

THE JOHNSON COMPANY, INC.

Environmental Sciences and Engineering

March 17, 1993

Mr. Charles Schwer
Division of Waste Management
Agency of Natural Resources
103 South Main Street/West Building
Waterbury, Vermont 05676

Re: Report of Phase III Investigations at
Miles Lumber Company, Arlington, Vermont
JCO #1-0426-1 (042)

Dear Mr. Schwer:

We are writing to transmit the report of the Phase III Investigations conducted recently at Miles Lumber Company in Arlington, Vermont.

Please feel free to contact this office with any questions that arise.

Sincerely Yours,

THE JOHNSON COMPANY, INC.

By: 

Karl H. Johnson
Senior Engineer - Project Manager

Reviewed by: HEH
I:\PROJECTS\1-0426-1\JC_SCHWR2.LTR March 17, 1993 16:39pm khj

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EXECUTIVE SUMMARY

The Phase III investigations were conducted as described in the Work Plan. Soil Borings were advanced and monitoring wells were established at each location where the water table was encountered. A total of seven (7) locations were investigated and six (6) monitoring wells were established in the UST Area. Four (4) locations were investigated with soil borings, and no groundwater was contacted in the Spill Area. Three (3) locations were investigated in the TCE Area: the underdrain from the 30,000 gallon #2 fuel oil underground storage tank (UST) was re-sampled; two (2) soil borings were performed and groundwater monitoring wells were constructed at both boring locations.

Soil samples were evaluated from each soil boring location using field headspace techniques. A soil sample was collected from the location of the highest field readings in the Spill Area (SB-203) for lab analysis by EPA Method 418.1. Groundwater samples were obtained from each of the monitoring wells that had water (MW-107 had no water) in the UST Area and the TCE Area. Analyses for BTEX and MTBE were performed on the sample from the UST Area by EPA Method 8020, the sample from the underdrain was analyzed by EPA Method 8240, and the samples from the two monitoring wells in the TCE area were analyzed by EPA Method 8010 for TCE, only.

The laboratory analysis of the soil sample from the Spill Area reported concentrations of 490 ppM TPH. The analyses of groundwater samples from the UST Area indicated that concentrations of contaminants decreased in the down-gradient direction. The results of the analyses of groundwater samples from the TCE Area indicate that the contamination seems to be associated with the 30,000 UST, or the fill in the vicinity of the tank. Concentrations are highest (24 ppB) in the underdrain (location 301) and lowest in the most up-gradient well (MW-303). Interestingly, TCE was the only contaminant detected in these samples by EPA Method 8240.

Three additional rounds of sampling and analyses of groundwater from wells MW-1, MW-104, and MW-106 for BTEX by EPA Method 8020 is recommended in the UST Area, during approximately the first week of the month of June, September and December, 1993. No further action is recommended in the Spill Area. Additional sampling and analyses of water from the underdrain for the 30,000 gallon fuel oil UST and flow gauging of the underdrain is recommended in the TCE Area, on the same schedule as the sampling in the UST Area. Water level measurement from all groundwater monitoring wells on the site, contemporaneously with the sampling, is also recommended.

1.0 INTRODUCTION

This report is written to document the findings of the Phase III Investigations conducted at Miles Lumber Company in Arlington, Vermont by The Johnson Company, Inc., between February 23 and February 25, 1993. These investigations were conducted at the request of the State of Vermont, Agency of Natural Resources, Department of Environmental Conservation, Hazardous Materials Management Division, Sites Management Section (SMS), by letter dated February 15, 1993 to Miles (c/o Kevin Dailey, Esq.) from Mr. Charles Schwer. A Work Plan was prepared in response to the SMS' request for additional investigations. A copy of the February 15 letter, the letter comprising the Work Plan, the SMS' comments on the Work Plan and Miles' response to those comments are included here as Attachment A.

2.0 PREVIOUS INVESTIGATIONS

Level I & II Environmental Site Assessment (ESA) investigations documented the presence of petroleum related contamination that is believed to be associated with the location of a former gasoline underground storage tank (UST) in the soils and groundwater in front of Miles Lumber Company retail hardware store on Chittenden Avenue - the UST Area; in the vicinity of a reported overfill of an aboveground storage tank involving #2 fuel oil - the Spill Area; and the presence of TCE in the water flowing from an underdrain that is located beneath the 30,000 gallon #2 fuel oil storage tank - the TCE Area. A summary of the findings of the previous investigations is presented here in the form of an adaptation of the Executive Summary from the ESA report.

3.0 ESA EXECUTIVE SUMMARY

The Johnson Company of Montpelier, Vermont was hired by The Miles Lumber Company (Miles) of Arlington, Vermont to perform a Level I and Level II ESA. Miles' property is located east of the Vermont Railroad tracks and on both sides of Chittenden Avenue in Arlington, Vermont. Miles currently retails fuel oil, kerosene, hardware, and other building supplies as well as performing mill work on lumber products. Miles was incorporated in 1942. Portions of the site near the railroad were involved in an active coal dealership in the 1930s and 1940s. The balance of the site was used in the retailing of grain and lumber from the 1920s-1940s.

Level I investigations indicated the presence of a 22-year old, 30,000 gallon underground #2 fuel oil storage tank that is still in service; the previous removal (from the same location) of two chronologically sequential underground gasoline storage tanks and piping (the original one was removed in approximately 1984, and the other replacement tank in approximately 1986); and two reported spills of petroleum products, one in 1988 (a 140 gallon overfill of #2 fuel oil) and one in 1992 (a spill involving one quart of kerosene).

A Level II ESA was recommended by The Johnson Company due to the potential for a release of hazardous materials and/or petroleum products, and the reported releases of petroleum products.

Level II activities included advancement of five soil borings using hollow stem augers. The construction of two monitoring wells was completed after encountering groundwater in both the third and fourth soil boring. After completion of Monitoring Well 1 (MW-1), it was discovered that the well was located on property owned by the State of Vermont as part of the right-of-way for the Vermont Railroad through Arlington, and not on Miles property as town tax maps indicated. The well is also located within the Town of Arlington right-of-way for Chittenden Avenue. Permission was obtained from the Town prior to installation of the well.

Field screening of soil samples using a calibrated Organic Vapor Meter (OVM) and the plastic bag headspace method¹ resulted in average readings from Soil Boring 1 (SB-1) at the location of the fuel oil overfill of 19 parts per million (ppM) from a sample taken at refusal, 2.5 feet below the ground surface (bgs). Average readings of 366 ppM from 5-7 feet bgs, 400 ppM from 7-9 feet bgs, and 200 ppM from water-saturated soils at refusal 10.5 feet bgs were recorded at MW-1 near the location of the historic underground gasoline storage tanks (USTs).

Soil samples were obtained from the borings in the UST and Spill Areas for laboratory analysis (EPA Method SW846 8015, modified) for Total Petroleum Hydrocarbons - Petroleum Fuels by Gas Chromatograph using a Flame Ionization Detector (TPH/GC-FID). This analysis was chosen in order to identify and quantify the relative concentrations of suspected petroleum product(s) and to estimate the relative age of the release(s).

Groundwater samples were obtained for analysis of Volatile Organic Chemicals (VOC) by EPA Method SW846 8240. This analytical method was chosen for the wide variety of compounds detectable, in an effort to identify contaminants not detected by TPH/GC-FID analyses that would potentially aid in source identification. Laboratory analyses of the soil samples indicated the presence of weathered #2 fuel oil or kerosene at SB-1 and the presence of weathered gasoline and/or #2 fuel oil in the soils at MW-1 based on comparisons with internal standards for these products. The laboratory analyses of groundwater samples

¹ The "plastic bag headspace method" is performed as follows: The soil sample to be analyzed is placed inside a re-closeable plastic bag, the bag is sealed, the sample is allowed to equilibrate at "room temperature" for several minutes (4-7), and then the tip of the field instrument is placed into the bag, and the average, sustained reading is recorded.

reported the presence of benzene, toluene, ethylbenzene and xylenes at MW-1 and ethylbenzene and xylenes in low concentrations at MW-2.

The presence of trichloroethylene (a chlorinated solvent) was also reported at a concentration of 19 parts per billion (ppB) in the sample obtained from the underdrain of the 30,000 gallon #2 fuel oil UST. No other compounds were reported above detectable concentrations at this location by EPA Method SW846 8240.

Contamination is present in the groundwater at this site at concentrations in excess of the Vermont Ground Water Protection Rule and Strategy's Enforcement Standards. The field headspace analyses indicated the presence of contaminants at levels that may require on-site treatment under the Interim Soil Guidelines and Treatment Options.

Additional investigations were recommended to determine if fuel oil contamination in excess of the Interim Soil Guidelines exists on-site. Investigations to confirm the presence of trichloroethene in the underdrain from the 30,000 gallon #2 fuel oil UST, and to ascertain the source, if it is present, were also recommended.

4.0 PHASE III INVESTIGATIONS

Each of the three Areas of Concern addressed in the Phase II Investigations are referenced as follows:

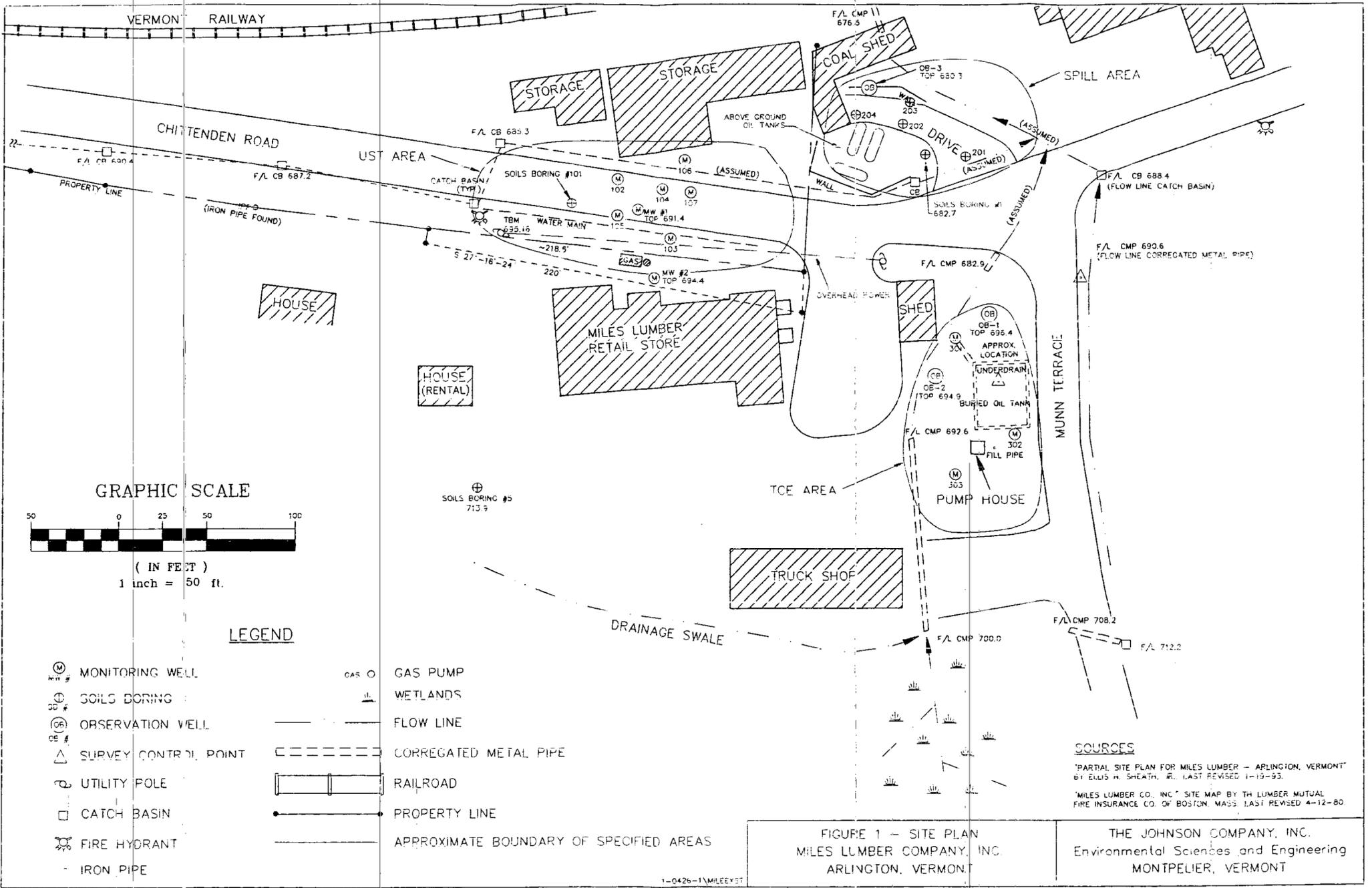
1. UST Area: Directly in front of Miles where the former gasoline UST installations were located
2. Spill Area: The location of the #2 fuel oil overfill near the Aboveground Storage Tank (AST) installation
3. TCE Area: The general vicinity of the 30,000 gallon #2 fuel oil UST

The locations of the additional investigations in each area were given numerical designations that allow for easy reference and identification: all locations investigated (soil boring, monitoring well, underdrain, etc.) in each of these areas were given numbers in sequence corresponding to their area designations beginning with "101" in the UST area, "201" in the Spill area, and "301" in the TCE area. Please see the site plan presented as Figure 1 to this report. A brief description of the investigations is given below, by area.

The Phase III investigations were conducted as described in the approved Work Plan, with the exception of slight modifications to some of the boring locations and the addition of two groundwater monitoring wells. Both of these modifications were contemplated in the Work Plan. These adjustments were made in the process of conducting the investigations and in response to the results of the field headspace analyses at the completed boring locations.

4.1 UST AREA

A total of seven locations were investigated in the UST Area, and groundwater monitoring wells were constructed after encountering water in six of the seven locations. No monitoring well was constructed in location 101, as auger refusal was encountered at 4.0 feet bgs, prior to contacting the water table. Field headspace analyses were conducted on soil samples from each boring location in the UST Area. Groundwater samples were obtained from the wells in this area for laboratory analysis for methyl-tert-butyl-ether (MTBE) and BTEX compounds (benzene, toluene, ethylbenzene, and xylenes) by EPA Method 8020.



GRAPHIC SCALE



(IN FEET)
1 inch = 50 ft.

LEGEND

- | | | | |
|--------|----------------------|-------|---|
| ⊙ MW # | MONITORING WELL | ⊙ GAS | GAS PUMP |
| ⊙ SB # | SOILS BORING | ⊙ | WETLANDS |
| ⊙ OB # | OBSERVATION WELL | --- | FLOW LINE |
| ⊙ | SURVEY CONTROL POINT | --- | CORROGATED METAL PIPE |
| ⊙ | UTILITY POLE | --- | RAILROAD |
| ⊙ | CATCH BASIN | --- | PROPERTY LINE |
| ⊙ | FIRE HYDRANT | --- | APPROXIMATE BOUNDARY OF SPECIFIED AREAS |
| ⊙ | IRON PIPE | | |

SOURCES

"PARTIAL SITE PLAN FOR MILES LUMBER - ARLINGTON, VERMONT" BY ELLIS H. SHEATH, JR. LAST REVISED 1-19-93.
"MILES LUMBER CO., INC." SITE MAP BY THE LUMBER MUTUAL FIRE INSURANCE CO. OF BOSTON, MASS. LAST REVISED 4-12-80.

FIGURE 1 - SITE PLAN
MILES LUMBER COMPANY, INC.
ARLINGTON, VERMONT

THE JOHNSON COMPANY, INC.
Environmental Sciences and Engineering
MONTPELIER, VERMONT

4.2 SPILL AREA

The four locations specified in the Work Plan were investigated with shallow borings (maximum depth 4.5 feet) in the Spill Area and no groundwater was encountered. Field headspace analyses were conducted on soil samples from each boring location in the Spill Area. One soil sample was collected from SB-203 for laboratory analysis for Total Petroleum Hydrocarbons by EPA Method 418.1.

4.3 TCE AREA

The water discharging from the underdrain, identified as location 301, was re-sampled. Two additional groundwater monitoring wells were established at locations 302 and 303 in the TCE area. Groundwater samples were obtained from the monitoring wells in this area for laboratory analysis by EPA Method 8010, and from the underdrain for analysis by EPA Method 8240.

5.0 SOIL BORINGS AND MONITORING WELL INSTALLATION

Between February 23-25, 1993, All Terrain Drilling (ATD) of Greenland, New Hampshire completed thirteen soil borings and constructed eight groundwater monitoring wells after encountering groundwater in eight of the soil borings. The borings were accomplished using a 4 1/4 inch inside diameter hollow stem auger and 2 inch diameter split spoon samplers. (ATD utilized both a 2.0 foot and a 1.5 foot split spoon samplers.) Sampling was conducted continuously. Recovery of soils in the samplers was generally poor throughout the site. Each split spoon sample was screened as described below, and photographed.

Groundwater monitoring wells were constructed of 2 inch inside diameter, threaded, flush-coupled PVC and #10 screens (generally 5 feet in length) placed to straddle the water table as encountered. Some screens were made shorter as a consequence of the limited depth of saturated soils. Decontamination of the drill rig was accomplished by steam cleaning between each location. Please see Attachment __ for copies of the drillers logs.

Flush-mounted well boxes were used due to the locations of the wells in heavily traveled areas of the site. Each well was also be equipped with a locking PVC plug. The top of the PVC casings of each well were surveyed to the nearest 0.05' by Ellis Speath Engineers of Manchester Center, Vermont.

6.0 PHASE III FINDINGS

The findings of the Phase III investigations are presented in the tables below. These tables are organized so that findings of the investigations for the UST Area are reported in Table 1, the findings for the Spill Area are reported in Table 2 and those for the TCE Area are reported in Table 3. Each table is divided

into sections A & B which present the results of Field Analysis and Laboratory Analysis, respectively.

The results of field headspace analyses of soil samples using the "plastic bag headspace method" are reported, by approximate depth, for each location investigated. The results of the laboratory analyses of groundwater samples is presented by well location.

TABLE 1A - SOILS
 UST AREA: OVM FIELD ANALYSIS RESULTS (ppM)

Location	SB-101	MW-102	MW-103	MW-104	MW-105	MW-106	MW-107
Feet bgs							
0.0							
0.5							
1.0							
1.5	<< FROST ZONE >>						
2.0							
2.5	0.0						
3.0							0.3
3.5	0.0			3.0	11		
4.0	R	1.8	19				
4.5						0.6	
5.0				nr	17		0.3
5.5		2.0	18				
6.0					100		
6.5						0.7	
7.0		2.0		1.1	25		5
7.5			10		H ₂ O		H ₂ O
8.0			H ₂ O				
8.5				10			
9.0		H ₂ O			5		
9.5						3.0	
10.0				550			
10.5				H ₂ O			
11.0						H ₂ O	
R	Refusal						
nr	no recovery						
bgs	below ground surface						

TABLE 1B - GROUNDWATER UST AREA: LABORATORY RESULTS (ppB)									
Locations > Compounds	SB-101	MW-102	MW-103	MW-104	MW-105	MW-106	MW-107	MW-1	MW-2
Benzene	No Well	<1 "	2 <1	<10 "	6 <1	2 <1	No H ₂ O	<50 <100	<1
Toluene		<1 1	1 <1	10 50	2 "	<1 "		300 160	<1
o-Xylene		<1 7	2 <1	170 280	4 "	<1 "		1400 900	<1
m-Xylene		<1 9	3 <1	490 760	63 120	<1 "		2900 190	<1
p-Xylene		<1 15	2 <1	360 610	33 63	<1 "		1300 100	<1
Ethylbenzene		<1 14	2 <1	310 480	33 21	<1 "		1300 910	<1
MTBE		<1 45	<1 <1	<10 100	<5 62	<1 "		<200 "	<1
Totals	---	---	12	1340	141	2	---	7200	---

TABLE 2A - SOILS SPILL AREA: OVM FIELD ANALYSIS RESULTS IN PPM				
Location >	SB-201	SB-202	SB-203	SB-204
Feet bgs	<< FROST ZONE >>			
0.0				
0.5		2	15	10
1.0		R	R	R
1.5				
2.0				
2.5				
3.0				
3.5	0.0			
4.0				
4.5	R			
R bgs	Refusal below ground surface			

TABLE 3A - SOILS
TCE AREA: OVM FIELD ANALYSIS RESULTS (ppM)

Location >	Underdrain 301	Underdrain 302	Underdrain 303
Feet bgs			
0.0			
0.5			
1.0			
1.5			
2.0	<< FROST ZONE >>		
2.5			
3.0			
3.5			
4.0			
4.5			
5.0		0	0
5.5			
6.0			
6.5			
7.0		nr	0
7.5		H ₂ O	H ₂ O
8.0			
nr bgs	No recovery below ground surface		

TABLE 3B - GROUNDWATER
TCE AREA: LABORATORY RESULTS (ppB)

Location >	Underdrain 301	Underdrain 302	Underdrain 303
TCE	24	13	0.8

14 7.6 0.9

7.0 CONTAMINANT DISTRIBUTION

The results of the laboratory analyses of groundwater samples are presented in Figure 2 - Contaminant Distribution in Groundwater. Laboratory results reporting a highly weathered petroleum product considered in conjunction with the contaminant distribution in the UST Area both indicate that the center of mass of the contaminant plume may not be migrating appreciably from the area of the release and is not likely to move off-site in the future.

8.0 GROUNDWATER FLOW DIRECTION

Groundwater contours are presented and flow directions are indicated on Figure 3 - Groundwater Contours & Flow Direction. Water levels were obtained from the wells during groundwater sampling. The flow direction is predominantly west, with a small southern component.

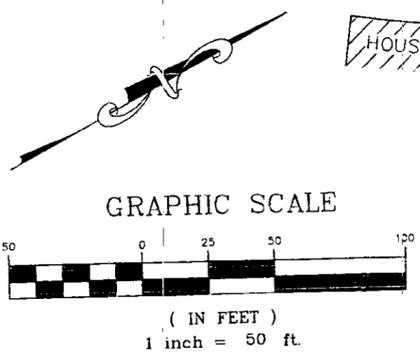
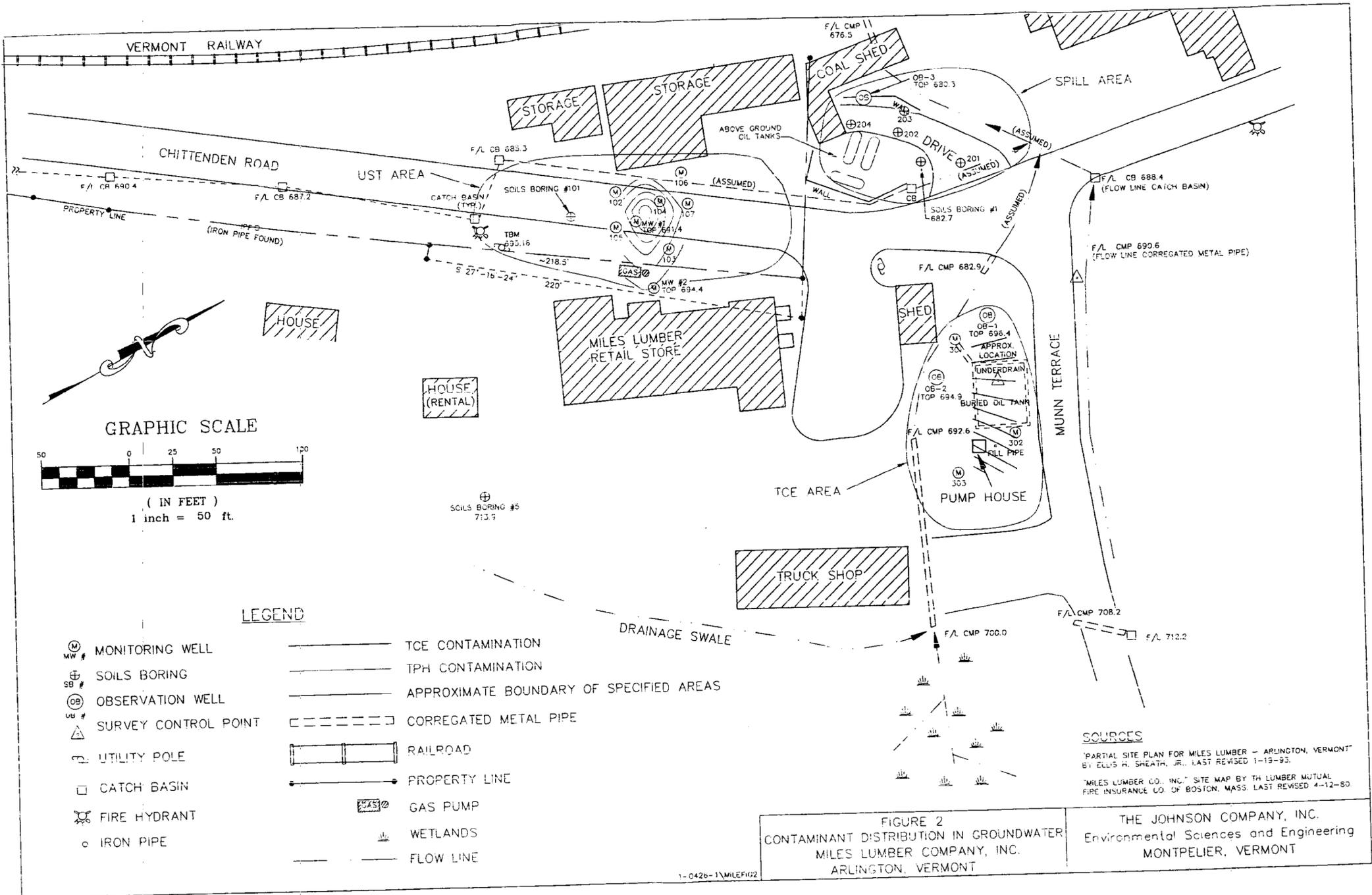
The potential for contaminant migration from the UST Area towards the small unnamed stream is minimal as indicated by the groundwater contours in the area of this investigation. Also, this stream is confined within a man-made conveyance from the east side of Chittenden Road until after it passes underneath Mack Molding Company's facility.

The groundwater flow direction in the TCE Area is similar to the flow direction exhibited in the UST Area and indicates a flow component in the direction of the unnamed stream. The discharge of the underdrain is a result of the presence of this groundwater. This small stream is likely to be reflective of the water table, and the stream may both gain water from the groundwater discharge to it's channel and also lose water through groundwater flow.

9.0 FIELD SCREENING RESULTS

The results of the field screening of soils samples from each location investigated within each area are presented in Tables 1A, 2A and 3A for the UST, Spill, and TCE Areas, respectively.

Field screening of soil samples was accomplished using an Organic Vapor Meter (OVM) calibrated to 100 ppM with isobutylene and the plastic bag head space method, whenever a representative soil sample could be obtained from the split spoons. As recovery in the split spoons was generally poor through out the



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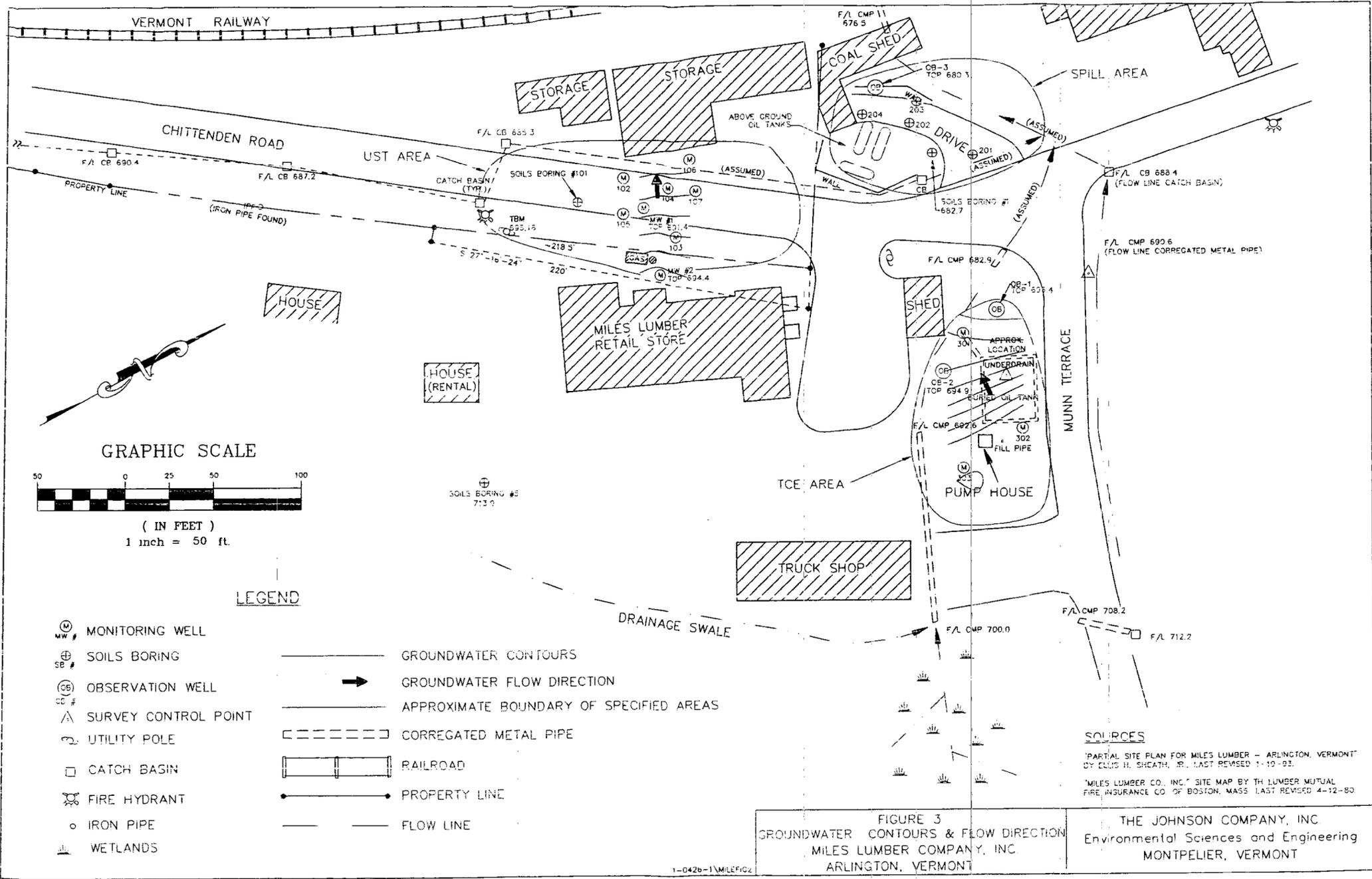
- | | | | |
|--------|----------------------|---|---|
| ⊕ MW # | MONITORING WELL | — | TCE CONTAMINATION |
| ⊕ SB # | SOILS BORING | — | TPH CONTAMINATION |
| ⊕ OB # | OBSERVATION WELL | — | APPROXIMATE BOUNDARY OF SPECIFIED AREAS |
| ⊕ CP # | SURVEY CONTROL POINT | — | CORROGATED METAL PIPE |
| ⊕ UP | UTILITY POLE | — | RAILROAD |
| ⊕ CB | CATCH BASIN | — | PROPERTY LINE |
| ⊕ FH | FIRE HYDRANT | ⊕ | GAS PUMP |
| ⊕ IP | IRON PIPE | ⊕ | WETLANDS |
| | | — | FLOW LINE |

SOURCES
 "PARTIAL SITE PLAN FOR MILES LUMBER - ARLINGTON, VERMONT"
 BY ELLIS H. SHEATH, JR., LAST REVISED 1-13-93.
 "MILES LUMBER CO., INC." SITE MAP BY TH LUMBER MUTUAL
 FIRE INSURANCE CO. OF BOSTON, MASS. LAST REVISED 4-12-80.

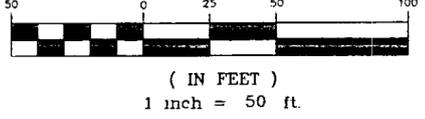
FIGURE 2
 CONTAMINANT DISTRIBUTION IN GROUNDWATER
 MILES LUMBER COMPANY, INC.
 ARLINGTON, VERMONT

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 MONTPELIER, VERMONT

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GRAPHIC SCALE



LEGEND

- ⊙ MW # MONITORING WELL
- ⊕ SB # SOILS BORING
- ⊕ OB # OBSERVATION WELL
- ⊕ CC # SURVEY CONTROL POINT
- ⊕ UTILITY POLE
- CATCH BASIN
- ⊕ FIRE HYDRANT
- IRON PIPE
- ▭ WETLANDS
- GROUNDWATER CONTOURS
- GROUNDWATER FLOW DIRECTION
- APPROXIMATE BOUNDARY OF SPECIFIED AREAS
- - - - - CORRUGATED METAL PIPE
- ▭ RAILROAD
- PROPERTY LINE
- FLOW LINE

SOURCES
 "PARTIAL SITE PLAN FOR MILES LUMBER - ARLINGTON, VERMONT"
 BY CLAUD H. SHEATH, JR., LAST REVISED 1-10-93.
 "MILES LUMBER CO., INC." SITE MAP BY THE LUMBER MUTUAL
 FIRE INSURANCE CO. OF BOSTON, MASS. LAST REVISED 4-12-80.

FIGURE 3
 GROUNDWATER CONTOURS & FLOW DIRECTION
 MILES LUMBER COMPANY, INC.
 ARLINGTON, VERMONT

THE JOHNSON COMPANY, INC.
 Environmental Sciences and Engineering
 MONTPELIER, VERMONT

site, the elevation, or depth, of some of the samples is not known with reliable accuracy. The depth reported here is the depth of the sample estimated based on the depth that the spoon was driven from.

The results of the field screening indicated only two additional locations with petroleum related soil contamination greater than 20 ppM: 104 and 105. The contamination was generally found in strata just above the water table.

10.0 SENSITIVE RECEPTORS

A review of the Vermont Department of Environmental Conservation's (DEC) Site files was conducted as part of the ESA and revealed a "Receptor Assessment" completed by Cindy Woods of the DEC Sites Management Section on September 10, 1991, due to a reported release detected by Mack Molding during an underground storage tank removal. This assessment is included here as Attachment _ and indicates that the nearest groundwater drinking water source is approximately 1/10th of a mile away (private well #66) and (incorrectly) that the nearest surface water (the Batten Kill River) is approximately 1/4th of a mile away. The unnamed stream that crosses the site is actually the nearest surface water body, and also the nearest sensitive receptor.

There are no dwellings, businesses or other structures with basements or cellars below grade within close proximity of any of the Areas of Concern. The nearest down-gradient structure(s) are unheated buildings used by Miles for the above-grade storage of various building supplies.

11.0 LIMITATIONS

The conclusions presented here are arrived at through consideration of the findings of this investigation as presented herein. Consideration was given to the information gathered during the site walkover, through researching the facility's regulatory status, establishment of the site's history, the field screening results of environmental samples, and through interpretation of laboratory analytical data gathered during the ESA and the Phase III investigations. A diligent effort was made to identify areas of concern that may have been indicated from the conditions described above. While as much of the property as practical was covered during this investigation, because of the snow on the ground there is a possibility that some areas with visible signs of contamination may have been missed. The presence of fill or additional materials (asphalt paving, piles of lumber, etc.) covering the site may have obscured areas that otherwise would provide visible evidence of the type described above.

This investigation was based on sound scientific investigative techniques and experience with similar

investigations. However, the conclusions of this investigation are limited by the sources of data, as stated above, and the conclusions and recommendations must be considered within this context. The status of the site may change, and additional information may become available in the future which will require modification or updating of the conclusions and recommendations presented here. If conditions are found to vary from those presented here, supplemental conclusions and recommendations may be warranted.

12.0 CONCLUSIONS

The lab analysis of the soil sample from the Spill Area reported concentrations of 490 ppM TPH, which is substantially lower than the previous sample from SB-1 in this area. The analyses of groundwater samples from the UST Area indicated that concentrations of contaminants generally decreased in the down-gradient direction away from the area of the release. The results of the analyses of groundwater samples from the TCE Area indicate that the contamination seems to be associated with the tank or the fill in the vicinity of the tank. Concentrations are highest (24 ppB) in the underdrain and lowest in the most up-gradient well.

13.0 RISK TO HUMAN HEALTH AND THE ENVIRONMENT

Although established standards are exceeded on the site, the potential for off-site migration of contaminants in excess of these levels is low except for the water flowing from the underdrain for the 30,000 gallon UST in the TCE Area. The potential for human contact with contaminated surface waters is minimized by the conveyance of the small unnamed stream in a series of culverts to a point approximately 1/4 mile distant from Miles and the point of discharge. The potential risk to human health and the environment from the contamination on this site is found to be minimal based on the findings of this investigation.

13.1 SPILL AREA

The additional borings in the Spill Area did not encounter any groundwater. The soils in the Spill Area have been determined to be quite shallow (2' - 3' maximum) as indicated by the results of Soil Boring #1, as well as several previous attempts by Miles to excavate for construction purposes in this area. The borings within the containment structure itself encountered refusal after boring through 0.7-1.0 feet of low permeability deposits matching the description given by Miles of the fill placed there.

We conclude that there is no reasonably definable risk to human health and/or the environment from the contaminants documented in the Spill Area as long as the containment structure is properly operated, inspected and drained after precipitation events.

13.2 TCE AREA

The source of the TCE is apparently the 30,000 fuel oil UST installation and/or the fill in the vicinity of this tank. Up-gradient groundwater has lower reported concentrations of TCE than the groundwater flowing next to the tank, or the water flowing from the underdrain. The flow of the small, unnamed stream will dilute any TCE (any which has not volatilized into the atmosphere prior to entering the stream) to such a degree that it would likely not be detected in a sample of the surface water. The stream enters a culvert immediately adjacent to the discharge point of the underdrain and the flow remains substantially enclosed from that point until approximately 100 feet west of Route 7A, a distance of approximately a quarter of a mile from Miles.

The levels of TCE in the water flowing from the underdrain are above the levels established as protective of human health for Class A waters, although they are below the levels established as protective of human health for Class C Waters. The beneficial uses of Class C (surface) Waters include:

"Recreational boating and any recreational or other uses where contact with the water is minimal and where ingestion of the water is not probable; irrigation of crops not used for human consumption; and compatible industrial uses."

This small unnamed stream, passing through the industrialized area comprised of Miles and Mack Molding Company, as well as downtown Arlington, is in an area that will contribute significant contaminant loading from non-point sources. Any recreational use of this stream in this reach is practically impossible in this reach due to the enclosure of the flow in man-made conveyances.

The classification of this small unnamed stream, (the "receiving water" for this "discharge") is almost certainly Class A, by default, and re-classification is improbable and likely prohibitively expensive, although theoretically possible. If concern regarding the discharge of TCE contaminated water from the underdrain compels additional action, we would recommend that a Whole Effluent Toxicity Test might potentially demonstrate that either the water from the small unnamed stream and/or the underdrain are not toxic to aquatic biota.

The unnamed stream is the receiving water for the groundwater that flows out of the ground at the underdrain in the TCE Area. The flow from the underdrain falls onto the bank at the toe of the slope of the fill around the buried 30,000 gallon oil tank. Some of the flow then infiltrates back into the bank and some runs off the bank and into the stream. The flow in the unnamed stream is reflective of the shallow water table

in the whole area of the Miles site. The flow in the stream dilutes what TCE is not already lost through volatilization by a ratio that is likely much more than 10:1.

We conclude that there is only a very low relative risk to human health and/or the environment from the TCE flowing in this underdrain.

13.3 UST AREA

The analyses of soil samples from the soil borings in the UST Area indicate that concentrations of contaminants in decrease in the down-gradient direction away from the area of the release. The field screening analyses document soil contamination in excess of the Agency's Guidelines for Petroleum Contaminated Soils and Carbon Media, although the concentrations were in excess of these standards in only two of the locations investigated in Phase III (MW 104 and MW 105). The strata that exhibited the highest readings by field analysis were generally found to be located just above the water table.

The concentrations of contaminants decrease in the wells in a down-gradient direction from the release. The two wells farthest down-gradient from the area where the historic UST installations were located are among the three least-contaminated wells: MW# 102 had no detectable concentrations of BTEX compounds and MW# 106 was reported to have only 2 ppB of benzene present in the sample, with no other compounds reported above the detection limits.

Down-gradient from the UST Area are un-heated and cellar-less buildings that are used by Miles for the storage of various building supplies. Beyond these buildings are the Vermont Railroad Tracks, and on the other side (west) of the railroad tracks is Mack Molding Company. Mack Molding's underground storage tanks are located on the opposite side of the railroad tracks and down-gradient from the UST Area on Miles site.

We conclude that these investigations indicate a low relative risk to human health and/or the environment from the documented contamination in the UST Area.

13.4 GENERAL

The results of the analyses of environmental media indicate the presence of environmental contaminants in the soils and groundwater at this site in excess of the standards of the State of Vermont for petroleum contaminated soils in excess of the levels established by the State of Vermont and/or the US EPA for discharges to surface waters.

Although the Ground Water Protection Rule and Strategy's Primary Ground Water Quality Standards are exceeded on this site, the analysis of groundwater flow directions and contaminant distributions indicate a low probability for off-site migration of groundwater contaminated in excess of these standards. Although pursuit of a reclassification of the groundwater in this vicinity might also be a formidable task, the addition of a description of the findings of these investigations and a deed restriction prohibiting the establishment of drinking water wells in the vicinity would be a practical and appropriate way to limit any potential risk(s) from the contaminants documented on this site. The risk presented by this site to down-gradient receptors is minimal based on the findings of this investigation.

14.0 RECOMMENDATIONS

Three additional rounds of sampling and analyses of groundwater from wells MW-1, MW-104, and MW-106 for BTEX by EPA Method 8020 is recommended in the UST Area, during approximately the first week of the month of June, September and December, 1993.

No further action is recommended in the Spill Area.

In the TCE Area, additional sampling and analyses of water from the underdrain of the 30,000 gallon fuel oil UST by EPA Method 8010, and flow gauging of the underdrain are recommended, on the same schedule as the sampling in the UST Area.

Monitoring of the UST Area and the TCE Area can be accomplished using minimal numbers of sample locations, lab analysis for "indicator parameters", and analytical methods that cost-effectively meet the appropriate requirements for both quality control and limits of quantification that allow for direct comparison to the applicable standards.

Water level measurement from all groundwater monitoring wells on the site, contemporaneously with the sampling, is also recommended. Water level measurements taken at the time of collection of groundwater samples can be used to assess groundwater flow direction(s) and any changes thereto. The flow rate from the underdrain taken at the time of sample collection can be used to assess whether the mass flux rate of contaminants changes with any potential changes in the elevation of the water table, as well as to ascertain whether the increase in groundwater flow results in a dilution or strengthening of the concentration in the underdrain.

Land use controls and or deed restrictions in the vicinity of this site may be required as part of the Closure process.

APPENDIX A

Letter from the State dated 2/5/93

Letter from The Johnson Company to the State dated 2/19/93

Letter from the State to The Johnson Company dated 2/19/93

Fax from The Johnson Company to the State dated 2/21/93

FF:



State of Vermont

Department of Environmental Conservation
Division of Parks and Recreation
Division of Forestry
Division of Fishery and Wildlife
Division of Air Quality
Division of Cultural Resources
Division of Historic Preservation
Division of Land Use and Planning
Division of Natural Resources
Division of Safety and Security
Division of Statewide Planning
Division of Technical Services
Division of Training and Technical Assistance
Division of Waste Management
Division of Water Resources

AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation

Hazardous Materials Management Division
103 South Main Street / West Building
Waterbury, VT 05671-0404
(802) 244-8702

February 5, 1993

Miles Lumber Company
c/o Kevin Dailey
P.O. Box 810
Manchester Village, VT 05254

RE: Report on Level I and Level II Environmental Site Assessment Investigations for the Miles Lumber Company Property in Arlington (Site #93-1358)

Dear Mr. Dailey:

The Sites Management Section (SMS) has received the above referenced report for the Miles Lumber Company Property dated January, 1993, as submitted by The Johnson Company, Inc. Upon our review of the report, we have determined that contamination exists at this site in levels which warrants additional investigation. Therefore, the SMS requests Miles Lumber Company to retain the services of a qualified environmental consultant to conduct a Phase III investigation consisting of the following tasks at the appropriate areas of concern:

- Former gasoline underground storage tank (UST) area located in front of the retail store;

*CORRECT
SEQUENCE
OF EVENTS*

This area was the former location of three gasoline USTs; two of which were reportedly removed in the mid 1980's, and a smaller one which was removed in 1984 and replaced by a new 2000 gallon gasoline UST. This new UST was then removed in 1986 during the construction of the current retail store. The Johnson Company installed two monitoring wells in this area during the Level II assessment. The well located downgradient of the former UST area was sampled and found to contain levels of ethylbenzene, xylene, and benzene above the State's groundwater enforcement standards. In addition, the monitoring well located upgradient from the UST area contained detectable levels of ethylbenzene and xylene, providing evidence that a contaminant plume exists in the subsurface.

The degree and extent of soil and groundwater contamination should be more clearly defined through the installation of three additional monitoring wells. Soil samples should be taken in five foot intervals with a split spoon sampling device and field screened with a PID. Groundwater should be sampled according to EPA Method 8240, and should include samples from the two previously installed wells. It will be necessary to develop a site map showing groundwater contours and the approximate contaminant plume. Please be advised that Mack Molding, the property adjacent to Miles Lumber Company, has one monitoring well installed which may assist your consultant in creating a more detailed groundwater contour map.

*+ table of proposed locations
sample matrix & analysis methods.*

NOTE

● Area of the 30,000 gallon No. 2 fuel oil UST;

This UST has an underdrain which flows into the unnamed stream before it crosses under Chittenden Avenue and eventually discharges to the Batten Kill River. A water sample taken from this drain contained no constituents of the petroleum products stored in the UST which are detectable by EPA Method 8240, but did contain trichloroethene (TCE) at a concentration of 19 parts per billion (ppb). This is in excess of the State's 5 ppb groundwater enforcement standards for TCE.

The UST underdrain should be re-sampled by EPA Methods 8240 and 418.1. If the presence of TCE is confirmed, it will be necessary to determine the source of the contamination through the installation of at least one monitoring well upgradient of the pump house.

+ drain from access road.
Machine Shop + Paint Shop

● Area of the Above Ground Storage Tanks (ASTs);

A soil boring was conducted downgradient of the 10,000 gallon No. 2 fuel oil, 20,000 gallon No. 2 fuel oil, and 10,000 gallon kerosene ASTs. A release of 140 gallons of No. 2 fuel oil occurred in this area in October of 1988. Soil sampled from this boring was analyzed for Total Petroleum Hydrocarbons (TPH), and results showed that concentrations of 750 parts per million (ppm) TPH existed. In addition, soil from this boring was field screened for volatile organic compounds (VOCs) and was found to be in excess of the guidelines used by the SMS for No. 2 fuel oil. The proximity of a storm drain which flows under the area may introduce a preferential path for contamination to enter the unnamed stream mentioned above.

It will be necessary to conduct additional soil borings in this area to more clearly define the extent of soil contamination. The requested soil borings should be conducted in an attempt to install monitoring wells. However, if subsurface conditions are such the drilling is refused, the soil should be sampled by EPA Method 418.1. Otherwise, groundwater should be sampled by EPA Method 8240. In either situation, split spoon sampling devices should be used to collect samples in five foot intervals which can be field screened with a PID.

until by down gradient position

Bill Baum
old soil left.

NOT 5' of soil

poor recovery → missing / hatched drug. T

● Miscellaneous waste storage areas;

During the Level I ESA conducted by The Johnson Company, several 55 gallon barrels were observed in various locations on the property. The SMS concurs with The Johnson Company's recommendations to store these miscellaneous wastes in one area while awaiting off-site disposal at an appropriately certified facility. Of particular concern to the SMS is the observation of unprotected storage of waste oil and lead acid batteries. All materials that qualify as a hazardous waste should be properly stored in accordance with Section 7-309 of the Hazardous Waste Management Regulation to avoid violations which may result in fines.

Please have your consultant submit a work plan which details the manner in which the above tasks are to be performed, including the associated cost. The work plan must be approved by the SMS prior to conducting any onsite work, and should be received within fifteen

KHS

February 19, 1993

Mr. Charles B. Schwer, Supervisor
 Sites Management Section
 Hazardous Materials Management Division
 Department of Environmental Conservation
 Vermont Agency of Natural Resources
 103 South Main Street, West Building
 Waterbury, Vermont 05676

RE: Miles Lumber Company; Arlington, Vermont (Site #93-1358)
 Requested Work Plan

JCO # 1-0426-1 (042)

Dear Mr. Schwer:

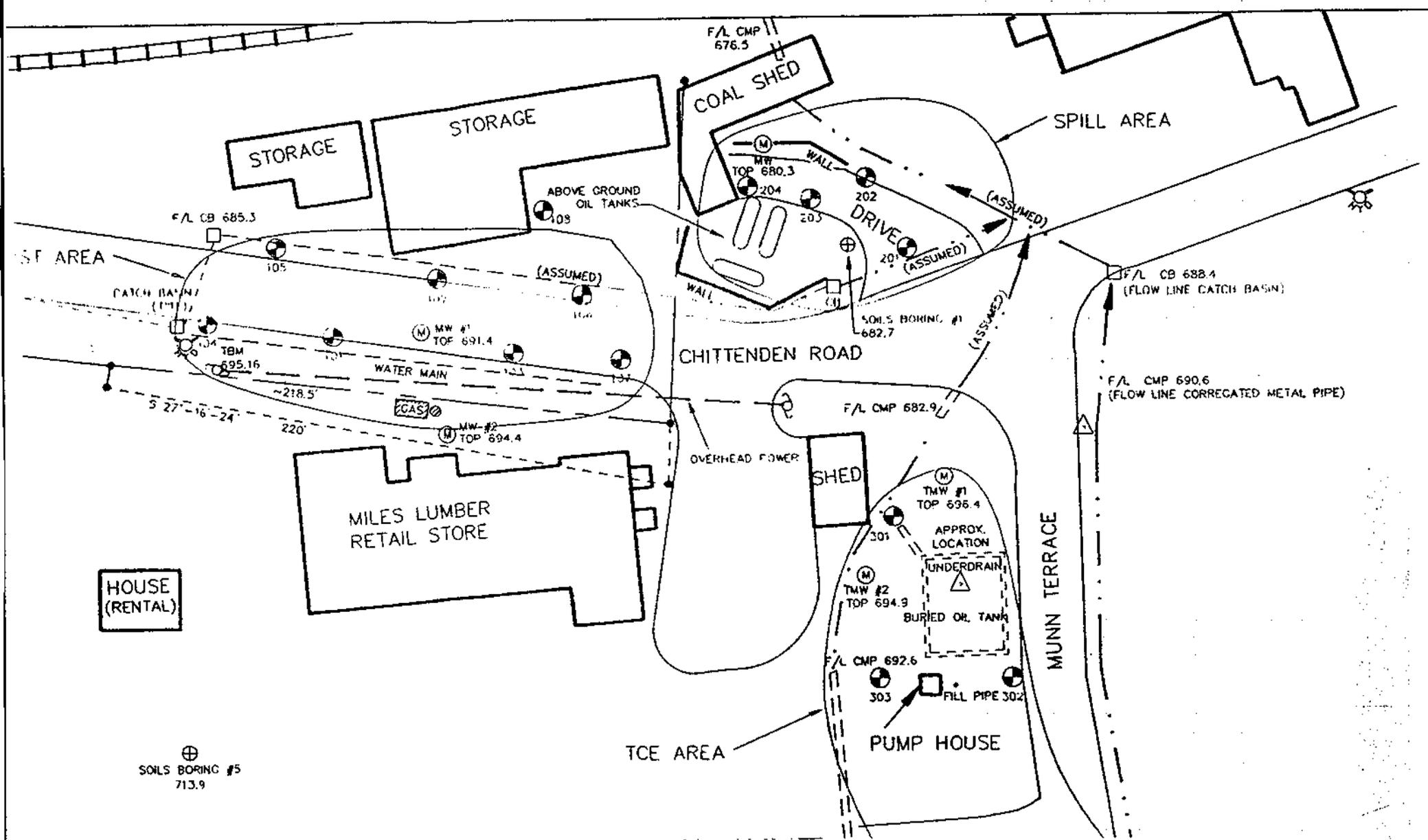
We are writing in response to your letter of February 5, 1993 requesting additional investigations at the Miles Lumber Company site (Miles) in Arlington, Vermont. On February 12th, Matt Germon of the Sites Management Section (SMS) and I visited the site and discussed the details of the requested additional investigations. As we understand it, investigations in the area of the former gasoline underground storage tank (UST) may be eligible for reimbursement from the Petroleum Cleanup Fund.

1.0 INTRODUCTION

This work plan addresses each of the areas of concern identified in your letter of February 5, and also addresses the proper storage of the miscellaneous wastes and waste oil. This work plan will address each of the 3 physical areas of concern separately and they will be referenced as follows:

1. UST Area: in front of Miles where former gasoline UST installations were located
2. Spill Area: location of #2 fuel oil Aboveground Storage Tank (AST) overfill
3. TCE Area: the vicinity to be investigated to determine the source and extent of the TCE reported as present in samples from the underdrain below the 30,000 gallon capacity #2 fuel oil UST

The locations of additional investigations in each area will be given numerical designations that allow for easy reference identification: all locations investigated (soil boring, monitoring well, surficial soil sample, surface water samples, etc.) in each of these areas will be given numbers in sequence for this scope beginning with "101" in the UST area, "201" in the Spill area, and "301" in the TCE area. Please see the site plan presented in Figure 1.



⊕
SOILS BORING #5
713.9

1.1 UST AREA

First we would like to clarify the chronology of the 2 gasoline storage tanks which have sequentially occupied the same location in front of Miles. A historic gasoline storage tank (estimated from recollection to have been approximately 500 gallons in capacity) was removed and replaced with a brand new, 2,000 gallon capacity UST in the late 1970's or early 1980's. The 2,000 gallon tank was subsequently removed in approximately 1985 to make room for construction of a building addition at Miles.

You have requested the installation of at least 3 additional monitoring wells and the field screening of soil samples from the split spoon sampler at 5 foot intervals. We believe that the depth to groundwater in this area is approximately 5 to 7 feet and intend to use continuous split spoon sampling down to the water table. We believe that a minimum of 3 additional monitoring wells will be required in order to delineate the extent of any potential contaminant plume in the groundwater. We propose to install 2 additional wells to assist in site characterization and potential source identification: Several sources of information have indicated that the storm drain in Chittenden Road is a potential source of both fuel oil and gasoline by ex-filtration and the water line also represents a potential preferential migrational pathway. Reports of at least 2 separate incidents have linked the storm drain system to the detection of gasoline odors and a sheen from fuel oil in the unnamed stream. The storm drain and water line are located on opposite sides of Chittenden Road in front of Miles. We propose to use these 2 wells (at locations numbered 104 and 105) to investigate the potential for upgradient source(s) of petroleum contaminants. The locations of the proposed wells are shown on Figure 1.

We believe that as many as 2 or 3 additional monitoring wells beyond those 3 wells requested in your February 5 letter and the two wells described above may be warranted by conditions indicated in the field. This brings the total number of potential new wells in the UST area to 8. In the interest of both expediency and the cost containment, we propose to use the following basis by which to determine the need and location of these additional wells:

Additional wells will be installed at locations determined in the field if field assay of the split spoon samples from the soil interval immediately above the water table indicate a sustained, average reading above 20 parts per million (ppM) at locations 101, 102, or 103.

The rationale for these potential additional wells is the need to characterize both the extent of soil contamination which may require remediation and the need to characterize the extent of any potential

contaminant plume in the groundwater. In practical terms, in order to determine the extent of contaminated soils and any potential groundwater contaminant plume, "clean" wells are needed outside the contaminated area(s) to adequately define the limit(s) of the potential migration of contaminants.

We intend to install the five additional monitoring wells at the locations 101-105 as shown in Figure 1, and in the order numbered. Upon completion of these 5 wells, the soils screening results from the field assays at each location will be tabulated, the depths to the water table will be tabulated and a groundwater flow direction determined. As many as 3 additional monitoring wells may be established at locations determined in the field using the basis described in Section 1.0, above, and the approximate groundwater flow direction determined in the field.

1.2 FUEL OIL SPILL AREA

Miles has indicated that Bill Barry of the Vermont DEC was present on site at the time when the fuel oil overflowing occurred, which is believed to be the source of the fuel oil in this area. According to Miles, Bill Barry indicated at the time that no soil removal was required from this area. The soils that remained, therefore, represent a potential source for the contamination of soils identified in this area during previous investigations.

The objective of the additional investigations in this area will be to determine the extent and degree of fuel oil contamination in the soils in this area and to determine the potential for the previously identified contaminants to impact groundwater or surface water. A minimum of 4 additional soil borings will be advanced in the area of the above ground storage tanks in order to better characterize the extent of fuel oil contamination previously identified in soil boring #1. Each soil boring will be advanced in an attempt to install a monitoring well.

Continuous spilt spoons will be utilized in the Spill area as well, due to the shallow soils observed during previous investigations. Each open spilt spoon sample will be field assayed as described above.

In locations where groundwater monitoring wells are established, water samples will be obtained for analysis by EPA method 8020. All procedures described in sections 7.0 - 9.0 of this scope will be followed with regard to monitoring well purge water and soils removed from the ground as part of soils boring and/or monitoring well construction.

1.3 TCE AREA

The objective of the additional investigations in this area will be to determine the source of the TCE reported (if possible), to gather enough information to determine groundwater flow direction and to obtain groundwater samples for analysis. We propose to investigate the storm drainage system up-gradient of the 30,000 gallon #2 fuel oil UST in an attempt to identify potential up-gradient sources of the TCE. We will also obtain a sample of the water flowing from the underdrain below this tank to be analyzed to confirm the presence of TCE. Small engine repair activities are suspected as potential up-gradient sources. We plan to investigate the water flowing in the storm drain system in this area with field instrumentation.

Water samples will be obtained from the locations identified on Figure 1 for analysis by either EPA Method 8240, or 8010. These analytical methods have detection limits for TCE which will allow comparison with the Groundwater Protection Rule and Strategy. Samples will be analyzed by Method 8010 in order to characterize the groundwater quality up-gradient of the underdrain. Confirmation samples will be obtained for analysis by EPA Method 8240 from the underdrain and from up-gradient point(s) suspected of being most contaminated and/or suspected of containing additional contaminants that may assist in identification of the source of the TCE.

Additional soils borings/monitoring wells may be advanced in the locations indicated on Figure 1, based on the conditions observed in the field.

2.0 MONITORING WELLS

Each monitoring well will be constructed of 2 inch PVC and fitted with a minimum of a 5 foot screen straddling the water table. Due to the nature of the soils, a #10 well screen will be used. Well sand will be placed around the screen followed by a bentonite seal and native backfill as required. Flush-mounted well boxes will be used due to the locations of the wells in a traveled way. Each well will also be equipped with a locking PVC plug. Subsequent to completion of the wells, the top of the PVC casing of each well on the Miles site will be established by the surveyor that compiled the information for the site plan presented in the ESA report.

3.0 FIELD SCREENING

We propose to field screen each spilt spoon sample using an organic vapor meter (OVM) or a photo-ionization detector (PID). The results will be recorded in the field book along with visual identification of any distinguishable strata. Each spilt spoon sample will be photographed for the record.

One or more soil samples will be obtained from each spilt spoon and screened following the "Guidelines for Sampling" contained in the Agency's Guidelines for Petroleum Contaminated Soil and Carbon Media.

4.0 GROUNDWATER LEVELS & FLOW DIRECTION(S)

Initial measurements of the depth to water table will be taken after the well installations are completed. A temporary bench mark (TBM) has been set in a telephone pole near the fire hydrant at the southern end of Miles. The elevation of this TBM is 695.16 feet, using an assumed datum from a previous survey. The elevations of the water table in both existing monitoring wells in front of Miles (MW #1 and MW #2) will also be obtained at this time so that an approximation of groundwater flow direction can be made in the field. This information will be used in addition to the field assays of the spilt spoons to assist in locating any of the additional monitoring wells that are determined to be necessary in the field.

5.0 GROUNDWATER SAMPLING AND ANALYSES

Upon the completion of each monitoring well described in this scope, the well will be purged of a minimum of 3 well volumes of water to develop the well. Groundwater samples will be obtained in duplicate from each well. Groundwater samples obtained from the UST area will be submitted to the laboratory for analysis by EPA method 8020. This test method has a detection limit (1ppB) for each of the BTEX compounds, (benzene, toluene, ethylbenzene and xylenes) and which will allow for comparison of the groundwater quality with the limits in the Groundwater Protection Rule and Strategy. A chain of custody record will be initiated for each sample upon collection. Each monitoring well will be sampled using dedicated disposable bailers.

6.0 DECONTAMINATION

A decontamination area will be established in the southwest section of the facility away from any sensitive receptors. The drill rig will be decontaminated by steam cleaning between each soil boring/monitoring well location. Water level measurement equipment will be decontaminated by washing with Liquinox and rinsing with distilled water between wells.

7.0 GROUNDWATER & SOIL HANDLING

If the results of the field screening analysis indicate that the soils at the particular well location were contaminated above 20 ppm. The groundwater purged from the well will be containerized and sampled prior to treatment and disposal. If the field assays indicated that the soils at that location were

contaminated at less than 20 ppm, the purge water will be disposed of on the ground a minimum distance of 25 feet from any sensitive receptor, including monitoring wells. Soils from any monitoring well location which is indicated to have contaminate level in excess of 20 ppm and which remains from field assays and monitoring well construction will be containerized in DOT approved 17H 55 gallon drums. Soils which are indicated to be contaminated above 100 ppm will be segregated in a separate drum.

8.0 SITE INVESTIGATION REPORT

The results of this investigation will be compiled into a report to be submitted to your office. Groundwater levels will be used to develop a groundwater contour map as requested. The elevation of the top of the casing of each monitoring well on the site will be determined by the surveyor that compiled the information presented on the site map. The laboratory analytical results from the groundwater samples will be discussed and compared to the concentrations presented in the Groundwater Protection Rule and Strategy. The field screening results will be presented and compared to the levels indicated in the agency's "Guidelines for Petroleum Contaminated Soil and Carbon Media". The results of the field screening of soils will be presented using soil concentration isopleths, and a contaminant plume map will be drawn using the results of the analysis of groundwater samples. Recommendations will be made as to the need for remediation and/or additional investigations or monitoring.

9.0 SCHEDULE

The schedule for the tasks outlined in this work plan is presented in the table below. The schedule is very aggressive, and will require the efforts and cooperation of both JCO and the SMS to be achieved. We thank you and your staff in advance for your help in this matter. Comments are eagerly anticipated and will be incorporated to the maximum extent possible. The cooperation of Miles in responding to the SMS's request for additional investigations has been exemplary, in our experience and it is only with the backing of Miles that such an aggressive schedule could be established.

SCHEDULE

DATE	TASK
Friday, February 19, 1993	<ul style="list-style-type: none"> ✓ Work plan submitted to SMS by FAX ✓ JCO orders analyses and Lab begins sample container preparations. ✓ Lab ships prepared sample containers to JCO. ✓ JCO prepares field equipment and Health and Safety Plan as required by OSHA (29CFR 1910.120). • Comments received by phone from SMS • JCO incorporates comments into work plan. • Dig Safe has contacted NET, CVPS and First Carolina Cable (Dig Safe #9308-1029) and the legal dig time begins at 11:45 AM.
Monday, February 22, 1993	<ul style="list-style-type: none"> • Prepared sample containers arrive at JCO. • Driller mobilizes to the Miles site. • Drums delivered to the Miles site for containerizing potentially heavily contaminated soils and monitoring well purge water. • Driller arrives at Miles site. • JCO arrives at Miles site. • Arlington Water Company marks location of the water line adjacent to Chittenden Ave. • Town permits obtained for drilling in the Town right-of-way. • Storm drain alignment determined adjacent to and crossing Chittenden Road.
Tuesday, February 23, 1993	<ul style="list-style-type: none"> • CVPS arrives to shield overhead power lines, drilling begins.
Wednesday, February 24, 1993	<ul style="list-style-type: none"> • Drilling completed. • Groundwater levels measured. • Monitoring wells purged. • Monitoring wells sampled. • Groundwater samples submitted by overnight courier to Lab.
Thursday, February 25, 1993	<ul style="list-style-type: none"> • Lab receives and logs in samples on 24 hour priority rush.
Friday, February 26, 1993	<ul style="list-style-type: none"> • Lab submits interim analytical reports to JCO by FAX.
Wednesday, March 3, 1993	<ul style="list-style-type: none"> • Final analytical results received from Lab.
Monday, March 15, 1993	<ul style="list-style-type: none"> • Report submitted to SMS by JCO.

10.0 ESTIMATE OF PROBABLE COSTS POTENTIALLY ELIGIBLE FOR
REIMBURSEMENT FROM THE PETROLEUM CLEANUP FUND

We estimate that the following costs will be incurred as a result of the additional investigations in the area of the former gasoline UST:

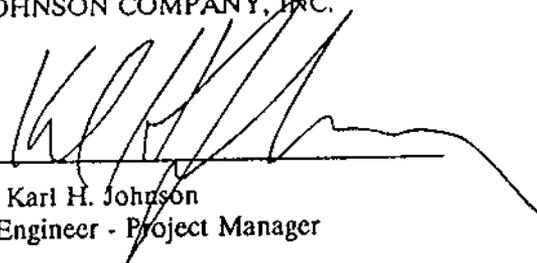
• Drilling contractor	\$3500
• Laboratory analysis	\$900
• CVPS transmission line shielding charges	\$900
• Johnson Company charges	
Labor	\$1600
Equipment and expenses	<u>\$250</u>
Estimated Total =	\$7150

Currently we are unsure of the costs which may be incurred as a result of any portion of this investigation due to the limited scope of the ESA investigations. We propose that invoices be presented as required for consideration of eligibility for reimbursement from the Petroleum Cleanup Fund. Any negotiation(s), substantiation of charges or additional explanations will be provided as requested by your office. If necessary, we would be happy to arrange a meeting with you, or your designee, to review the charges and provide any needed explanations.

Please call with any questions or comments that may arise.

Sincerely Yours,

THE JOHNSON COMPANY, INC.

By: 

Karl H. Johnson
Senior Engineer - Project Manager

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State of Vermont

Department of Fish and Wildlife
 Department of Forest, Parks and Recreation
 Department of Environmental Conservation
 State Geologist
 Natural Resources Conservation Council

AGENCY OF NATURAL RESOURCES
 Department of Environmental Conservation
 Hazardous Materials Management Division
 103 South Main Street / West Building
 Waterbury, VT 05671-0404
 (802) 244-8702

February 19, 1993

Karl H. Johnson
 The Johnson Company, Inc.
 5 State Street
 Montpelier, VT 05602

RE: Work Plan submitted for the Phase III Investigation at Miles Lumber Company
 Property in Arlington (Site #93-1358)

Dear Mr. Johnson:

The Sites Management Section (SMS) has received the Work Plan for the Phase III investigation at the above referenced site, dated February 19, 1993. In an effort to encourage the schedule of the necessary investigation outlined in the Work Plan, we are responding with our comments via FAX as soon as possible. We would like to comment on the following:

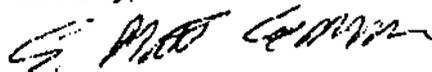
- 1 • The SMS has concluded that the Work Plan proposes too many monitoring wells in the former UST area. Specifically, we feel that mw-104, mw-105, mw-107, and mw-108 are not necessary in this phase of the investigation and that it may be more cost effective to determine whether these additional wells are necessary after obtaining analytical results from the other five wells. In addition, mw-106 should be moved further south, and mw-102 should be moved slightly southeast (see adjustments made to figure 1, enclosed) in an effort to more effectively define the groundwater surrounding the contamination observed in mw-1. However, we would expect The Johnson Company to make a professional decision regarding the necessity of additional wells upon discovering an area of severe contamination as indicated in the field screenings of the split spoon samples. ✓
- 2 • The monitoring wells which are established in the spill area are to be sampled by EPA Method 8020, as indicated in the work plan. In the event that a monitoring well cannot be established in a boring, then it will be necessary to sample the soil at the depth of boring by EPA Method 418.1. ?
- 3 • In section 7, Groundwater and Soil Handling, The Johnson Company proposes a guideline to handling the sampling derived wastes. Please review the HMMD's enclosed draft policy on Investigation Derived Wastes. This policy is required during sampling by the SMS at a minimum.
- 4 • There is no mention in the Work Plan regarding the four 55 gallon barrels observed on the site during a recent site visit. This observation has been reported to the Management and Prevention Section (MPS). Please note that hulging barrels and barrels not properly protected from the environment are considered improper storage of hazardous wastes as stated in the Vermont Hazardous Waste Management Regulations, section 7-309 (5). In addition, not all waste oil is

exempt from the classification of hazardous waste. As MPS is planning a site visit to the Arlington area within the next month, the SMS recommends the expeditious removal of the barrels onsite by certified personnel.

- a. • Please note that for the costs of the investigative work in the UST area to be eligible to be applied to the \$10,000 deductible required by the PCF. M.L.C.P. must prove that the USTs were not insured for a petroleum release. The SMS would expect that the proposed costs in the UST area would decrease appropriately given the number of wells which will not be necessary.
- b. • The SMS would expect that permission be granted to The Johnson Company from all owners of land where monitoring wells are proposed.

With the addition of the above to the work plan, the SMS approves of the Work Plan as submitted by The Johnson Company. Please inform me as the schedule for this investigation becomes more clear so that I can visit the site during the drilling of the monitoring wells in the UST area. Feel free to call with any questions or concerns.

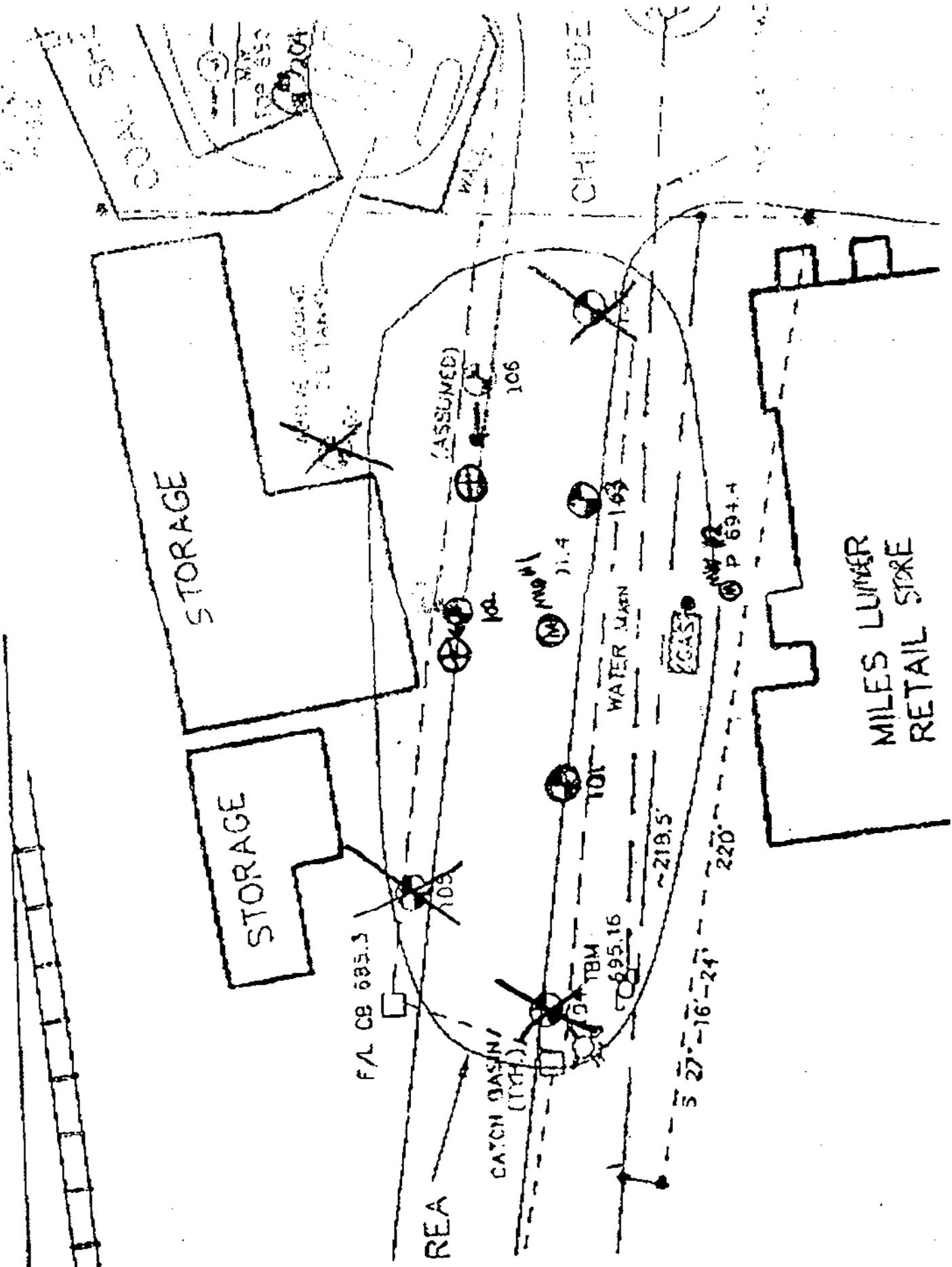
Sincerely,



E. Matt Germon, Environmental Engineer
Sites Management Section

cc: Kevin Dally, Esq.

mg/1351ppv



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K. H. J.

THE JOHNSON COMPANY, INC.
Environmental Sciences and Engineering
5 State Street, Montpelier Vermont 05602
Phone: (802)229-4600
FAX: (802)229-5876

FACSIMILE COVER PAGE

February 21, 1993 17:16pm

TO: E. Matt Germon, Environmental Engineer
OFFICE: Hazardous Materials Management Division; Sites Management Section
FAX #: 244-5141 **TELEPHONE #:** 244-8702
RE: Response to Comments on Phase III Investigation Work Plan
Miles Lumber Company; Arlington, Vermont (Site #93-1358)
JCO #: 1-0426-1 (042) **PHONE CODE:** 571
FROM: Karl H. Johnson

NUMBER OF PAGES, INCLUDING COVER PAGE: 2

Please call Harriet if there are any problems with this transmission.

MESSAGE

Dear Matt: We would like to thank you and Chuck for your timely review of the Miles Work Plan. We are writing to respond to your comments:

1. We intend to install only those groundwater monitoring wells in the UST area that are deemed necessary to determine the extent of any potential dissolved contaminant plume. Any additional wells, beyond the four (4) that you have agreed to, will only be installed after consulting with you (by phone or on-site) regarding the level of soil contamination indicated by the field screening of split spoon samples at each location.

2. The soils in the Spill area have been determined to be quite shallow (2' - 3' maximum) as indicated by the results of Soil Boring #1, as well as several previous attempts by Miles to excavate for construction purposes in this area. We do not expect to encounter groundwater in this area, however we will be prepared to install monitoring well(s) should the water table be located.

The location and degree of the fuel oil contamination in this area matches the descriptions that have been given of an historic overfill of 140 gallons. Laboratory analyses of the petroleum materials in the environmental samples obtained from this area during the ESA have also indicated that the petroleum was likely "weathered fuel oil". The incident was investigated by Bill Barry at the time the release was reported and was found not to require any removal of contaminated soils.

The level of contamination indicated in this area by field screening during the ESA closely approached levels which may require remediation as defined in the "Agency Guidelines for Petroleum Contaminated Soil and Carbon Media", III. Soil Guideline Concentrations and Soil Treatment Options, A.2. We understand the need to analyze groundwater for comparison to the Groundwater Protection Rule and Strategy's Primary Groundwater Quality Standards and would like to discuss further the rationale for laboratory analyses on soils that can be assessed to determine the need for remediation using field instrumentation and the Agency's Guidelines. The driller charges by the day, so costs do not strictly depend on the number of wells.

3. Thank you for the Draft copy of the Investigation Derived Wastes Policy. We intend to follow this policy at Miles and have adhered to the spirit and intent during our past site investigations. I will circulate it here at this office; please have a clean copy sent to me so that I can produce the necessary copies.

Are the five (5) tables referenced (Section 3 - Equipment Decontamination Fluids, #2) and the breakdown of the chemicals from the Groundwater Protection Rule and Strategy available from your office?

Civil/Environmental Engineering Hydrogeology Water Supply & Wastewater Disposal
Hazardous Waste Remediation Hydrology Contaminant Fate Analysis
Soil & Water Science Geology & Geophysics Rivers and Dams Solid Waste Permitting

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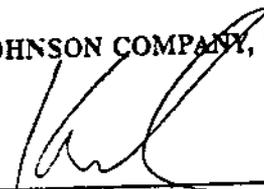
4. Thank you for the advice regarding the waste(s) that are currently stored on-site in various locations. Miles has been advised by your earlier letter of the need to address these waste(s), and we concur. We will assist Miles in arranging for proper and timely disposition of this material. Would you please provide me with the name and phone number of the appropriate individual to contact in the Management and Prevention Section?
5. Miles has a letter from their insurance carrier to the effect that the tanks formerly located within the UST area were not covered under their policy. By copy of this letter, we request that Kevin Dailey, Esq. forward a copy of the letter from the carrier to your office.
6. We have contacted the Vermont Agency of Transportation (AOT), Vermont Railway, and the Town of Arlington regarding the installation of additional groundwater monitoring wells in the UST area. The AOT and Vermont Railway have granted permission, as we will not actually be in close proximity to the tracks or ballast during the investigations contemplated in the scope of this work plan. The Town of Arlington has been contacted and any necessary permit(s) will be obtained prior to the installation of any additional wells in the Town's right-of-way.

This project is presently on schedule as outlined in our letter of February 19, and currently the additional investigations will begin at Miles no later than 7:00 am, Tuesday morning, February 23, 1992. Please advise of your schedule, as we can accommodate your need to be on-site during investigations in the UST area and begin first in one of the other areas if that would help you with regard to travel time.

We hope that this information is helpful, and thank you again for your time and attention to this matter. Please call upon your review to discuss.

Best Regards,

THE JOHNSON COMPANY, INC.

By: 

Karl H. Johnson

Senior Engineer - Project Manager

cc: Kevin Dailey, Esq

Reviewed by: J.S.
I:\PROJECTS\7-C426-1\E_MATT_1.FAX February 21, 1993 18:35pm KHJ/kj

Civil/Environmental Engineering Hydrogeology Water Supply & Wastewater Disposal
Hazardous Waste Remediation Hydrology Contaminant Fate Analysis
Soil & Water Science Geology & Geophysics Rivers and Dams Solid Waste Permitting

APPENDIX B
All Terrain Drilling Logs



ATD

ALL TERRAIN DRILLING

PROJECT: MILES-ARLINGTON **CLIENT:** The Johnson Company **JOB NO:** 5093009 **SHEET 1 OF 1** **BORING NO:** B-101
LOCATION: Arlington, VT **ANGLE FROM VERTICAL:** 0 **BEGUN:** 2/23/93 **COMPLETED:** 2/23/93 **ELEVATION:**
DRILLER: D. Hatch **DRILL MAKE & MODEL:** Mobile B-53 Bombardier **OVERBURDEN:** 4 Ft. **ROCK (FT):** 0 Ft. **TOTAL DEPTH:** 4 Ft.
CASING SIZE/ROD SIZE: 4 1/4" HSA **SAMPLER(S) TYPE:** 2" Split Spoon **SOIL CLASSIFIED BY:** Driller - Visually **STATION/OFFSET:**
SAMPLE HAMMER WEIGHT/FALL: 140 / 30" **CASING HAMMER WEIGHT/FALL:** **WEATHER:** Snow

DEPTH	CASING BLOWS PER FT.	SAMPLE NO.	SAMPLE SIZE	SAMPLE DEPTH		SAMPLE BLOWS	VANE SIZE	VANE READINGS	DEPTH OF STRATUM CHANGE	STRATUM DESCRIPTION
				FROM	TO					
5'	Auger 0'-4'	1D	2" s/s	.5'	2.5'	110-118-80-35			.5'	Pavement
		2D	2" s/s	2.5'	4'	8-2-4			4'	Brown, fine to coarse Sand, trace Silt, some Gravel Unconfirmed refusal.
			Bottom of Boring @ 4'							
10'										
15'										
20'										
25'										
30'										
35'										

LEGEND: C-2"-O.D. SHELBY TUBE BQ-1-5/8" CORE SIZE BW-2 1/2" OD CASING SIZE **BORING NO**
 -DENOTES S-3"-O.D.-SHELBY TUBE NQ-2" CORE SIZE NW-3" OD CASING SIZE B-101
 U-3-1/2" O.D. SHELBY TUBE HQ-2 1/2" CORE SIZE HW-4" OD CASING SIZE
 D-SPLIT-SPOON SAMPLE AW-1-23/32" ROD SIZE NW-2-5/8" OD ROD SIZE



ATD

ALL TERRAIN DRILLING

PROJECT: WILES-ARLINGTON **CLIENT:** The Johnson Company **JOB NO:** 5093009 **SHEET 1 OF 1** **BORING NO:** MW-102
LOCATION: Arlington, VT **ANGLE FROM VERTICAL:** 0 **BEGUN:** 2/23/93 **COMPLETED:** 2/23/93 **ELEVATION:**
DRILLER: D. Hatch **DRILL MAKE & MODEL:** Mobile B-53 Bombardier **OVERBURDEN:** 13.7 Ft. **ROCK (FT):** 0 Ft. **TOTAL DEPTH:** 13.7 Ft.
CASING SIZE/ROD SIZE: 1/4" HSA **SAMPLER(S) TYPE:** 2" Split Spoon **SOIL CLASSIFIED BY:** Driller - Visually **STATION/OFFSET:**
SAMPLE HAMMER WEIGHT/FALL: 140 / 30" **CASING HAMMER WEIGHT/FALL:** **WEATHER:** Sunny

DEPTH	CASING BLOWS PER FT.	SAMPLE NO.	SAMPLE SIZE	SAMPLE FROM	DEPTH TO	SAMPLE BLOWS	VANE SIZE	VANE READINGS	DEPTH OF STRATUM CHANGE	STRATUM DESCRIPTION
0'-7.5'	Auger									
		1D	2" s/s	2'	4'	92/33/25/22				Lt. Brown, medium Sand, trace Silt,
		2D	2" s/s	4'	5.5'	13/10/8				
		3D	2" s/s	5.5'	7.5'	5/7/5/5				Brown, fine Sand, some Silt
		4D	2" s/s	7.5'	9.5'	6/6/9/22				Brown, medium Sand, trace Clay & Silt Wet
				Bottom of Boring @ 13.7'						Unconfirmed Refusal.
										Well Log
										Set 2" well @ 13.7', .010 screen 6.2'-13.6' sand to 6'. Bentonite to 4.5'. Native backfill 1' to surface, cement roadbox.

LEGEND: C-2"-O.D. SHELBY TUBE BQ-1-5/8" CORE SIZE BW-2 1/2" OD CASING SIZE **BORING NO:**
 -DENOTES S-3"-O.D.-SHELBY TUBE NQ-2" CORE SIZE NW-3" OD CASING SIZE MW-102
 U-3-1/2" O.D. SHELBY TUBE HQ-2 1/2" CORE SIZE HW-4" OD CASING SIZE
 D-SPLIT-SPOON SAMPLE AW-1-23/32" ROD SIZE NW-2-5/8" OD ROD SIZE



ATD

ALL TERRAIN DRILLING

PROJECT: MILES-ARLINGTON **CLIENT:** The Johnson Company **JOB NO:** 5093009 **SHEET 1 OF 1** **BORING NO:** MW-103
LOCATION: Arlington, VT **ANGLE FROM VERTICAL:** 0 **BEGUN:** 2/23/93 **COMPLETED:** 2/23/93 **ELEVATION:**
DRILLER: D. Hatch **DRILL MAKE & MODEL:** Mobile B-53 Bombardier **OVERBURDEN:** 10.5 Ft. **ROCK (FT):** 0 Ft. **TOTAL DEPTH:** 10.5 Ft.
CASING SIZE/ROD SIZE: 4 1/4" HSA **SAMPLER(S) TYPE:** 2" Split Spoon **SOIL CLASSIFIED BY:** Driller - Visually **STATION/OFFSET:**
SAMPLE HAMMER WEIGHT/FALL: 140 / 30" **CASING HAMMER WEIGHT/FALL:** **WEATHER:** Sunny

DEPTH	CASING BLOWS PER FT.	SAMPLE NO.	SAMPLE SIZE	SAMPLE DEPTH		SAMPLE BLOWS	VANE SIZE	VANE READINGS	DEPTH OF STRATUM CHANGE	STRATUM DESCRIPTION
				FROM	TO					
0' - 5'	Auger 0'-6'	1D	2" s/s	2'	4'	115/82/19/17				Brown, coarse Sand, some Silt, some some Gravel Brown, fine Sand, trace Silt Moist-Gray medium Sand, some Silt Wet-Brown-gray, fine Sand, some Silt Well Log Set 2" well @ 10.5', .010 screen 5'-10', sand to 5'. Bentonite to 3.5'. Native backfill 1' to surface, cement roadbox.
		2D	2" s/s	4'	5.5'	15/4/6				
		3D	2" s/s	5.5'	7.5'	2/22/5/6				
		4D	2" s/s	7.5'	9'	18/100/78				
10'			Bottom of Boring @ 10.5'							
15'										
20'										
25'										
30'										
35'										

LEGEND:
 -DENOTES C-2"-O.D. SHELBY TUBE BQ-1-5/8" CORE SIZE BW-2 1/2" OD CASING SIZE **BORING NO**
 S-3"-O.D.-SHELBY TUBE NQ-2" CORE SIZE NW-3" OD CASING SIZE MW-103
 U-3-1/2" O.D. SHELBY TUBE HQ-2 1/2" CORE SIZE HW-4" OD CASING SIZE
 D-SPLIT-SPOON SAMPLE AW-1-23/32" ROD SIZE NW-2-5/8" OD ROD SIZE



ATD

ALL TERRAIN DRILLING

PROJECT: MILES-ARLINGTON **CLIENT:** The Johnson Company **JOB NO.:** 5093009 **SHEET 1 OF 1** **BORING NO.:** MW-104
LOCATION: Arlington, VT **ANGLE FROM VERTICAL:** 0 **BEGUN:** 2/24/93 **COMPLETED:** 2/24/93 **ELEVATION:**
DRILLER: D. Hatch **DRILL MAKE & MODEL:** Mobile B-53 Bombardier **OVERBURDEN:** 10.5 Ft. **ROCK (FT):** 0 Ft. **TOTAL DEPTH:** 10.5 Ft.
CASING SIZE/ROD SIZE: 1 1/4" HSA **SAMPLER(S) TYPE:** 2" Split Spoon **SOIL CLASSIFIED BY:** Driller - Visually **STATION/OFFSET:**
SAMPLE HAMMER WEIGHT/FALL: 140 / 30" **CASING HAMMER WEIGHT/FALL:** **WEATHER:** Sunny

DEPTH	CASING BLOWS PER FT.	SAMPLE NO.	SAMPLE SIZE	SAMPLE FROM	DEPTH TO	SAMPLE BLOWS	VANE SIZE	VANE READINGS	DEPTH OF STRATUM CHANGE	STRATUM DESCRIPTION
0'-5'	Auger 0'-8.5'	1D	2" s/s	2'	3.5'	39/12/8			5'	Pavement Brown, medium Sand, some Silt
		2D	2" s/s	3.5'	5'	9/7/8				No Recovery Brown, fine to medium Sand, trace Silt
		3D	2" s/s	5'	7'	3/4/3/6				Brown, fine to medium Sand, some Silt
		4D	2" s/s	7'	8.5'	3/6/3				Wet. Well Log
		5D	2" s/s	8.5'	10.5'	3/14/8/20				Set 2" well @ 10.5', .010 screen 5.5'-10.5', sand to 5', Bentonite to 3.5'. Native backfill 1' to surface, cement roadbox.
		Bottom of Boring @ 10.5'								
15'										
20'										
25'										
30'										
35'										

LEGEND: C-2"-O.D. SHELBY TUBE BQ-1-5/8" CORE SIZE BW-2 1/2" OD CASING SIZE **BORING NO.:** MW-104
 -DENOTES S-3"-O.D.-SHELBY TUBE NQ-2" CORE SIZE NW-3" OD CASING SIZE
 U-3-1/2" O.D. SHELBY TUBE HQ-2 1/2" CORE SIZE HW-4" OD CASING SIZE
 D-SPLIT-SPOON SAMPLE AW-1-23/32" ROD SIZE NW-2-5/8" OD ROD SIZE



ATD

ALL TERRAIN DRILLING

PROJECT: ILES-ARLINGTON **CLIENT:** The Johnson Company **JOB NO.:** 5093009 **SHEET 1 OF 1** **BORING NO.:** MW-105

LOCATION: Arlington, VT **ANGLE FROM VERTICAL:** 0 **BEGUN:** 2/24/93 **COMPLETED:** 2/24/93 **ELEVATION:** 10.5 Ft.

DRILLER: D. Hatch **DRILL MAKE & MODEL:** Mobile B-53 Bombardier **OVERBURDEN:** 10.5 Ft. **ROCK (FT):** 0 Ft. **TOTAL DEPTH:** 10.5 Ft.

CASING SIZE/ROD SIZE: 1/4" HSA **SAMPLER(S) TYPE:** 2" Split Spoon **SOIL CLASSIFIED BY:** Driller - Visually **STATION/OFFSET:**

SAMPLE HAMMER WEIGHT/FALL: 140 / 30" **CASING HAMMER WEIGHT/FALL:** **WEATHER:** Sunny

DEPTH	CASING BLOWS PER FT.	SAMPLE NO.	SAMPLE SIZE	SAMPLE FROM	DEPTH TO	SAMPLE BLOWS	VANE SIZE	VANE READINGS	DEPTH OF STRATUM CHANGE	STRATUM DESCRIPTION
0'	Auger	1D	2" s/s	1.5'	3.5'	105/50/31/22			.5'	Pavement
1'		2D	2" s/s	3.5'	5'	25/22/14				Brown, medium Sand, trace Silt some Gravel
2'		3D	2" s/s	5'	7'	17/7/4/3				Dark, frozen Silt
3'		4D	2" s/s	7'	8.9'	11/15/18/22				Dark brown, fine melt Sand, cobb & Gravel
4'										Brown, medium to coarse Sand, Cobbs & Gravel
10.5'			Bottom of Boring @ 10.5'						10.5'	Wet. Unconfirmed Refusal Well Log
15'										Set 2" well @ 10.5', .010 screen 5.5'-10.5' sand to 5'. Bentonite to 3.5'. Native backfill 1' to surface, cement roadbox.
20'										
25'										
30'										
35'										

LEGEND: C-2"-O.D. SHELBY TUBE BQ-1-5/8" CORE SIZE BW-2 1/2" OD CASING SIZE **BORING NO.:** MW-105
 -DENOTES S-3"-O.D.-SHELBY TUBE NQ-2" CORE SIZE NW-3" OD CASING SIZE
 U-3-1/2" O.D. SHELBY TUBE HQ-2 1/2" CORE SIZE HW-4" OD CASING SIZE
 D-SPLIT-SPOON SAMPLE AW-1-23/32" ROD SIZE NW-2-5/8" OD ROD SIZE



ATD

ALL TERRAIN DRILLING

PROJECT: ILES-ARLINGTON **CLIENT:** The Johnson Company **JOB NO:** 5093009 **SHEET 1 OF 1** **BORING NO:** MW-106
LOCATION: Arlington, VT **ANGLE FROM VERTICAL:** 0 **BEGUN:** 2/24/93 **COMPLETED:** 2/24/93 **ELEVATION:**
DRILLER: J. Hatch **DRILL MAKE & MODEL:** Mobile B-53 Bombardier **OVERBURDEN:** 12 Ft. **ROCK (FT):** 0 Ft. **TOTAL DEPTH:** 12 Ft.
CASING SIZE/ROD SIZE: 1/4" HSA **SAMPLER(S) TYPE:** 2" Split Spoon **SOIL CLASSIFIED BY:** Driller - Visually **STATION/OFFSET:**
SAMPLE HAMMER WEIGHT/FALL: 140 / 30" **CASING HAMMER WEIGHT/FALL:** **WEATHER:** Sunny

DEPTH	CASING BLOWS PER FT.	SAMPLE NO.	SAMPLE SIZE	SAMPLE DEPTH		SAMPLE BLOWS	VANE SIZE	VANE READINGS	DEPTH OF STRATUM CHANGE	STRATUM DESCRIPTION
				FROM	TO					
0'	Auger									
0'-10'		1D	2" ss	3.5'	5.5'	18/6/6/4				Lt. Brown, medium Sand, some Silt, some Gravel
		2D	2" ss	5.5'	7.5'	6/4/4/22				Brown, fine to coarse Sand, some Gravel
		3D	2" ss	7.5'	9.5'	22/18/11/8				Brown, fine Sand, trace Silt, Rock Chips
		4D	2" ss	10'	12'	2/2/4/7				Lt. brown, fine Sand, some Silt
		Bottom of Boring @ 12'								Wet
										Well Log
										Set 2" well @ 12', .010 screen 7.3'-12.3', sand to 7'. Bentonite to 5.5'. Native backfill 1' to surface, cement roadbox.
15'										
20'										
25'										
30'										
35'										

LEGEND: C-2"-O.D. SHELBY TUBE BQ-1-5/8" CORE SIZE BW-2 1/2" OD CASING SIZE **BORING NO:**
-DENOTES S-3"-O.D.-SHELBY TUBE NQ-2" CORE SIZE NW-3" OD CASING SIZE MW-105
U-3-1/2" O.D. SHELBY TUBE HQ-2 1/2" CORE SIZE HW-4" OD CASING SIZE
D-SPLIT-SPOON SAMPLE AW-1-23/32" ROD SIZE NW-2-5/8" OD ROD SIZE



ATD

ALL TERRAIN DRILLING

PROJECT: MILES-ARLINGTON **CLIENT:** The Johnson Company **JOB NO:** 5093009 **SHEET 1 OF 1** **BORING NO:** MW-107
LOCATION: Arlington, VT **ANGLE FROM VERTICAL:** 0 **BEGUN:** 2/25/93 **COMPLETED:** 2/25/93 **ELEVATION:**
DRILLER: D. Hatch **DRILL MAKE & MODEL:** Mobile B-53 Bombardier **OVERBURDEN:** 10.5 Ft. **ROCK (FT):** 0 Ft. **TOTAL DEPTH:** 10.5 Ft.
CASING SIZE/ROD SIZE: 4 1/4" HSA **SAMPLER(S) TYPE:** 2" Split Spoon **SOIL CLASSIFIED BY:** Driller - Visually **STATION/OFFSET:**
SAMPLE HAMMER WEIGHT/FALL: 140 / 30" **CASING HAMMER WEIGHT/FALL:** **WEATHER:** Sunny

DEPTH	CASING BLOWS PER FT.	SAMPLE NO.	SAMPLE SIZE	SAMPLE FROM	DEPTH TO	SAMPLE BLOWS	VANE SIZE	VANE READINGS	DEPTH OF STRATUM CHANGE	STRATUM DESCRIPTION
5'	Auger 0'-5.5'	1D	2" s/s	2'	4'	18/14/22/22			.5'	Pavement Tan, medium Sand, trace Silt & Gravel
		2D	2" s/s	4'	5.5'	4/11/7			7.1'	Poor Recovery-Tan, medium Sand Wet, ss refusal
		3D	2" s/s	5.5'	7.4'	6/5/7/50-1			7.4'	Auger Refusal
10'			Bottom of Boring @ 7.5'							Well Log
15'										Set 2" well @ 7.5', screen 5.2'-7.4', filter sand 3.4'-5.2'. Bentonite 1.9'-3.4'. Nativ backfill 1.9' to surface, cement roadbox.
20'										
25'										
30'										
35'										

LEGEND: C-2"-O.D. SHELBY TUBE BQ-1-5/8" CORE SIZE BW-2 1/2" OD CASING SIZE **BORING NC**
 -DENOTES S-3"-O.D.-SHELBY TUBE NQ-2" CORE SIZE NW-3" OD CASING SIZE MW-107
 U-3-1/2" O.D. SHELBY TUBE HQ-2 1/2" CORE SIZE HW-4" OD CASING SIZE
 D-SPLIT-SPOON SAMPLE AW-1-23/32" ROD SIZE NW-2-5/8" OD ROD SIZE



ATD

ALL TERRAIN DRILLING

PROJECT: MILES-ARLINGTON CLIENT: The Johnson Company JOB NO.: 5093009 SHEET 1 OF 1 BORING NO.: B-201
LOCATION: Arlington, VT ANGLE FROM VERTICAL: 0 BEGUN: 2/24/93 COMPLETED: 2/24/93 ELEVATION:
DRILLER: D. Hatch DRILL MAKE & MODEL: Mobile B-53 Bombardier OVERBURDEN: 4.5 Ft. ROCK (FT): 0 Ft. TOTAL DEPTH: 4.5 Ft.
CASING SIZE/ROD SIZE: 1 1/4" HSA SAMPLER(S) TYPE: No Samples SOIL CLASSIFIED BY: Driller - Visually STATION/OFFSET:
SAMPLE HAMMER WEIGHT/FALL: 140 / 30" CASING HAMMER WEIGHT/FALL: WEATHER: Sunny

DEPTH	CASING BLOWS PER FT.	SAMPLE NO.	SAMPLE SIZE	SAMPLE FROM	DEPTH TO	SAMPLE BLOWS	VANE SIZE	VANE READINGS	DEPTH OF STRATUM CHANGE	STRATUM DESCRIPTION
0'	Probe Auger								.5'	Loam/organics
4.5'									4.5'	Cobbles, medium to coarse Sand, some Silt
			Bottom of Boring @ 4.5'							Unconfirmed refusal.
5'										
10'										
15'										
20'										
25'										
30'										
35'										

LEGEND:
 -DENOTES C-2"-O.D. SHELBY TUBE BQ-1-5/8" CORE SIZE BW-2 1/2" OD CASING SIZE BORING NO.:
 S-3"-O.D.-SHELBY TUBE NQ-2" CORE SIZE NW-3" OD CASING SIZE B-201
 U-3-1/2" O.D. SHELBY TUBE HQ-2 1/2" CORE SIZE HW-4" OD CASING SIZE
 D-SPLIT-SPOON SAMPLE AW-1-23/32" ROD SIZE NW-2-5/8" OD ROD SIZE



ATD

ALL TERRAIN DRILLING

PROJECT: MILES-ARLINGTON CLIENT: The Johnson Company JOB NO.: 5093009 SHEET 1 OF 1 BORING NO.: B-202
LOCATION: Arlington, VT ANGLE FROM VERTICAL: 0 BEGUN: 2/24/93 COMPLETED: 2/24/93 ELEVATION:
DRILLER: D. Hatch DRILL MAKE & MODEL: Mobile B-53 Bombardier OVERBURDEN: 1 Ft. ROCK (FT): 0 Ft. TOTAL DEPTH: 1 Ft.
CASING SIZE/ROD SIZE: 4 1/4" HSA SAMPLER(S) TYPE: No Samples SOIL CLASSIFIED BY: Driller - Visually STATION/OFFSET:
SAMPLE HAMMER WEIGHT/FALL: 140 / 30" CASING HAMMER WEIGHT/FALL: WEATHER: Sunny

DEPTH	CASING BLOWS PER FT.	SAMPLE NO.	SAMPLE SIZE	SAMPLE DEPTH		SAMPLE BLOWS	VANE SIZE	VANE READINGS	DEPTH OF STRATUM CHANGE	STRATUM DESCRIPTION
				FROM	TO					
H	Probe Auger 0'-1'		Bottom of Boring @ 1'						1'	Unconfirmed Refusal
5'										
10'										
15'										
20'										
25'										
30'										
35'										

LEGEND: C-2"-O.D. SHELBY TUBE BQ-1-5/8" CORE SIZE BW-2 1/2" OD CASING SIZE BORING NO.:
 -DENOTES S-3"-O.D.-SHELBY TUBE NQ-2" CORE SIZE NW-3" OD CASING SIZE B-202
 U-3-1/2" O.D. SHELBY TUBE HQ-2 1/2" CORE SIZE HW-4" OD CASING SIZE
 D-SPLIT-SPOON SAMPLE AW-1-23/32" ROD SIZE NW-2-5/8" OD ROD SIZE



ATD

ALL TERRAIN DRILLING

PROJECT: MILES-ARLINGTON **CLIENT:** The Johnson Company **JOB NO:** 5093009 **SHEET 1 OF 1** **BORING NO:** B-203

LOCATION: Arlington, VT **ANGLE FROM VERTICAL:** 0 **BEGUN:** 2/24/93 **COMPLETED:** 2/24/93 **ELEVATION:**

DRILLER: D. Hatch **DRILL MAKE & MODEL:** Mobile B-53 Bombardier **OVERBURDEN:** .7 Ft. **ROCK (FT):** 0 Ft. **TOTAL DEPTH:** .7 Ft.

CASING SIZE/ROD SIZE: 4 1/4" HSA **SAMPLER(S) TYPE:** No Samples **SOIL CLASSIFIED BY:** Driller - Visually **STATION/OFFSET:**

SAMPLE HAMMER WEIGHT/FALL: 140 / 30" **CASING HAMMER WEIGHT/FALL:** **WEATHER:** Sunny

DEPTH	CASING BLOWS PER FT.	SAMPLE NO.	SAMPLE SIZE	SAMPLE FROM	DEPTH TO	SAMPLE BLOWS	VANE SIZE	VANE READINGS	DEPTH OF STRATUM CHANGE	STRATUM DESCRIPTION
0'	Probe Auger								.7'	Unconfirmed Refusal
5'										
10'										
15'										
20'										
25'										
30'										
35'										

LEGEND:
 -DENOTES C-2"-O.D. SHELBY TUBE BQ-1-5/8" CORE SIZE BW-2 1/2" OD CASING SIZE **BORING NO:**
 S-3"-O.D.-SHELBY TUBE NQ-2" CORE SIZE NW-3" OD CASING SIZE B-203
 U-3-1/2" O.D. SHELBY TUBE HQ-2 1/2" CORE SIZE HW-4" OD CASING SIZE
 D-SPLIT-SPOON SAMPLE AW-1-23/32" ROD SIZE NW-2-5/8" OD ROD SIZE



ATD

ALL TERRAIN DRILLING

PROJECT: MILES-ARLINGTON **CLIENT:** The Johnson Company **JOB NO:** 5093009 **SHEET 1 OF 1** **BORING NO:** B-204
LOCATION: Arlington, VT **ANGLE FROM VERTICAL:** 0 **BEGUN:** 2/24/93 **COMPLETED:** 2/24/93 **ELEVATION:**
DRILLER: D. Hatch **DRILL MAKE & MODEL:** Mobile B-53 Bombardier **OVERBURDEN:** .9 Ft. **ROCK (FT):** 0 Ft. **TOTAL DEPTH:** .9 Ft.
CASING SIZE/ROD SIZE: 1 1/4" HSA **SAMPLER(S) TYPE:** No Samples **SOIL CLASSIFIED BY:** Driller - Visually **STATION/OFFSET:**
SAMPLE HAMMER WEIGHT/FALL: 140 / 30" **CASING HAMMER WEIGHT/FALL:** **WEATHER:** Sunny

DEPTH	CASING BLOWS PER FT.	SAMPLE NO.	SAMPLE SIZE	SAMPLE FROM	DEPTH TO	SAMPLE BLOWS	VANE SIZE	VANE READINGS	DEPTH OF STRATUM CHANGE	STRATUM DESCRIPTION
0'-9"	Probe Auger								.9'	Unconfirmed Refusal Gray, coarse Sand, some Silt Broken rock, Gravel
5'										
10'										
15'										
20'										
25'										
30'										
35'										

LEGEND: C-2"-O.D. SHELBY TUBE BQ-1-5/8" CORE SIZE BW-2 1/2" OD CASING SIZE **BORING NO:**
 -DENOTES S-3"-O.D.-SHELBY TUBE NQ-2" CORE SIZE NW-3" OD CASING SIZE B-204
 U-3-1/2" O.D. SHELBY TUBE HQ-2 1/2" CORE SIZE HW-4" OD CASING SIZE
 D-SPLIT-SPOON SAMPLE AW-1-23/32" ROD SIZE NW-2-5/8" OD ROD SIZE



ATD

ALL TERRAIN DRILLING

PROJECT: MILES-ARLINGTON **CLIENT:** The Johnson Company **JOB NO.:** 5093009 **SHEET 1 OF 1** **BORING NO.:** MW-303

LOCATION: Arlington, VT **ANGLE FROM VERTICAL:** 0 **BEGUN:** 2/25/93 **COMPLETED:** 2/25/93 **ELEVATION:**

DRILLER: D. Hatch **DRILL MAKE & MODEL:** Mobile B-53 Bombardier **OVERBURDEN:** 10.5 Ft. **ROCK (FT):** 0 Ft. **TOTAL DEPTH:** 10.5 Ft.

CASING SIZE/ROD SIZE: 4 1/4" HSA **SAMPLER(S) TYPE:** 2" Split Spoon **SOIL CLASSIFIED BY:** Driller - Visually **STATION/OFFSET:**

SAMPLE HAMMER WEIGHT/FALL: 140 / 30" **CASING HAMMER WEIGHT/FALL:** **WEATHER:** Sunny

DEPTH	CASING BLOWS PER FT.	SAMPLE NO.	SAMPLE SIZE	SAMPLE DEPTH		SAMPLE BLOWS	VANE SIZE	VANE READINGS	DEPTH OF STRATUM CHANGE	STRATUM DESCRIPTION
				FROM	TO					
0'-6"	Auger									
5'		1D	2" s/s	4'	6'	10/6/7/4				Gray, fine Sand, some Silt & Gravel
		2D	2" s/s	6'	8'	5/6/11/60				Wet.
10'		Bottom of Boring @ 10.5'								Well Log
15'										Set 2" well @ 10.5', .010 screen 5'-10', sand to 5'. Bentonite to 3.5'. Native backfill 1' to surface, cement roadbox.
20'										
25'										
30'										
35'										

LEGEND:
 -DENOTES C-2"-O.D. SHELBY TUBE BQ-1-5/8" CORE SIZE BW-2 1/2" OD CASING SIZE BORING NO:
 S-3"-O.D.-SHELBY TUBE NQ-2" CORE SIZE NW-3" OD CASING SIZE MW-303
 U-3-1/2" O.D. SHELBY TUBE HQ-2 1/2" CORE SIZE HW-4" OD CASING SIZE
 D-SPLIT-SPOON SAMPLE AW-1-23/32" ROD SIZE NW-2-5/8" OD ROD SIZE



ATD

ALL TERRAIN DRILLING

PROJECT: MILES-ARLINGTON **CLIENT:** The Johnson Company **JOB NO.:** 5093009 **SHEET 1 OF 1** **BORING NO.:** MW-302
LOCATION: Arlington, VT **ANGLE FROM VERTICAL:** 0 **BEGUN:** 2/25/93 **COMPLETED:** 2/25/93 **ELEVATION:**
DRILLER: D. Hatch **DRILL MAKE & MODEL:** Mobile B-53 Bombardier **OVERBURDEN:** 10.2 Ft. **ROCK (FT):** 0 Ft. **TOTAL DEPTH:** 10.2 Ft.
CASING SIZE/ROD SIZE: 1 1/4" HSA **SAMPLER(S) TYPE:** 2" Split Spoon **SOIL CLASSIFIED BY:** Driller - Visually **STATION/OFFSET:**
SAMPLE HAMMER WEIGHT/FALL: 140 / 30" **CASING HAMMER WEIGHT/FALL:** **WEATHER:** Sunny & Clear

DEPTH	CASING BLOWS PER FT.	SAMPLE NO.	SAMPLE SIZE	SAMPLE FROM	DEPTH TO	SAMPLE BLOWS	VANE SIZE	VANE READINGS	DEPTH OF STRATUM CHANGE	STRATUM DESCRIPTION
0'-10.5'	Auger									
5'		1D	2" s/s	4'	6'	5/4/2/2				Tan, medium Sand, broken rock, black Silt No recovery - Wet, spoon Auger refusal
		2D	2" s/s	6'	8'	4/1/4/4				
10'			Bottom of Boring @ 10.5'							Well Log
15'										Set 2" well @ 10.5', screen 5'-10', filter sand to 5', Bentonite 3.5' to 5'. Native backfill 1' to surface, cement roadbox.
20'										
25'										
30'										
35'										

LEGEND:
 -DENOTES C-2"-O.D. SHELBY TUBE BQ-1-5/8" CORE SIZE BW-2 1/2" OD CASING SIZE **BORING NO.:**
 S-3"-O.D.-SHELBY TUBE NQ-2" CORE SIZE NW-3" OD CASING SIZE MW-302
 U-3-1/2" O.D. SHELBY TUBE HQ-2 1/2" CORE SIZE HW-4" OD CASING SIZE
 D-SPLIT-SPOON SAMPLE AW-1-23/32" ROD SIZE NW-2-5/8" OD ROD SIZE

APPENDIX C
Lancaster Laboratories Analytical Reports



Lancaster Laboratories

Where quality is a science.

10:26:40 370040
ASR000 D 2 1
07322 0

Miles Lumber Company
c/o Dailey & Dailey
PO Box 810
Manchester, VT 05254
203 Grab Soil Sample
Miles Lumber

LLI Sample No. SW 1936162
Date Reported 3/ 8/93
Date Submitted 2/27/93
Discard Date 3/23/93
Collected 2/25/93 by KHJ
Time Collected 1330
P.O. 1-0426-1
Rel.

ANALYSIS	RESULT	DRY WT. BASIS	LIMIT OF QUANTITATION	LAB CODE
Moisture *AS RECEIVED*	10.3	% by wt.	0.5	011100000S*
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius.				
Petroleum Hydrocarbons	550.	mg/kg	20.	156200000S*

1 COPY TO Miles Lumber Company
1 COPY TO The Johnson Company

ATTN: Kevin Dailey, Esquire
ATTN: Mr. Karl Johnson

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Bethany A. Ebling, B.S.
Group Leader, Water Quality



Lancaster Laboratories, Inc.
2400 West Main Street
Lancaster, PA 17601-5994
(717) 656-2301





Lancaster Laboratories
Where quality is a science.

10:35:18 370197
ASR000 D 2 5
07322 0

KHJ
File

Miles Lumber Company
c/o Dailey & Dailey
PO Box 810
Manchester, VT 05254
Trip Blank Water Sample
Miles Lumber Co. i-0426-1 (54)

LLI Sample No. WW 1936581
Date Reported 3/ 8/93
Date Submitted 3/ 2/93
Discard Date 3/16/93

Time Collected
P.O. i-0426-1 (54)
Rel.

--TRP SDG#
ANALYSIS
Purgeables (SW846/8240)

RESULT	LIMIT OF	LAB CODE
AS RECEIVED	QUANTITATION	150843200S*
attached		

1 COPY TO Miles Lumber Company
1 COPY TO The Johnson Company

ATTN: Kevin Dailey, Esquire
ATTN: Mr. Karl Johnson

Questions? Contact Environmental
Client Services at (717) 656-2301
323 07322 0.00 043200

Respectfully Submitted
Lancaster Laboratories, Inc.

Michele McClarin, B.A.
Group Leader, GC/MS Volatiles



Lancaster Laboratories, Inc.
2300 West 10th Avenue
Lancaster, PA 17601-0941
717-656-2300



Miles Lumber Company
 c/o Dailey & Dailey
 PO Box 810
 Manchester, VT 05254
 Trip Blank Water Sample
 Miles Lumber Co. 1-0426-1 (54)

LLI Sample No. WW 1936581
 Date Reported 3/ 8/93
 Date Submitted 3/ 2/93
 Discard Date 3/16/93

Time Collected
 P.O. 1-0426-1 (54)
 Rel.

---TRP SDG#	RESULT	LIMIT OF	LAB CODE
Purgeables (SW846/8240)	AS RECEIVED	QUANTITATION	
Chloromethane	< 10. ug/l	10.	125800000S
Bromomethane	< 10. ug/l	10.	125700000S
Vinyl Chloride	< 10. ug/l	10.	349200000S
Chloroethane	< 10. ug/l	10.	349400000S
Acrolein	< 100. ug/l	100.	349500000S
Acrylonitrile	< 100. ug/l	100.	349600000S
Methylene Chloride	< 5. ug/l	5.	349700000S
Trichlorofluoromethane	< 5. ug/l	5.	126400000S
1,1-Dichloroethene	< 5. ug/l	5.	350000000S
1,1-Dichloroethane	< 5. ug/l	5.	350100000S
1,2-Dichloroethene (total)	< 5. ug/l	5.	350200000S
Chloroform	< 5. ug/l	5.	350300000S
1,2-Dichloroethane	< 5. ug/l	5.	350400000S
1,1,1-Trichloroethane	< 5. ug/l	5.	350500000S
Carbon Tetrachloride	< 5. ug/l	5.	350600000S
Bromodichloromethane	< 5. ug/l	5.	350800000S
1,1,2,2-Tetrachloroethane	< 5. ug/l	5.	352300000S
1,2-Dichloropropane	< 5. ug/l	5.	350900000S
trans-1,3-Dichloropropene	< 5. ug/l	5.	351000000S
Trichloroethene	< 5. ug/l	5.	351100000S
Dibromochloromethane	< 5. ug/l	5.	351200000S
1,1,2-Trichloroethane	< 5. ug/l	5.	351300000S
Benzene	< 5. ug/l	5.	351500000S
cis-1,3-Dichloropropene	< 5. ug/l	5.	351600000S
2-Chloroethyl Vinyl Ether	< 10. ug/l	10.	364500000S
Bromoform	< 5. ug/l	5.	351800000S
Tetrachloroethene	< 5. ug/l	5.	352200000S
Toluene	< 5. ug/l	5.	352400000S
Chlorobenzene	< 5. ug/l	5.	352500000S
Ethylbenzene	< 5. ug/l	5.	352600000S
Xylene (total)	< 5. ug/l	5.	352900000S

The GC/MS volatile sample was preserved with 1 + 1 HCl to pH < 2. Low recovery of acid labile compounds, such as 2-chloroethyl vinyl ether, is likely to occur.

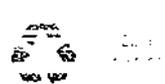
1 COPY TO Miles Lumber Company
 1 COPY TO The Johnson Company

ATTN: Kevin Dailey, Esquire
 ATTN: Mr. Karl Johnson

Questions? Contact Environmental
 Client Services at (717) 656-2301

Respectfully Submitted
 Lancaster Laboratories, Inc.

Michele McClarin, B.A.
 Group Leader, GC/MS Volatiles





10:35:26 370197
ASR000 D 2 5
07322 0

LLI Sample No. WW 1936582
Date Reported 3/ 8/93
Date Submitted 3/ 2/93
Discard Date 3/16/93
Collected 3/ 1/93 by WPD
Time Collected 1110
P.O. 1-0426-1 (54)
Rel.

Miles Lumber Company
c/o Dailey & Dailey
PO Box 810
Manchester, VT 05254
Field Blank Grab Water Sample
Miles Lumber Co. 1-0426-1 (54)

ANALYSIS
Chloroethene

RESULT
AS RECEIVED
< 0.5 ug/l

LIMIT OF
QUANTITATION 0.5
LAB CODE 041800800S*

COPY TO Miles Lumber Company
COPY TO The Johnson Company

ATTN: Kevin Dailey, Esquire
ATTN: Mr. Karl Johnson

RECEIVED

MAR 12 1993

THE JOHNSON CO., INC.
MONTPELIER, VERMONT

Questions? Contact Environmental
Client Services at (717) 656-2301
323 07322 120.00 012800

Respectfully Submitted
Lancaster Laboratories, Inc.

Michele McClarin, B.A.
Group Leader, GC/MS Volatiles



Lancaster Laboratories, Inc.
2415 W. Holland Pike
Lancaster, PA 17601-9994
717-656-2301





Lancaster Laboratories

Where quality is a science.

10:35:27 370197

ASR000 D 2 5

07322 0

File

Miles Lumber Company

c/o Dailey & Dailey

PO Box 810

Manchester, VT 05254

Underdrain (301) Grab Water Sample

Miles Lumber Co. 1-0426-1 (54)

LLI Sample No. WW 1936583

Date Reported 3/ 8/93

Date Submitted 3/ 2/93

Discard Date 3/16/93

Collected 3/ 1/93 by WPD

Time Collected 0930

P.O. 1-0426-1 (54)

Rel.

UNDER SDG#

ANALYSIS

Purgeables (SW846/8240)

RESULT
AS RECEIVED

attached

LIMIT OF
QUANTITATION

LAB CODE

150843200S*

1 COPY TO Miles Lumber Company

1 COPY TO The Johnson Company

ATTN: Kevin Dailey, Esquire

ATTN: Mr. Karl Johnson

Questions? Contact Environmental
Client Services at (717) 656-2301
323 07322 0.00 043200

Respectfully Submitted
Lancaster Laboratories, Inc.

Michele McClarin, B.A.
Group Leader, GC/MS Volatiles



Lancaster Laboratories, Inc.
2125 Lewis and Clark Pike
Lancaster, PA 17601-5004
717-656-2301

See reverse side for explanation of symbols and abbreviations





10:35:28 370197
ASR000 D 2 5
07322 0

Miles Lumber Company
c/o Dailey & Dailey
PO Box 810
Manchester, VT 05254

LLI Sample No. WW 1936583
Date Reported 3/ 8/93
Date Submitted 3/ 2/93
Discard Date 3/16/93
Collected 3/ 1/93 by WPD
Time Collected 0930
P.O. i-0426-1 (54)
Rel.

Underdrain (301) Grab Water Sample
Miles Lumber Co. 1-0426-1 (54)

UNDER SDG#	RESULT	LIMIT OF	LAB CODE
Purgeables (SW846/8240)	AS RECEIVED	QUANTITATION	
Chloromethane	< 10. ug/l	10.	125800000S
Bromomethane	< 10. ug/l	10.	125700000S
Vinyl Chloride	< 10. ug/l	10.	349200000S
Chloroethane	< 10. ug/l	10.	349400000S
Acrolein	< 100. ug/l	100.	349500000S
Acrylonitrile	< 100. ug/l	100.	349600000S
Methylene Chloride	< 5. ug/l	5.	349700000S
Trichlorofluoromethane	< 5. ug/l	5.	126400000S
1,1-Dichloroethene	< 5. ug/l	5.	350000000S
1,1-Dichloroethane	< 5. ug/l	5.	350100000S
1,2-Dichloroethene (total)	< 5. ug/l	5.	350200000S
Chloroform	< 5. ug/l	5.	350300000S
1,2-Dichloroethane	< 5. ug/l	5.	350400000S
1,1,1-Trichloroethane	< 5. ug/l	5.	350500000S
Carbon Tetrachloride	< 5. ug/l	5.	350600000S
Bromodichloromethane	< 5. ug/l	5.	350800000S
1,1,2,2-Tetrachloroethane	< 5. ug/l	5.	352300000S
1,2-Dichloropropane	< 5. ug/l	5.	350900000S
trans-1,3-Dichloropropane	< 5. ug/l	5.	351000000S
Trichloroethene	24. ug/l	5.	351100000S
Dibromochloromethane	< 5. ug/l	5.	351200000S
1,1,2-Trichloroethane	< 5. ug/l	5.	351300000S
Benzene	< 5. ug/l	5.	351500000S
cis-1,3-Dichloropropene	< 5. ug/l	5.	351600000S
2-Chloroethyl Vinyl Ether	< 10. ug/l	10.	364500000S
Bromoform	< 5. ug/l	5.	351800000S
Tetrachloroethene	< 5. ug/l	5.	352200000S
Toluene	< 5. ug/l	5.	352400000S
Chlorobenzene	< 5. ug/l	5.	352500000S
Ethylbenzene	< 5. ug/l	5.	352600000S
Xylene (total)	< 5. ug/l	5.	352900000S

The GC/MS volatile sample was preserved with 1 + 1 HCl to pH < 2. Low recovery of acid labile compounds, such as 2-chloroethyl vinyl ether, is likely to occur.

1 COPY TO Miles Lumber Company
1 COPY TO The Johnson Company

ATTN: Kevin Dailey, Esquire
ATTN: Mr. Karl Johnson

Questions? Contact Environmental
Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Michele McClarin, B.A.
Group Leader, GC/MS Volatiles



Lancaster Laboratories, Inc.
2001 York Road, Suite 200
Lancaster, PA 17602
Tel: (717) 656-2301





Lancaster Laboratories
Where quality is a science.

10:35:33 370197
ASR000 D 2 5
07322 0

Miles Lumber Company
c/o Dailey & Dailey
PO Box 810
Manchester, VT 05254
MW-302 Grab Water Sample
Miles Lumber Co. 1-0426-1 (54)

REC'D
THE JOHNSON CO.
MARCH 1993

LLI Sample No. WW 1936584
Date Reported 3/ 8/93
Date Submitted 3/ 2/93
Discard Date 3/16/93
Collected 3/ 1/93 by WPD
Time Collected 1020
P.O. 1-0426-1 (54)
Rel.

ANALYSIS	RESULT AS RECEIVED	LIMIT OF QUANTITATION	LAB CODE
Trichloroethene	13. ug/l	0.5	041800800S*

1 COPY TO Miles Lumber Company
1-COPY TO The Johnson Company
ATTN: Kevin Dailey, Esquire
ATTN: Mr. Karl Johnson

Questions? Contact Environmental
Client Services at (717) 656-2301
323 07322 120.00 012800

Respectfully Submitted
Lancaster Laboratories, Inc.

Michele McClarin, B.A.
Group Leader, GC/MS Volatiles



Lancaster Laboratories, Inc.
2425 North Second Street
Lancaster, PA 17603-4464
Tel: 717-656-2301





Lancaster Laboratories

Where quality is a science.

10:35:34 370197
 ASR000 D 2 5
 07322 0

Miles Lumber Company
 c/o Dailey & Dailey
 PO Box 810
 Manchester, VT 05254
 MW-303 Grab Water Sample
 Miles Lumber Co. 1-0426-1 (54)

LLI Sample No. WW 1936585
 Date Reported 3/ 8/93
 Date Submitted 3/ 2/93
 Discard Date 3/16/93
 Collected 3/ 1/93 by WPD
 Time Collected 1045
 P.O. 1-0426-1 (54)
 Rel.

ANALYSIS	RESULT AS RECEIVED	LIMIT OF QUANTITATION	LAB CODE
Trichloroethene	0.8 ug/l	0.5	041800800S*

1 COPY TO Miles Lumber Company
 1 COPY TO The Johnson Company

ATTN: Kevin Dailey, Esquire
 ATTN: Mr. Karl Johnson

Questions? Contact Environmental
 Client Services at (717) 656-2301
 323 07322 120.00 012800

Respectfully Submitted
 Lancaster Laboratories, Inc.

Michele McClarin, B.A.
 Group Leader, GC/MS Volatiles



Lancaster Laboratories, Inc.
 2424 York Road
 Lancaster, PA 17601-5301
 717-656-2301





Lancaster Laboratories
Where quality is a science.

10:24:50 369750
 ASR000 D 1 9
 06556 0

The Johnson Company, Inc.
 5 State Street
 Montpelier, VT 05602

LLI Sample No. WW 1934797
 Date Reported 2/26/93
 Date Submitted 2/25/93
 Discard Date 3/ 6/93

Trip Blank Water Sample
 Miles Lumber Co. - 1-0426-1 (54)

Time Collected
 P.O. 1-0426-1 (54)
 Rel.

ANALYSIS	RESULT AS RECEIVED	LIMIT OF QUANTITATION	LAB CODE
BTEX Scan with MTBE	attached		182918000S*

1 COPY TO The Johnson Company, Inc. ATTN: Mr. Karl Johnson

RECEIVED

MAR 1 1993

THE JOHNSON CO., INC.
 MONTPELIER, VERMONT

Questions? Contact Environmental
 Client Services at (717) 656-2301
 854 06556 0.00 018000

Respectfully Submitted
 Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
 Group Leader



Lancaster Laboratories, Inc.
 2400 North Guilford Pike
 Lancaster, PA 17602-4944
 (717) 656-2301





Lancaster Laboratories
Where quality is a science.

10:24:55 369750
ASR000 D 1 9
06556 0

The Johnson Company, Inc.
5 State Street
Montpelier, VT 05602

LLI Sample No. WW 1934797
Date Reported 2/26/93
Date Submitted 2/25/93
Discard Date 3/ 6/93

Trip Blank Water Sample
Miles Lumber Co. - 1-0426-1 (54)

Time Collected
P.O. 1-0426-1 (54)
Rel.

	RESULT		LIMIT OF	LAB CODE
	AS RECEIVED		QUANTITATION	
BTEX Scan with MTBE				
Benzene	< 1. ug/l		1.	183000000S
Toluene	< 1. ug/l		1.	183100000S
o-Xylene	< 1. ug/l		1.	183200000S
m-Xylene	< 1. ug/l		1.	183300000S
p-Xylene	< 1. ug/l		1.	183400000S
Ethylbenzene	< 1. ug/l		1.	183500000S
Methyl t-butyl ether	< 1. ug/l		1.	183600000S

1 COPY TO The Johnson Company, Inc.

ATTN: Mr. Karl Johnson

Questions? Contact Environmental
Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader



Lancaster Laboratories, Inc.
24 E. New Market Pike
Lancaster, PA 17604-5894
www.lllab.com





Lancaster Laboratories
Where quality is a science.

10:24:57 369750
ASR000 D 1 9
06556 0

The Johnson Company, Inc.
5 State Street
Montpelier, VT 05602

LLI Sample No. WW 1934798
Date Reported 2/26/93
Date Submitted 2/25/93
Discard Date 3/ 6/93
Collected 2/24/93 by WPD
Time Collected 1500
P.O. 1-0426-1 (54)
Rel.

Field Blank Water Sample
Miles Lumber Co. - 1-0426-1 (54)

ANALYSIS	RESULT AS RECEIVED	LIMIT OF QUANTITATION	LAB CODE
BTEX Scan with MTBE	attached		182918000S*

1 COPY TO The Johnson Company, Inc. ATTN: Mr. Karl Johnson

RECEIVED

MAR 1 1993

THE JOHNSON CO., INC.
MONTPELIER, VERMONT

Questions? Contact Environmental
Client Services at (717) 656-2301
854 06556 0.00 018000

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader



Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-4444
717-656-2301





Lancaster Laboratories

Where quality is a science.

10:24:58 369750
ASR000 D 1 9
06556 0

The Johnson Company, Inc.
5 State Street
Montpelier, VT 05602

LLI Sample No. WW 1934798
Date Reported 2/26/93
Date Submitted 2/25/93
Discard Date 3/ 6/93
Collected 2/24/93 by WPD
Time Collected 1500
P.O. 1-0426-1 (54)
Rel.

Field Blank Water Sample
Miles Lumber Co. - 1-0426-1 (54)

	RESULT	LIMIT OF	LAB CODE
	AS RECEIVED	QUANTITATION	
BTEX Scan with MTBE			
Benzene	< 1. ug/l	1.	183000000S
Toluene	< 1. ug/l	1.	183100000S
o-Xylene	< 1. ug/l	1.	183200000S
m-Xylene	< 1. ug/l	1.	183300000S
p-Xylene	< 1. ug/l	1.	183400000S
Ethylbenzene	< 1. ug/l	1.	183500000S
Methyl t-butyl ether	< 1. ug/l	1.	183600000S

1 COPY TO The Johnson Company, Inc.

ATTN: Mr. Karl Johnson

Questions? Contact Environmental
Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader



Lancaster Laboratories, Inc.
2435 New Holland Pike
Lancaster, PA 17604-3997
TEL: 656-2301

See reverse side for explanation of symbols and abbreviations.





10:25:00 369750
ASR000 D 1 9
06556 0

The Johnson Company, Inc.
5 State Street
Montpelier, VT 05602

LLI Sample No. WW 1934799
Date Reported 2/26/93
Date Submitted 2/25/93
Discard Date 3/ 6/93
Collected 2/24/93 by WPD
Time Collected 1415
P.O. 1-0426-1 (54)
Rel.

MW-103 Grab Water Sample
Miles Lumber Co. - 1-0426-1 (54)

ANALYSIS
BTEX Scan with MTBE

RESULT
AS RECEIVED
attached

LIMIT OF
QUANTITATION
LAB CODE
182918000S*

1 COPY TO The Johnson Company, Inc.

ATTN: Mr. Karl Johnson

RECEIVED

MAR 1 1993

THE JOHNSON CO., INC.
MONTPELIER, VERMONT

Questions? Contact Environmental
Client Services at (717) 656-2301
854 06556 0.00 018000

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
www.lancasterlab.com
Lancaster, PA 17603-5904
Tel: 717-656-2301





10:25:01 369750
ASR000 D 1 9
06556 0

The Johnson Company, Inc.
5 State Street
Montpelier, VT 05602

LLI Sample No. WW 1934799
Date Reported 2/26/93
Date Submitted 2/25/93
Discard Date 3/ 6/93
Collected 2/24/93 by WPD
Time Collected 1415
P.O. 1-0426-1 (54)
Rel.

MW-103 Grab Water Sample
Miles Lumber Co. - 1-0426-1 (54)

	RESULT		LIMIT OF	LAB CODE
	AS RECEIVED		QUANTITATION	
BTEX Scan with MTBE				
Benzene	2.	ug/l	1.	183000000S
Toluene	1.	ug/l	1.	183100000S
o-Xylene	2.	ug/l	1.	183200000S
m-Xylene	3.	ug/l	1.	183300000S
p-Xylene	2.	ug/l	1.	183400000S
Ethylbenzene	2.	ug/l	1.	183500000S
Methyl t-butyl ether	< 1.	ug/l	1.	183600000S

1 COPY TO The Johnson Company, Inc.

ATTN: Mr. Karl Johnson

Questions? Contact Environmental
Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader



Lancaster Laboratories, Inc.
1000 State Street
Lancaster, PA 17601-8997
Tel: (717) 656-2301

See reverse side for explanation of symbols and abbreviations.



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10:25:04 369750
ASR000 D 1 9
06556 0

The Johnson Company, Inc.
5 State Street
Montpelier, VT 05602

MW-2 Grab Water Sample
Miles Lumber Co. - 1-0426-1 (54)

LLI Sample No. WW 1934800
Date Reported 2/26/93
Date Submitted 2/25/93
Discard Date 3/ 6/93
Collected 2/24/93 by WPD
Time Collected 1445
P.O. 1-0426-1 (54)
Rel.

ANALYSIS
BTEX Scan with MTBE

RESULT
AS RECEIVED
attached

LIMIT OF
QUANTITATION
LAB CODE
182918000S*

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Client Services at (717) 656-2301
854 06556 0.00 018000

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2475 New Holland Pike
Lancaster, PA 17601-8064
717-656-2301





10:25:05 369750
ASR000 D 1 9
06556 0

The Johnson Company, Inc.
5 State Street
Montpelier, VT 05602

LLI Sample No. WW 1934800
Date Reported 2/26/93
Date Submitted 2/25/93
Discard Date 3/ 6/93
Collected 2/24/93 by WPD
Time Collected 1445
P.O. 1-0426-i (54)
Rel.

MW-2 Grab Water Sample
Miles Lumber Co. - 1-0426-1 (54)

	RESULT		LIMIT OF	LAB CODE
	AS RECEIVED		QUANTITATION	
BTEX Scan with MTBE				
Benzene	< 1.	ug/l	1.	183000000S
Toluene	< 1.	ug/l	1.	183100000S
o-Xylene	< 1.	ug/l	1.	183200000S
m-Xylene	< 1.	ug/l	1.	183300000S
p-Xylene	< 1.	ug/l	1.	183400000S
Ethylbenzene	< 1.	ug/l	1.	183500000S
Methyl t-butyl ether	< 1.	ug/l	1.	183600000S

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ATTN: Mr. Karl Johnson

Questions? Contact Environmental
Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.



Lancaster Laboratories, Inc.
1425 Westminster Pike
Lancaster, PA 17602-0001
(717) 656-2301

Judy A. Colello, B.S.
Group Leader





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10:25:07 369750
ASR000 D 1 9
06556 0

The Johnson Company, Inc.
5 State Street
Montpelier, VT 05602

LLI Sample No. WW 1934801
Date Reported 2/26/93
Date Submitted 2/25/93
Discard Date 3/ 6/93
Collected 2/24/93 by WPD
Time Collected 1510
P.O. 1-0426-1 (54)
Rel.

MW-1 Grab Water Sample
Miles Lumber Co. - 1-0426-1 (54)

BTEX Scan with MTBE	RESULT		LIMIT OF QUANTITATION	LAB CODE
	AS RECEIVED			
Benzene	< 50.	ug/l	50.	183000000S
Toluene	300.	ug/l	20.	183100000S
o-Xylene	1,400.	ug/l	20.	183200000S
m-Xylene	2,900.	ug/l	20.	183300000S
p-Xylene	1,300.	ug/l	20.	183400000S
Ethylbenzene	1,300.	ug/l	20.	183500000S
Methyl t-butyl ether	< 200.	ug/l	200.	183600000S

Due to the presence of interferences near their retention times, normal reporting limits were not attained for benzene and methyl tert-butyl ether.

1 COPY TO The Johnson Company, Inc. ATTN: Mr. Karl Johnson

Questions? Contact Environmental
Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader



Lancaster Laboratories, Inc.
2475 Lehigh Valley Blvd.
Lancaster, PA 17601-1014
Tel: (717) 656-2301

www.lancasterlab.com 1-800-368-6600



5/19/93



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10:25:08 369750
ASR000 D 1 9
06556 0

The Johnson Company, Inc.
5 State Street
Montpelier, VT 05602

LLI Sample No. WW 1934802
Date Reported 2/26/93
Date Submitted 2/25/93
Discard Date 3/ 6/93
Collected 2/24/93 by WPD
Time Collected 1530
P.O. 1-0426-1 (54)
Rel.

MW-105 Grab Water Sample
Miles Lumber Co. - 1-0426-1 (54)

ANALYSIS	RESULT AS RECEIVED	LIMIT OF QUANTITATION	LAB CODE
BTEX Scan with MTBE	attached		182918000S*

1 COPY TO The Johnson Company, Inc. ATTN: Mr. Karl Johnson

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MONTPELIER, VERMONT

Questions? Contact Environmental
Client Services at (717) 656-2301
854 06556 0.00 018000

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Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader



Lancaster Laboratories, Inc.
2000 ...
...
...





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10:25:09 369750
ASR000 D 1 9
06556 0

The Johnson Company, Inc.
5 State Street
Montpelier, VT 05602

MW-105 Grab Water Sample
Miles Lumber Co. - 1-0426-1 (54)

LLI Sample No. WW 1934802
Date Reported 2/26/93
Date Submitted 2/25/93
Discard Date 3/ 6/93
Collected 2/24/93 by WPD
Time Collected 1530
P.O. 1-0426-1 (54)
Rel.

	RESULT AS RECEIVED	LIMIT OF QUANTITATION	LAB CODE
BTEX Scan with MTBE			
Benzene	6. ug/l	1.	183000000S
Toluene	2. ug/l	1.	183100000S
o-Xylene	4. ug/l	1.	183200000S
m-Xylene	63. ug/l	1.	183300000S
p-Xylene	33. ug/l	1.	183400000S
Ethylbenzene	33. ug/l	1.	183500000S
Methyl t-butyl ether	< 5. ug/l	5.	183600000S

Due to the presence of an interferent near its retention time, normal reporting limits were not attained for methyl tert-butyl ether.

1 COPY TO The Johnson Company, Inc. ATTN: Mr. Karl Johnson

Questions? Contact Environmental
Client Services at (717) 656-2301

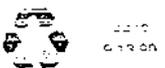
Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader



Lancaster Laboratories, Inc.
2425 New Road
Lancaster, PA 17601
Telephone: (717) 656-2301

See reverse side for experimental conditions and address only.





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10:25:10 369750
ASR000 D 1 9
06556 0

The Johnson Company, Inc.
5 State Street
Montpelier, VT 05602

MW-102 Grab Water Sample
Miles Lumber Co. - 1-0426-1 (54)

LLI Sample No. WW 1934803
Date Reported 2/26/93
Date Submitted 2/25/93
Discard Date 3/ 6/93
Collected 2/24/93 by WPD
Time Collected 1555
P.O. 1-0426-1 (54)
Rel.

ANALYSIS	RESULT	LIMIT OF	LAB CODE
BTEX Scan with MTBE	AS RECEIVED	QUANTITATION	182918000S*
	attached		

1 COPY TO The Johnson Company, Inc. ATTN: Mr. Karl Johnson

RECEIVED

MAR 1 1993

THE JOHNSON CO., INC.
MONTPELIER, VERMONT

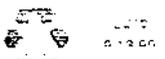
Questions? Contact Environmental
Client Services at (717) 656-2301
854 06556 0.00 018000

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader



Lancaster Laboratories, Inc.
2400 New Holland Pike
Lancaster, PA 17601-6990
1-800-220-1





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10:25:11 369750
ASR000 D 1 9
06556 0

The Johnson Company, Inc.
5 State Street
Montpelier, VT 05602

LLI Sample No. WW 1934803
Date Reported 2/26/93
Date Submitted 2/25/93
Discard Date 3/ 6/93
Collected 2/24/93 by WPD
Time Collected 1555
P.O. 1-0426-1 (54)
Rel.

MW-102 Grab Water Sample
Miles Lumber Co. - 1-0426-1 (54)

	RESULT		LIMIT OF	LAB CODE
	AS RECEIVED		QUANTITATION	
BTEX Scan with MTBE				
Benzene	< 1.	ug/l	1.	183000000S
Toluene	< 1.	ug/l	1.	183100000S
o-Xylene	< 1.	ug/l	1.	183200000S
m-Xylene	< 1.	ug/l	1.	183300000S
p-Xylene	< 1.	ug/l	1.	183400000S
Ethylbenzene	< 1.	ug/l	1.	183500000S
Methyl t-butyl ether	< 1.	ug/l	1.	183600000S

1 COPY TO The Johnson Company, Inc.

ATTN: Mr. Karl Johnson

Questions? Contact Environmental
Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader



Lancaster Laboratories, Inc.
2427 York Road, P.O. Box
Lancaster, PA 17601-5094
Lancaster, PA





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10:25:12 369750
ASR000 D 1 9
06556 0

The Johnson Company, Inc.
5 State Street
Montpelier, VT 05602

MW-104 Grab Water Sample
Miles Lumber Co. - 1-0426-1 (54)

LLI Sample No. WW 1934804
Date Reported 2/26/93
Date Submitted 2/25/93
Discard Date 3/ 6/93
Collected 2/24/93 by WPD
Time Collected 1610
P.O. 1-0426-1 (54)
Rel.

ANALYSIS	RESULT AS RECEIVED	LIMIT OF QUANTITATION	LAB CODE
BTEX Scan with MTBE	attached		182918000S*

1 COPY TO The Johnson Company, Inc. ATTN: Mr. Karl Johnson

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Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader



Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17603-5894
1-717-656-2301





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10:25:13 369750
ASR000 D 1 9
06556 0

The Johnson Company, Inc.
5 State Street
Montpelier, VT 05602

LLI Sample No. WW 1934804
Date Reported 2/26/93
Date Submitted 2/25/93
Discard Date 3/ 6/93
Collected 2/24/93 by WPD
Time Collected 1610
P.O. 1-0426-1 (54)
Rel.

MW-104 Grab Water Sample
Miles Lumber Co. - 1-0426-1 (54)

	RESULT		LIMIT OF	LAB CODE
	AS RECEIVED		QUANTITATION	
BTEX Scan with MTBE				
Benzene	< 10.	ug/l	10.	183000000S
Toluene	10.	ug/l	10.	183100000S
o-Xylene	170.	ug/l	10.	183200000S
m-Xylene	490.	ug/l	10.	183300000S
p-Xylene	360.	ug/l	10.	183400000S
Ethylbenzene	310.	ug/l	10.	183500000S
Methyl t-butyl ether	< 10.	ug/l	10.	183600000S

Due to the presence of interferents near their retention times, normal reporting limits were not attained for benzene and methyl tert-butyl ether.

1 COPY TO The Johnson Company, Inc. ATTN: Mr. Karl Johnson

Questions? Contact Environmental
Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader



Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5904
717-656-2301

See reverse side for explanation of symbols and abbreviations.





10:25:14 369750
ASR000 D 1 9
06556 0

The Johnson Company, Inc.
5 State Street
Montpelier, VT 05602

LLI Sample No. WW 1934805
Date Reported 2/26/93
Date Submitted 2/25/93
Discard Date 3/ 6/93
Collected 2/24/93 by WPD
Time Collected 1630
P.O. 1-0426-1 (54)
Rel.

MW-106 Grab Water Sample
Miles Lumber Co. - 1-0426-1 (54)

ANALYSIS	RESULT AS RECEIVED	LIMIT OF QUANTITATION	LAB CODE
BTEX Scan with MTBE	attached		182918000S*

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Client Services at (717) 656-2301
854 06556 0.00 018000

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Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5991
717-656-2301





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10:25:15 369750
ASR000 D 1 9
06556 0

The Johnson Company, Inc.
5 State Street
Montpelier, VT 05602

LLI Sample No. WW 1934805
Date Reported 2/26/93
Date Submitted 2/25/93
Discard Date 3/ 6/93
Collected 2/24/93 by WPD
Time Collected 1630
P.O. 1-0426-1 (54)
Rel.

MW-106 Grab Water Sample
Miles Lumber Co. - 1-0426-1 (54)

	RESULT		LIMIT OF	LAB CODE
	AS RECEIVED		QUANTITATION	
BTEX Scan with MTBE				
Benzene	2.	ug/l	1.	183000000S
Toluene	< 1.	ug/l	1.	183100000S
o-Xylene	< 1.	ug/l	1.	183200000S
m-Xylene	< 1.	ug/l	1.	183300000S
p-Xylene	< 1.	ug/l	1.	183400000S
Ethylbenzene	< 1.	ug/l	1.	183500000S
Methyl t-butyl ether	< 1.	ug/l	1.	183600000S

1 COPY TO The Johnson Company, Inc.

ATTN: Mr. Karl Johnson

Questions? Contact Environmental
Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.



Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5494
717-656-2301

Judy A. Colello, B.S.
Group Leader

See reverse side for explanation of symbols and abbreviations.



10/26
9/13/90