
11/17/1997	3735.4	sparge off/restart	330	383	53	245	424	104	1.2	HNU	5.61	3420.6
12/10/1997	4290.1	Sparge on	330	383	53	245	424	90	0.8	HNU	5.61	3550.3
12/19/1997	4505.4	Sparge on	330	369	39	245	312	84	0.6	HNU	4.13	3587.3
1/7/1998	4805.5	System Down/ Restart	330	397	67	260	536	96	0.3	HNU	7.53	3681.4
1/20/1998	5117.0	Sparge Restarted	330	346	16	225	128	34	0	HNU	1.56	3701.6
2/5/1998	5180.1	Down on arrival	329	351	22	238	176	54	1.6	HNU	2.26	3707.5
2/18/1998	5489.3		330	342	12	240	96	32	0	HNU	1.24	3723.6
3/3/1998	5803.7		330	343	13	230	104	31	0	HNU	1.29	3740.5
3/18/1998	6184.4		330	342	12	210	96	48	0	HNU	1.09	3757.7
4/1/1998	6498.0		330	340	10	238	80	18	0.2	HNU	1.03	3771.2
4/21/1998	6977.1		330	338	8	214	64	13.5	0	HNU	0.74	3785.9
5/5/1998	7234.4		330	341	11	220	88	24	0.1	PV	1.05	3797.1
5/19/1998	7567.0		330	342	12	224	96	20.7	0	PV	1.16	3813.2
6/2/1998	7907.4		330	344	14	224	112	20	0	HNU	1.35	3832.5
6/16/1998	8240.0		330	374	44	221	352	162	0	PV	4.20	3890.7
7/7/1998	8422.4		329	353	24	225	192	81	0	PV	2.33	3908.4
7/24/1998	8830.0		330	355	25	230	200	74	0	PV	2.48	3950.6
8/7/1998	9166.5		330	397	67	224	536	188	2.4	PV	6.48	4041.5
8/21/1998	9595.5		331	381	50	224	400	119	1.5	PV	4.84	4128.0
9/2/1998	9790.4		330	379	49	224	392	159	6.6	PV	4.74	4166.5
9/17/1998	10149.0	Balanced System	330	378	48	224	368	146	0	PV	4.45	4233.0
10/1/1998	10787.6		330	386	56	224	448	177	0	PV	5.42	4377.2
10/22/1998	10986.0		330	370	40	224	320	122	0	PV	3.87	4409.2
11/2/1998	11257.0		330	370	40	224	320	119	0	PV	3.87	4452.9
11/17/1998	11611.5		330	365	35	224	280	104	0	PV	3.39	4502.9
12/8/1998	12114.6		330	361	31	224	248	74	0	HNU	3.00	4565.8
1/8/1999	12708.5	Down on arrival	330	366	36	224	288	109	0	PV	3.48	4652.0
1/20/1999	12841.0	Down on arrival	330	366	36	224	288	166	0	PV	3.48	4671.2
2/4/1999	13224.0		330	366	36	220	288	96	0	PV	3.42	4725.8
2/18/1999	13532.3		330	362	32	217	256	79	0	PV	3.00	4764.4
3/1/1999	13802.5		330	363	33	210	264	121	0	PV	2.99	4798.1
3/18/1999	14206.5		330	365	35	214	280	96	0.7	PV	3.24	4852.5
4/1/1999	14540.4		330	360	30	224	240	101	0	PV	2.90	4892.9
4/14/1999	14852.0		330	357	27	224	216	55	0	HNU	2.61	4926.9
4/28/1999	15192.2		330	354	24	224	192	74.2	0	PV	2.32	4959.8
5/19/1999	15693.0		330	355	25	224	200	51	0.1	HNU	2.42	5010.3
6/3/1999	15719.8	Down on arrival	330	380	50	224	400	193	0	PV	4.84	5015.7
6/18/1999	16080.2		330	380	50	224	400	127	0	PV	4.84	5088.3
7/1/1999	16392.0		330	396	66	224	528	169	0	PV	6.39	5171.3
7/14/1999	16703.6		330	410	80	224	640	213	0	PV	7.74	5271.8
8/5/1999	17231.3		331	406	75	224	600	210	0	PV	7.26	5431.4
8/9/1999	17324.4		330	405	75	224	600	223	0	PV	7.26	5459.5
9/14/1999	18188.8		332	431	99	224	792	270	0	PV	9.58	5804.6
10/7/1999	18743.5		330	387	57	224	456	174	1.1	PV	5.52	5932.1

Griffin International, Inc.

SVES Operational Data (Falco - 300)

Lake Carmi Gulf (Mobil)
East Franklin, VT

Date	Hr. Meter (hrs)	Comment	T1 (C)	T2 (C)	Delta T T2-T1 (C)	Flow Rate (CFM)	Influent Delta T (ppm)	PID Influent (ppm)	PID Effluent (ppm)	PID Type	Product Recovery Rate (gpd)	Total Recovery To Date
10/22/1999	19099.1		330	365	35	224	280	147	0	PV	3.39	5982.2
11/1/1999	19340.3		330	355	25	224	200	70	0.7	PV	2.42	6006.5
11/18/1999	19752.1		330	349	19	224	152	48	0	PV	1.84	6038.1
12/10/1999	20276.7		330	344	14	224	112	31	0	PV	1.35	6067.7
1/12/2000	21069.5		330	341	11	224	88	25	0	PV	1.06	6102.9
1/27/2000	21185.2	Down on arrival Faulty Temp Controller										
2/23/2000	21188.2	T2 faulty	330	nr		224		58.2	0	PV	0.00	6102.9
3/8/2000		Down on arrival / moisture problems										
3/13/2000	21388.3	T2 not registering temp	328	nr		224		50.2	2.4	PV	0.00	6102.9
4/4/2000		Down on arrival / troubleshoot system										
4/12/2000	21631.0		331	340	9	168	72	40	0	PV	0.65	6109.5
5/5/2000	22037.0		330	370	40	175	320	75	0	PV	3.02	6160.6
5/25/2000	22516.0		330	349	19	170	152	80	0	PV	1.40	6188.5
6/15/2000	23022.0		330	346	16	170	128				1.18	6213.3
6/29/2000	23355.3		330	345	15	170	120	64.3	0.2	PV	1.10	6228.6
7/19/2000	23836.1		330	344	14	168	112	42	0	PV	1.02	6248.9
8/4/2000	24219.5		330	345	15	168	120	42	0	PV	1.09	6266.3
8/4/2000		Shut system down - influent line to FALCO melted										
10/3/2000	24221.4	Vent system on at 15:00	323	335	12	131	96	69.2	2.8	PV	0.68	6266.4
10/12/2000	24431.7	Sparge compressors on	330	345	15	131	120	58.3	0.3	PV	0.85	6273.8
10/31/2000	24888.2		330	385	55	131	440	197	1.1	PV	3.11	6333.0
11/13/2000	25198.9		330	376	46	131	368	166	1	PV	2.60	6366.7
11/20/2000	25368.3	Sparge compressors removed	330	372	42	131	336	177	1.3	PV	2.38	6383.5
12/13/2000	25927.2		330	338	8	131	64	67	0	PV	0.45	6394.0
1/9/01 9:41	26567.0		330	334	4	131	32	32.1	0	PV	0.23	6400.1
1/12/01 12:00	26641.1	New sparge compressor started	330	334	4	131	32	26.1	0	PV	0.23	6400.8
1/16/01 12:25	26655.0	System Down/ Restart	330	373	43	131	344	98.2	0	PV	2.43	6402.2
1/23/01 15:35	26689.7	System Down/ Restart	330	378	48	131	384	132	0	PV	2.72	6406.1
1/29/01 10:02	26828.0	Upon arrival: sparge down/ vent on	330	342	12	131	96	57.3	0	PV	0.68	6410.0
2/6/01 9:55	27019.8	Upon arrival: sparge down/ vent on	330	337	7	131	56	47.2	0	PV	0.40	6413.2
2/21/01 9:45	27379.7	Upon arrival: sparge down/ vent on	330	335	5	131	40	32.6	0	PV	0.28	6417.4
3/8/01 10:50	27400.1	System Down/ Restart	330	340	10	131	80	47.5	0	PV	0.57	6417.9
3/23/01 10:07	27759.3	Upon arrival: sparge down/ vent on	330	333	3	131	24	67	0	PV	0.17	6420.4
4/6/01 8:40	28092.8	Upon arrival: sparge down/ vent on	330	332	2	131	16	24	0	PV	0.11	6422.0
4/20/01 10:44	28430.7	Upon arrival: sparge down/ vent on	330	328	0	131	0	11.2	0	PV	0.00	6422.0
5/4/01 11:34	28767.9	Upon arrival: sparge down/ vent on	330	333	3	131	24	7.1	0	PV	0.17	6424.4
5/15/01 15:17	29033.1	Upon arrival: sparge down/ vent on	330	333	3	131	24	0	0	PV	0.17	6426.3
5/17/01 14:30	nr	Upon arrival: sparge down/ vent on	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr
6/1/01 9:43	29437.5	Upon arrival: sparge down/ vent on	330	334	4	131	32	11.2	1.4	PV	0.23	6430.1
6/15/01 9:05	29593.0	System Down/ Restart	330	333	3	131	24	3.2	0	PV	0.17	6431.2
6/21/01 13:52	29741.7	Upon arrival: sparge down/ vent on	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr

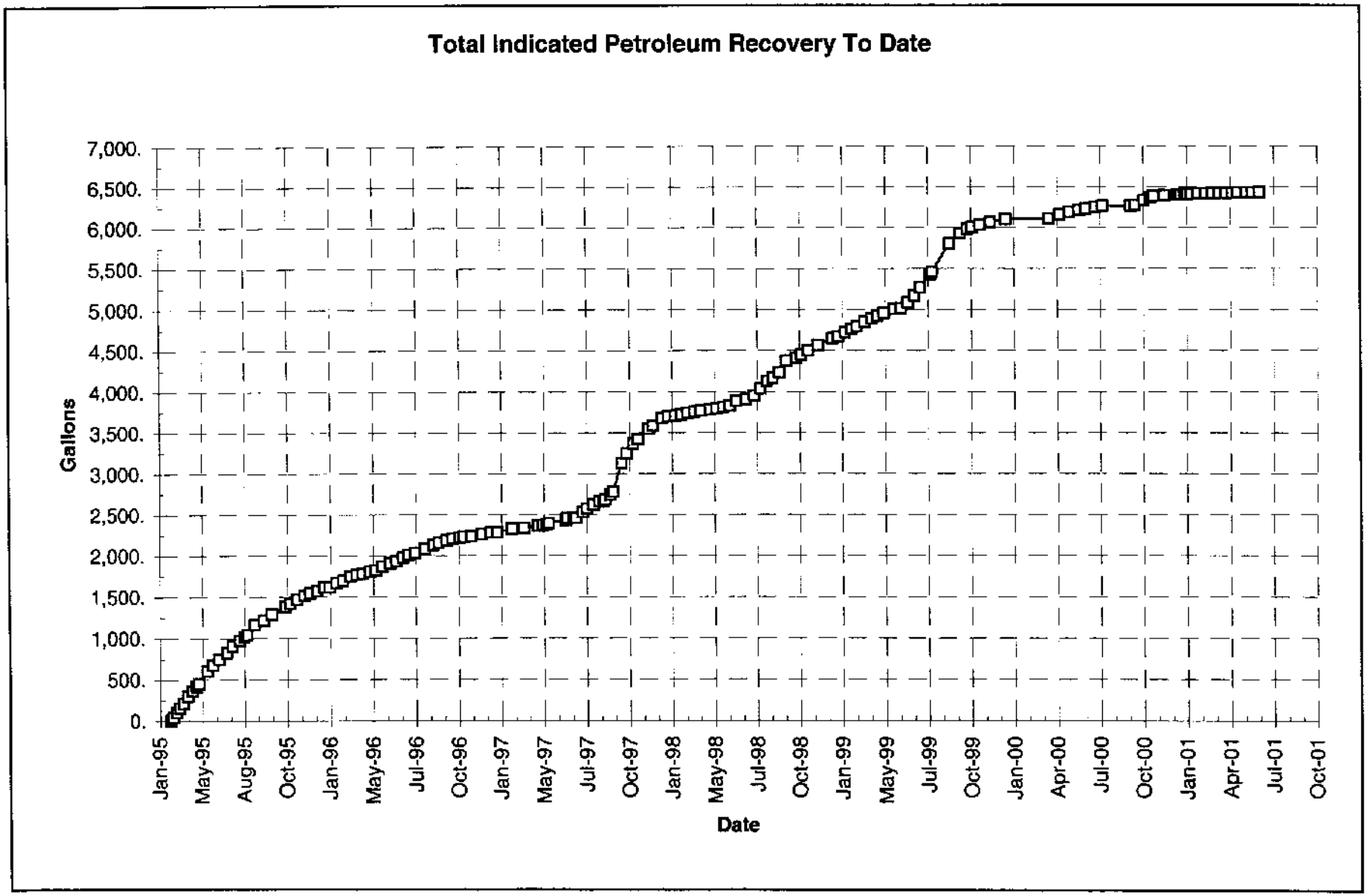
Griffin International, Inc.

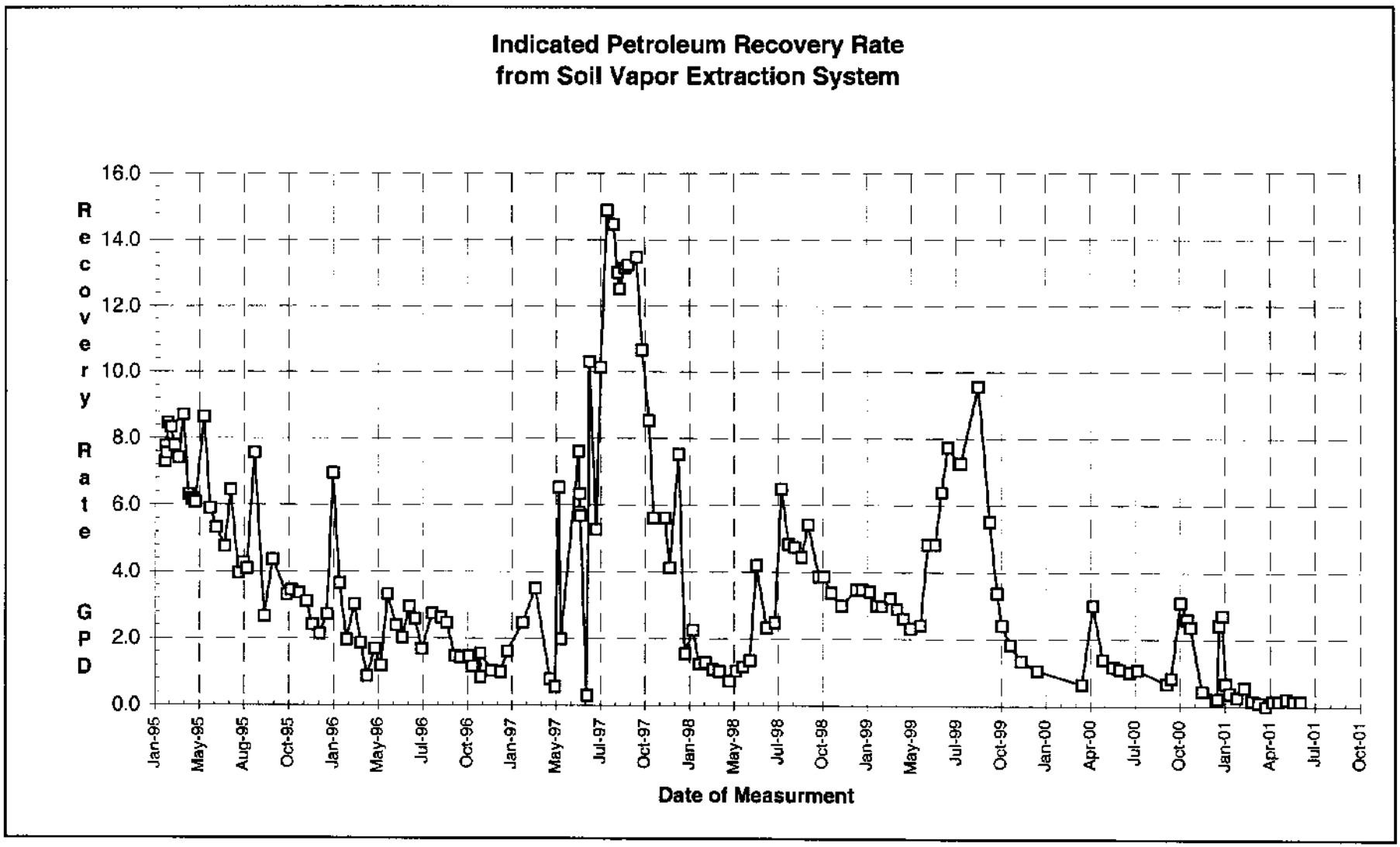
SVES Operational Data (Falco - 300)

Lake Carmi Gulf (Mobil)
East Franklin, VT

Date	Hr. Meter (hrs)	Comment	T1 (C)	T2 (C)	Delta T T2-T1 (C)	Flow Rate (CFM)	Influent Delta T (ppm)	PID Influent (ppm)	PID Effluent (ppm)	PID Type	Product Recovery Rate (gpd)	Total Recovery To Date
6/29/01 9:37	29929.5	Upon arrival: sparge down/ vent on	330	333	3	131	24	PID not functioning		PV	0.17	6433.6

PV = Perkin Elmer PhotoVac 10.6 eV lamp
Tip = MicroTip 10.6 eV lamp
Hnu 10.2 eV lamp
nr = no reading


Total Indicated Petroleum Recovery To Date
Gallons
7,000.
6,500.
6,000.
5,500.
5,000.
4,500.
4,000.
3,500.
3,000.
2,500.
2,000.
1,500.
1,000.
500.
0.
Jan-95
May-95
Aug-95
Oct-95
Jan-96
May-96
Jul-96
Oct-96
Jan-97
May-97
Jul-97
Oct-97
Jan-98
May-98
Jul-98
Oct-98
Jan-99
May-99
Jul-99
Oct-99
Jan-00
Apr-00
Jul-00
Oct-00
Jan-01
Apr-01
Jul-01
Oct-01
Date


Indicated Petroleum Recovery Rate
from Soil Vapor Extraction System
Recovery Rate GPD
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Jan-95
May-95
Aug-95
Oct-95
Jan-96
May-96
Jul-96
Oct-96
Jan-97
May-97
Jul-97
Oct-97
Jan-98
May-98
Jul-98
Oct-98
Jan-99
May-99
Jul-99
Oct-99
Jan-00
Apr-00
Jul-00
Oct-00
Jan-01
Apr-01
Jul-01
Oct-01
Date of Measurment

APPENDIX C

Well Gauging Data

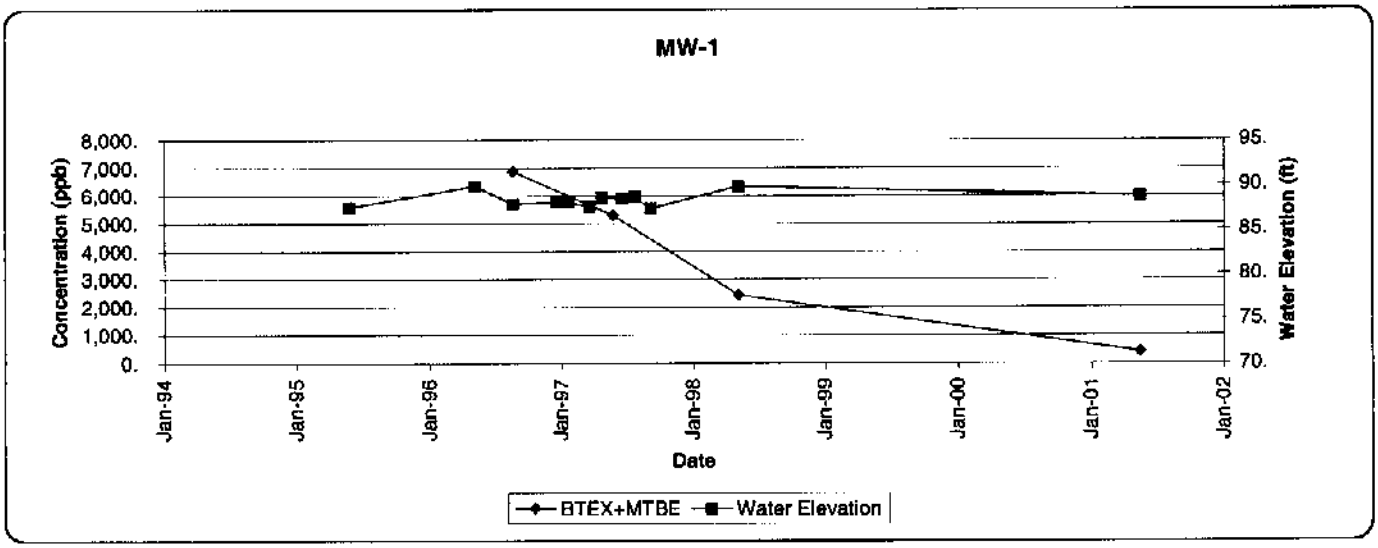
Lake Carmi Mobil
East Franklin, Vermont
Well Gauging Data

5/15/2001

Well I.D.	Well Depth	Top of Casing Elevation	Depth To Product	Depth To Water	Product Thickness	Specific Gravity Of Product	Hydro Equivalent	Corrected Depth To Water	Corrected Water Table Elevation
MW-1	10.4	97.28		8.59				8.59	88.69
MW-2	7.9	97.80		dry				-	-
MW-4	14.0	94.42		7.18				7.18	87.24
MW-5	14.8	97.16		9.33				9.33	87.83
MW-6	15.0	96.08		9.11				9.11	86.97
MW-9	14.5	95.45		8.21				8.21	87.24
MW-10	14.5	92.94		6.31				6.31	86.63
MW-11	14.8	93.39		6.34				6.34	87.05
MW-12	14.6	95.90		7.65				7.65	88.25
MW-13	14.6	92.32		5.78				5.78	86.54
MW-14	14.9	95.53		8.83				8.83	86.70
MW-16	15.0	92.91		6.57				6.57	86.34
MW-17	9.9	93.16		7.30				7.30	85.86
MW-19	35.2	78.00		5.95				5.95	72.05
MW-20	14.7	78.17		3.79				3.79	74.38
MW-23	37.0	80.79		8.72				8.72	72.07
MW-24	13.0	80.47		5.48				5.48	74.99
MW-25	13.0	86.55		2.82				2.82	83.73
PZ-01	15.1	95.58		7.08	silted in			7.08	88.50
PZ-02		95.95		8.06				8.06	87.89

APPENDIX D

Groundwater Quality Summary


MW-1
Concentration (ppb)
8,000.
7,000.
6,000.
5,000.
4,000.
3,000.
2,000.
1,000.
0.
Water Elevation (ft)
95.
90.
85.
80.
75.
70.
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Date
BTEX+MTBE
Water Elevation

Griffin International, Inc.

GROUNDWATER QUALITY SUMMARY

Lake Carmi Gulf (Mobil)
East Franklin, VT

MW-1

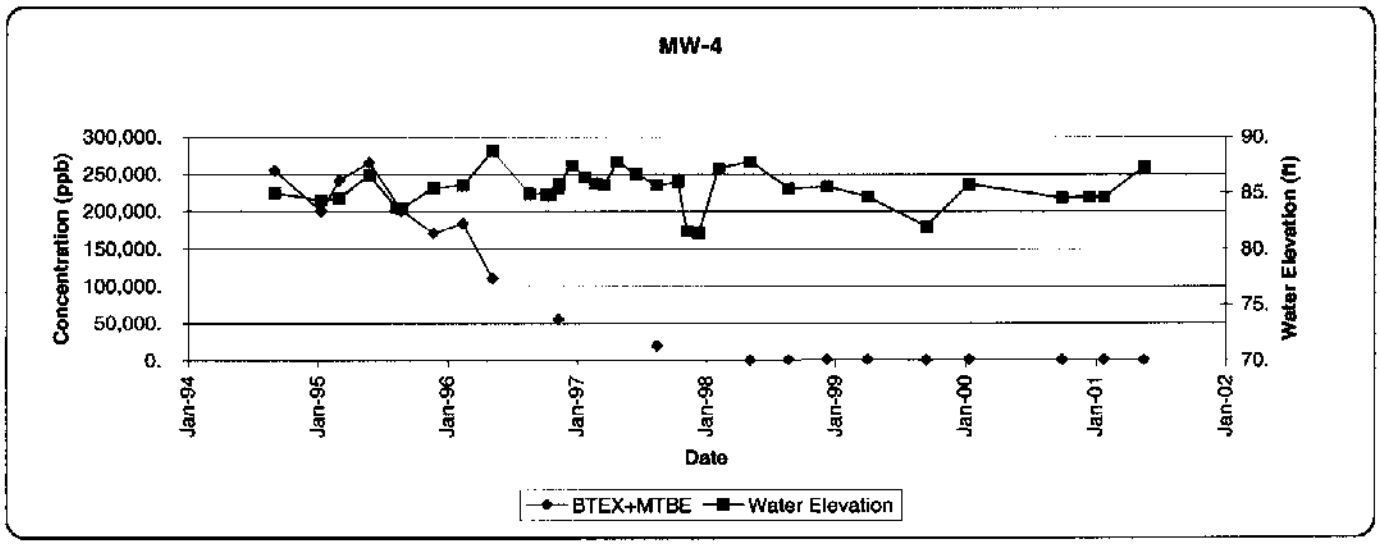
Sample Date:	8/31/1994	1/9/1995	2/28/1995	5/24/1995	8/23/1995	11/21/1995	2/12/1996	5/6/1996	8/19/1996
Analytical Method:									602
PARAMETER *Laboratory:*									Endyne
Benzene	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	**243.**
Toluene	Well Dry	Well Dry	Well Dry	0.01	Well Dry	Well Dry	Well Dry	0.01	**1,220.**
Ethylbenzene				Free				Free	**127.**
Xylenes				Product				Product	**5,270.**
Total BTEX									**6,860.**
MTBE									ND(1,000)
1,3,5-Trimethylbenzene									
1,2,4-Trimethylbenzene									
Naphthalene									
BTEX + MTBE									**6,860.**
Total Targeted VOCs									**6,860.**

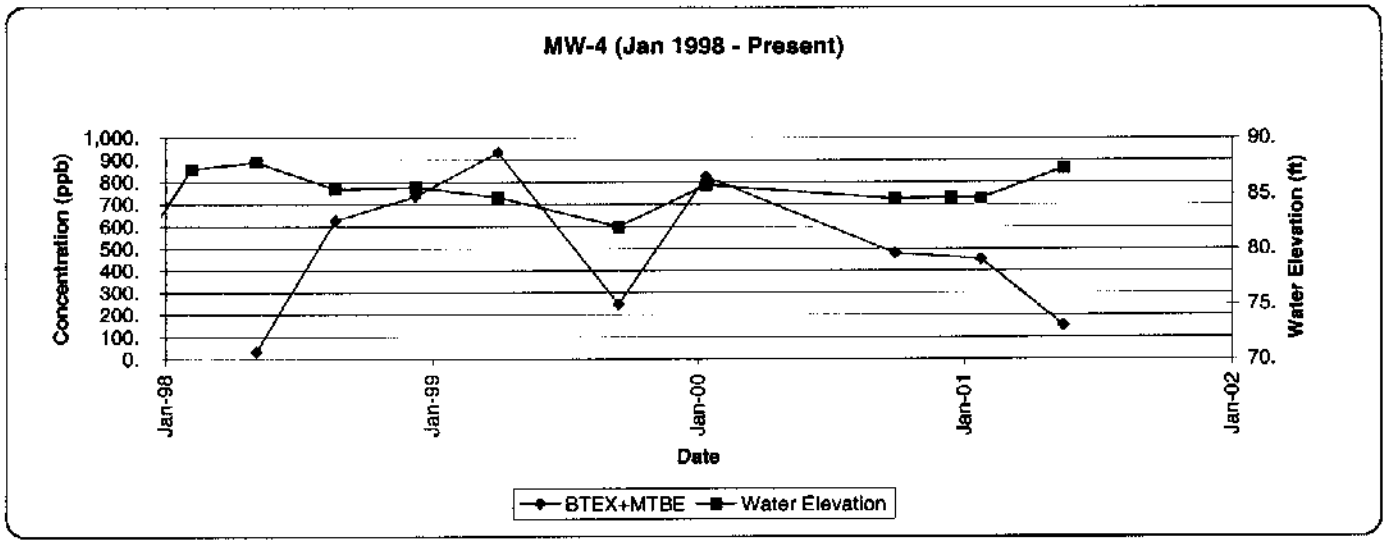
Sample Date:	11/9/1996	2/21/1997	5/23/1997	8/14/1997	12/10/1997	5/5/1998	8/21/1998	12/8/1998	4/1/1999
Analytical Method:			602			602			
PARAMETER *Laboratory:*			Endyne			Endyne			
Benzene	No Sample	No Sample	**268.**	No Sample	No Sample	**49.9**	No Sample	No Sample	No Sample
Toluene	Well Dry	Well Dry	**2,770.**	Well Dry	Well Dry	**897.**	Well Dry	Well Dry	Well Dry
Ethylbenzene			**94.7**			**69.6**			
Xylenes			**2,160.**			**1,420.**			
Total BTEX			**5,293.**			**2,437.**			
MTBE			ND(500)			ND(100)			
1,3,5-Trimethylbenzene									
1,2,4-Trimethylbenzene									
Naphthalene									
BTEX + MTBE			**5,293.**			**2,437.**			
Total Targeted VOCs			**5,293.**			**2,437.**			

Sample Date:	9/14/1999	1/12/2000	9/28/2000	1/23/2001	5/15/2001				VGES
Analytical Method:					8021B				
PARAMETER *Laboratory:*					Endyne				(ppb)
Benzene	No Sample	No Sample	No Sample	No Data	ND(4.0)				5.
Toluene	Well Dry	Well Dry	Well Dry		**43.8**				1,000.
Ethylbenzene					**43.6**				700.
Xylenes					**321.**				10,000.
Total BTEX					**408.**				-
MTBE					ND(40.0)				40.
1,3,5-Trimethylbenzene					**55.8**				4.
1,2,4-Trimethylbenzene					**78.4**				5.
Naphthalene					**14.6**				20.
BTEX + MTBE					**408.**				-
Total Targeted VOCs					**557.**				-

All Values Reported in ug/L (ppb)
Only the compounds targeted by EPA Method 8021B are included in this summary table.
ND(1) - None Detected above Detection Limit (Detection Limit)
TBQ(1) - Trace Below Quantitation Limit (Quantitation Limit)
Detections are **bolded.**
Blank cell - not analyzed
VGES - Vermont Groundwater Enforcement Standard; VTDEC *Groundwater Protection Rule and Strategy*, dated 1/20/2000
> VGES Values greater than the current VGES are shaded.

VTDEC Site #94-1640
GI Site #6944540


MW-4
Concentration (ppb)
300,000.
250,000.
200,000.
150,000.
100,000.
50,000.
0.
Water Elevation (ft)
90.
85.
80.
75.
70.
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Date
BTEX+MTBE
Water Elevation


MW-4 (Jan 1998 - Present)
Concentration (ppb)
1,000.
900.
800.
700.
600.
500.
400.
300.
200.
100.
0.
Water Elevation (ft)
90.
85.
80.
75.
70.
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Date
BTEX+MTBE
Water Elevation

Griffin International, Inc.

GROUNDWATER QUALITY SUMMARY

Lake Carmi Gulf (Mobil)
East Franklin, VT

MW-4

Sample Date:	8/31/1994	1/9/1995	2/28/1995	5/24/1995	8/23/1995	11/21/1995	2/12/1996	5/6/1996	8/19/1996
Analytical Method:	602	602	602	602	602	602	602	602	602
PARAMETER Laboratory:	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne
Benzene	**25,200.**	**24,700.**	**27,800.**	**30,000.**	**27,300.**	**25,600.**	**25,900.**	**20,000.**	No Sample
Toluene	**59,600.**	**45,800.**	**50,300.**	**49,100.**	**40,800.**	**40,200.**	**40,100.**	**31,400.**	1.8
Ethylbenzene	**3,320.**	**2,200.**	**2,710.**	**2,770.**	**3,050.**	**1,280.**	**1,200.**	**2,490.**	Free
Xylenes	**19,200.**	**15,800.**	**18,900.**	**19,000.**	**17,300.**	**11,600.**	**14,000.**	**15,100.**	Product
Total BTEX	**107,320.**	**88,500.**	**99,710.**	**100,870.**	**88,450.**	**78,680.**	**81,200.**	**68,990.**	
MTBE	**147,000.**	**111,000.**	**141,000.**	**164,000.**	**112,000.**	**92,100.**	**102,000.**	**40,800.**	
1,3,5-Trimethylbenzene									
1,2,4-Trimethylbenzene									
Naphthalene									
BTEX + MTBE	**254,320.**	**199,500.**	**240,710.**	**264,870.**	**200,450.**	**170,780.**	**183,200.**	**109,790.**	
Total Targeted VOCs	**254,320.**	**199,500.**	**240,710.**	**264,870.**	**200,450.**	**170,780.**	**183,200.**	**109,790.**	

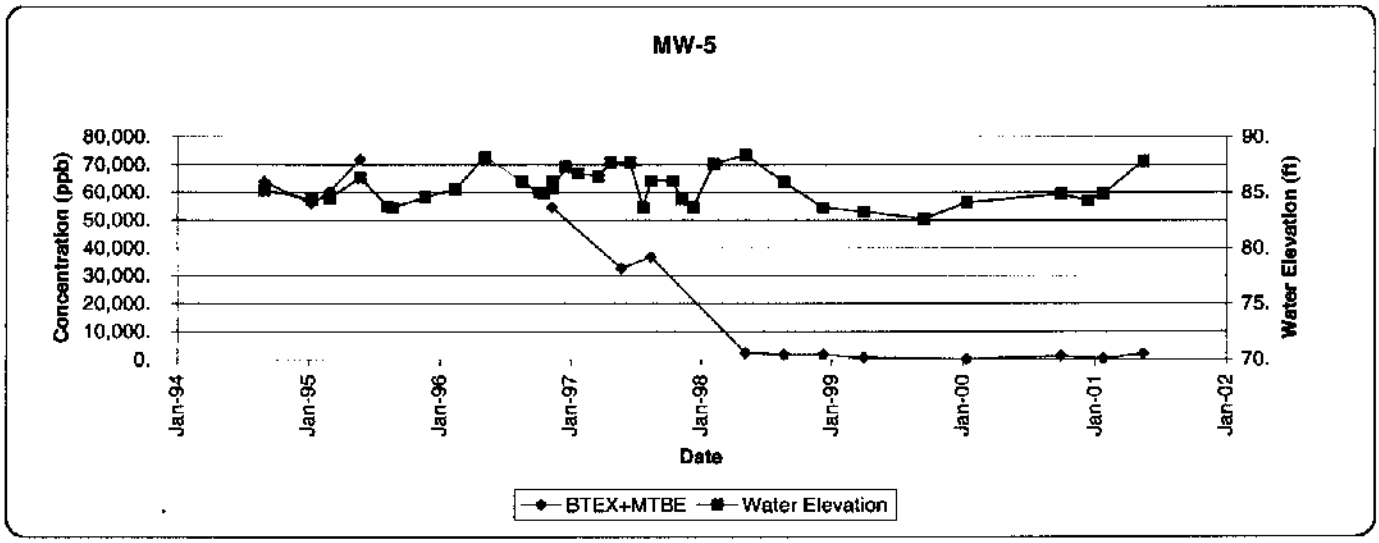
Sample Date:	11/9/1996	2/21/1997	5/23/1997	8/14/1997	12/10/1997	5/5/1998	8/21/1998	12/8/1998	4/1/1999
Analytical Method:	602			602		602	602	602	602
PARAMETER Laboratory:	Endyne			Endyne		Endyne	Endyne	Endyne	Endyne
Benzene	**5,640.**	No Sample	No Sample	**3,680.**	No Sample	**2.2**	**65.9**	**275.**	**247.**
Toluene	**22,800.**	0.02	0.02	**6,060.**	Insufficient	**1.1**	**23.5**	**19.8**	**6.5**
Ethylbenzene	**2,220.**	Free	Free	**135.**	water	**2.9**	**11.7**	**37.6**	**71.1**
Xylenes	**24,000.**	Product	Product	**8,520.**		**2.9**	**524.**	**401.**	**607.**
Total BTEX	**54,660.**			**18,395.**		**9.1**	**625.**	**733.**	**932.**
MTBE	ND(10,000)			**1,190.**		**23.1**	**TBQ(50)**	ND(100)	**TBQ(50)**
1,3,5-Trimethylbenzene									
1,2,4-Trimethylbenzene									
Naphthalene									
BTEX + MTBE	**54,660.**			**19,585.**		**32.2**	**625.**	**733.**	**932.**
Total Targeted VOCs	**54,660.**			**19,585.**		**32.2**	**625.**	**733.**	**932.**

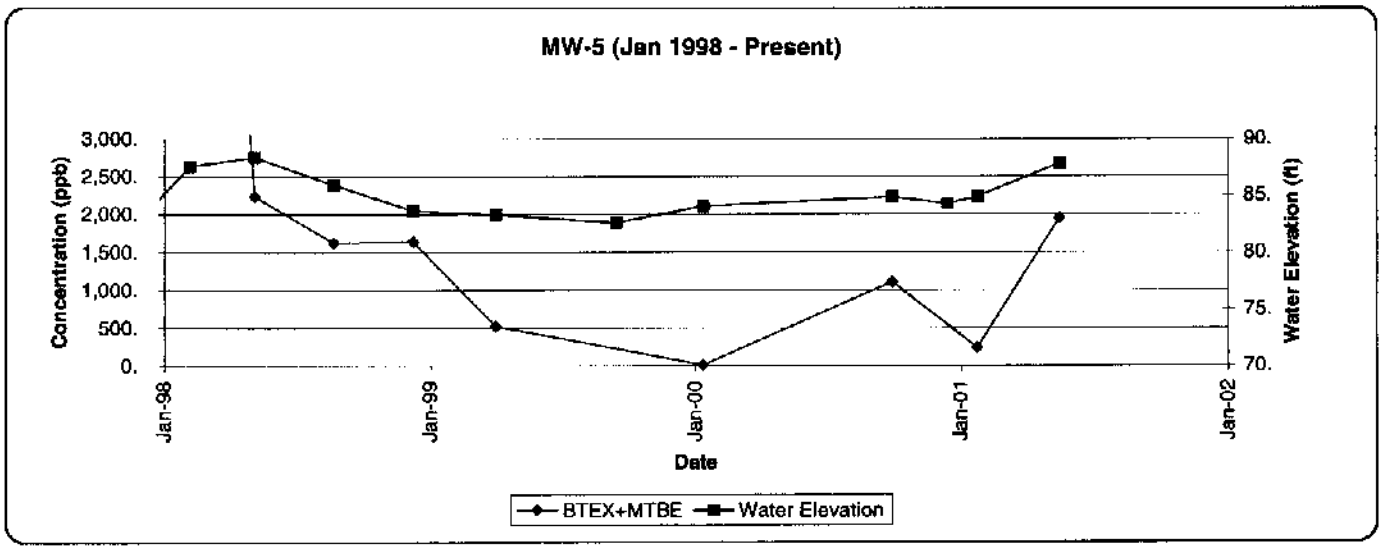
Sample Date:	9/14/1999	1/12/2000	9/28/2000	1/23/2001	5/15/2001				VGES
Analytical Method:	8021B	8021B	8021B	8021B	8021B				
PARAMETER Laboratory:	Endyne	Endyne	Endyne	Endyne	Endyne				(ppb)
Benzene	**79.8**	**263.**	**129.**	**180.**	**37.5**				5.
Toluene	**6.3**	**7.1**	ND(10.0)	**22.3**	**5.8**				1,000.
Ethylbenzene	**19.0**	**79.4**	**45.6**	**69.0**	**6.7**				700.
Xylenes	**71.0**	**406.**	**302.**	**179.**	**46.3**				10,000.
Total BTEX	**175.**	**756.**	**477.**	**450.**	**96.3**				-
MTBE	**69.9**	**66.7**	ND(100.)	ND(200.)	**51.6**				40.
1,3,5-Trimethylbenzene	**87.7**	**110.**	**215.**	**188.**	**56.2**				4.
1,2,4-Trimethylbenzene	**163.**	**220.**	**341.**	**199.**	**53.4**				5.
Naphthalene	**60.0**	ND(50)	**1,100.**	**889.**	**247.**				20.
BTEX + MTBE	**245.**	**822.**	**477.**	**450.**	**147.9**				-
Total Targeted VOCs	**556.**	**1,152.**	**2,133.**	**1,726.**	**505.**				-

All Values Reported in ug/L (ppb)
Only the compounds targeted by EPA Method 8021B are included in this summary table.
ND(1) - None Detected above Detection Limit (Detection Limit)
TBQ(1) - Trace Below Quantitation Limit (Quantitation Limit)
Detections are **bolded.**
Blank cell - not analyzed
VGES - Vermont Groundwater Enforcement Standard; VTDEC *Groundwater Protection Rule and Strategy*, dated 1/20/2000
> VGES Values greater than the current VGES are shaded.

VTDEC Site #94-1640
GI Site #6944540

GROUNDWATER QUALITY SUMMARY





Griffin International, Inc.

GROUNDWATER QUALITY SUMMARY

Lake Carmi Gulf (Mobil)
East Franklin, VT

MW-5

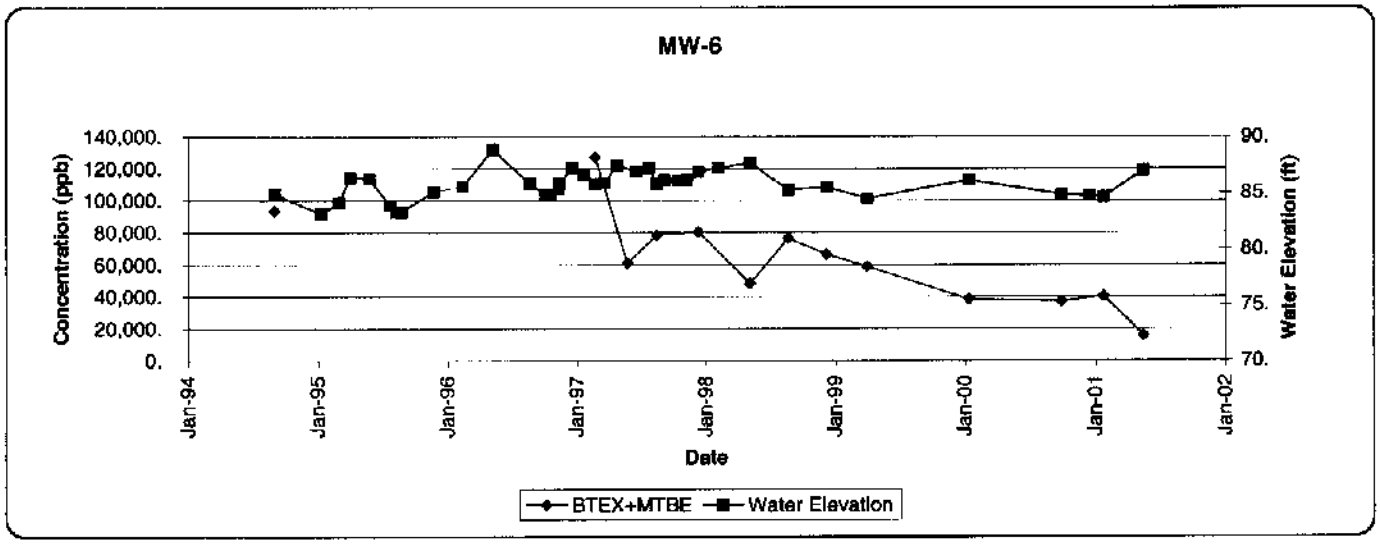
Sample Date:	8/31/1994	1/9/1995	2/28/1995	5/24/1995	8/23/1995	11/21/1995	2/12/1996	5/6/1996	8/19/1996
Analytical Method:	602	602	602	602					
PARAMETER Laboratory:	Endyne	Endyne	Endyne	Endyne					
Benzene	**11,300.**	**7,710.**	**7,310.**	**14,700.**	No Sample	No Sample	No Sample	No Sample	No Sample
Toluene	**38,200.**	**35,600.**	**38,900.**	**41,000.**	0.05	0.3	0.89	0.03	0.06
Ethylbenzene	**2,520.**	**1,920.**	**2,190.**	**2,370.**	Free	Free	Free	Free	Free
Xylenes	**11,800.**	**10,700.**	**11,800.**	**13,700.**	Product	Product	Product	Product	Product
Total BTEX	**63,820.**	**55,930.**	**60,200.**	**71,770.**					
MTBE	ND	ND	ND	ND					
1,3,5-Trimethylbenzene									
1,2,4-Trimethylbenzene									
Naphthalene									
BTEX + MTBE	**63,820.**	**55,930.**	**60,200.**	**71,770.**					
Total Targeted VOCs	**63,820.**	**55,930.**	**60,200.**	**71,770.**					

Sample Date:	11/9/1996	2/21/1997	5/23/1997	8/14/1997	12/10/1997	5/5/1998	8/21/1998	12/8/1998	4/1/1999
Analytical Method:	602		602	602		602	602	602	602
PARAMETER Laboratory:	Endyne		Endyne	Endyne		Endyne	Endyne	Endyne	Endyne
Benzene	**4,050.**	No Sample	**4,490.**	**1,760.**	No Sample	**72.8**	**22.8**	ND(10)	ND(2)
Toluene	**31,000.**	Well	**15,600.**	**20,200.**	Insufficient	**379.**	**354.**	**422.**	**75.**
Ethylbenzene	**2,770.**	Inaccessible	**1,460.**	**1,770.**	Water	**133.**	**126.**	**89.**	**3.**
Xylenes	**16,700.**		**11,000.**	**12,900.**		**1,650.**	**1,120.**	**1,130.**	**443.**
Total BTEX	**54,520.**		**32,550.**	**36,630.**		**2,235.**	**1,623.**	**1,641.**	**521.**
MTBE	ND(10,000)		**TBQ(2000)**	**TBQ(2000)**		ND(200)	ND(200)	ND(100)	ND(20)
1,3,5-Trimethylbenzene									
1,2,4-Trimethylbenzene									
Naphthalene									
BTEX + MTBE	**54,520.**		**32,550.**	**36,630.**		**2,235.**	**1,623.**	**1,641.**	**521.**
Total Targeted VOCs	**54,520.**		**32,550.**	**36,630.**		**2,235.**	**1,623.**	**1,641.**	**521.**

Sample Date:	9/14/1999	1/12/2000	9/28/2000	1/23/2001	5/15/2001				VGES
Analytical Method:	8021B	8021B	8021B	8021B	8021B				
PARAMETER Laboratory:	Endyne	Endyne	Endyne	Endyne	Endyne				(ppb)
Benzene	No Sample	ND(1)	**197.**	**39.3**	**176.**				5.
Toluene	dry	ND(1)	**137.**	**40.1**	**107.**				1,000.
Ethylbenzene		ND(1)	**112.**	**44.1**	**168.**				700.
Xylenes		**8.8**	**665.**	**115.**	**1,500.**				10,000.
Total BTEX		**8.8**	**1,111.**	**239.**	**1,951.**				-
MTBE		ND(10)	ND(50.0)	ND(50.0)	ND(100.)				40.
1,3,5-Trimethylbenzene		**4.3**	**93.7**	**27.8**	**111.**				4.
1,2,4-Trimethylbenzene		**7.9**	**155.**	**62.7**	**237.**				5.
Naphthalene		**3.2**	**5.8**	**16.6**	**87.6**				20.
BTEX + MTBE		**8.8**	**1,111.**	**239.**	**1,951.**				-
Total Targeted VOCs		**24.2**	**1,366.**	**346.**	**2,387.**				-

All Values Reported in ug/L (ppb)
Only the compounds targeted by EPA Method 8021B are included in this summary table.
ND(1) - None Detected above Detection Limit (Detection Limit)
TBQ(1) - Trace Below Quantitation Limit (Quantitation Limit)
Detections are **bolded.**
Blank cell - not analyzed
VGES - Vermont Groundwater Enforcement Standard; VTDEC *Groundwater Protection Rule and Strategy*, dated 1/20/2000
> VGES Values greater than the current VGES are shaded.

VTDEC Site #94-1640
GI Site #6944540


MW-6
Concentration (ppb)
140,000.
120,000.
100,000.
80,000.
60,000.
40,000.
20,000.
0.
Water Elevation (ft)
90.
85.
80.
75.
70.
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Date
BTEX+MTBE
Water Elevation

Griffin International, Inc.

GROUNDWATER QUALITY SUMMARY

Lake Carmi Gulf (Mobil)
East Franklin, VT

MW-6

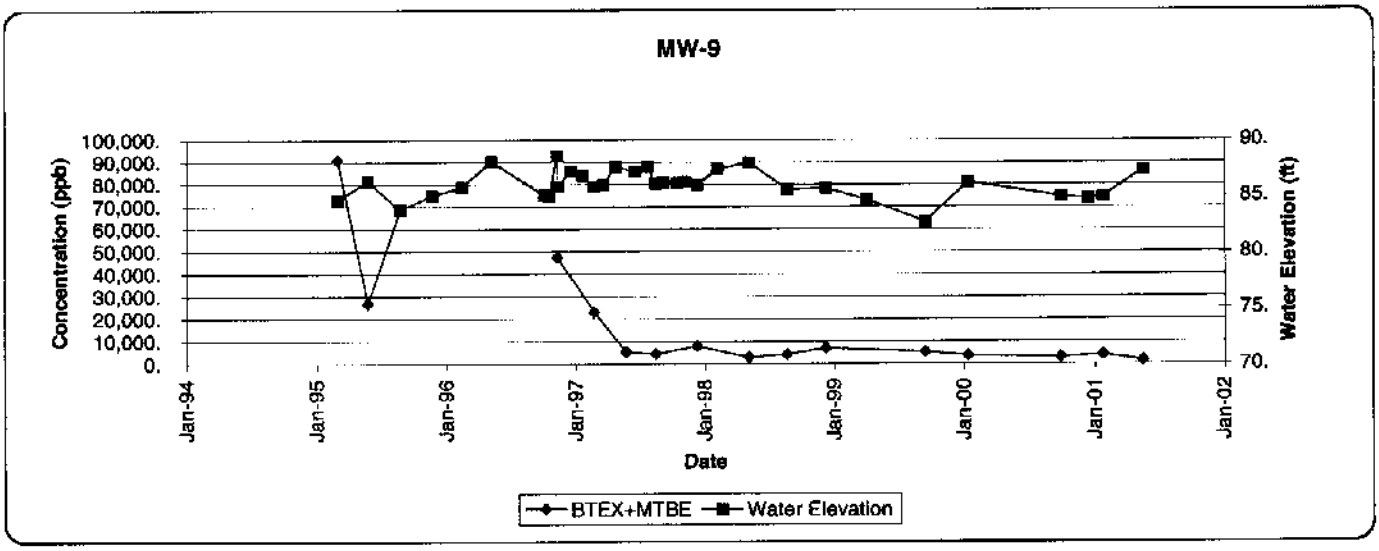
Sample Date:	8/31/1994	1/9/1995	2/28/1995	5/24/1995	8/23/1995	11/21/1995	2/12/1996	5/6/1996	8/19/1996
Analytical Method:	602								
PARAMETER Laboratory:	Endyne								
Benzene	**25,500.**	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample
Toluene	**47,000.**	2.09	0.64	0.04	0.31	0.37	0.38	0.2	0.23
Ethylbenzene	**3,610.**	Free	Free	Free	Free	Free	Free	Free	Free
Xylenes	**17,300.**	Product	Product	Product	Product	Product	Product	Product	Product
Total BTEX	**93,410.**								
MTBE	ND								
1,3,5-Trimethylbenzene									
1,2,4-Trimethylbenzene									
Naphthalene									
BTEX + MTBE	**93,410.**								
Total Targeted VOCs	**93,410.**								

Sample Date:	11/9/1996	2/21/1997	5/23/1997	8/14/1997	12/10/1997	5/5/1998	8/21/1998	12/8/1998	4/1/1999
Analytical Method:		602	602	602	602	602	602	602	602
PARAMETER Laboratory:		Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne
Benzene	No Sample	**19,600.**	ND(500)	**14,800.**	**16,100.**	**8,390.**	**16,200.**	**16,400.**	**12,200.**
Toluene	0.03	**54,500.**	**38,800.**	**39,300.**	**42,900.**	**24,100.**	**36,200.**	**31,200.**	**27,100.**
Ethylbenzene	Free	**8,360.**	**2,960.**	**3,490.**	**3,020.**	**1,790.**	**3,510.**	**2,760.**	**2,820.**
Xylenes	Product	**44,800.**	**19,100.**	**20,600.**	**18,500.**	**13,900.**	**20,300.**	**16,000.**	**16,600.**
Total BTEX		**127,260.**	**60,860.**	**78,190.**	**80,520.**	**48,180.**	**76,210.**	**66,360.**	**58,720.**
MTBE		ND(10000)	ND(5000)	ND(5000)	ND(5000)	ND(5000)	ND(5000)	ND(5000)	ND(5000)
1,3,5-Trimethylbenzene									
1,2,4-Trimethylbenzene									
Naphthalene									
BTEX + MTBE		**127,260.**	**60,860.**	**78,190.**	**80,520.**	**48,180.**	**76,210.**	**66,360.**	**58,720.**
Total Targeted VOCs		**127,260.**	**60,860.**	**78,190.**	**80,520.**	**48,180.**	**76,210.**	**66,360.**	**58,720.**

Sample Date:	9/14/1999	1/12/2000	9/28/2000	1/23/2001	5/15/2001				VGES
Analytical Method:		8021B	8021B	8021B	8021B				
PARAMETER Laboratory:		Endyne	Endyne	Endyne	Endyne				(ppb)
Benzene	No Sample	**7,380.**	**11,800.**	**9,000.**	**3,310.**				5.
Toluene		**18,200.**	**16,300.**	**17,800.**	**4,850.**				1,000.
Ethylbenzene		**1,140.**	**1,050.**	**1,300.**	**350.**				700.
Xylenes		**11,400.**	**7,770.**	**12,000.**	**7,070.**				10,000.
Total BTEX		**38,120.**	**36,920.**	**40,100.**	**15,580.**				-
MTBE		ND(5000)	ND(2000.)	ND(2000.)	ND(2000.)				40.
1,3,5-Trimethylbenzene		**807.**	**695.**	**903.**	**810.**				4.
1,2,4-Trimethylbenzene		**3,230.**	**2,120.**	**2,790.**	**1,880.**				5.
Naphthalene		**772.**	**520.**	**723.**	**671.**				20.
BTEX + MTBE		**38,120.**	**36,920.**	**40,100.**	**15,580.**				-
Total Targeted VOCs		**42,929.**	**40,255.**	**44,516.**	**18,941.**				-

All Values Reported in ug/L (ppb)
Only the compounds targeted by EPA Method 8021B are included in this summary table.
ND(1) - None Detected above Detection Limit (Detection Limit)
TBQ(1) - Trace Below Quantitation Limit (Quantitation Limit)
Detections are **bolded.**
Blank cell - not analyzed
VGES - Vermont Groundwater Enforcement Standard; VTDEC *Groundwater Protection Rule and Strategy*, dated 1/20/2000
> VGES Values greater than the current VGES are shaded.

VTDEC Site #94-1640
GI Site #6944540


MW-9
Concentration (ppb)
100,000.
90,000.
80,000.
70,000.
60,000.
50,000.
40,000.
30,000.
20,000.
10,000.
0.
Water Elevation (ft)
90.
85.
80.
75.
70.
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Date
BTEX+MTBE
Water Elevation

Griffin International, Inc.

GROUNDWATER QUALITY SUMMARY

Lake Carmi Gulf (Mobil)
East Franklin, VT

MW-9

Sample Date:			2/28/1995	5/24/1995	8/23/1995	11/21/1995	2/12/1996	5/6/1996	8/19/1996
Analytical Method:			602	602	602				
PARAMETER Laboratory:			Endyne	Endyne	Endyne				
Benzene			**6,710.**	**366.**	**3,800.**	No Sample	No Sample	No Sample	No Sample
Toluene			**51,200.**	**11,100.**	**31,300.**	0.13	0.02	0.02	
Ethylbenzene			**5,500.**	**2,300.**	**4,960.**	Free	Free	Free	
Xylenes			**27,300.**	**12,900.**	**28,100.**	Product	Product	Product	
Total BTEX			**90,710.**	**26,666.**	**68,160.**				
MTBE			ND	ND	ND				
1,3,5-Trimethylbenzene									
1,2,4-Trimethylbenzene									
Naphthalene									
BTEX + MTBE			**90,710.**	**26,666.**	**68,160.**				
Total Targeted VOCs			**90,710.**	**26,666.**	**68,160.**				

Sample Date:	11/9/1996	2/21/1997	5/23/1997	8/14/1997	12/10/1997	5/5/1998	8/21/1998	12/8/1998	4/1/1999
Analytical Method:	602	602	602	602	602	602	602	602	602
PARAMETER Laboratory:	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne
Benzene	**1,590.**	**TBQ(1000)**	**103.**	**120.**	**207.**	ND(20)	**74.5**	**128.**	No Sample
Toluene	**21,600.**	**6,720.**	**1,090.**	**311.**	**1,930.**	**303.**	**509.**	**1,340.**	Bailed Dry
Ethylbenzene	**3,760.**	**1,870.**	**296.**	**379.**	**608.**	**155.**	**398.**	**697.**	Insufficient
Xylenes	**20,300.**	**14,400.**	**3,600.**	**3,600.**	**4,910.**	**2,390.**	**3,150.**	**4,640.**	Recharge
Total BTEX	**47,250.**	**22,990.**	**5,089.**	**4,410.**	**7,655.**	**2,848.**	**4,132.**	**6,805.**	
MTBE	ND(10000)	ND(10000)	ND(500)	ND(500)	ND(500)	ND(200)	ND(200)	ND(200)	
1,3,5-Trimethylbenzene									
1,2,4-Trimethylbenzene									
Naphthalene									
BTEX + MTBE	**47,250.**	**22,990.**	**5,089.**	**4,410.**	**7,655.**	**2,848.**	**4,132.**	**6,805.**	
Total Targeted VOCs	**47,250.**	**22,990.**	**5,089.**	**4,410.**	**7,655.**	**2,848.**	**4,132.**	**6,805.**	

Sample Date:	9/14/1999	1/12/2000	9/28/2000	1/23/2001	5/15/2001				VGES
Analytical Method:	8021B	8021B	8021B	8021B	8021B				
PARAMETER Laboratory:	Endyne	Endyne	Endyne	Endyne	Endyne				(ppb)
Benzene	**72.7**	**26.2**	ND(20.0)	**29.3**	ND(10.0)				5.
Toluene	**483.**	**253.**	**76.6**	**114.**	**20.6**				1,000.
Ethylbenzene	**729.**	**643.**	**483.**	**732.**	**270.**				700.
Xylenes	**3,830.**	**2,670.**	**2,230.**	**2,980.**	**1,080.**				10,000.
Total BTEX	**5,115.**	**3,592.**	**2,790.**	**3,855.**	**1,371.**				-
MTBE	ND(200)	ND(200)	ND(200)	ND(200)	ND(100.)				40.
1,3,5-Trimethylbenzene	**512.**	**717.**	**418.**	**501.**	**406.**				4.
1,2,4-Trimethylbenzene	**1,360.**	**1,420.**	**967.**	**1,260.**	**612.**				5.
Naphthalene	**337.**	**146.**	**225.**	**294.**	**124.**				20.
BTEX + MTBE	**5,115.**	**3,592.**	**2,790.**	**3,855.**	**1,371.**				-
Total Targeted VOCs	**7,324.**	**5,875.**	**4,390.**	**5,910.**	**2,513.**				-

All Values Reported in ug/L (ppb)
Only the compounds targeted by EPA Method 8021B are included in this summary table.
ND(1) - None Detected above Detection Limit (Detection Limit)
TBQ(1) - Trace Below Quantitation Limit (Quantitation Limit)
Detections are **bolded.**
Blank cell - not analyzed
VGES - Vermont Groundwater Enforcement Standard; VTDEC *Groundwater Protection Rule and Strategy*, dated 1/20/2000
> VGES Values greater than the current VGES are shaded.

VTDEC Site #94-1640
GI Site #6944540

Griffin International, Inc.

GROUNDWATER QUALITY SUMMARY

Lake Carmi Gulf (Mobil)
East Franklin, VT

MW-13

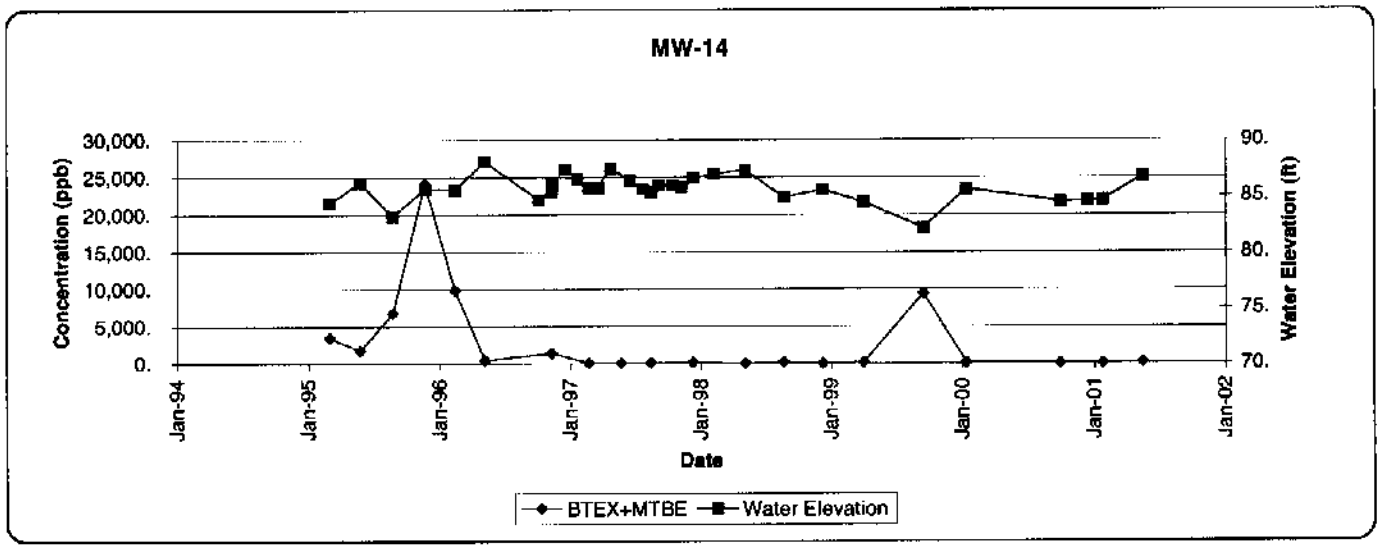
Sample Date:			2/28/1995	5/24/1995	8/23/1995	11/21/1995	2/12/1996	5/6/1996	8/19/1996
Analytical Method:			602	602	602	602	602	602	602
PARAMETER Laboratory:			Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne
Benzene			ND	ND	ND	ND	ND	ND	**22.0**
Toluene			ND	ND	ND	ND	ND	ND	**1.4**
Ethylbenzene			ND	ND	ND	ND	ND	ND	ND(1)
Xylenes			ND	ND	ND	ND	ND	ND	**1.0**
Total BTEX			ND	ND	ND	ND	ND	ND	**24.4**
MTBE			**TBQ**	**TBQ**	**TBQ**	ND	ND	ND	**88.4**
1,3,5-Trimethylbenzene									
1,2,4-Trimethylbenzene									
Naphthalene									
BTEX + MTBE			**TBQ**	**TBQ**	**TBQ**	ND	ND	ND	**112.8**
Total Targeted VOCs			**TBQ**	**TBQ**	**TBQ**	ND	ND	ND	**112.8**

Sample Date:	11/9/1996	2/21/1997	5/23/1997	8/14/1997	12/10/1997	5/5/1998	8/21/1998	12/8/1998	4/1/1999
Analytical Method:	602		602	602		602	602	602	602
PARAMETER Laboratory:	Endyne		Endyne	Endyne		Endyne	Endyne	Endyne	Endyne
Benzene	**1.9**	No Sample	**1.1**	**5.3**	No Sample	ND(5)	**2.9**	ND(5)	**11.6**
Toluene	**TBQ(1)**	Well	ND(1)	ND(1)		ND(5)	ND(2)	ND(5)	ND(5)
Ethylbenzene	ND(1)	Inaccessible	ND(1)	ND(1)		ND(5)	ND(2)	ND(5)	ND(5)
Xylenes	**3.8**		ND(1)	ND(1)		ND(5)	ND(2)	ND(5)	ND(5)
Total BTEX	**5.7**		**1.1**	**5.3**		ND	**2.9**	ND	**11.6**
MTBE	**101.**		**11.0**	**50.8**		**168.**	**178.**	**447.**	**546.**
1,3,5-Trimethylbenzene									
1,2,4-Trimethylbenzene									
Naphthalene									
BTEX + MTBE	**107.**		**12.1**	**56.1**		**168.**	**181.**	**447.**	**558.**
Total Targeted VOCs	**107.**		**12.1**	**56.1**		**168.**	**181.**	**447.**	**558.**

Sample Date:	9/14/1999	1/12/2000	9/28/2000	1/23/2001	5/15/2001				VGES
Analytical Method:	8021B	8021B	8021B		8021B				
PARAMETER Laboratory:	Endyne	Endyne	Endyne		Endyne				(ppb)
Benzene	**TBQ(2)**	ND(2)	ND(1.0)	No Sample	ND(1.0)				5.
Toluene	ND(2)	ND(2)	ND(1.0)	Well under	ND(1.0)				1,000.
Ethylbenzene	ND(2)	ND(2)	ND(1.0)	plowed	ND(1.0)				700.
Xylenes	ND(2)	ND(2)	ND(1.0)	snowbank	ND(1.0)				10,000.
Total BTEX	**TBQ**	ND	ND		ND				-
MTBE	**146.**	**72.5**	**32.5**		ND(10.0)				40.
1,3,5-Trimethylbenzene	ND(2)	ND(2)	ND(1.0)		ND(1.0)				4.
1,2,4-Trimethylbenzene	ND(2)	ND(2)	ND(1.0)		ND(1.0)				5.
Naphthalene	ND(2)	ND(2)	ND(1.0)		ND(1.0)				20.
BTEX + MTBE	**146.**	**72.5**	**32.5**		ND				-
Total Targeted VOCs	**146.**	**72.5**	**32.5**		ND				-

All Values Reported in ug/L (ppb)
Only the compounds targeted by EPA Method 8021B are included in this summary table.
ND(1) - None Detected above Detection Limit (Detection Limit)
TBQ(1) - Trace Below Quantitation Limit (Quantitation Limit)
Detections are **bolded.**
Blank cell - not analyzed
VGES - Vermont Groundwater Enforcement Standard; VTDEC *Groundwater Protection Rule and Strategy*, dated 1/20/2000
> VGES Values greater than the current VGES are shaded.

VTDEC Site #94-1640
GI Site #6944540


MW-14
Concentration (ppb)
30,000.
25,000.
20,000.
15,000.
10,000.
5,000.
0.
Water Elevation (ft)
90.
85.
80.
75.
70.
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Date
BTEX+MTBE
Water Elevation

Griffin International, Inc.

GROUNDWATER QUALITY SUMMARY

Lake Carmi Gulf (Mobil)
East Franklin, VT

MW-14

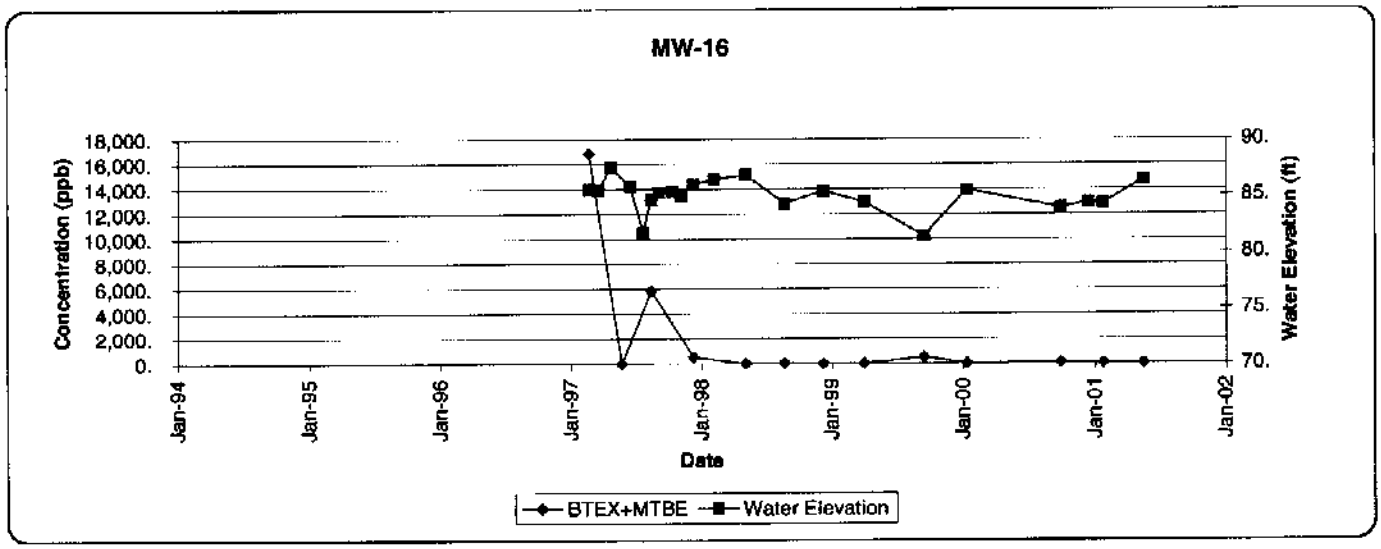
Sample Date:			2/28/1995	5/24/1995	8/23/1995	11/21/1995	2/12/1996	5/8/1996	8/19/1996
Analytical Method:			602	602	602	602	602	602	
PARAMETER Laboratory:			Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	
Benzene			**591.**	**301.**	**1,350.**	**3,020.**	**2,240.**	**135.**	No Sample
Toluene			**1,340.**	**514.**	**3,140.**	**11,900.**	**3,760.**	**175.**	
Ethylbenzene			**161.**	**40.**	**405.**	**1,690.**	**349.**	**11.**	
Xylenes			**1,360.**	**770.**	**1,930.**	**7,500.**	**3,520.**	**127.**	
Total BTEX			**3,452.**	**1,825.**	**6,825.**	**24,110.**	**9,869.**	**448.**	
MTBE			ND	**111.**	ND	ND	ND	ND	
1,3,5-Trimethylbenzene									
1,2,4-Trimethylbenzene									
Naphthalene									
BTEX + MTBE			**3,452.**	**1,736.**	**6,825.**	**24,110.**	**9,869.**	**448.**	
Total Targeted VOCs			**3,452.**	**1,736.**	**6,825.**	**24,110.**	**9,869.**	**448.**	

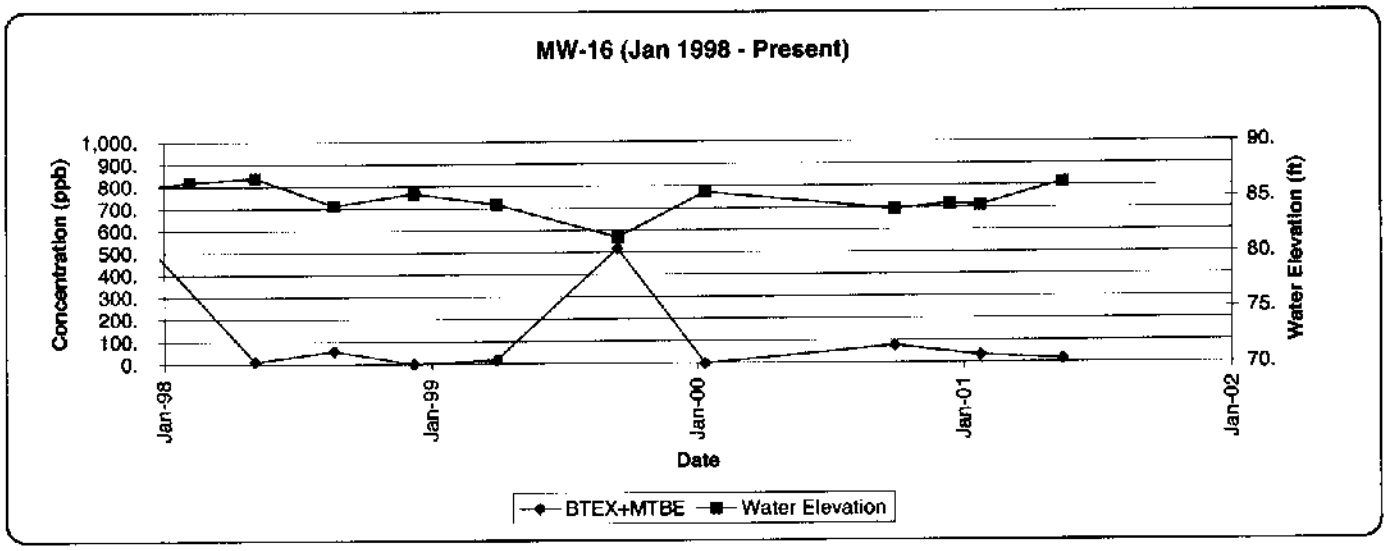
Sample Date:	11/9/1996	2/21/1997	5/23/1997	8/14/1997	12/10/1997	5/5/1998	8/21/1998	12/8/1998	4/1/1999
Analytical Method:	602	602	602	602	602	602	602	602	602
PARAMETER Laboratory:	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne
Benzene	**380.**	**36.5**	**16.9**	**3.9**	**24.2**	ND(1)	**27.0**	ND(1)	**85.2**
Toluene	**471.**	**6.3**	**1.5**	**6.6**	**17.0**	ND(1)	**42.9**	**1.0**	**15.8**
Ethylbenzene	**145.**	**6.9**	ND(1)	**1.0**	**17.2**	ND(1)	**6.3**	ND(1)	ND(1)
Xylenes	**427.**	**5.5**	**4.2**	**70.3**	**51.2**	ND(1)	**74.8**	**4.8**	**7.4**
Total BTEX	**1,423.**	**55.2**	**22.6**	**81.8**	**109.6**	ND	**151.0**	**5.8**	**108.4**
MTBE	ND(200)	ND(10)	ND(10)	ND(10)	**14.3**	ND(10)	ND(10)	ND(10)	ND(10)
1,3,5-Trimethylbenzene									
1,2,4-Trimethylbenzene									
Naphthalene									
BTEX + MTBE	**1,423.**	**55.2**	**22.6**	**81.8**	**123.9**	ND	**151.0**	**5.8**	**108.4**
Total Targeted VOCs	**1,423.**	**55.2**	**22.6**	**81.8**	**123.9**	ND	**151.0**	**5.8**	**108.4**

Sample Date:	9/14/1999	1/12/2000	9/28/2000	1/23/2001	5/15/2001				VGES
Analytical Method:	8021B	8021B	8021B	8021B	8021B				
PARAMETER Laboratory:	Endyne	Endyne	Endyne	Endyne	Endyne				(ppb)
Benzene	**1,740.**	**53.8**	ND(1.0)	**6.9**	**101.**				5.
Toluene	**4,640.**	**2.6**	ND(1.0)	ND(1.0)	**9.2**				1,000.
Ethylbenzene	**574.**	ND(1)	ND(1.0)	ND(1.0)	**10.9**				700.
Xylenes	**2,460.**	**11.5**	ND(1.0)	**1.3**	**18.8**				10,000.
Total BTEX	**9,414.**	**67.9**	ND	**8.2**	**140.**				-
MTBE	ND(200)	ND(10)	ND(10.0)	ND(10.0)	ND(10.0)				40.
1,3,5-Trimethylbenzene	**173.**	ND(1)	ND(1.0)	ND(1.0)	**20.6**				4.
1,2,4-Trimethylbenzene	**496.**	**3.1**	ND(1.0)	ND(1.0)	**6.1**				5.
Naphthalene	**254.**	**19.1**	ND(1.0)	**1.2**	**23.5**				20.
BTEX + MTBE	**9,414.**	**67.9**	ND	**8.2**	**140.**				-
Total Targeted VOCs	**10,337.**	**90.1**	ND	**9.4**	**190.**				-

All Values Reported in ug/L (ppb)
Only the compounds targeted by EPA Method 8021B are included in this summary table.
ND(1) - None Detected above Detection Limit (Detection Limit)
TBQ(1) - Trace Below Quantitation Limit (Quantitation Limit)
Detections are **bolded.**
Blank cell - not analyzed
VGES - Vermont Groundwater Enforcement Standard; VTDEC *Groundwater Protection Rule and Strategy*, dated 1/20/2000
> VGES Values greater than the current VGES are shaded.

VTDEC Site #94-1640
GI Site #6944540


MW-16
Concentration (ppb)
18,000.
16,000.
14,000.
12,000.
10,000.
8,000.
6,000.
4,000.
2,000.
0.
Water Elevation (ft)
90.
85.
80.
75.
70.
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Date
BTEX+MTBE
Water Elevation


MW-16 (Jan 1998 - Present)
Concentration (ppb)
1,000.
900.
800.
700.
600.
500.
400.
300.
200.
100.
0.
Water Elevation (ft)
90.
85.
80.
75.
70.
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Date
BTEX+MTBE
Water Elevation

GROUNDWATER QUALITY SUMMARY

MW-16

Sample Date:		2/21/1997	5/23/1997	8/14/1997	12/10/1997	5/5/1998	8/21/1998	12/8/1998	4/1/1999
Analytical Method:		602	602	602	602	602	602	602	602
PARAMETER *Laboratory:*		Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne
Benzene	Well	**3,720.**	ND(1)	**1,460.**	**12.9**	ND(1)	**2.1**	ND(1)	ND(1)
Toluene	Installed	**4,000.**	ND(1)	**322.**	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)
Ethylbenzene	1/6/97	**208.**	ND(1)	ND(50)	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)
Xylenes		**1,620.**	ND(1)	**129.**	ND(10)	ND(1)	ND(1)	ND(1)	ND(1)
Total BTEX		**9,548.**	ND	**1,911.**	**12.9**	ND	**2.1**	ND	ND
MTBE		**7,290.**	ND(10)	**3,940.**	**522.**	**12**	**56.3**	**TBQ(10)**	**19**
1,3,5-Trimethylbenzene									
1,2,4-Trimethylbenzene									
Naphthalene									
BTEX + MTBE		**16,838.**	ND	**5,851.**	**535.**	**12.0**	**58.4**	**TBQ**	**19.0**
Total Targeted VOCs		**16,838.**	ND	**5,851.**	**535.**	**12.0**	**58.4**	**TBQ**	**19.0**

Sample Date:	9/14/1999	1/12/2000	9/28/2000	1/23/2001	5/15/2001				VGES
Analytical Method:	8021B	8021B	8021B	8021B	8021B				
PARAMETER *Laboratory:*	Endyne	Endyne	Endyne	Endyne	Endyne				(ppb)
Benzene	**19.5**	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)				5.
Toluene	ND(10)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)				1,000.
Ethylbenzene	ND(10)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)				700.
Xylenes	ND(10)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)				10,000.
Total BTEX	**19.5**	ND	ND	ND	ND				-
MTBE	**499.**	**TBQ(10)**	**78.0**	**33.6**	**17.6**				40.
1,3,5-Trimethylbenzene	ND(10)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)				4.
1,2,4-Trimethylbenzene	ND(10)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)				5.
Naphthalene	ND(10)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)				20.
BTEX + MTBE	**519.**	**TBQ**	**78.0**	**33.6**	**17.6**				-
Total Targeted VOCs	**519.**	**TBQ**	**78.0**	**33.6**	**17.6**				-

All Values Reported in ug/L (ppb)
Only the compounds targeted by EPA Method 8021B are included in this summary table.
ND(1) - None Detected above Detection Limit (Detection Limit)
TBQ(1) - Trace Below Quantitation Limit (Quantitation Limit)
Detections are **bolded.**
Blank cell - not analyzed
VGES - Vermont Groundwater Enforcement Standard; VTDEC *Groundwater Protection Rule and Strategy*, dated 1/20/2000
> VGES Values greater than the current VGES are shaded.

MW-19 (deep)

Sample Date:				10/13/1997	5/5/1998	8/21/1998	9/2/1998	12/8/1998	4/1/1999
Analytical Method:				602	602	602	602	602	602
PARAMETER *Laboratory:*				Endyne	Endyne	Endyne	Endyne	Endyne	Endyne
Benzene			Well	ND(0.5)	ND(1)	No Sample	ND(1)	ND(1)	ND(1)
Toluene			Installed	ND(0.5)	ND(1)		ND(1)	**2.0**	ND(1)
Ethylbenzene			9/23/97	ND(0.5)	ND(1)		ND(1)	ND(1)	ND(1)
Xylenes				ND(1)	ND(1)		ND(1)	**2.1**	ND(1)
Total BTEX				ND	ND		ND	**4.1**	ND
MTBE				ND(1)	ND(10)		ND(10)	ND(10)	ND(10)
1,3,5-Trimethylbenzene									
1,2,4-Trimethylbenzene									
Naphthalene									
BTEX + MTBE				ND	ND		ND	**4.1**	ND
Total Targeted VOCs				ND	ND		ND	**4.1**	ND

Sample Date:	9/14/1999	1/12/2000	9/28/2000	1/23/2001	5/15/2001				VGES
Analytical Method:	8021B	8021B	8021B	8021B	8021B				
PARAMETER *Laboratory:*	Endyne	Endyne	Endyne	Endyne	Endyne				(ppb)
Benzene	ND(1)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)				5.
Toluene	ND(1)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)				1,000.
Ethylbenzene	ND(1)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)				700.
Xylenes	ND(1)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)				10,000.
Total BTEX	ND	ND	ND	ND	ND				-
MTBE	ND(10)	ND(10)	ND(10.0)	ND(10.0)	ND(10.0)				40.
1,3,5-Trimethylbenzene	ND(1)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)				4.
1,2,4-Trimethylbenzene	ND(1)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)				5.
Naphthalene	ND(1)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)				20.
BTEX + MTBE	ND	ND	ND	ND	ND				-
Total Targeted VOCs	ND	ND	ND	ND	ND				-

All Values Reported in ug/L (ppb)
Only the compounds targeted by EPA Method 8021B are included in this summary table.
ND(1) - None Detected above Detection Limit (Detection Limit)
TBQ(1) - Trace Below Quantitation Limit (Quantitation Limit)
Detections are **bolded.**
Blank cell - not analyzed
VGES - Vermont Groundwater Enforcement Standard; VTDEC *Groundwater Protection Rule and Strategy*, dated 1/20/2000
> VGES Values greater than the current VGES are shaded.

MW-20 (shallow)

Sample Date:				10/13/1997	5/5/1998	8/21/1998	9/2/1998	12/8/1998	4/1/1999
Analytical Method:				602	602	602	602	602	602
PARAMETER *Laboratory:*				Endyne	Endyne	Endyne	Endyne	Endyne	Endyne
Benzene			Well	ND(0.5)	ND(1)	No Sample	ND(1)	ND(1)	ND(1)
Toluene			Installed	ND(0.5)	ND(1)		ND(1)	ND(1)	ND(1)
Ethylbenzene			9/24/97	ND(0.5)	ND(1)		ND(1)	ND(1)	ND(1)
Xylenes				ND(1)	ND(1)		ND(1)	ND(1)	ND(1)
Total BTEX				ND	ND		ND	ND	ND
MTBE				ND(1)	ND(10)		ND(10)	ND(10)	ND(10)
1,3,5-Trimethylbenzene									
1,2,4-Trimethylbenzene									
Naphthalene									
BTEX + MTBE				ND	ND		ND	ND	ND
Total Targeted VOCs				ND	ND		ND	ND	ND

Sample Date:	9/14/1999	1/12/2000	9/28/2000	1/23/2001	5/15/2001				VGES
Analytical Method:	8021B	8021B	8021B	8021B	8021B				
PARAMETER *Laboratory:*	Endyne	Endyne	Endyne	Endyne	Endyne				(ppb)
Benzene	ND(1)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)				5.
Toluene	ND(1)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)				1,000.
Ethylbenzene	ND(1)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)				700.
Xylenes	ND(1)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)				10,000.
Total BTEX	ND	ND	ND	ND	ND				-
MTBE	ND(10)	ND(10)	ND(10.0)	ND(10.0)	ND(10.0)				40.
1,3,5-Trimethylbenzene	ND(1)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)				4.
1,2,4-Trimethylbenzene	ND(1)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)				5.
Naphthalene	ND(1)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)				20.
BTEX + MTBE	ND	ND	ND	ND	ND				-
Total Targeted VOCs	ND	ND	ND	ND	ND				-

All Values Reported in ug/L (ppb)
Only the compounds targeted by EPA Method 8021B are included in this summary table.
ND(1) - None Detected above Detection Limit (Detection Limit)
TBQ(1) - Trace Below Quantitation Limit (Quantitation Limit)
Detections are **bolded.**
Blank cell - not analyzed
VGES - Vermont Groundwater Enforcement Standard; VTDEC *Groundwater Protection Rule and Strategy*, dated 1/20/2000
> VGES Values greater than the current VGES are shaded.

GROUNDWATER QUALITY SUMMARY

MW-23 (deep)

Sample Date:			12/13/2000	1/23/2001	5/15/2001				VGES
Analytical Method:			8021B	8021B	8021B				
PARAMETER *Laboratory:*			Endyne	Endyne	Endyne				(ppb)
Benzene		Well	ND(1.0)	ND(1.0)	ND(1.0)				5.
Toluene		Installed	ND(1.0)	ND(1.0)	ND(1.0)				1,000.
Ethylbenzene		11/15/00	ND(1.0)	ND(1.0)	ND(1.0)				700.
Xylenes			ND(1.0)	ND(1.0)	ND(1.0)				10,000.
Total BTEX			ND	ND	ND				-
MTBE			ND(10.0)	ND(10.0)	ND(10.0)				40.
1,3,5-Trimethylbenzene			ND(1.0)	ND(1.0)	ND(1.0)				4.
1,2,4-Trimethylbenzene			ND(1.0)	ND(1.0)	ND(1.0)				5.
Naphthalene			ND(1.0)	ND(1.0)	ND(1.0)				20.
BTEX + MTBE			ND	ND	ND				-
Total Targeted VOCs			ND	ND	ND				-

All Values Reported in ug/L (ppb)
Only the compounds targeted by EPA Method 8021B are included in this summary table.
ND(1) - None Detected above Detection Limit (Detection Limit)
TBQ(1) - Trace Below Quantitation Limit (Quantitation Limit)
Detections are bolded.
Blank cell - not analyzed
VGES - Vermont Groundwater Enforcement Standard; VTDEC *Groundwater Protection Rule and Strategy*, dated 1/20/2000
> VGES Values greater than the current VGES are shaded.

GROUNDWATER QUALITY SUMMARY

MW-24 (shallow)

Sample Date:			12/13/2000	1/23/2001	5/15/2001				VGES
Analytical Method:			8021B	8021B	8021B				
PARAMETER *Laboratory:*			Endyne	Endyne	Endyne				(ppb)
Benzene		Well	ND(1.0)	**1.1**	ND(2.0)				5.
Toluene		Installed	ND(1.0)	ND(1.0)	ND(2.0)				1,000.
Ethylbenzene		11/16/00	ND(1.0)	ND(1.0)	ND(2.0)				700.
Xylenes			ND(1.0)	ND(1.0)	ND(2.0)				10,000.
Total BTEX			ND	**1.1**	ND				-
MTBE			**99.2**	**141.**	**114.**				40.
1,3,5-Trimethylbenzene			ND(1.0)	ND(1.0)	ND(2.0)				4.
1,2,4-Trimethylbenzene			ND(1.0)	ND(1.0)	ND(1.0)				5.
Naphthalene			ND(1.0)	ND(1.0)	ND(1.0)				20.
BTEX + MTBE			**99.2**	**142.**	**114.**				-
Total Targeted VOCs			**99.2**	**142.**	**114.**				-

All Values Reported in ug/L (ppb)
Only the compounds targeted by EPA Method 8021B are included in this summary table.
ND(1) - None Detected above Detection Limit (Detection Limit)
TBQ(1) - Trace Below Quantitation Limit (Quantitation Limit)
Detections are **bolded.**
Blank cell - not analyzed
VGES - Vermont Groundwater Enforcement Standard; VTDEC *Groundwater Protection Rule and Strategy*, dated 1/20/2000
> VGES Values greater than the current VGES are shaded.

GROUNDWATER QUALITY SUMMARY

MW-25

Sample Date:			12/13/2000	1/23/2001	5/15/2001				VGES
Analytical Method:			8021B	8021B	8021B				
PARAMETER *Laboratory:*			Endyne	Endyne	Endyne				(ppb)
Benzene		Well	ND(1.0)	ND(1.0)	ND(1.0)				5.
Toluene		Installed	ND(1.0)	ND(1.0)	ND(1.0)				1,000.
Ethylbenzene		11/15/00	ND(1.0)	ND(1.0)	ND(1.0)				700.
Xylenes			ND(1.0)	ND(1.0)	ND(1.0)				10,000.
Total BTEX			ND	ND	ND				-
MTBE			ND(10.0)	ND(10.0)	ND(10.0)				40.
1,3,5-Trimethylbenzene			ND(1.0)	ND(1.0)	ND(1.0)				4.
1,2,4-Trimethylbenzene			ND(1.0)	ND(1.0)	ND(1.0)				5.
Naphthalene			ND(1.0)	ND(1.0)	ND(1.0)				20.
BTEX + MTBE			ND	ND	ND				-
Total Targeted VOCs			ND	ND	ND				-

All Values Reported in ug/L (ppb)
Only the compounds targeted by EPA Method 8021B are included in this summary table.
ND(1) - None Detected above Detection Limit (Detection Limit)
TBQ(1) - Trace Below Quantitation Limit (Quantitation Limit)
Detections are **bolded.**
Blank cell - not analyzed
VGES - Vermont Groundwater Enforcement Standard; VTDEC *Groundwater Protection Rule and Strategy*, dated 1/20/2000
> VGES Values greater than the current VGES are shaded.

Griffin International, Inc.

GROUNDWATER QUALITY SUMMARY

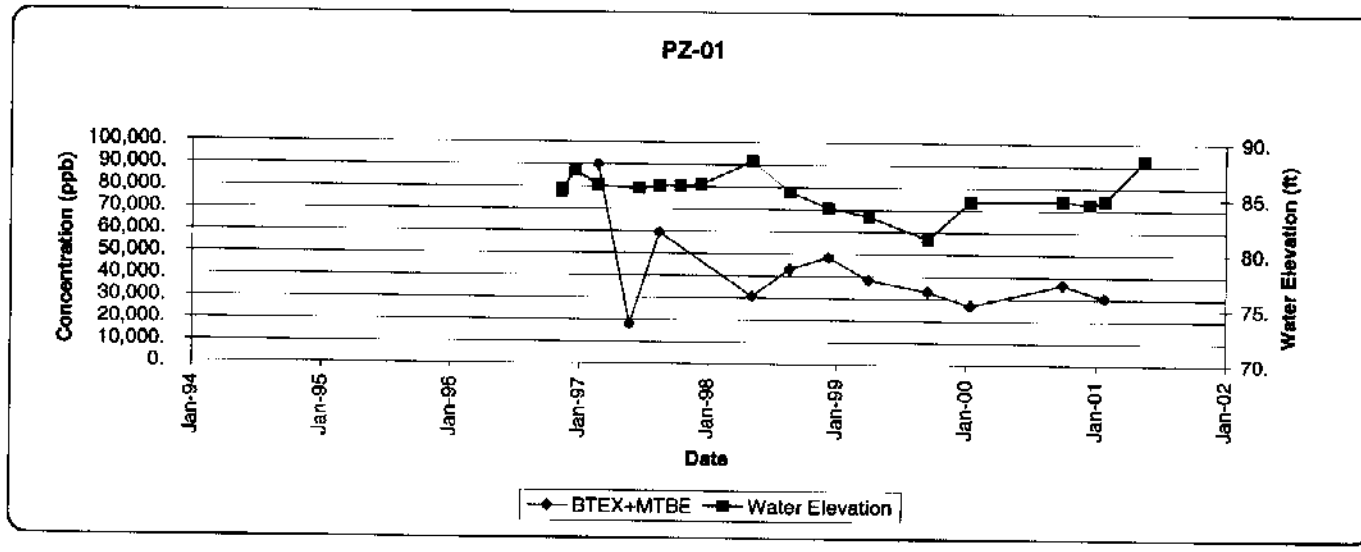
Lake Carmi Gulf (Mobil)
East Franklin, VT

PZ-01

PARAMETER	Sample Date:	2/21/1997	5/23/1997	8/14/1997	12/10/1997	5/5/1998	8/21/1998	12/8/1998	4/1/1999
	Analytical Method:	602	602	602		602	602	602	602
	Laboratory:	Endyne	Endyne	Endyne		Endyne	Endyne	Endyne	Endyne
Benzene		**19,900.**	**3,650.**	**15,100.**	No Sample	**3,130.**	**6,500.**	**9,130.**	**5,010.**
Toluene		**36,700.**	**7,190.**	**30,100.**	Insufficient	**15,700.**	**20,800.**	**20,600.**	**17,200.**
Ethylbenzene		**2,950.**	**608.**	**1,990.**	Water	**921.**	**1,940.**	**2,400.**	**1,940.**
Xylenes		**15,400.**	**6,390.**	**12,100.**		**10,900.**	**13,700.**	**16,200.**	**14,000.**
Total BTEX		**74,950.**	**17,838.**	**59,290.**		**30,651.**	**42,940.**	**48,330.**	**38,150.**
MTBE		**14,900.**	ND(2000)	ND(5000)		ND(5000)	ND(5000)	ND(5000)	ND(2000)
1,3,5-Trimethylbenzene									
1,2,4-Trimethylbenzene									
Naphthalene									
BTEX + MTBE		**89,850.**	**17,838.**	**59,290.**		**30,651.**	**42,940.**	**48,330.**	**38,150.**
Total Targeted VOCs		**89,850.**	**17,838.**	**59,290.**		**30,651.**	**42,940.**	**48,330.**	**38,150.**

PARAMETER	Sample Date:	9/14/1999	1/12/2000	9/28/2000	1/23/2001	5/15/2001				VGES
	Analytical Method:	8021B	8021B	8021B	8021B					
	Laboratory:	Endyne	Endyne	Endyne	Endyne					(ppb)
Benzene		**6,350.**	**3,720.**	**1,570.**	**1,900.**	No Sample				5.
Toluene		**16,200.**	**9,200.**	**14,900.**	**11,900.**	Well Silted				1,000.
Ethylbenzene		**1,590.**	**1,440.**	**2,710.**	**2,410.**					700.
Xylenes		**9,010.**	**12,500.**	**17,200.**	**14,200.**					10,000.
Total BTEX		**33,150.**	**26,860.**	**36,380.**	**30,410.**					-
MTBE		ND(2000)	ND(2000)	ND(2000)	ND(2000)					40.
1,3,5-Trimethylbenzene		**414.**	**509.**	**746.**	**728.**					4.
1,2,4-Trimethylbenzene		**1,630.**	**1,870.**	**2,480.**	**2,200.**					5.
Naphthalene		**528.**	**589.**	**636.**	**542.**					20.
BTEX + MTBE		**33,150.**	**26,860.**	**36,380.**	**30,410.**					-
Total Targeted VOCs		**35,722.**	**29,828.**	**40,242.**	**33,980.**					-

All Values Reported in ug/L (ppb)
Only the compounds targeted by EPA Method 8021B are included in this summary table.
ND(1) - None Detected above Detection Limit (Detection Limit)
TBQ(1) - Trace Below Quantitation Limit (Quantitation Limit)
Detections are **bolded.**
Blank cell - not analyzed
VGES - Vermont Groundwater Enforcement Standard; VTDEC *Groundwater Protection Rule and Strategy*, dated 1/20/2000
> VGES Values greater than the current VGES are shaded.



VTDEC Site #94-1640
GI Site #6944540

Griffin International, Inc.

GROUNDWATER QUALITY SUMMARY

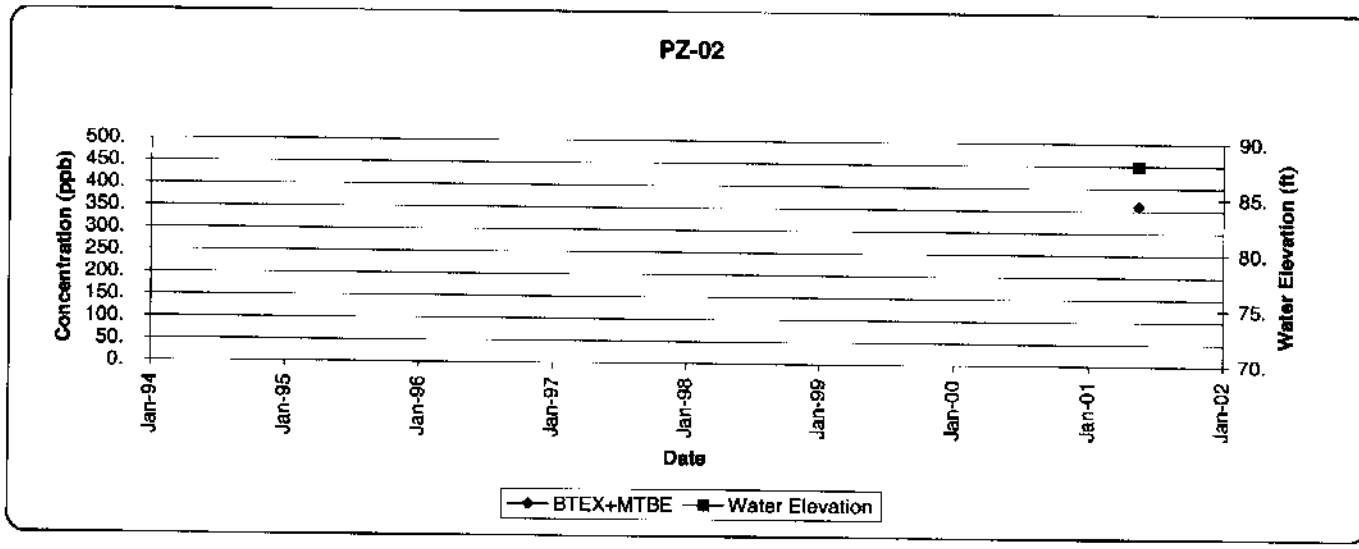
Lake Carmi Gulf (Mobil)
East Franklin, VT

PZ-02

Sample Date:		2/21/1997	5/23/1997	8/14/1997	12/10/1997	5/5/1998	8/21/1998	12/8/1998	4/1/1999
Analytical Method:									
PARAMETER *Laboratory:*									
Benzene		No sample	No sample	No sample	No sample	No sample	No sample	No sample	No sample
Toluene		Not on	Not on	Not on	Not on	Not on	Not on	Not on	Not on
Ethylbenzene		sampling	sampling	sampling	sampling	sampling	sampling	sampling	sampling
Xylenes		schedule	schedule	schedule	schedule	schedule	schedule	schedule	schedule
Total BTEX									
MTBE									
1,3,5-Trimethylbenzene									
1,2,4-Trimethylbenzene									
Naphthalene									
BTEX + MTBE									
Total Targeted VOCs									

Sample Date:	9/14/1999	1/12/2000	9/28/2000	1/23/2001	5/15/2001				VGES
Analytical Method:					8021B				
PARAMETER *Laboratory:*					Endyne				(ppb)
Benzene	No sample	No sample	No sample	No sample	**34.7**				5.
Toluene	Not on	Not on	Not on	Not on	**6.0**				1,000.
Ethylbenzene	sampling	sampling	sampling	sampling	**43.8**				700.
Xylenes	schedule	schedule	schedule	schedule	**251.**				10,000.
Total BTEX					**336.**				-
MTBE					**23.7**				40.
1,3,5-Trimethylbenzene					**52.7**				4.
1,2,4-Trimethylbenzene					**77.6**				5.
Naphthalene					**24.6**				20.
BTEX + MTBE					**359.**				-
Total Targeted VOCs					**514.**				-

All Values Reported in ug/L (ppb)
Only the compounds targeted by EPA Method 8021B are included in this summary table.
ND(1) - None Detected above Detection Limit (Detection Limit)
TBQ(1) - Trace Below Quantitation Limit (Quantitation Limit)
Detections are **bolded.**
Blank cell - not analyzed
VGES - Vermont Groundwater Enforcement Standard; VTDEC *Groundwater Protection Rule and Strategy*, dated 1/20/2000
> VGES Values greater than the current VGES are shaded.



VTDEC Site #94-1640
GI Site #6944540

APPENDIX E

Analytical Laboratory Report
Groundwater Monitoring Wells

ENDYNE, INC.

Laboratory Services

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

LABORATORY REPORT

Griffin International
PO Box 943
Williston, VT 05495
Attn: Chris Ward

PROJECT: Lake Carmi Mobil/#6944540
ORDER ID: 12477
RECEIVE DATE: May 16, 2001
REPORT DATE: May 30, 2001

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Different groups of analyses may be reported under separate cover.

All samples were prepared and analyzed by requirements outlined in the referenced methods and within the specified holding times.

All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced methods.

Blank contamination was not observed at levels affecting the analytical results.

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

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

enclosures

ENDYNE, INC.

Laboratory Services

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

LABORATORY REPORT

CLIENT: Griffin International
PROJECT: Lake Carmi Mobil/#6944540
DATE RECEIVED: May 16, 2001
REPORT DATE: May 30, 2001

ORDER ID: 12477
ANAL. METHOD: SW 8021B
SAMPLER: DT/CW
ANALYST: 222

Site: MW-1
Ref. Number: 174011
Date Sampled: 5/15/01
Time Sampled: 1:50 PM
Analysis Date: 5/22/01

Parameter	Results ug/L
MTBE	< 40.0
Benzene	< 4.0
Toluene	43.8
Ethylbenzene	43.6
Xylenes, Total	321.
1,3,5 Trimethyl Benzene	55.8
1,2,4 Trimethyl Benzene	78.4
Naphthalene	14.6
UIP's	>10.
Surrogate 1	97.%

Site: MW-6
Ref. Number: 174014
Date Sampled: 5/15/01
Time Sampled: 12:34 PM
Analysis Date: 5/22/01

Parameter	Results ug/L
MTBE	< 2,000.
Benzene	3,310.
Toluene	4,850.
Ethylbenzene	350.
Xylenes, Total	7,070.
1,3,5 Trimethyl Benzene	810.
1,2,4 Trimethyl Benzene	1,880.
Naphthalene	671.
UIP's	>10.
Surrogate 1	97.%

Site: MW-14
Ref. Number: 174017
Date Sampled: 5/15/01
Time Sampled: 2:12 PM
Analysis Date: 5/20/01

Parameter	Results ug/L
MTBE	< 10.0
Benzene	101.
Toluene	9.2
Ethylbenzene	10.9
Xylenes, Total	18.8
1,3,5 Trimethyl Benzene	20.6
1,2,4 Trimethyl Benzene	6.1
Naphthalene	23.5
UIP's	>10.
Surrogate 1	98.%

Site: MW-4
Ref. Number: 174012
Date Sampled: 5/15/01
Time Sampled: 1:10 PM
Analysis Date: 5/22/01

Parameter	Results ug/L
MTBE	51.6
Benzene	37.5
Toluene	5.8
Ethylbenzene	6.7
Xylenes, Total	46.3
1,3,5 Trimethyl Benzene	56.2
1,2,4 Trimethyl Benzene	53.4
Naphthalene	247.
UIP's	>10.
Surrogate 1	101.%

Site: MW-9
Ref. Number: 174015
Date Sampled: 5/15/01
Time Sampled: 1:45 PM
Analysis Date: 5/22/01

Parameter	Results ug/L
MTBE	< 100.
Benzene	< 10.0
Toluene	20.6
Ethylbenzene	270.
Xylenes, Total	1,080.
1,3,5 Trimethyl Benzene	406.
1,2,4 Trimethyl Benzene	612.
Naphthalene	124.
UIP's	>10.
Surrogate 1	100.%

Site: MW-16
Ref. Number: 174018
Date Sampled: 5/15/01
Time Sampled: 12:32 PM
Analysis Date: 5/20/01

Parameter	Results ug/L
MTBE	17.6
Benzene	< 1.0
Toluene	< 1.0
Ethylbenzene	< 1.0
Xylenes, Total	< 1.0
1,3,5 Trimethyl Benzene	< 1.0
1,2,4 Trimethyl Benzene	< 1.0
Naphthalene	< 1.0
UIP's	0.
Surrogate 1	89.%

Site: MW-5
Ref. Number: 174013
Date Sampled: 5/15/01
Time Sampled: 1:32 PM
Analysis Date: 5/22/01

Parameter	Results ug/L
MTBE	< 100.
Benzene	176.
Toluene	107.
Ethylbenzene	168.
Xylenes, Total	1,500.
1,3,5 Trimethyl Benzene	111.
1,2,4 Trimethyl Benzene	237.
Naphthalene	87.6
UIP's	>10.
Surrogate 1	104.%

Site: MW-13
Ref. Number: 174016
Date Sampled: 5/15/01
Time Sampled: 2:04 PM
Analysis Date: 5/21/01

Parameter	Results ug/L
MTBE	< 10.0
Benzene	< 1.0
Toluene	< 1.0
Ethylbenzene	< 1.0
Xylenes, Total	< 1.0
1,3,5 Trimethyl Benzene	< 1.0
1,2,4 Trimethyl Benzene	< 1.0
Naphthalene	< 1.0
UIP's	0.
Surrogate 1	96.%

Site: MW-19
Ref. Number: 174019
Date Sampled: 5/15/01
Time Sampled: 10:00 AM
Analysis Date: 5/21/01

Parameter	Results ug/L
MTBE	< 10.0
Benzene	< 1.0
Toluene	< 1.0
Ethylbenzene	< 1.0
Xylenes, Total	< 1.0
1,3,5 Trimethyl Benzene	< 1.0
1,2,4 Trimethyl Benzene	< 1.0
Naphthalene	< 1.0
UIP's	0.
Surrogate 1	95.%

ENDYNE, INC.

Laboratory Services

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

LABORATORY REPORT

CLIENT: Griffin International
PROJECT: Lake Carmi Mobil/#6944540
DATE RECEIVED: May 16, 2001
REPORT DATE: May 30, 2001

ORDER ID: 12477
ANAL. METHOD: SW 8021B
SAMPLER: DT/CW
ANALYST: 222

Site: MW-20
Ref. Number: 174020
Date Sampled: 5/15/01
Time Sampled: 10:40 AM
Analysis Date: 5/21/01

Parameter	Results ug/L
MTBE	< 10.0
Benzene	< 1.0
Toluene	< 1.0
Ethylbenzene	< 1.0
Xylenes, Total	< 1.0
1,3,5 Trimethyl Benzene	< 1.0
1,2,4 Trimethyl Benzene	< 1.0
Naphthalene	< 1.0
UIP's	0.
Surrogate 1	95.%

Site: MW-25
Ref. Number: 174023
Date Sampled: 5/15/01
Time Sampled: 12:20 PM
Analysis Date: 5/21/01

Parameter	Results ug/L
MTBE	< 10.0
Benzene	< 1.0
Toluene	< 1.0
Ethylbenzene	< 1.0
Xylenes, Total	< 1.0
1,3,5 Trimethyl Benzene	< 1.0
1,2,4 Trimethyl Benzene	< 1.0
Naphthalene	< 1.0
UIP's	0.
Surrogate 1	100.%

Site: Trip Blank
Ref. Number: 174026
Date Sampled: 5/15/01
Time Sampled: 7:23 AM
Analysis Date: 5/21/01

Parameter	Results ug/L
MTBE	< 10.0
Benzene	< 1.0
Toluene	< 1.0
Ethylbenzene	< 1.0
Xylenes, Total	< 1.0
1,3,5 Trimethyl Benzene	< 1.0
1,2,4 Trimethyl Benzene	< 1.0
Naphthalene	< 1.0
UIP's	0.
Surrogate 1	95.%

Site: MW-23
Ref. Number: 174021
Date Sampled: 5/15/01
Time Sampled: 10:40 AM
Analysis Date: 5/21/01

Parameter	Results ug/L
MTBE	< 10.0
Benzene	< 1.0
Toluene	< 1.0
Ethylbenzene	< 1.0
Xylenes, Total	< 1.0
1,3,5 Trimethyl Benzene	< 1.0
1,2,4 Trimethyl Benzene	< 1.0
Naphthalene	< 1.0
UIP's	0.
Surrogate 1	102.%

Site: PZ-02
Ref. Number: 174024
Date Sampled: 5/15/01
Time Sampled: 1:20 PM
Analysis Date: 5/21/01

Parameter	Results ug/L
MTBE	23.7
Benzene	34.7
Toluene	6.0
Ethylbenzene	43.8
Xylenes, Total	251.
1,3,5 Trimethyl Benzene	52.7
1,2,4 Trimethyl Benzene	77.6
Naphthalene	24.6
UIP's	>10.
Surrogate 1	108.%

Site: MW-24
Ref. Number: 174022
Date Sampled: 5/15/01
Time Sampled: 10:07 AM
Analysis Date: 5/23/01

Parameter	Results ug/L
MTBE	114.
Benzene	< 2.0
Toluene	< 2.0
Ethylbenzene	< 2.0
Xylenes, Total	< 2.0
1,3,5 Trimethyl Benzene	< 2.0
1,2,4 Trimethyl Benzene	< 2.0
Naphthalene	< 2.0
UIP's	0
Surrogate 1	92.%

Site: Duplicate
Ref. Number: 174025
Date Sampled: 5/15/01
Time Sampled: 1:10 PM
Analysis Date: 5/22/01

Parameter	Results ug/L
MTBE	54.5
Benzene	43.3
Toluene	6.1
Ethylbenzene	7.0
Xylenes, Total	47.4
1,3,5 Trimethyl Benzene	57.2
1,2,4 Trimethyl Benzene	54.9
Naphthalene	246.
UIP's	>10.
Surrogate 1	98.%

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 43515

Special Reporting Instructions:

Project Name: Lake Carmi #6944540	Reporting Address: Griffin	Billing Address: Griffin
Endyne Order ID: (Lab Use Only) 12477 — 1 -O, -I, -S	Company: Contact Name/Phone #: Chris Ward 802 865-4288	Sampler Name: DT / CW Phone #:

Ref # (Lab Use Only)	Sample Identification	Matrix	GRAB	COMP	Date/Time 5/15/01	Sample Containers No.	Sample Containers Type/Size	Field Results/Remarks	Analysis Required	Sample Preservation	Rush
17401	MW-1	Water	X		13:50	2	40ml		19	HCl	
012	MW-4	↓	↓		13:10	↓	↓		↓	↓	
013	MW-5				13:32						
014	MW-6				12:34						
015	MW-9				13:45						
016	MW-13				14:04						
017	MW-14				14:12						
018	MW-16				12:32						
019	MW-19				10:00						
020	MW-20	↓	↓		10:40	↓	↓		↓	↓	

Relinquished by:	Date/Time	Received by:	Date/Time	Received by:	Date/Time
Chris Ward	5/15/01 18:40	Melissa Salmon	5/16/01 9:50AM	A Fiorucci	5-16-01 10:15

New York State Project: Yes _____ No X

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Sulfate	21	1664 TPH/FOG	26	8270 PAH
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	8015 GRO	27	PP13 Metals
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	8015 DRO	28	RCRA8 Metals
4	Nitrite N	9	BOD	14	Turbidity	19	8021B	24	8260/8260B	29	
5	Nitrate N	10	Alkalinity	15	Conductivity	20	8010/8020	25	8270 B/N or Acid	30	

31 Metals (As Is, Total, Diss.) Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Tl, V, Zn

32 TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides) 33

34 Other

LAB USE ONLY
Delivery: Client
Temp:
Comment:

(White, Yellow, Pink Copy - Laboratory / Goldenrod Copy - Client)

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43527

Special Reporting Instructions:

Project Name: Luke Carmi #6944540	Reporting Address: Griffin	Billing Address: Griffin
Endyne Order ID: (Lab Use Only) 12477 (-O, -I, -S)	Company: Contact Name/Phone #: Chris Ward 802 865-4288	Sampler Name: DT/CW Phone #:

Ref # (Lab Use Only)	Sample Identification	Matrix	GRAB	COMP	Date/Time 5/15/01	Sample Containers No.	Sample Containers Type/Size	Field Results/Remarks	Analysis Required	Sample Preservation	Rush
174021	MW-23	Water	X		10:40	2	40ml		19	HCl	
022	MW-24				10:07						
023	MW-25				12:20						
024	PZ-02				13:20						
025	DUPLICATE				13:10						
026	TRIP BLANK				07:23						

Relinquished by:	Date/Time	Received by:	Date/Time	Received by:	Date/Time
Chris Ward	5/15/01 15:40	Melissa Salmon	5/16/01 9:50AM	A Fiorucci	5-16-01 10:15

New York State Project: Yes _____ No X

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Sulfate	21	1664 TPH/FOG	26	8270 PAH
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	8015 GRO	27	PP13 Metals
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	8015 DRO	28	RCRA8 Metals
4	Nitrite N	9	BOD	14	Turbidity	19	8021B	24	8260/8260B	29	
5	Nitrate N	10	Alkalinity	15	Conductivity	20	8010/8020	25	8270 B/N or Acid	30	

31 Metals (As Is, Total, Diss.) Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Tl, V, Zn

32 TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides) 33

34 Other

LAB USE ONLY
Delivery: Correct
Temp:
Comment:

(White, Yellow, Pink Copy - Laboratory / Goldenrod Copy - Client)

APPENDIX F

Lagrow/Benjamin/Feeley Supply Well Summary Table and Laboratory Reports

Griffin International, Inc.

Lagrow/Benjamin/Feeley Supply Well Water Quality

Lake Carmi Mobil
East Franklin, VT

Sample Date:	10/3/2000	10/31/2000	12/13/2000	1/23/2001	4/20/2001						VAL	VHA	MCL
Sample Location:	Benjamin	Lagrow	Lagrow	Feeley	Lagrow								
Analytical Method:	524.2	524.2	524.2	524.2	524.2								
PARAMETER *Laboratory:*	Endyne	Endyne	Endyne	Endyne	Endyne						(ppb)	(ppb)	(ppb)
Benzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)						1.	-	5.
Toluene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)						-	-	1,000.
Ethylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)						-	-	700.
Xylenes	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)						-	-	10,000.
Total BTEX	ND	ND	ND	ND	ND							-	-
MTBE	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)						-	40.	-
Chloroethane	**6.0**	**3.5**	ND(0.5)	ND(0.5)	ND(0.5)						-	-	-
Chloroform	**0.5**	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)						-	-	-
Total Trihalomethanes *	**0.5**	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)						-	-	100.
1,2,-Dichloroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)						0.5	-	5.
1,3,5-Trimethylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)						-	4.	-
1,2,4-Trimethylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)						-	5.	-
Naphthalene	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)						-	20.	-
Total Targeted VOCs	**6.5**	**3.5**	ND	ND	ND						-	-	-

Only previously detected compounds at the site and the compounds targeted by EPA Method 8021B are included in the table.
* Total trihalomethanes are comprised of bromodichloromethane, bromoform, chloroform, and dibromochloromethane.
Total trihalomethanes are not included in Total Targeted VOCs since the individual compounds are already included in the summation.
All Values Reported in ug/L (ppb)
ND(1) - None Detected above Detection Limit (Detection Limit)
TBQ(1) - Trace Below Quantitation Limit (Quantitation Limit)
Detections are **bolded.**
Blank cell - not analyzed
VAL- Vermont Action Level, *Vermont Department of Health Drinking Water Guidance*, May 2001
VHA - Vermont Health Advisory, *Vermont Department of Health Drinking Water Guidance*, May 2001
MCL - EPA Maximum Contaminant Level, *Vermont Department of Health Drinking Water Guidance*, May 2001
> applicable standard

ENDYNE, INC.

Laboratory Services

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LABORATORY REPORT

Griffin International
PO Box 943
Williston, VT 05495
Attn: Chris Ward

PROJECT: Lake Carmi Mobil/995666
ORDER ID: 12088
RECEIVE DATE: April 23, 2001
REPORT DATE: May 7, 2001

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Different groups of analyses may be reported under separate cover.

All samples were prepared and analyzed by requirements outlined in the referenced methods and within the specified holding times.

All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced methods.

Blank contamination was not observed at levels affecting the analytical results.

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

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

enclosures

ENDYNE, INC.

Laboratory Services

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Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA 524.2

CLIENT: Griffin International
PROJECT: Lake Carmi Mobil/995666
SITE: Lagrow Supply Well
DATE RECEIVED: April 23, 2001
REPORT DATE: May 7, 2001
ANALYSIS DATE: May 2, 2001

ORDER ID: 12088
REFERENCE NUMBER: 172216
DATE SAMPLED: April 20, 2001
TIME SAMPLED: 10:22 AM
SAMPLER: DT
ANALYST: 725

Parameter	Result ug/L
Benzene	< 0.5
Bromobenzene	< 0.5
Bromochloromethane	< 0.5
Bromomethane	< 0.5
n-Butylbenzene	< 0.5
sec-Butylbenzene	< 0.5
tert-Butylbenzene	< 0.5
Carbon tetrachloride	< 0.5
Chlorobenzene	< 0.5
Chloroethane	< 0.5
Chloromethane	< 0.5
2-Chlorotoluene	< 1.0
4-Chlorotoluene	< 1.0
Dibromomethane	< 1.0
1,2-Dichlorobenzene	< 0.5
1,3-Dichlorobenzene	< 0.5
1,4-Dichlorobenzene	< 0.5
Dichlorodifluoromethane	< 0.5
1,1-Dichloroethane	< 0.5
1,2-Dichloroethane	< 0.5
1,1-Dichloroethene	< 0.5
cis-1,2-Dichloroethene	< 0.5
trans-1,2-Dichloroethene	< 0.5
Dichloromethane	< 1.0
1,2-Dichloropropane	< 0.5
1,3-Dichloropropane	< 0.5
2,2-Dichloropropane	< 0.5
1,1-Dichloropropene	< 0.5
cis-1,3-Dichloropropene	< 0.5
trans-1,3-Dichloropropene	< 0.5
Ethylbenzene	< 0.5

Parameter	Result ug/L
Hexachlorobutadiene	< 0.5
Isopropylbenzene	< 0.5
4-Isopropyltoluene	< 0.5
MTBE	< 1.0
Naphthalene	< 1.0
n-Propylbenzene	< 0.5
Styrene	< 0.5
1,1,1,2-Tetrachloroethane	< 0.5
1,1,2,2-Tetrachloroethane	< 1.0
Tetrachloroethene	< 0.5
Toluene	< 0.5
1,2,3-Trichlorobenzene	< 0.5
1,2,4-Trichlorobenzene	< 0.5
1,1,1-Trichloroethane	< 0.5
1,1,2-Trichloroethane	< 0.5
Trichloroethene	< 0.5
Trichlorofluoromethane	< 1.0
1,2,3-Trichloropropane	< 0.5
1,2,4-Trimethylbenzene	< 0.5
1,3,5-Trimethylbenzene	< 0.5
Vinyl Chloride	< 0.5
Xylenes, Total	< 1.0
Bromodichloromethane	< 0.5
Bromoform	< 0.5
Chloroform	< 0.5
Dibromochloromethane	< 0.5
Total Trihalomethanes	< 0.5
Surrogate 1	107.%
Surrogate 2	102.%
UIP's	0.

43627

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(802) 879-4333

#795666 Special Reporting Instructions:

Project Name: LAKE CARMI MOBIL	Reporting Address: GRIFFIN	Billing Address: GRIFFIN
Endyne Order ID: (Lab Use Only) 12088 / -O / -I / -S	Company: Contact Name/Phone #: CHRIS WARD	Sampler Name: Phone #: DON TOCKARCHEW

Ref # (Lab Use Only)	Sample Identification	Matrix	GRAB	COMP	Date/Time 4-20-01	Sample Containers No.	Sample Containers Type/Size	Field Results/Remarks	Analysis Required	Sample Preservation	Rush
172215	CHURCH SUPPLY WELL	H_2O	X		10:02	2	40ml		524.2	HCL	
216	LAGRAW SUPPLY WELL	H_2O	X		10:22	2	40ml		524.2	HCL	

Relinquished by:	Date/Time	Received by:	Date/Time	Received by:	Date/Time
[signature]	4/20/01 15:50	Melissa Salmon	4/23/01 9:25AM	Aflorucci	4-23-01 9:50

New York State Project: Yes _____ No ✓

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Sulfate	21	1664 TPH/FOG	26	8270 PAH
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	8015 GRO	27	PP13 Metals
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	8015 DRO	28	RCRA8 Metals
4	Nitrite N	9	BOD	14	Turbidity	19	8021B	24	8260/8260B	29	
5	Nitrate N	10	Alkalinity	15	Conductivity	20	8010/8020	25	8270 B/N or Acid	30	

31 Metals (As Is, Total, Diss.) Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Tl, V, Zn

32 TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides) 33

34 Other

LAB USE ONLY
Delivery: Client
Temp: COOL
Comment:

(White, Yellow, Pink Copy - Laboratory / Goldenrod Copy - Client)

APPENDIX G

Geraw / Store Supply Well Summary Table and Laboratory Reports

Griffin International, Inc.

Geraw/Mobil Supply Well Water Quality (Influent)

Lake Carmi Mobil
East Franklin, VT

Sample Date:	7/19/1994	4/24/1995	9/19/1995	1/17/1996	2/26/1996	3/13/1996	3/26/1996	4/8/1996	4/24/1996	5/6/1996
Analytical Method:	602	602	602	602	602	602	602	602	602	602
PARAMETER Laboratory:	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne
Benzene	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	TBQ(1)	TBQ(1)	ND(1)	ND(1)	TBQ(1)
Toluene	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
Ethylbenzene	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
Xylenes	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
Total BTEX	ND	ND	ND	ND	ND	TBQ	TBQ	ND	ND	TBQ
MTBE	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
1,2,-Dichloroethane										
1,3,5-Trimethylbenzene										
1,2,4-Trimethylbenzene										
Naphthalene										
Total Targeted VOCs	ND	ND	ND	ND	ND	TBQ	TBQ	ND	ND	TBQ

Sample Date:	5/20/1996	6/6/1996	6/19/1996	6/26/1996	7/15/1996	9/17/1996	10/16/1996	11/12/1996	12/18/1996	1/20/1997
Analytical Method:	602	602	602	602 by 8260	602	602	602	602	602	602
PARAMETER Laboratory:	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne
Benzene	ND(1)	TBQ(1)	TBQ(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
Toluene	ND(1)	ND(1)	ND(1)	ND(2)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	TBQ(1)
Ethylbenzene	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
Xylenes	ND(1)	ND(1)	ND(1)	ND(3)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
Total BTEX	ND	TBQ	TBQ	ND	ND	ND	ND	ND	ND	TBQ
MTBE	ND(10)	ND(10)	ND(10)	ND(3)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
1,2,-Dichloroethane										
1,3,5-Trimethylbenzene										
1,2,4-Trimethylbenzene										
Naphthalene										
Total Targeted VOCs	ND	TBQ	TBQ	ND	ND	ND	ND	ND	ND	TBQ

Sample Date:	2/21/1997	3/19/1997	4/18/1997	5/23/1997	6/19/1997	7/22/1997	8/14/1997	9/4/1997	10/13/1997	11/7/1997
Analytical Method:	602	602	602	602	602	602	524.2	602	524.2	524.2
PARAMETER Laboratory:	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne
Benzene	1.9	1.0	TBQ(1)	1.8	TBQ(1)	1.2	0.7	TBQ(1)	TBQ(0.5)	0.7
Toluene	2.0	TBQ(1)	ND(1)	TBQ(1)	ND(1)	ND(1)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)
Ethylbenzene	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)
Xylenes	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.0)	ND(1)	ND(1.0)	ND(1.0)
Total BTEX	3.9	1.0	TBQ	1.8	TBQ	1.2	0.7	TBQ	TBQ	0.7
MTBE	ND(10)	ND(10)	ND(10)	ND(10)	TBQ(10)	ND(10)	ND(1.0)	ND(10)	ND(1.0)	ND(1.0)
1,2,-Dichloroethane							ND(0.5)		ND(0.5)	ND(0.5)
1,3,5-Trimethylbenzene										
1,2,4-Trimethylbenzene										
Naphthalene										
Total Targeted VOCs	3.9	1.0	TBQ	1.8	TBQ	1.2	0.7	TBQ	TBQ	0.7

Sample Date:	12/10/1997	1/7/1998	2/5/1998	3/3/1998	4/21/1998	5/19/1998	6/16/1998	7/24/1998	8/21/1998	9/17/1998
Analytical Method:	524.2	524.2	602	524.2	602	524.2	602	602	602	8021B
PARAMETER Laboratory:	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne
Benzene	ND(0.5)	2.6	ND(1)	0.9	TBQ(1)	ND(0.5)	ND(1)	ND(1)	1.5	ND(1)
Toluene	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(1)	ND(0.5)	ND(1)	ND(1)	ND(1)	ND(1)
Ethylbenzene	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(1)	ND(0.5)	ND(1)	ND(1)	ND(1)	ND(1)
Xylenes	ND(1.0)	ND(1.0)	ND(1)	ND(1.0)	ND(1)	ND(1.0)	ND(1)	ND(1)	ND(1)	ND(1)
Total BTEX	ND	2.6	ND	0.9	TBQ	ND	ND	ND	1.5	ND
MTBE	ND(1.0)	ND(1.0)	ND(10)	ND(1.0)	ND(10)	ND(1.0)	ND(10)	ND(10)	ND(10)	ND(10)
1,2,-Dichloroethane	ND(0.5)	0.8		0.7		ND(0.5)				
1,3,5-Trimethylbenzene										
1,2,4-Trimethylbenzene										ND(1)
Naphthalene										ND(1)
Total Targeted VOCs	ND	3.4	ND	1.6	TBQ	ND	ND	ND	1.5	ND(1)
										ND

Sample Date:	10/22/1998	11/17/1998	12/8/1998	1/20/1999	2/18/1999	3/18/1999	4/28/1999	6/3/1999	7/14/1999	8/3/1999
Analytical Method:	8021B	602	602	602	602	602	602	602	602	8021B
PARAMETER Laboratory:	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne	Endyne
Benzene	ND(1)	ND(1)	ND(1)	TBQ(1)	3.4	1.3	4.7	ND(1)	5.0	6.0
Toluene	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
Ethylbenzene	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
Xylenes	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
Total BTEX	ND	ND	ND	TBQ	3.4	1.3	4.7	ND	5.0	6.0
MTBE	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
1,2,-Dichloroethane										
1,3,5-Trimethylbenzene	ND(1)									
1,2,4-Trimethylbenzene	ND(1)									ND(1)
Naphthalene	ND(1)									ND(1)
Total Targeted VOCs	ND	ND	ND	TBQ	3.4	1.3	4.7	ND	5.0	ND(1)
										6.0

Griffin International, Inc.

Geraw/Mobil Supply Well Water Quality (Influent)

Lake Carmi Mobil
East Franklin, VT

Sample Date: / Analytical Method: / PARAMETER / Laboratory:	8/17/1999 524.2 Endyne	10/22/1999 8021B Endyne	12/10/1999 8021B Endyne	3/8/2000 8021B Endyne	4/12/2000 8021B Endyne	6/15/2000 8021B Endyne	8/4/2000 8021B by 8260 Endyne	8/31/2000 8021B Endyne	10/4/2000 524.2 Endyne	10/31/2000 524.2 Endyne
Benzene	**10.6**	**5.9**	**4.7**	**1.5**	**5.7**	**6.3**	**2.7**	**2.0**	**1.8**	**1.4**
Toluene	ND(0.5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)	ND(0.5)	ND(0.5)
Ethylbenzene	ND(0.5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)	ND(0.5)	ND(0.5)
Xylenes	ND(1.0)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.0)	ND(2.0)	ND(1.0)	ND(1.0)	ND(1.0)
Total BTEX	**10.6**	**5.9**	**4.7**	**1.5**	**5.7**	**6.3**	**2.7**	**2.0**	**1.8**	**1.4**
MTBE	ND(1.0)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10.0)	ND(2.0)	ND(10.0)	ND(1.0)	ND(1.0)
1,2,-Dichloroethane	**1.1**								**1.8**	**0.6**
1,3,5-Trimethylbenzene	ND(0.5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)	ND(0.5)	ND(0.5)
1,2,4-Trimethylbenzene	ND(0.5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.0)	ND(1.0)	ND(1.0)	ND(0.5)	ND(0.5)
Naphthalene	ND(1.0)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1.0)	ND(2.0)	ND(1.0)	ND(1.0)	ND(1.0)
Total Targeted VOCs	**11.7**	**5.9**	**4.7**	**1.5**	**5.7**	**6.3**	**2.7**	**2.0**	**3.6**	**2.0**

Sample Date: / Analytical Method: / PARAMETER / Laboratory:	12/13/2000 524.2 Endyne	1/23/2001 524.2 Endyne	4/6/2001 524.2 Endyne					VAL (ppb)	VHA (ppb)	MCL (ppb)
Benzene	**3.8**	**5.0**	**1.2**					1.	-	5.
Toluene	ND(0.5)	ND(0.5)	ND(0.5)					-	-	1,000.
Ethylbenzene	ND(0.5)	ND(0.5)	ND(0.5)					-	-	700.
Xylenes	ND(1.0)	ND(1.0)	ND(1.0)					-	-	10,000.
Total BTEX	**3.8**	**5.0**	**1.2**						-	-
MTBE	ND(1.0)	ND(1.0)	ND(1.0)					-	40.	-
1,2,-Dichloroethane	**1.6**	**1.8**	**0.9**					0.5	-	5.
1,3,5-Trimethylbenzene	ND(0.5)	ND(0.5)	ND(0.5)					-	4.	-
1,2,4-Trimethylbenzene	ND(0.5)	ND(0.5)	ND(0.5)					-	5.	-
Naphthalene	ND(1.0)	ND(1.0)	ND(1.0)					-	20.	-
Total Targeted VOCs	**5.4**	**6.8**	**2.1**					-	-	-

Only previously detected compounds and the compounds targeted by EPA Method 8021B are included in the table.
All Values Reported in ug/L (ppb)
ND(1) - None Detected above Detection Limit (Detection Limit)
TBQ(1) - Trace Below Quantitation Limit (Quantitation Limit)
Detections are **bolded**.
Blank cell - not analyzed
VAL- Vermont Action Level, *Vermont Department of Health Drinking Water Guidance*, May 2001
VHA - Vermont Health Advisory, *Vermont Department of Health Drinking Water Guidance*, May 2001
MCL - EPA Maximum Contaminant Level, *Vermont Department of Health Drinking Water Guidance*, May 2001
> applicable standard

ENDYNE, INC.

Laboratory Services

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

LABORATORY REPORT

Griffin International
PO Box 943
Williston, VT 05495
Attn: Chris Ward

PROJECT: Lake Carmi Mobil/995666
ORDER ID: 11878
RECEIVE DATE: April 9, 2001
REPORT DATE: April 17, 2001

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Different groups of analyses may be reported under separate cover.

All samples were prepared and analyzed by requirements outlined in the referenced methods and within the specified holding times.

All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced methods.

Blank contamination was not observed at levels affecting the analytical results.

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

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

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ENDYNE, INC.

Laboratory Services

160 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
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LABORATORY REPORT

EPA 524.2

CLIENT: Griffin International
PROJECT: Lake Carmi Mobil/995666
SITE: Geraw Effluent
DATE RECEIVED: April 9, 2001
REPORT DATE: April 17, 2001
ANALYSIS DATE: April 15, 2001

ORDER ID: 11878
REFERENCE NUMBER: 171319
DATE SAMPLED: April 6, 2001
TIME SAMPLED: 10:44 AM
SAMPLER: DT
ANALYST: 917

Parameter	Result ug/L
Benzene	< 0.5
Bromobenzene	< 0.5
Bromochloromethane	< 0.5
Bromomethane	< 0.5
n-Butylbenzene	< 0.5
sec-Butylbenzene	< 0.5
tert-Butylbenzene	< 0.5
Carbon tetrachloride	< 0.5
Chlorobenzene	< 0.5
Chloroethane	< 0.5
Chloromethane	< 0.5
2-Chlorotoluene	< 1.0
4-Chlorotoluene	< 1.0
Dibromomethane	< 1.0
1,2-Dichlorobenzene	< 0.5
1,3-Dichlorobenzene	< 0.5
1,4-Dichlorobenzene	< 0.5
Dichlorodifluoromethane	< 0.5
1,1-Dichloroethane	< 0.5
1,2-Dichloroethane	< 0.5
1,1-Dichloroethene	< 0.5
cis-1,2-Dichloroethene	< 0.5
trans-1,2-Dichloroethene	< 0.5
Dichloromethane	< 1.0
1,2-Dichloropropane	< 0.5
1,3-Dichloropropane	< 0.5
2,2-Dichloropropane	< 0.5
1,1-Dichloropropene	< 0.5
cis-1,3-Dichloropropene	< 0.5
trans-1,3-Dichloropropene	< 0.5
Ethylbenzene	< 0.5

Parameter	Result ug/L
Hexachlorobutadiene	< 0.5
Isopropylbenzene	< 0.5
4-Isopropyltoluene	< 0.5
MTBE	< 1.0
Naphthalene	< 1.0
n-Propylbenzene	< 0.5
Styrene	< 0.5
1,1,1,2-Tetrachloroethane	< 0.5
1,1,2,2-Tetrachloroethane	< 1.0
Tetrachloroethene	< 0.5
Toluene	< 0.5
1,2,3-Trichlorobenzene	< 0.5
1,2,4-Trichlorobenzene	< 0.5
1,1,1-Trichloroethane	< 0.5
1,1,2-Trichloroethane	< 0.5
Trichloroethene	< 0.5
Trichlorofluoromethane	< 1.0
1,2,3-Trichloropropane	< 0.5
1,2,4-Trimethylbenzene	< 0.5
1,3,5-Trimethylbenzene	< 0.5
Vinyl Chloride	< 0.5
Xylenes, Total	< 1.0
Bromodichloromethane	< 0.5
Bromoform	< 0.5
Chloroform	< 0.5
Dibromochloromethane	< 0.5
Total Trihalomethanes	< 0.5
Surrogate 1	101.%
Surrogate 2	94.%
UIP's	0.

ENDYNE, INC.

Laboratory Services

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

LABORATORY REPORT

EPA 524.2

CLIENT: Griffin International
PROJECT: Lake Carmi Mobil/995666
SITE: Geraw Mid
DATE RECEIVED: April 9, 2001
REPORT DATE: April 17, 2001
ANALYSIS DATE: April 15, 2001

ORDER ID: 11878
REFERENCE NUMBER: 171320
DATE SAMPLED: April 6, 2001
TIME SAMPLED: 10:46 AM
SAMPLER: DT
ANALYST: 917

Parameter	Result ug/L
Benzene	< 0.5
Bromobenzene	< 0.5
Bromochloromethane	< 0.5
Bromomethane	< 0.5
n-Butylbenzene	< 0.5
sec-Butylbenzene	< 0.5
tert-Butylbenzene	< 0.5
Carbon tetrachloride	< 0.5
Chlorobenzene	< 0.5
Chloroethane	< 0.5
Chloromethane	< 0.5
4-Chlorotoluene	< 1.0
2-Chlorotoluene	< 1.0
Dibromomethane	< 1.0
1,2-Dichlorobenzene	< 0.5
1,3-Dichlorobenzene	< 0.5
1,4-Dichlorobenzene	< 0.5
Dichlorodifluoromethane	< 0.5
1,1-Dichloroethane	< 0.5
1,2-Dichloroethane	< 0.5
1,1-Dichloroethene	< 0.5
cis-1,2-Dichloroethene	< 0.5
trans-1,2-Dichloroethene	< 0.5
Dichloromethane	< 1.0
1,2-Dichloropropane	< 0.5
1,3-Dichloropropane	< 0.5
2,2-Dichloropropane	< 0.5
1,1-Dichloropropene	< 0.5
cis-1,3-Dichloropropene	< 0.5
trans-1,3-Dichloropropene	< 0.5
Ethylbenzene	< 0.5

Parameter	Result ug/L
Hexachlorobutadiene	< 0.5
Isopropylbenzene	< 0.5
4-Isopropyltoluene	< 0.5
MTBE	< 1.0
Naphthalene	< 1.0
n-Propylbenzene	< 0.5
Styrene	< 0.5
1,1,1,2-Tetrachloroethane	< 0.5
1,1,2,2-Tetrachloroethane	< 1.0
Tetrachloroethene	< 0.5
Toluene	< 0.5
1,2,3-Trichlorobenzene	< 0.5
1,2,4-Trichlorobenzene	< 0.5
1,1,1-Trichloroethane	< 0.5
1,1,2-Trichloroethane	< 0.5
Trichloroethene	< 0.5
Trichlorofluoromethane	< 1.0
1,2,3-Trichloropropane	< 0.5
1,2,4-Trimethylbenzene	< 0.5
1,3,5-Trimethylbenzene	< 0.5
Vinyl Chloride	< 0.5
Xylenes, Total	< 1.0
Bromodichloromethane	< 0.5
Bromoform	< 0.5
Chloroform	< 0.5
Dibromochloromethane	< 0.5
Total Trihalomethanes	< 0.5
Surrogate 1	97.%
Surrogate 2	96.%
UIP's	0.

ENDYNE, INC.

Laboratory Services

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Williston, Vermont 05495
(802) 879-4333
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LABORATORY REPORT

EPA 524.2

CLIENT: Griffin International
PROJECT: Lake Carmi Mobil/995666
SITE: Geraw Influent
DATE RECEIVED: April 9, 2001
REPORT DATE: April 17, 2001
ANALYSIS DATE: April 15, 2001

ORDER ID: 11878
REFERENCE NUMBER: 171321
DATE SAMPLED: April 6, 2001
TIME SAMPLED: 10:48 AM
SAMPLER: DT
ANALYST: 917

Parameter	Result ug/L
Benzene	1.2
Bromobenzene	< 0.5
Bromochloromethane	< 0.5
Bromomethane	< 0.5
n-Butylbenzene	< 0.5
sec-Butylbenzene	< 0.5
tert-Butylbenzene	< 0.5
Carbon tetrachloride	< 0.5
Chlorobenzene	< 0.5
Chloroethane	< 0.5
Chloromethane	< 0.5
4-Chlorotoluene	< 1.0
2-Chlorotoluene	< 1.0
Dibromomethane	< 1.0
1,2-Dichlorobenzene	< 0.5
1,3-Dichlorobenzene	< 0.5
1,4-Dichlorobenzene	< 0.5
Dichlorodifluoromethane	< 0.5
1,1-Dichloroethane	< 0.5
1,2-Dichloroethane	0.9
1,1-Dichloroethene	< 0.5
cis-1,2-Dichloroethene	< 0.5
trans-1,2-Dichloroethene	< 0.5
Dichloromethane	< 1.0
1,2-Dichloropropane	< 0.5
1,3-Dichloropropane	< 0.5
2,2-Dichloropropane	< 0.5
1,1-Dichloropropene	< 0.5
cis-1,3-Dichloropropene	< 0.5
trans-1,3-Dichloropropene	< 0.5
Ethylbenzene	< 0.5

Parameter	Result ug/L
Hexachlorobutadiene	< 0.5
Isopropylbenzene	< 0.5
4-Isopropyltoluene	< 0.5
MTBE	< 1.0
Naphthalene	< 1.0
n-Propylbenzene	< 0.5
Styrene	< 0.5
1,1,1,2-Tetrachloroethane	< 0.5
1,1,2,2-Tetrachloroethane	< 1.0
Tetrachloroethene	< 0.5
Toluene	< 0.5
1,2,3-Trichlorobenzene	< 0.5
1,2,4-Trichlorobenzene	< 0.5
1,1,1-Trichloroethane	< 0.5
1,1,2-Trichloroethane	< 0.5
Trichloroethene	< 0.5
Trichlorofluoromethane	< 1.0
1,2,3-Trichloropropane	< 0.5
1,2,4-Trimethylbenzene	< 0.5
1,3,5-Trimethylbenzene	< 0.5
Vinyl Chloride	< 0.5
Xylenes, Total	< 1.0
Bromodichloromethane	< 0.5
Bromoform	< 0.5
Chloroform	< 0.5
Dibromochloromethane	< 0.5
Total Trihalomethanes	< 0.5
Surrogate 1	94.%
Surrogate 2	95.%
UIP's	0.

160 James Brown Drive
Williston, Vermont 05495
(802) 879-4333

#995666 Special Reporting Instructions:

43276

Project Name: LAKE CARMI MOBILE	Reporting Address: GRIFFIN	Billing Address: GRIFFIN
Endyne Order ID: (Lab Use Only) 11878 — 1-O, -I, -S	Company: Contact Name/Phone #: CHRIS WARD	Sampler Name: Phone #: DON TOURANGEAU

Ref # (Lab Use Only)	Sample Identification	Matrix	GRAB	COMP	Date/Time 4-6-01	Sample Containers No.	Sample Containers Type/Size	Field Results/Remarks	Analysis Required	Sample Preservation	Rush
171319	GREAU-EFFLUENT	H2O	X		10:44	2	40mL		524.2	HCL	
171320	GREAU-MID	↓	↓		10:46	↓	↓		↓	↓	
171321	GREAU-INFLUENT	↓	↓		10:48	↓	↓		↓	↓	

Relinquished by:	Date/Time	Received by:	Date/Time	Received by:	Date/Time
[illegible]	4/6/01 13:47	Melissa Salmons	4/9/01 9:40AM	[illegible]	4-9-01 10:05

New York State Project: Yes _____ No X

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Sulfate	21	1664 TPH/FOG	26	8270 PAH
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	8015 GRO	27	PP13 Metals
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	8015 DRO	28	RCRA8 Metals
4	Nitrite N	9	BOD	14	Turbidity	19	8021B	24	8260/8260B	29	
5	Nitrate N	10	Alkalinity	15	Conductivity	20	8010/8020	25	8270 B/N or Acid	30	

31 Metals (As is, Total, Diss.) Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Tl, V, Zn

32 TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides) 33

34 Other

LAB USE ONLY
Delivery: Client
Temp:
Comment:

(White, Yellow, Pink Copy - Laboratory / Goldenrod Copy - Client)

APPENDIX H

East Franklin Union Church Supply Well Summary Table and Laboratory Reports

Griffin International, Inc.

East Franklin Union Church
Supply Well Water Quality

Lake Carmi Mobil
East Franklin, VT

Sample Date: / Analytical Method: / PARAMETER / Laboratory:	10/31/2000 524.2 Endyne	11/16/2000 524.2 Endyne	12/13/2000 524.2 Endyne	1/23/2001 524.2 Endyne	4/20/2001 524.2 Endyne					VAL (ppb)	VHA (ppb)	MCL (ppb)
Benzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)					1.	-	5.
Toluene	**1.7**	**1.0**	ND(0.5)	ND(0.5)	ND(0.5)					-	-	1,000.
Ethylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)					-	-	700.
Xylenes	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)					-	-	10,000.
Total BTEX	**1.7**	**1.0**	ND	ND	ND						-	-
MTBE	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)					-	40.	-
1,2,-Dichloroethane	**4.0**	**5.7**	**3.1**	**3.7**	**3.7**					0.5	-	5.
1,3,5-Trimethylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)					-	4.	-
1,2,4-Trimethylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)					-	5.	-
Naphthalene	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)					-	20.	-
Total Targeted VOCs	**5.7**	**6.7**	**3.1**	**3.7**	**3.7**					-	-	-

Analytical Method:				3113B							(ppb)	
Total Lead				ND(2)							15.	

Only previously detected compounds and the compounds targeted by EPA Method 8021B are included in the table.
All Values Reported in ug/L (ppb)
ND(1) - None Detected above Detection Limit (Detection Limit)
TBQ(1) - Trace Below Quantitation Limit (Quantitation Limit)
Detections are **bolded.**
Blank cell - not analyzed
VAL- Vermont Action Level, *Vermont Department of Health Drinking Water Guidance*, May 2001
VHA - Vermont Health Advisory, *Vermont Department of Health Drinking Water Guidance*, May 2001
MCL - EPA Maximum Contaminant Level, *Vermont Department of Health Drinking Water Guidance*, May 2001
> applicable standard

ENDYNE, INC.

Laboratory Services

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

LABORATORY REPORT

Griffin International
PO Box 943
Williston, VT 05495
Attn: Chris Ward

PROJECT: Lake Carmi Mobil/995666
ORDER ID: 12088
RECEIVE DATE: April 23, 2001
REPORT DATE: May 7, 2001

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Different groups of analyses may be reported under separate cover.

All samples were prepared and analyzed by requirements outlined in the referenced methods and within the specified holding times.

All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced methods.

Blank contamination was not observed at levels affecting the analytical results.

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

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

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ENDYNE, INC.

Laboratory Services

160 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
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LABORATORY REPORT

EPA 524.2

CLIENT: Griffin International
PROJECT: Lake Carmi Mobil/995666
SITE: Church Supply Well
DATE RECEIVED: April 23, 2001
REPORT DATE: May 7, 2001
ANALYSIS DATE: May 2, 2001

ORDER ID: 12088
REFERENCE NUMBER: 172215
DATE SAMPLED: April 20, 2001
TIME SAMPLED: 10:02 AM
SAMPLER: DT
ANALYST: 725

Parameter	Result ug/L
Benzene	< 0.5
Bromobenzene	< 0.5
Bromochloromethane	< 0.5
Bromomethane	< 0.5
n-Butylbenzene	< 0.5
sec-Butylbenzene	< 0.5
tert-Butylbenzene	< 0.5
Carbon tetrachloride	< 0.5
Chlorobenzene	< 0.5
Chloroethane	< 0.5
Chloromethane	< 0.5
2-Chlorotoluene	< 1.0
4-Chlorotoluene	< 1.0
Dibromomethane	< 1.0
1,2-Dichlorobenzene	< 0.5
1,3-Dichlorobenzene	< 0.5
1,4-Dichlorobenzene	< 0.5
Dichlorodifluoromethane	< 0.5
1,1-Dichloroethane	< 0.5
1,2-Dichloroethane	3.7
1,1-Dichloroethene	< 0.5
cis-1,2-Dichloroethene	< 0.5
trans-1,2-Dichloroethene	< 0.5
Dichloromethane	< 1.0
1,2-Dichloropropane	< 0.5
1,3-Dichloropropane	< 0.5
2,2-Dichloropropane	< 0.5
1,1-Dichloropropene	< 0.5
cis-1,3-Dichloropropene	< 0.5
trans-1,3-Dichloropropene	< 0.5
Ethylbenzene	< 0.5

Parameter	Result ug/L
Hexachlorobutadiene	< 0.5
Isopropylbenzene	< 0.5
4-Isopropyltoluene	< 0.5
MTBE	< 1.0
Naphthalene	< 1.0
n-Propylbenzene	< 0.5
Styrene	< 0.5
1,1,1,2-Tetrachloroethane	< 0.5
1,1,2,2-Tetrachloroethane	< 1.0
Tetrachloroethene	< 0.5
Toluene	< 0.5
1,2,3-Trichlorobenzene	< 0.5
1,2,4-Trichlorobenzene	< 0.5
1,1,1-Trichloroethane	< 0.5
1,1,2-Trichloroethane	< 0.5
Trichloroethene	< 0.5
Trichlorofluoromethane	< 1.0
1,2,3-Trichloropropane	< 0.5
1,2,4-Trimethylbenzene	< 0.5
1,3,5-Trimethylbenzene	< 0.5
Vinyl Chloride	< 0.5
Xylenes, Total	< 1.0
Bromodichloromethane	< 0.5
Bromoform	< 0.5
Chloroform	< 0.5
Dibromochloromethane	< 0.5
Total Trihalomethanes	< 0.5
Surrogate 1	100.%
Surrogate 2	97.%
UIP's	0.

43627

160 James Brown Drive
Williston, Vermont 05495
(802) 879-4333

#995666 Special Reporting Instructions:

Project Name: LAKE CARMI MOBIL	Reporting Address: GRIFFIN	Billing Address: GRIFFIN
Endyne Order ID: (Lab Use Only) 12088 — 1 -O, -I, -S	Company: Contact Name/Phone #: CHRIS WARD	Sampler Name: Phone #: DON TOURANGEAU

Ref # (Lab Use Only)	Sample Identification	Matrix	GRAB	COMP	Date/Time 4-20-01	Sample Containers No.	Sample Containers Type/Size	Field Results/Remarks	Analysis Required	Sample Preservation	Rush
172215	CHURCH SUPPLY WELL	H_2O	X		10:02	2	40ml		524.2	HCL	
216	LAGROW SUPPLY WELL	H_2O	X		10:22	2	40ml		524.2	HCL	

Relinquished by:	Date/Time	Received by:	Date/Time	Received by:	Date/Time
[illegible signature]	4/20/01 15:50	Melissa Salmon	4/23/01 9:25am	Aflorucci	4-23-01 9:50

New York State Project: Yes ____ No X

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Sulfate	21	1664 TPH/FOG	26	8270 PAH
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	8015 GRO	27	PP13 Metals
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	8015 DRO	28	RCRA8 Metals
4	Nitrite N	9	BOD	14	Turbidity	19	8021B	24	8260/8260B	29	
5	Nitrate N	10	Alkalinity	15	Conductivity	20	8010/8020	25	8270 B/N or Acid	30	

31 Metals (As Is, Total, Diss.) Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Tl, V, Zn

32 TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides) 33

34 Other

LAB USE ONLY
Delivery: Client
Temp: COOL
Comment:

(White, Yellow, Pink Copy - Laboratory / Goldenrod Copy - Client)