TreeSource®

INDUSTRIES, Inc.

October 26, 1999

Ms. Lynda Provencher
Hazardous Material Specialist
Waste Management Division
Department of Environmental Conservation
103 South Main Street, West Building
Waterbury, VT 05671-0404

Re: Site Investigations for Site # 770082; Burke Lumber Co.

Dear Ms. Provencher:

Please find attached the final report of the site investigations that you requested in your letter of June 29, 1999. The report addresses additional investigations associated with the former dip tank, landfills, river sediments, and underground storage tank at the site.

We are planning to remove the contaminated soil located near the site of the former dip tank as suggested by our consultant. This additional site work will be completed by year's end.

If you have questions please call me at (503) 205-7618

Cordially;

Glen R. Patrick
Environmental Compliance Manager

cc Jess Drake
Joseph Hayes, EMCON

GRP028

Lincoln Tower 10260 S.W. Greenburg Road Suite 900 Portland, OR 97223 (503) 246-3440
Post Office Box 5805 Portland, OR 97228-5805

SITE INVESTIGATION ACTIVITIES

BURKE LUMBER COMPANY SITE

Site #770082

Prepared for

TreeSource Industries Inc.

October 26, 1999

Prepared by:

IT Corporation, Inc.
1 Mill Street Box B15
Burlington, Vermont 05401

Project 797253-01000000

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EXECUTIVE SUMMARY

IT was retained by TreeSource Industries, Incorporated to perform a site investigation (SI) at the Burke Lumber Company Mill in Sutton, Vermont. The property is an active sawmill, milling lumber from logs since approximately 1973. The site is currently serviced by two on-site drilled groundwater wells and on-site sewage disposal. The SI was requested by Ms. Lynda Provencher of the Vermont Department of Environmental Conservation (VTDEC) Waste Management Division (WMD) in a letter, dated June 29, 1999, requesting that site investigation activities be performed at the site.

The purpose of the SI was to determine if there is a need for corrective action as a result of past disposal activities associated with two on-site bark dumps, a former used oil underground storage tank (UST), and with former creosote dip tank operations performed at the site from the mid 1970's to the mid 1980's.

The scope of work conducted during the SI included the installation of soil borings and monitoring wells, collection of soil, groundwater, and sediment samples, analyses of all samples for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and Priority Pollutant metals, water level measurements and groundwater flow determination, a sensitive receptor evaluation and risk characterization, background information on the former dipping tank and dump area operations, and report preparation.

The SI results determined that concentrations of semi-volatile organic compounds found in soil from the dip tank area exceeded applicable soil screening levels, thereby indicating that these concentrations may present a potentially significant risk of harm to human health.

Based on the findings of this site investigation, IT recommends that corrective action be conducted at the former dip tank area which would include removal of soil at the source area. Additional activities to be performed would include abandonment of on-site monitoring wells and disposal of the existing petroleum impacted stockpiled soil.

1.0 INTRODUCTION

IT Corporation (IT; formerly EMCON), on behalf of TreeSource Industries, Inc., has prepared this report presenting the results of Site Investigation (SI) activities performed at the Burke Lumber Company Mill site in Sutton, Vermont (Figure 1). The SI activities were performed in order to address the nature and extent of impact, and the need for corrective action, at the former dip tank area and the two bark dump areas located on-site. The scope of work described in this proposal was developed in response to a letter from Ms. Lynda Provencher of the Vermont Department of Environmental Conservation (VTDEC) Waste Management Division (WMD), dated June 29, 1999, requesting that a site investigation be performed.

1.1 Purpose and Scope of Work

The purpose of performing the SI activities was to:

- Assess whether past disposal activities associated with each of the bark dumps have impacted soil or groundwater at the site.
- Conduct a subsurface investigation to assess whether past activities associated with operations at the former dip tank area at the site have impacted soil, groundwater on the site, and sediment in the Sutton River.
- Determine if soil or groundwater have been impacted from a release from a former 1,000 gallon used oil underground storage tank (UST), which was reportedly removed from the Burke Lumber Mill property near the maintenance garage building in July, 1993.

IT's work plan to perform SI activities, dated July 30, 1999, was approved by the VTDEC WMD in a letter dated August 5, 1999.

The scope of work completed during the SI consisted of the following activities:

- preparation of a site-specific Health and Safety Plan (HASP) in accordance with OSHA CFR 1910.120;
- Installation of two soil borings at locations along the downgradient side and in the middle of each bark dump and completion of the borings as overburden groundwater monitoring wells;
- Installation of two soil borings at the former dip tank area;
- Collection of three sediment samples along the Sutton River;
- Installation of one soil boring at the downgradient end of the former UST excavation and completion of the boring as an overburden groundwater monitoring well;

- Installation of one monitoring well upgradient of the former dip tank location and bark dumps, to serve as a potential background location;
- Collection of samples from existing on-site monitoring wells installed as part of the Front Mill diesel UST removal investigations; and
- Data evaluation and report preparation.

All work was performed in accordance with IT's Work Plan, Standard Operating Procedures (SOPs) and HASP, and with Vermont State Agency of Natural Resources Waste Management Division's (VTDEC WMD) *Site Investigation Guidance* (VTANR, 1996).

1.2 Site Description

The site is located just over the Sutton/West Burke town line off Route 5 in Sutton, Vermont (**Figure 1**) at a latitude of 44°38'25" north and a longitude of 71°59'11" west. The site is currently an active lumber sawmill, which is abutted to the west and south by forest, to the north by the Sutton River and to the east by the Wagner farm. The site consists of several occupied buildings, including two sawmills, a planer mill, office, garage, storage shed, and several storage areas for raw and milled wood products.

1.3 Background

Burke Lumber Company site (formerly Mountain View Lumber Company) was previously investigated by the United States Environmental Protection Agency (USEPA) Region 1 as a result of allegations from nearby property owners that past mill activities, primarily releases from the creosote dip tank operation, had impacted residential water supplies and the Sutton River.

As a result of the USEPA Region 1 initial investigation, the property was listed (No. VTD073963571) on the Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS), and given a No Further Remedial Action Planned (NFRAP); the site was deferred to the State of Vermont for additional investigation.

IT reviewed various sources of information to develop an understanding of facility operations at the Burke Lumber Mill property (File search, 1999). The information reviewed by IT included site files located at the VTDEC WMD office in Waterbury, Vermont, site files located at the Burke Lumber Mill, and site files provided to IT by TreeSource Industries, Incorporated. IT also interviewed employees at the Burke Lumber Mill property who were employed at the mill during the time period when the dip tank operation was active.

1.3.1 Bark Dump Areas

Two bark dumps (one inactive and one active) are located on the Burke Lumber Company property, as illustrated in **Figure 2**. One of the dumps was closed in 1984 at the request of the VTDEC WMD because it was reportedly being used by townspeople, who used the dump to dispose of materials other than wood chips. A new bark dump was opened on-site in 1985 east of the old bark dump and has been used to dispose of wood fiber by-products from sawmill operations.

1.3.2 Former Dipping Tank Operation

Two creosote dip tanks were located at the Burke Lumber Mill property and were used from the mid 1970's to the mid 1980's. The dip tanks were located along the northeast property line approximately 80 feet northeast of the Front Mill Building at the top of an embankment leading down to the Canadian Pacific Railroad tracks, as shown in **Figure 2**. The tanks were used to store creosote in which logs, primarily railroad ties, were dipped into a partially below ground tank reported to be either 2,000 or 4,000 gallons. A second creosote tank was located above ground and immediately adjacent to the other tank. It was reported that waste oil from the generators, operated at the front and back mills, may have been used in the dipping operation in addition to creosote. The logs were removed from the dip tank and allowed to air dry on the ground immediately east of the dip tanks. During this operation, the creosote-oil mixture sometimes spilled on to the ground and runoff carried the creosote-oil mixture beyond the dip tank area.

In May 1990, the contents of the two dip tanks (a total of 900 gallons) were pumped and transported by Lee's Oil Service to Total Waste Management Corporation's licensed hazardous waste disposal facility in Newington, New Hampshire. Additionally, the partially below ground tank was excavated; during the excavation, approximately five cubic yards of soil exhibiting photoionization detector (PID) readings of 50 ppm were encountered. Mr. Mark Coleman of the VTDEC WMD was present during excavation of the tank and directed the contractor to place the excavated soil back into the dip tank area and cover the area with a plastic liner. Mr. Coleman assigned a low/closed priority for this tank pull; however, no information was documented that indicated if the tanks were subsequently removed from the site.

IT personnel viewed the area of the former dip tanks during a site reconnaissance of the property. No tanks were visible and no unusual staining or odors were detected at this area of the site. This area has a higher topographic relief than the surrounding area and polyethylene sheeting was noted on the surface of the ground. A steep embankment was noted immediately northeast of this area of the site leading down to railroad tracks along the Sutton River.

1.3.3 Former Used Oil Underground Storage Tank

In July 1993, a 1,000 gallon used oil UST was reportedly removed from Burke Lumber Mill property near the maintenance garage building. No documentation on the excavation/closure of the 1,000 gallon used oil UST was available to determine if soil and/or groundwater had been impacted from a release from this UST, although the VTDEC WMD Underground Storage Tank Regulations state that a site assessment must be performed during excavation/closure of used oil USTs.

Additionally, a 10,000 gallon diesel oil UST, dispenser, and associated piping were removed from the Front Mill area by Wagner Construction on September 24, 1998. Soil removed during the UST excavation was stockpiled and polyencapsulated on-site (approximately 40 cubic yards), pending further treatment. Past site investigations indicated that low residual concentrations of petroleum hydrocarbons were present in soil underlying the Front Mill building (EMCON, 1999).

2.0 INVESTIGATION METHODOLOGY AND RESULTS

Prior to initiating investigation activities, a HASP dated August 1999, was prepared by IT. The proposed drilling locations were marked in the field by IT personnel and a Dig Safe permit was obtained. Additionally, Burke Lumber Company personnel reviewed the proposed drilling locations to document the presence of buried utility locations. Daily safety briefings were conducted prior to each day's work to familiarize on-site personnel with the procedures, requirements and provisions of the HASP. All IT personnel performing on-site activities were in compliance with all applicable Federal and State rules and regulations, including OSHA 29 CFR 1910.120, and OSHA 29 CFR 1926. Field activities were conducted in accordance with IT's Work Plan and HASP.

2.1 Soil Borings and Monitoring Well Installations

During August 24-27, 1999, 7 soil borings (EM-4 through EM-10) were installed on-site (**Figure 2**) and completed as a monitoring well. The soil borings and monitoring wells were installed with a truck-mounted drill rig operated by Tri-State Drilling and Boring, Inc. of West Burke, Vermont. The monitoring well/soil boring locations are shown in **Figure 3** and are summarized below:

- Soil borings EM-4 and EM-5 were installed in the new bark dump area at the northwestern portion of the site.
- Soil borings EM-6 and EM-7 were installed in the old bark dump area, east of the new bark dump area.
- Soil boring EM-8 was installed in the former dip tank area. Additionally, soil sample SS-1, located north of the former dip tank at the bottom of a steep slope, was collected using a hand auger at a depth of 0-1 feet below ground surface (bgs).
- Soil boring EM-9 was installed downgradient of the former used oil UST excavation area, located near the maintenance garage building.
- Soil boring EM-10 was installed as a reference for background conditions. EM-10 is located away from areas of development on the property, upgradient of the former dip tank area.

The soil borings were advanced with 4-1/4 inch inside diameter (ID) hollow stem augers. Continuous soil samples were collected with a 1-3/8 inch ID split-spoon sampler, in accordance with American Society for Testing and Materials (ASTM) Standard D 1586-84. The split-spoon sampler was decontaminated between soil samples. Soil samples were placed in 8 oz. clear glass jars for VOC field screening headspace analysis measurements using a PID. Additionally, a representative soil sample was collected from each split spoon sampler and placed in a laboratory-supplied jar for possible VOC laboratory analysis. Soil samples with the highest PID reading recorded in unsaturated soil were generally submitted for laboratory analysis.

PID headspace measurements for soil samples collected from soil borings ranged from non detect to 120 ppm. The soil samples exhibiting the highest PID headspace measurements were detected in soil borings located in the old bark dump and dip tank areas, and recorded at depths above the water table. These samples were then sent for laboratory analyses. Soil sample PID headspace measurements for all soil sample locations are presented on the soil boring logs in **Appendix A**.

Geologic descriptions of the soil were recorded in the field in order to prepare detailed geologic boring logs in accordance with the Modified Burmeister System, as presented in **Appendix A**. The overburden material consisted mostly of fine to coarse sand ranging from silt to gravel. Groundwater was encountered at depths ranging from approximately 10-12 feet bgs.

Soil borings were then completed as monitoring wells, which were constructed of 2-inch ID, flush, threaded, Schedule 40 PVC pipe with 10 feet of 0.010-inch slot screen and riser pipe. The annulus between the screen and borehole was packed with clean silica sand to a minimum of 2 feet above the top of the screen. A bentonite seal was then installed above the sand pack, followed by a bentonite cement grout to near the surface. The wells were completed with PVC locking J-plugs and flush mounted steel protective casings. Soil boring and monitoring well construction details are provided in **Appendix A**.

On August 31 and September 1, 1999, the newly installed monitoring wells were developed by bailing in order to remove drill cuttings, clean the wells, and improve the hydraulic connection between the monitoring wells and the water-bearing strata. Development water from monitoring wells was returned to the ground surface. No separate phase hydrocarbons (SPHs) were encountered in any of the monitoring wells.

2.1.1 Monitoring Well Survey

On September 29, 1999, the elevations of the top of all newly installed and existing monitoring wells were determined to the nearest 0.01 foot by differential leveling methods and referencing an assumed vertical datum of 100.00 feet at the northeast top corner of the concrete pad in front of the mill building. The differential level loop was closed, balanced and adjusted. The horizontal datum referenced was the Vermont State Plane Coordinate System, North American Datum of 1983 (NAD83).

Survey elevation data was reduced and elevations for the monitoring wells were generated, as shown in **Table 1**. Horizontal coordinates for the monitoring wells and soil borings were computed and plotted on the site plan (**Figure 2**).

2.1.2 Water Level Measurements and Groundwater Flow

On August 31, 1999, water levels for all newly installed (EM-4 through EM-10) and existing (EM-1 through EM-3) monitoring wells were measured to the nearest 0.01 foot, using a Solinst® electronic water level probe (**Table 1**). The water levels were converted to groundwater elevations using survey data from the site and were then used to determine groundwater flow direction and to generate a groundwater contour map. The contours indicate that groundwater flow is from southwest to northeast across the site, toward the Sutton River (**Figure 3**).

2.2 Soil Sampling Results

Nine soil samples were collected at soil boring locations SS-1 and EM-4 through EM-10 between August 24 and August 27, 1999 at depths ranging from 0-2 feet bgs to 14-16 feet bgs. Two soil samples were collected at EM-8. Sampling locations are shown in **Figure 3**. All samples were submitted to Columbia Analytical Services, where they were analyzed for VOCs by EPA Method 8260B, semi-volatile organic compounds (SVOCs) by EPA Methods 3550/8270, for total metals by EPA Methods 6010B, 7471A, and 7196A, and for hexavalent chromium by EPA Method 7196A. Sample EM-9, however, was analyzed for only diesel-range organics (DRO) by EPA Methods 3550/8100M and for VOCs by EPA Method 8260B. Method blanks were provided for all analyses; no analytes were detected in any of the method blanks. Analytical results for soil are provided in **Appendix B** and are summarized below for each class of compounds:

Volatile Organic Compounds (VOCs): Soil analytical data for VOCs are presented in **Table 2**. Results indicate that several VOCs were detected in soil, although at low frequencies. Soil sample EM-6 (14-16 feet bgs), located at the former bark dump area, had the only detectable concentrations of acetone (120 micrograms per kilogram (µg/kg), 2-butanone (24 µg/kg), and toluene (2 µg/kg). All other VOCs reported above the analytical detection limit were found at location EM-8, which is located near the former creosote dip tank area. Soil sample EM-8 (2-4 feet bgs) had the maximum detected concentrations of 1,2-dichlorobenzene (7 µg/kg), 1,1-dichloroethane (1 µg/kg), 1,2-dichloroethane (2 µg/kg), cis-1,2-dichloroethene (4 µg/kg), 1,1,1-trichloroethane (1 µg/kg), and trichloroethene (1 µg/kg). Sample EM-8 (0-2 feet bgs) had the maximum detected concentrations of ethylbenzene (6 µg/kg), 1,1,2,2-tetrachloroethane (5 µg/kg), tetrachloroethene (11 µg/kg), toluene (85 µg/kg), and total xylenes (44 µg/kg).

Semi-volatile Organic Compounds (SVOCs): Soil analytical data for SVOCs are presented in **Table 3**. Results indicate that concentrations of SVOCs reported as greater than the analytical detection limit

were found only at soil sample location EM-8, at depths of 0-2 feet to 2-4 feet bgs. The maximum concentration of bis(2-ethylhexyl)phthalate (560 μg/kg) was detected at EM-8(0-2'). Soil sample EM-8 (2-4') had the only detected concentrations of anthracene (25,000 μg/kg), benzo(g,h,i)perylene (670 μg/kg), indeno(1,2,3-cd)pyrene (730 μg/kg), and naphthalene (8,400 μg/kg). Sample EM-8 (2-4') also had the maximum concentrations of acenaphthene (110,000 μg/kg), benzo(a)anthracene (16,000 μg/kg), benzo(a)pyrene (3,500), benzo(b)fluoranthene (4,800 μg/kg), benzo(k)fluoranthene (4,200 μg/kg), chrysene (15,000 μg/kg), dibenzofuran (59,000 μg/kg), fluoranthene (170,000 μg/kg), fluorene (73,000 μg/kg), 2-methylnaphthalene (42,000 μg/kg), phenanthrene (280,000 μg/kg), and pyrene (84,000 μg/kg). Sample EM-8 is located at the location of the former creosote dip tank at the site.

Total Metals: **Table 4** presents a summary of soil analytical data for metals. As shown in **Table 4**, results show that beryllium was detected in all soil samples, with concentrations ranging between 0.31 milligrams per kilogram (mg/kg) at EM-8 (0-2') to 1.22 mg/kg at EM-6 (14-16'). Chromium (total) was detected in all samples, with concentrations ranging between 5.38 mg/kg (EM-10, 10-12', considered as the "background" sample for the site) and 27.9 mg/kg (EM-6, 14-16'). Concentrations of copper ranged from 6.1 mg/kg to 35.1 mg/kg, at samples EM-10 (10-12') and SS-1 (0-2 feet bgs), respectively. Lead was detected in 5 of the 8 soil samples, with concentrations ranging between 6.32 mg/kg at EM-6 (14'16') and 19.6 at EM-8 (2-4'). Concentrations of nickel ranged from 11.7 mg/kg (EM-10, 10-12') to 43.9 mg/kg (SS-1). Zinc was also detected in all samples; results ranged from 10.9 mg/kg at EM-10 (10-12') to 41.3 mg/kg at SS-1, the site of the former dip tank.

2.4 Groundwater Sampling Results

On August 31 and September 1, 1999, a total of 11 groundwater samples were collected from the newly installed monitoring wells (EM-4 through EM-10) and three existing on-site monitoring wells (EM-1, EM-2, and EM-3). Each well was sampled with a dedicated bailer. To assure that representative formation water was being sampled, the monitoring wells were purged until the pH, specific conductance and temperature values of the discharged water stabilized to within 10 percent variation. A minimum of three well volumes was evacuated from each well. All well purge water was disposed of to the ground surface in the immediate vicinity of the monitoring wells.

Groundwater was transferred directly from the bailer into the appropriate laboratory- supplied containers. The samples were packed on ice in a shipping cooler and accompanied by a completed chain-of-custody form from the time of sample collection to the time of delivery to the laboratory.

Samples were submitted to Columbia Analytical Services, and were analyzed for VOCs by EPA Method 8260, SVOCs by EPA Methods 3510/8270, priority pollutant metals by EPA 200 series, and hexavalent chromium, by EPA Method SM 3500C, with the exception of sample EM-9, which was analyzed for DRO by EPA Method 3510/8100M and for VOCs by EPA Method 8260, and samples EM-1, EM-2, and EM-3, which were analyzed for only VOCs by EPA Method 8260. A duplicate sample from monitoring well EM-

8 (EM-8D) was also collected to check the accuracy and reliability of laboratory instruments and procedures as well as field procedures.

A trip blank and a method blank were analyzed for VOCs by EPA Method 8260 to determine whether potential contamination of samples may have occurred. Laboratory analytical results demonstrated that no analytes were detected in any of the blanks. Analytical results for groundwater are provided in **Appendix C** and are summarized below for each class of compounds:

Volatile Organic Compounds (VOCs): **Table 5** presents groundwater analytical results for VOCs. VOCs were detected in only two groundwater samples, EM-8 and EM-8d, located at the site of the former dip tank. Concentrations of chloroethane ranged from 1 microgram per liter (µg/L) to 3 µg/L, concentrations of 1,1-dichloroethane ranged from 4-6 µg/L, and concentrations of cis-1,2-dichloroethene ranged from 2-3 µg/L. Tetrachloroethene was detected at concentrations ranging between 1 and 2 µg/L, and 1,1,1-trichloroethane was detected at concentrations ranging from 2 to 4 µg/L. For all detected compounds, the maximum detected concentrations occurred at monitoring well EM-8. EPA Method 8260 was modified to analyze for naphthalene in samples EM-1, EM-2, and EM-3. Naphthalene was not detected in these samples.

Semi-volatile Organic Compounds (SVOCs): SVOCs were not detected in any of the monitoring well samples, as shown in **Table 6**.

Total Metals: Groundwater analytical results for metals are presented in **Table 7**. Metals were detected in 3 of the 7 monitoring well samples analyzed at the site. Arsenic (6 µg/L) and cadmium (1 µg/L) were detected in only monitoring well EM-6. Concentrations of lead ranged between 9 µg/L at monitoring well EM-8 and 226 µg/L at monitoring well EM-4, located at the area of the new bark dump. For all other detected metals, the maximum detected concentrations occurred at monitoring well EM-4, and the minimum concentration occurred at monitoring well EM-6. Concentrations of beryllium ranged from 4-9 µg/L; concentrations of chromium ranged from 80-180 µg/L; concentrations of copper ranged between 260 and 620 µg/L. Nickel was detected at concentrations ranging from 400 to 700 µg/L. Thallium was detected at concentrations of 5-6 µg/L, and zinc was detected at concentrations ranging from 210-490 µg/L. The complete analytical results, MRL and a copy of the chain-of-custody documentation is included in **Appendix C**.

All above VGES !

2.3 Sediment Sampling Results

On August 19, 1999, three surficial sediment samples were collected below water from the edge of the Sutton River at a depth of approximately 0 to 1 foot below the riverbed. Sample SD-1 was collected upstream of the former creosote dip tank area, sample SD-2 was collected alongside the dip tank area, and sample SD-3 was collected downstream of the dip tank area, as shown in **Figure 3**. Each sample was submitted to Columbia Analytical Services, and analyzed for VOCs by EPA Method 8260B, for

SVOCs by EPA Methods 3550/8270C, for priority pollutant metals by EPA Methods 6010B and 7471A, and for hexavalent chromium, by EPA Method 7196A. Method blanks were provided for all analyses; no analytes were detected in any of these samples. Analytical results for sediment are provided in **Appendix D** and are summarized below for each class of compounds:

Volatile Organic Compounds (VOCs): VOCs were not detected in any of the sediment samples, as shown in **Table 8**.

Semi-volatile Organic Compounds (SVOCs): SVOCs were not detected in any of the sediment samples, as shown in **Table 9**.

Total Metals: **Table 10** presents the analytical results for metals in sediment. Lead was detected at only sediment sample SD-1 (8.17 mg/kg), located upstream of the dip tank area. Sample SD-3, downstream of the dip tank area, had the only detected concentration of silver (1.75 mg/kg). Concentrations of beryllium ranged from 0.23 mg/kg at SD-2, adjacent to the dip tank area, to 0.36 mg/kg, at SD-1. Chromium (total) was detected in all sediment samples, at concentrations ranging from 4.93 mg/kg to 10.2 mg/kg at locations SD-3 and SD-1, respectively. Copper was detected at concentrations ranging from 2.66 mg/kg (SD-3) to 8.67 (SD-1). Nickel was detected at concentrations ranging from 9.09 mg/kg (SD-3) to 16.8 mg/kg (SD-1), and zinc was detected at concentrations ranging between 11.5 mg/kg (SD-3) and 23.7 mg/kg (SD-2). Generally, metal concentrations decreased over distance downstream, with the exception of silver, suggesting that the former creosote dip tank area did not influence sediment metal concentrations.

3.0 POTENTIAL RISK OF HARM TO HUMAN HEALTH AND THE ENVIRONMENT

The Site Investigation employs a two-tiered approach in evaluating the potential risk of harm to human and environmental receptors from exposure to impacted media located on-site. A qualitative approach first evaluates potential human and environmental receptors that may come into contact with impacted media at the site, and identifies complete exposure pathways for each receptor. For complete exposure pathways, environmental concentrations of contaminants are then compared to toxicological effects-based screening levels.

3.1 Identification of Sensitive Receptors

IT performed a sensitive receptor survey consisting of the identification of potential human and ecological receptors and an evaluation of nearby drinking water supply wells, surface water bodies, basements of on-site buildings, and underground utilities.

Potential human receptors who may come into contact with impacted soil or groundwater include the sawmill facility workers, visitors, or trespassers at the site. It is unlikely that receptors would come into

direct contact with groundwater at the site; however, as groundwater depth in some areas is shallow (depth to groundwater at the site ranges from 9-28 feet bgs), volatiles in groundwater may potentially migrate into the indoor air of an on-site building. VOCs were only detected at low concentrations in groundwater samples taken from the dip tank area, however, and not in the immediate vicinity of on-site buildings. All nearby buildings associated with mill manufacturing activities are constructed on concrete slab foundations. Additionally, IT sampled indoor air inside the Front Mill Building using a PID in April 1999. No PID readings were detected inside or immediately outside of the building. Therefore, the potential for VOCs to impact indoor air is most likely minimal.

There are presently two private water supply wells located on the property; both are used for non-potable water uses (e.g. bathrooms) and milling operations; bottled drinking water is routinely delivered to the facility. The wells are located at the Back Mill Building and at the front office building (**Figure 3**). It is reported that the well which serves the front office building is 125 feet deep and yields 12 gallons per minute. The water from this well is sampled regularly, as required by the Vermont Department of Health (VTDOH). IT personnel reviewed recent water quality data reported by the VTDOH laboratory in Burlington, Vermont on file at the Burke Lumber Mill. Parameters analyzed included VOCs, metals, and bacteria. According to the VTDOH report, no constituents were detected at concentrations that exceeded Vermont Groundwater Enforcement Standards (GWES). Both wells are located topographically upgradient with respect to overburden groundwater flow from potential sources of impact; therefore, these wells would not likely be impacted by a release from these areas.

Approximately 5 % of the site is paved and/or covered with buildings. Therefore, workers, visitors, or trespassers may have direct contact with uncovered surface soil; workers would potentially be exposed to subsurface or covered soil only during construction activities involving excavation. According to Burke Lumber personnel, there are no underground utilities located in the immediate vicinity or downgradient of the bark dumps, drip tank area, or former UST location. During an on-site reconnaissance by IT personnel, no obvious signs of underground utilities such as storm drains or catch basins were observed, which could potentially become preferential migration pathways for any subsurface impact.

The Sutton River borders the site to the north. Ecological receptors include the aquatic and benthic communities present in the river, as well as terrestrial organisms that utilize riverine habitat. IT personnel visually inspected the surface water along the banks of the Sutton River during a site reconnaissance on August 19, 1999. No oily sheens or unusual staining or odors were noted during the inspection.

3.2 Screening Level Assessment

Analytical results from soil, groundwater, and sediment were compared with toxicological effects-based screening values. For soil, as there are no promulgated standards, results were compared to USEPA Region III Risk-based Concentrations (RBCs). Groundwater results were compared to Vermont Groundwater Enforcement Standards. As there are no human health standards for sediment, sediment

results were evaluated using ecological benchmarks. As ecological communities are assumed to be the most sensitive receptors for the river, and as human exposure to sediment is assumed to be minimal, these benchmarks are considered appropriate for the site.

3.2.1 Comparison of Soil Analytical Results to USEPA Region III Risk-Based Soil Concentrations

The maximum concentrations of all compounds detected in soil samples were compared to USEPA Region III Risk-Based Soil Concentrations (RBCs) in order to determine whether soil concentrations presented a potential risk of harm to human health, as shown in **Table 11**. Soil RBCs are chemical concentrations that correspond to a fixed level of risk in soil (i.e. a hazard quotient of 1.0, or a lifetime cancer risk of 1×10^{-6}, whichever concentration is lower), based on either residential or commercial/ industrial exposure, and consider ingestion of soil as the only exposure route. RBCs are primarily used for chemical screening during a baseline risk assessment (USEPA, Region III, 1999). For this screening, soil concentrations were compared with both residential and industrial RBCs, although at present, the site is used entirely for commercial purposes. Some chemicals did not have RBCs, and so alternative values were used where available, as noted in **Table 11**.

As shown in **Table 11**, concentrations of several chemicals exceeded their respective RBCs. Benzo(a)anthracene and benzo(a)pyrene exceeded both their residential and industrial RBCs by an order of magnitude at location EM-8. The concentration of benzo(b)fluoranthene at location EM-8 exceeded its residential RBC of 0.87 mg/kg, but was below the industrial RBC of 7.8 mg/kg. All other detected concentrations of SVOCs, VOCs, and metals were below their applicable soil screening criteria. Based on the exceedances shown in this comparison, levels of several SVOCs in soil at location EM-8 (the former dip tank area) may present an unacceptable risk of harm to human health under a limited exposure scenario involving excavation of subsurface soil in this area. Exceedances occurred in soil only at depths of 2-4 feet bgs; concentrations of constituents from the surficial sample SS-1, also taken from the dip tank area, did not exceed any RBC.

3.2.2 Comparison of Groundwater Analytical Results to Vermont Groundwater Enforcement Standards

The maximum concentrations of all compounds detected in groundwater samples were compared to Vermont Groundwater Enforcement Standards (GWES) in order to determine whether concentrations of detected compounds in groundwater presented a potential risk of harm to human health, public welfare, and the environment, as shown in **Table 12**. GWES are promulgated groundwater criteria, which, if exceeded, may pose a potential risk to the beneficial uses of that class of groundwater (VT, 1997; 12-701(3)).

As shown in **Table 12**, all detected concentrations of VOCs, except for chloroethane, are below their respective GWES. As there is no GWES for chloroethane, that compound can not be evaluated. Several metals, however, exceeded GWES. Concentrations of beryllium and chromium exceeded their

GWES of 4 μg/L and 100 μg/L, respectively, at monitoring well EM-4. Monitoring wells EM-4 and EM-6 both had GWES exceedances for lead (15 μg/L), nickel (100 μg/L), and thallium (2 μg/L). Based on this comparison, metals in groundwater used as a drinking water source may present a potential risk of harm to human health.

Several reasons, however, suggest that impact from groundwater is unlikely. Although the current on-site building uses a private on-site well, groundwater recovered from this well is used for non-potable uses, such as the bathroom. Rather, on-site workers rely on bottled water as a source of drinking water. Additionally, the well is routinely sampled and analyzed in order to maintain compliance with the Safe Drinking Water Act, and past analyses have not demonstrated groundwater impact. Furthermore, groundwater samples were analyzed for total, rather than dissolved, metals, and therefore the detected concentrations of metals may be potentially related to suspended materials in groundwater. Field notes (**Appendix A**) indicated that turbidity levels were high in groundwater from wells EM-4 and EM-6 (the two wells that had GWES exceedances); as a comparison, groundwater from background location well EM-10, in which metals had not been detected, had low turbidity. Lastly, there is no known source of metals at the site.

3.2.3 Comparison of Sediment Analytical Results to Ecological Benchmarks

Presently, there are no sediment screening criteria protective of human health. Therefore, a screening level assessment of sediment was completed in order to determine if concentrations of metals in sediment presented a potential risk of harm to ecological receptors. The maximum concentration of each metal detected in sediment samples was compared to an effects-based ecological sediment screening benchmark, as shown in **Table 13**. Effects Range-Low (ER-L) values were chosen as the sediment benchmark values, per USEPA (1996) guidance. ER-Ls are sediment screening concentrations, above which adverse ecological impacts are possible. Although ER-Ls are based on marine and estuarine studies (Long et al., 1995), they are also adequately protective of freshwater benthic organisms, as well.

As shown in **Table 13**, only silver exceeded its ER-L of 1.0 mg/kg. Although the ER-L is exceeded, this concentration is below the Effects Range-Median (ER-M) concentration (also based on Long et al., 1995), a predictor of *probable* adverse ecological effects, which for silver is 3.7 mg/kg. Silver is a rare but naturally occurring element in the earth's crust, found at levels of approximately 0.1- 0.3 ppm in soil (ATSDR, 1990). Mean surface water concentrations in the United States have ranged from 1 to 9 ppb. Once in water, silver tends to strongly sorb to organic particulate matter, such that sediment concentrations may be up to 1000 times greater than that of the overlying waters (ATSDR, 1990). Therefore, it is possible that silver detected in SD-3 may be attributable to naturally-occurring background levels in the environment.

4.0 CONCLUSIONS

A site investigation was conducted at the Burke Lumber Company Mill in Sutton, Vermont, as requested by Ms. Lynda Provencher of the VTDEC Waste Management Division. This SI addressed potential impact from former operations conducted at the Burke Lumber Company property and determined the need for corrective action as a result of past disposal and operation activities associated with the two bark dumps, the former creosote dip tank, and the former used oil UST. The results of the SI are presented below:

- Concentrations of metals in soil, with the exception of lead, were generally within an order of magnitude of those detected in EM-10, the background sample. No VOCs or SVOCs were detected in the background soil sample, nor were metals detected in the background groundwater sample.

- The results of the soil boring data indicate that the maximum concentrations of contaminants are generally located within the former dip tank area at the site. These results are consistent with the area's history, as minor drippage of creosote and waste oil occasionally occurred during the dipping process. SVOCs at the former dip tank area are present at concentrations that exceed regulatory standards. Concentrations of benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene in soil sample EM-8 exceeded Region III RBCs. VOCs and metals were also detected in soil and groundwater from the dip tank area; however, these concentrations were below their applicable screening criteria.

- Soil in the old bark dump area did not appear to be impacted by former dump activities and no non-native materials (e.g., materials other than wood chips) were observed in soil borings; however, groundwater contained relatively high levels of lead. Low concentrations of VOCs were detected in soil samples from the new bark dump area. Lead was also detected at concentrations above background in soil in this area. Concentrations of beryllium, chromium, lead, nickel, and thallium exceeded Vermont GWES in monitoring wells EM-4 and EM-6; however, as previously noted, metals concentrations are most likely related to particulate material in the groundwater, groundwater at the site is not used as a source of potable water, and past monitoring of the private well did not show any impact.

- Soil and groundwater at the former used oil UST area do not appear to be impacted by petroleum hydrocarbons, as all analytical results from these samples were reported as less than the method detection limit.

- The concentration of silver in sediment sample SD-3 exceeded its effects-based screening level; however, it is possible that this concentration is likely within the range of naturally-occurring concentrations in sediment.

- No obvious visual evidence of impact to sensitive receptors was documented by IT during the Site Investigation for Burke Lumber Company.

5.0 RECOMMENDATIONS

Based on the above conclusions, it is IT's opinion that chemical concentrations in soil within the dip tank area pose a potentially significant risk of harm to human health, as concentrations of several constituents exceed soil and groundwater screening criteria. Therefore, it is recommended that corrective action be conducted at the dip tank area, which would include removal of soil at the source area. Additional activities would include abandonment of on-site monitoring wells and disposal of the petroleum hydrocarbon impacted stockpiled soil from the 1998 diesel UST removal.

6.0 REFERENCES

Agency for Toxic Substances and Disease Registry (ATSDR). 1990. *Toxicological Profile for Silver.* U.S. Public Health Service: Atlanta, GA.

EMCON, 1999. Site Investigation Activities: Burke Lumber Company Site. Prepared for TreeSource Industries, Inc., May, 1999.

File search at Vermont Department of Environmental Conservation Waste Management Division, Waterbury, Vermont by Joseph Hayes (IT). May 19, 1999.

Long, E. R. , D. D. MacDonald, S. L. Smith, and F. D. Calder. 1995. Incidence of Adverse Biological Effects Within Ranges of Chemical Concentrations in Marine and Estuarine Sediments. *Environmental Management* 19:81-97.

United States Environmental Protection Agency (USEPA). 1999. *Region III Updated Risk-Based Concentration Table and Technical Background Documentation*, April 12, 1999.

United States Environmental Protection Agency (USEPA). 1996. Ecotox Thresholds. Office of Solid Waste and Emergency Response, Washington, D.C. (EPA 540/F-95/038).

USEPA, 1994: Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities. Office of Solid Waste and Emergency Response, Washington, D.C.

7.0 LIMITATIONS ON WORK PRODUCT

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

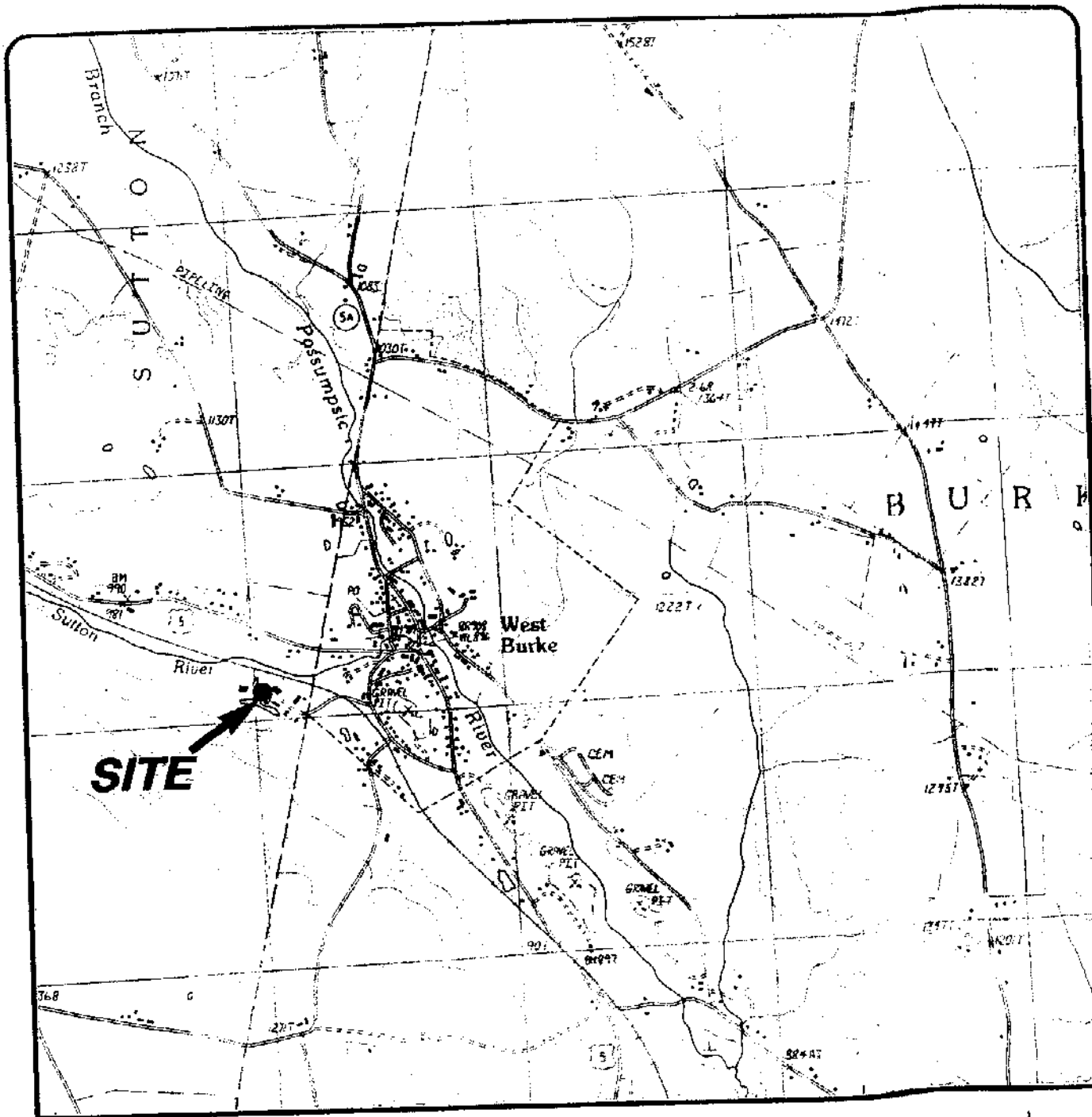
Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, nor the use of segregated portions of this report.

The purpose of a geologic/hydrogeologic study is to reasonably characterize existing site conditions based on the geology/hydrogeology of the area. In performing such a study, it is understood that a balance must be struck between a reasonable inquiry into the site conditions and an exhaustive analysis of each conceivable environmental characteristic. The following paragraphs discuss the assumptions and parameters under which such an opinion is rendered.

No investigation is thorough enough to describe all geologic/ hydrogeologic conditions of interest at a given site. If conditions have not been identified during the study, such a finding should not therefore be construed as a guarantee of the absence of such conditions at the site, but rather as the result of the services performed within the scope, limitations, and cost of the work performed.

We are unable to report on or accurately predict events that may change the site conditions after the described services are performed, whether occurring naturally or caused by external forces. We assume no responsibility for conditions we were not authorized to evaluate, or conditions not generally recognized as predictable when services were performed.

Geologic/hydrogeologic conditions may exist at the site that cannot be identified solely by visual observation. Where subsurface exploratory work was performed, our professional opinions are based in part on interpretation of data from discrete sampling locations that may not represent actual conditions at unsampled locations.



Base map from USGS 7.5' Quad Map:
West Burke (P.E. 1988), VT

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SCALE IN MILES

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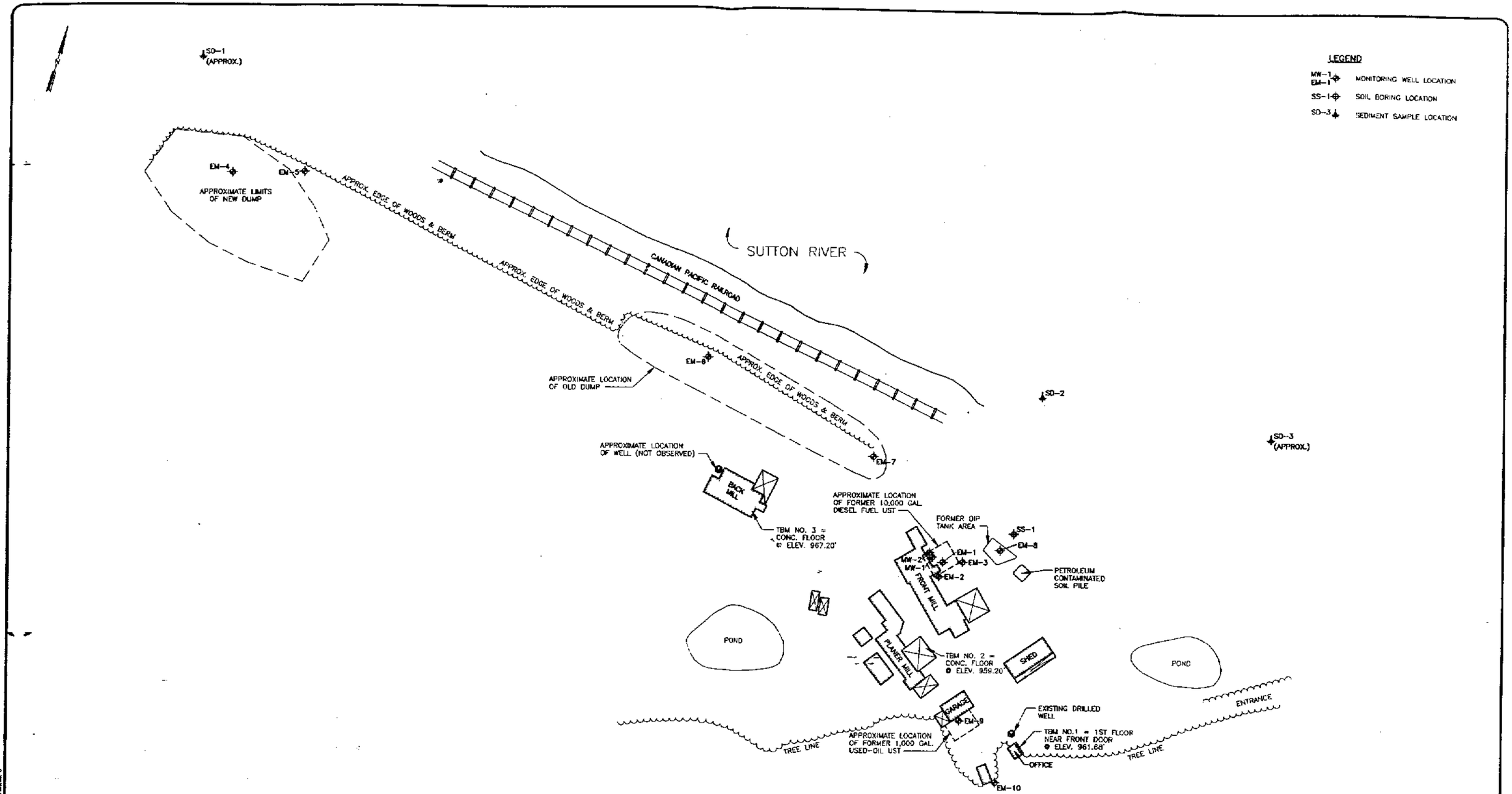
FIGURE 1

BURKE LUMBER
WEST BURKE, VERMONT

SITE LOCATION MAP



NOTE:

THE VERTICAL AND HORIZONTAL DATA SHOWN HEREON IS BASED ON A SEPTEMBER 1990 SURVEY FOR WEBSTER-MARTIN AT BURKE LUMBER COMPANY.

REV	DATE	DESCRIPTION	DRN BY	DES BY	CHK BY	APP BY

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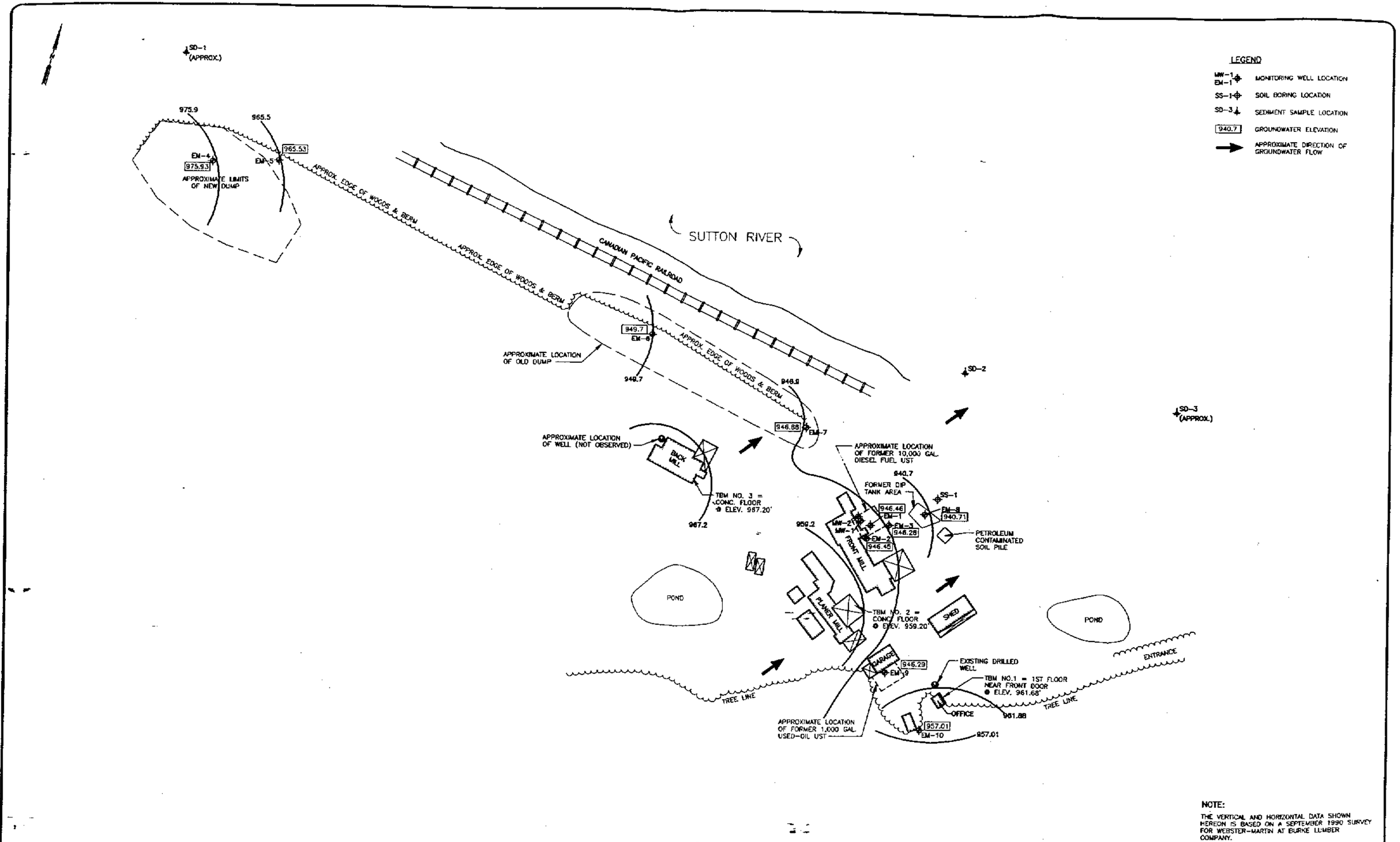
BURKE LUMBER COMPANY
SUTTON, VERMONT

SITE INFORMATION MAP

FIGURE 2

PROJECT NO. 797253



NOTE:

THE VERTICAL AND HORIZONTAL DATA SHOWN HEREON IS BASED ON A SEPTEMBER 1990 SURVEY FOR WEBSTER-MARTIN AT BURKE LUMBER COMPANY.

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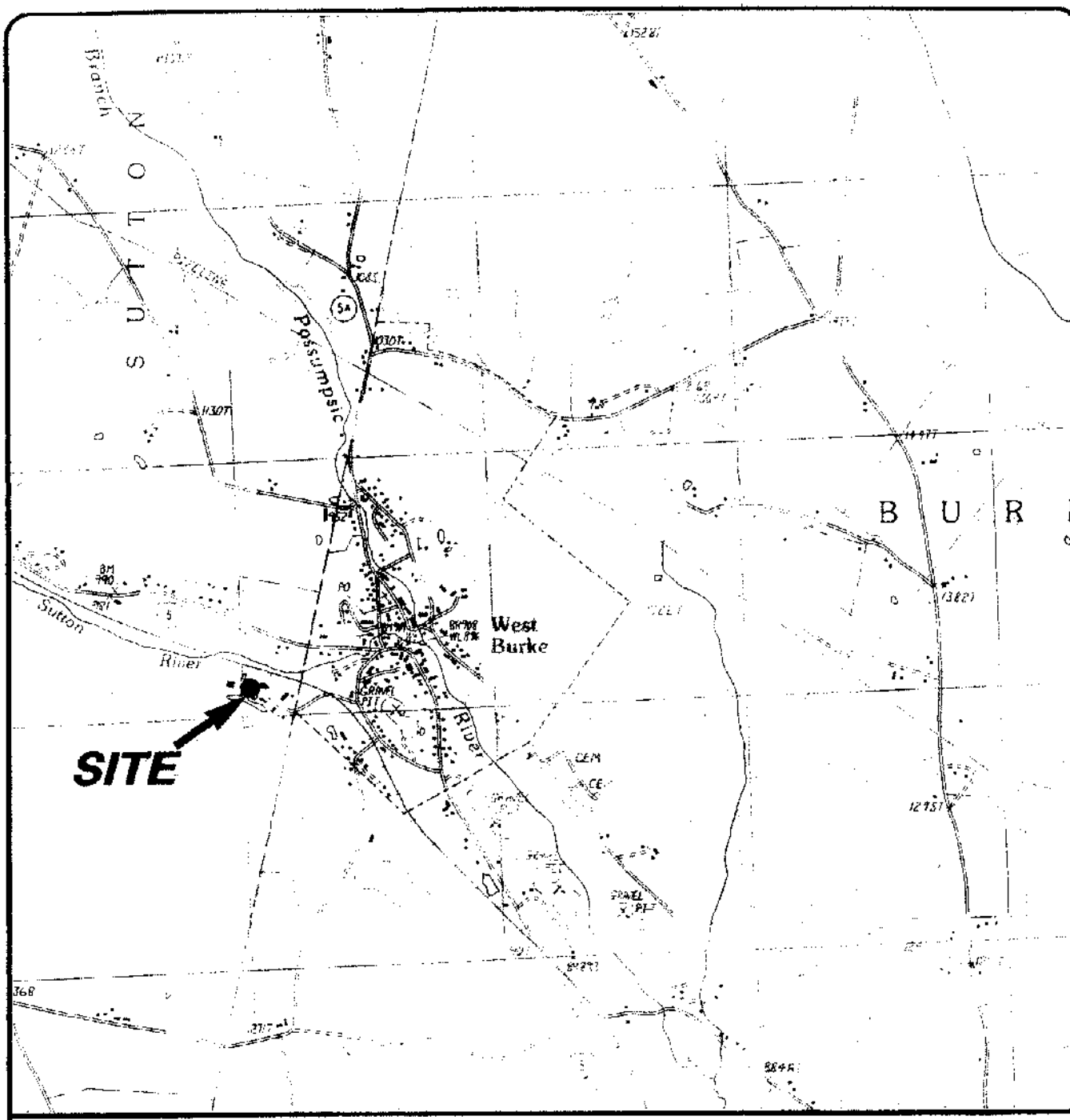
BURKE LUMBER COMPANY
SUTTON, VERMONT

SITE INFORMATION MAP WITH GROUNDWATER CONTOURS

FIGURE **3**

PROJECT NO. 797253

FIGURES



Base map from USGS 7.5' Quad Map:
West Burke (P.E. 1988), VT

0 0.5 1.0

SCALE IN MILES

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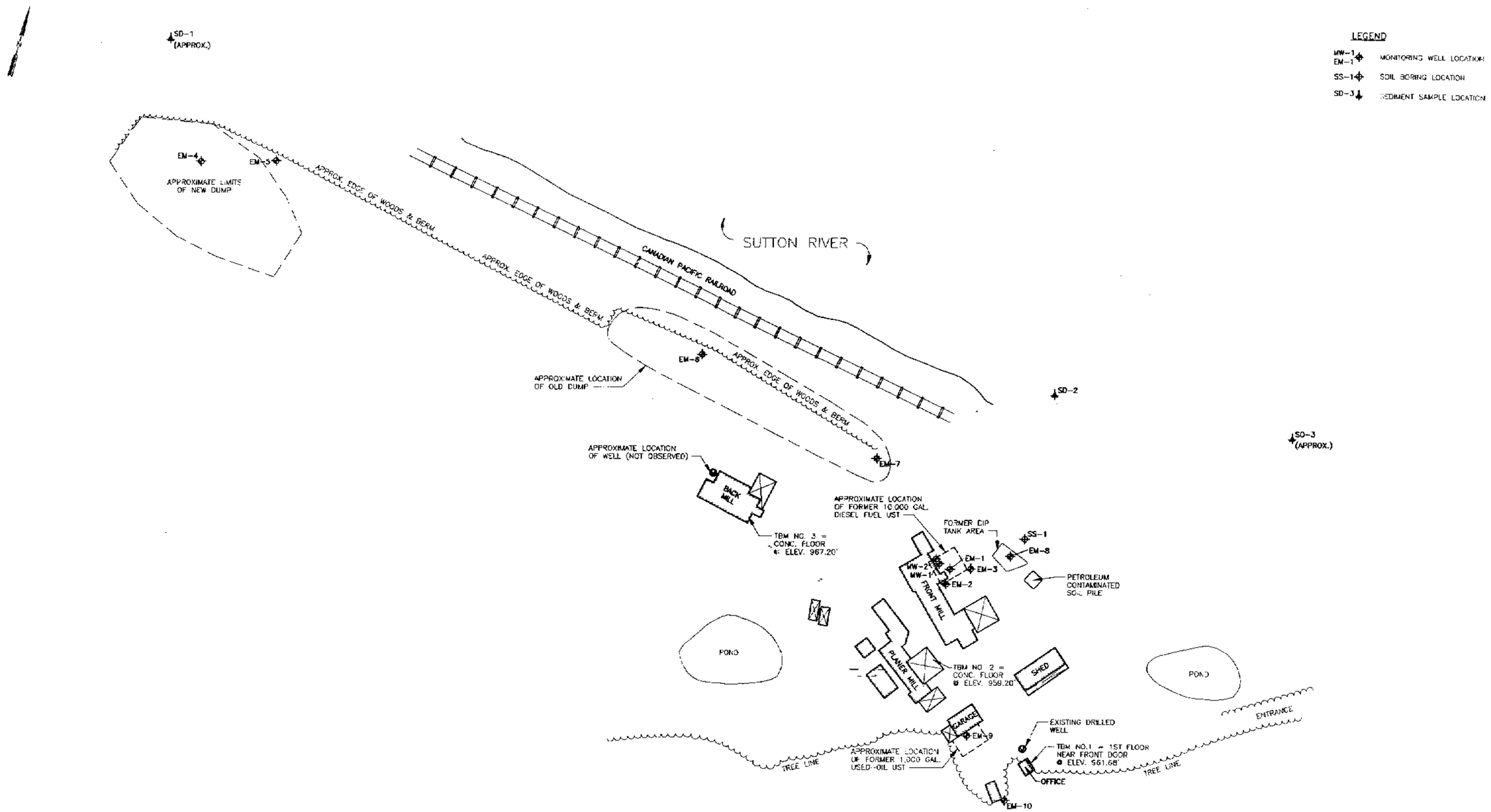
FIGURE 1

BURKE LUMBER
WEST BURKE, VERMONT

SITE LOCATION MAP



NOTE:

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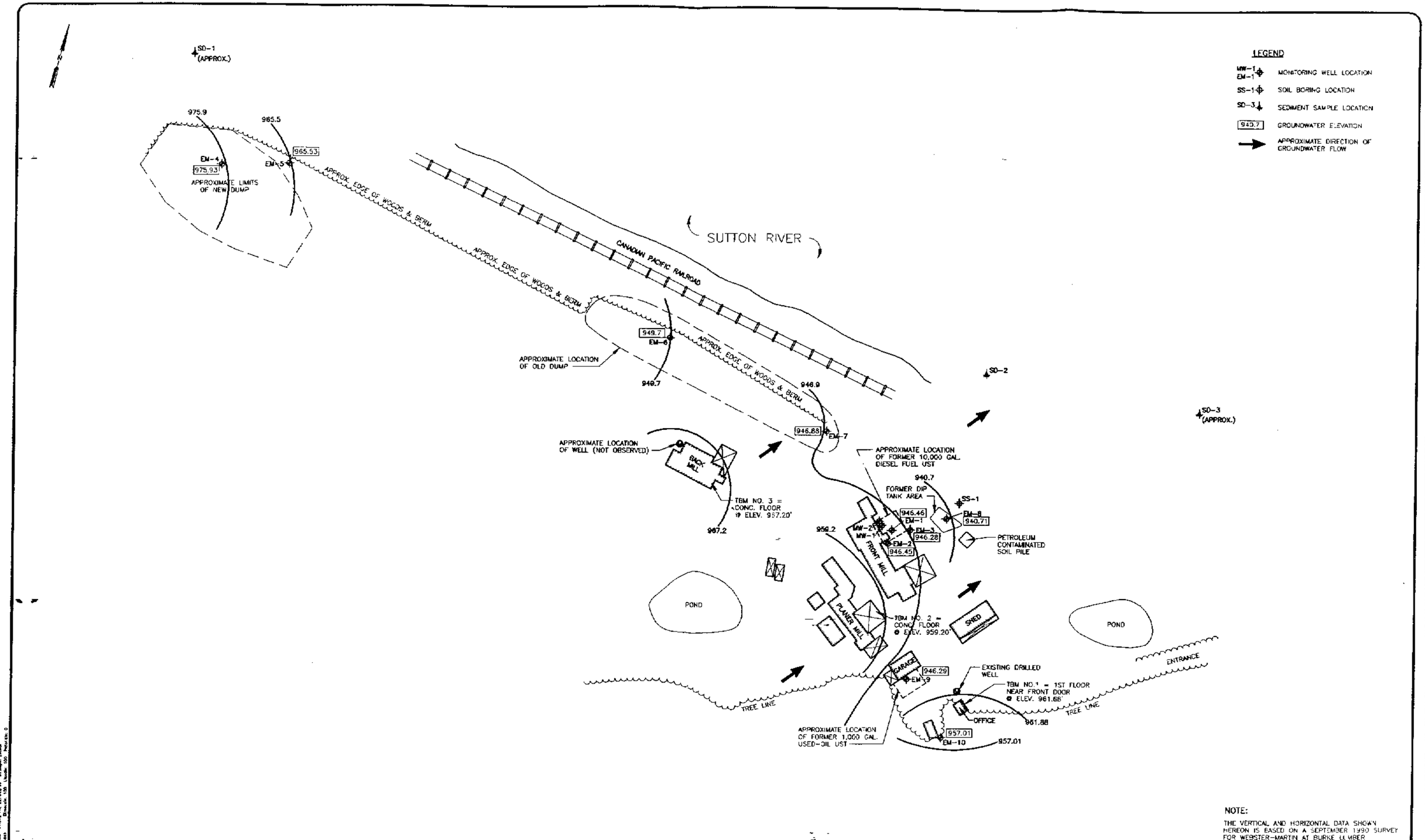
BURKE LUMBER COMPANY
SUTTON, VERMONT

SITE INFORMATION MAP

FIGURE 2

PROJECT NO. 797253



NOTE:

THE VERTICAL AND HORIZONTAL DATA SHOWN HEREON IS BASED ON A SEPTEMBER 1990 SURVEY FOR WEBSTER-MARTIN AT BURKE LUMBER COMPANY.

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BURKE LUMBER COMPANY
SUTTON, VERMONT

SITE INFORMATION MAP WITH GROUNDWATER CONTOURS

FIGURE 3

PROJECT NO. 797253

TABLES

Table I

Monitoring Well Description and Gauging Data Summary

Burke Lumber Company Site Investigation
TreeSource Industries, Inc.
Sutton, Vermont

Monitoring Well Designation	Ground Surface Elevation	Top of PVC Elevation	Description/Comment	Groundwater Elevation	Depth to Groundwater	Date of Measurement
EM-1	N/A	957.47	2-inch diameter PVC monitoring well with stickup protective casing	946.46	11.01	August 31, 1999
EM-2	N/A	956.94	2-inch diameter PVC monitoring well with stickup protective casing	946.45	10.49	August 31, 1999
EM-3	N/A	956.5	2-inch diameter PVC monitoring well with stickup protective casing	946.28	10.22	August 31, 1999
EM-4	1001.30	1003.99	2-inch diameter PVC monitoring well with stickup protective casing	975.93	28.06	August 31, 1999
EM-5	976.70	987.26	2-inch diameter PVC monitoring well with stickup protective casing	965.53	15.73	August 31, 1999
EM-6	974.30	977.05	2-inch diameter PVC monitoring well with stickup protective casing	949.7	27.35	August 31, 1999
EM-7	961.40	963.87	2-inch diameter PVC monitoring well with stickup protective casing	946.88	16.99	August 31, 1999
EM-8	958.50	960.71	2-inch diameter PVC monitoring well with stickup protective casing	940.71	20	August 31, 1999
EM-9	958.60	961.21	2-inch diameter PVC monitoring well with stickup protective casing	946.29	14.92	August 31, 1999
EM-10	966.40	969.3	2-inch diameter PVC monitoring well with stickup protective casing	957.01	12.29	August 31, 1999

NOTE:

1. Elevations expressed in feet, referenced to assumed vertical datum of 100.00 feet at the northwest corner of the concrete pad on the north side of Front Mill building.
2. Depth measurements to groundwater taken from the top of PVC pipe.
3. Top of PVC elevation is with cap removed.
4. Top of casing measurement is top of outer casing.
5. Elevations established by field survey conducted by EMCON on April 20, 1999.
6. See boring logs for horizontal coordinates.
7. Monitoring well MW-1 installed by Wagner Construction.

N/A = not available

Table 2

Soil Analytical Results, August 1999
Volatile Organic Compounds (VOCs)

Concentrations reported in micrograms per kilogram (µg/kg)

Burke Lumber Company Site Investigation
TreeSource Industries, Inc.
Sutton, Vermont

Compound / Sample I.D.	SS-1	EM-4	EM-5	EM-6	EM-7	EM-8	EM-8	EM-9	EM-10
Sample Depth (feet)	NA	8-10	8-10	14-16	14-16	0-2	2-4	10-12	10-12
Acetone	<50	<50	<50	**120**	<50	<50	<50	<50	<50
Acrolein	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acrylonitrile	<10	<10	<10	<10	<10	<10	<10	<10	<10
Benzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Butanone (MEK)	<10	<10	<10	**24**	<10	<10	<10	<10	<10
Carbon Disulfide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon Tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Chloroethyl vinyl ether	<10	<10	<10	<10	<10	<10	<10	<10	<10
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane (DBCP)	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2-Dibromoethane (EDB)	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	<1	<1	<1	<1	<1	<1	**7**	<1	<1
1,3-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,4-Dichloro-2-butene	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1-Dichloroethane	<1	<1	<1	<1	<1	<1	**1**	<1	<1
1,2-Dichloroethane	<1	<1	<1	<1	<1	<1	**2**	<1	<1
1,1-Dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	<1	<1	<1	<1	<1	<1	**4**	<1	<1
trans-1,2-Dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	**6**	**1**	<1	<1
Ethyl methacrylate	<10	<10	<10	<10	<10	<10	<10	<10	<10
2-Hexanone	<10	<10	<10	<10	<10	<10	<10	<10	<10
Iodomethane	<10	<10	<10	<10	<10	<10	<10	<10	<10
Methylene chloride	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone (MIBK)	<10	<10	<10	<10	<10	<10	<10	<10	<10
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	<1	<1	<1	<1	<1	**5**	<1	<1	<1
Tetrachloroethene (PCE)	<1	<1	<1	<1	<1	**11**	**8**	<1	<1
Toluene	<1	**1**	<1	**2**	<1	**88**	**27**	<1	<1
1,1,1-Trichloroethane (TCA)	<1	<1	<1	<1	<1	<1	**1**	<1	<1
1,1,2-Trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene (TCE)	<1	<1	<1	<1	<1	<1	**1**	<1	<1
Trichlorofluoromethane (CFC 11)	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl acetate	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vinyl chloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total xylenes	<2	<2	<2	<2	<2	**44**	**25**	<2	<2

Notes:
Volatile Organic Compounds analyzed by EPA Method 8260.
Results normalized to dry weight.
Bold indicates that compound was detected in sample.
< indicates that compound was not detected at or above the sample quantitation limit.

Table 5

Groundwater Analytical Results, August 1999
Volatile Organic Compounds (VOCs)

Concentrations reported in micrograms per liter (µg/L)

Burke Lumber Company Site Investigation
TreeSource Industries, Inc.
Sutton, Vermont

Compound	EM-1	EM-2	EM-3	EM-4	EM-5	EM-6	EM-7	EM-8	EM-8D	EM-9	EM-10
Acetone	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Acrolein	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acrylonitrile	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8
Benzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Butanone (MEK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1	<1	<1	**1**	**3**	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Chloroethyl vinyl ether	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane (DBCP)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2-Dibromoethane (EDB)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,4-Dichloro-2-butene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1-Dichloroethane	<1	<1	<1	<1	<1	<1	<1	**4**	**6**	<1	<1
1,2-Dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	<1	<1	<1	<1	<1	<1	<1	**2**	**3**	<1	<1
trans-1,2-Dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethyl methacrylate	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-Hexanone	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Iodomethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-Methyl-2-pentanone (MIBK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene (PCE)	<1	<1	<1	<1	<1	<1	<1	**1**	**2**	<1	<1
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane (TCA)	<1	<1	<1	<1	<1	<1	<1	**2**	**4**	<1	<1
1,1,2-Trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene (TCE)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane (CFC 11)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl acetate	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vinyl chloride	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total xylenes	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2

Notes:

Volatile organic compounds analyzed by EPA Methods 8260.

< indicates that compound was not detected at or above the sample quantitation limit.

Bold indicates that compound was detected in sample.

Samples EM-1, EM-2, and EM-3 were also analyzed for naphthalene; however, naphthalene was not detected above the laboratory quantitation limit.

Table 3 *Continued*

Compound / Sample I.D.	SS-1	EM-4	EM-5	EM-6	EM-7	EM-8	EM-8	EM-9	EM-10
Sample Depth (feet)	N/A	8-10	8-10	14-16	14-16	0-2	2-4	10-12	10-12
Indeno(1,2,3-cd)pyrene	<250	<250	<250	<250	<250	<250	**730**	–	<250
Isophorone	<250	<250	<250	<250	<250	<250	<250	–	<250
2-Methyl-4,6-dinitrophenol	<500	<500	<500	<500	<500	<500	<500	–	<500
3-Methycholanthrene	<250	<250	<250	<250	<250	<250	<250	–	<250
2-Methylnaphthalene	<250	<250	<250	<250	<250	**330**	**42,000** a	–	<250
2-Methylphenol	<250	<250	<250	<250	<250	<250	<250	–	<250
3-&4-Methylphenol	<250	<250	<250	<250	<250	<250	<250	–	<250
N-Nitrosodi-n-butylamine	<250	<250	<250	<250	<250	<250	<250	–	<250
N-Nitrosodi-n-propylamine	<250	<250	<250	<250	<250	<250	<250	–	<250
N-Nitrosodimethylamine	<250	<250	<250	<250	<250	<250	<250	–	<250
N-Nitrosodiphenylamine	<250	<250	<250	<250	<250	<250	<250	–	<250
N-nitrosopiperidine	<250	<250	<250	<250	<250	<250	<250	–	<250
Naphthalene	<250	<250	<250	<250	<250	<250	<250	–	<250
1-Naphthylamine	<250	<250	<250	<250	<250	<250	**8,400**	–	<250
2-Naphthylamine	<250	<250	<250	<250	<250	<250	<250	–	<250
2-Nitroaniline	<250	<250	<250	<250	<250	<250	<250	–	<250
3-Nitroaniline	<250	<250	<250	<250	<250	<250	<250	–	<250
4-Nitroaniline	<250	<250	<250	<250	<250	<250	<250	–	<250
Nitrobenzene	<250	<250	<250	<250	<250	<250	<250	–	<250
2-Nitrophenol	<250	<250	<250	<250	<250	<250	<250	–	<250
4-Nitrophenol	<500	<500	<500	<500	<500	<500	<500	–	<500
p-Dimethylaminoazobenzene	<250	<250	<250	<250	<250	<250	<250	–	<250
Pentachlorobenzene	<250	<250	<250	<250	<250	<250	<250	–	<250
Pentachloronitrobenzene	<250	<250	<250	<250	<250	<250	<250	–	<250
Pentachlorophenol	<500	<500	<500	<500	<500	<500	<500	–	<500
Phenacetin	<250	<250	<250	<250	<250	<250	<250	–	<250
Phenanthrene	<250	<250	<250	<250	<250	<250	<250	–	<250
Phenol	<250	<250	<250	<250	<250	**690**	**280,000** a	–	<250
2-Picoline	<250	<250	<250	<250	<250	<250	<250	–	<250
Pronamide	<250	<250	<250	<250	<250	<250	<250	–	<250
Pyrene	<250	<250	<250	<250	<250	<250	<250	–	<250
1,2,4,5-Tetrachlorobenzene	<250	<250	<250	<250	<250	**4,000**	**84,000** a	–	<250
2,3,4,6-Tetrachlorophenol	<250	<250	<250	<250	<250	<250	<250	–	<250
1,2,4-Trichlorobenzene	<250	<250	<250	<250	<250	<250	<250	–	<250
2,4,5-Trichlorophenol	<250	<250	<250	<250	<250	<250	<250	–	<250
2,4,6-Trichlorophenol	<250	<250	<250	<250	<250	<250	<250	–	<250
Diesel Range Organics	–	–	–	–	–	–	–	<10,000	–

Notes:
SVOCs analyzed by EPA Methods 3550/8270
Diesel Range Organics (DRO) analyzed by EPA Methods 3550/8100M
Results normalized to dry weight.
Bold indicates that compound was detected in sample.
< indicates that compound was not detected at or above the sample quantitation limit.
– = Sample not analyzed for compound.
(a) Result is from the analysis of a diluted sample, performed on 9/10/99. Dilution factor 1:50.

Table 3

Soil Analytical Results, August 1999
Semi-Volatile Organic Compounds (SVOCs)

Concentrations reported in micrograms per kilogram (µg/kg)

Burke Lumber Company Site Investigation
TreeSource Industries, Inc.
Sutton, Vermont

Compound / Sample I.D.	SS-1	EM-4	EM-5	EM-6	EM-7	EM-8	EM-8	EM-9	EM-10
Sample Depth (feet)	NA	8-10	8-10	14-16	14-16	0-2	2-4	10-12	10-12
Acenaphthene	<250	<250	<250	<250	<250	1,300	110,000 a	–	<250
Acenaphthylene	<250	<250	<250	<250	<250	<250	<250	–	<250
Acetophenone	<250	<250	<250	<250	<250	<250	<250	–	<250
4-Aminobiphenyl	<250	<250	<250	<250	<250	<250	<250	–	<250
Aniline	<250	<250	<250	<250	<250	<250	<250	–	<250
Anthracene	<250	<250	<250	<250	<250	<250	25,000 a	–	<250
Azobenzene	<250	<250	<250	<250	<250	<250	<250	–	<250
Benzidine	<500	<500	<500	<500	<500	<500	<500	–	<500
Benzo(a)anthracene	<250	<250	<250	<250	<250	720	16,000 a	–	<250
Benzo(a)pyrene	<250	<250	<250	<250	<250	330	3500	–	<250
Benzo(b)fluoranthene	<250	<250	<250	<250	<250	340	4600	–	<250
Benzo(g,h,i)perylene	<250	<250	<250	<250	<250	<250	870	–	<250
Benzo(k)fluoranthene	<250	<250	<250	<250	<250	530	4200	–	<250
Benzyl alcohol	<250	<250	<250	<250	<250	<250	<250	–	<250
Bis(2-chloroethoxy)methane	<250	<250	<250	<250	<250	<250	<250	–	<250
Bis(2-chloroethyl) ether	<250	<250	<250	<250	<250	<250	<250	–	<250
Bis(2-chloroisopropyl) ether	<250	<250	<250	<250	<250	<250	<250	–	<250
Bis(2-ethylhexyl) phthalate	<250	<250	<250	<250	<250	560	540	–	<250
4-Bromophenyl phenyl ether	<250	<250	<250	<250	<250	<250	<250	–	<250
Butyl benzyl phthalate	<250	<250	<250	<250	<250	<250	<250	–	<250
4-Chloro-3-methylphenol	<500	<500	<500	<500	<500	<500	<500	–	<500
4-Chloroaniline	<250	<250	<250	<250	<250	<250	<250	–	<250
1-Chloronaphthalene	<250	<250	<250	<250	<250	<250	<250	–	<250
2-Chloronaphthalene	<250	<250	<250	<250	<250	<250	<250	–	<250
2-Chlorophenol	<250	<250	<250	<250	<250	<250	<250	–	<250
4-Chlorophenyl phenyl ether	<250	<250	<250	<250	<250	<250	<250	–	<250
Chrysene	<250	<250	<250	<250	<250	780	16,000 a	–	<250
Di-n-butyl phthalate	<250	<250	<250	<250	<250	<250	<250	–	<250
Di-n-octyl phthalate	<250	<250	<250	<250	<250	<250	<250	–	<250
Dibenzo(a,j)acridine	<250	<250	<250	<250	<250	<250	<250	–	<250
Dibenzo(a,h)anthracene	<250	<250	<250	<250	<250	<250	<250	–	<250
Dibenzofuran	<250	<250	<250	<250	<250	440	59,000 a	–	<250
1,2-Dichlorobenzene	<250	<250	<250	<250	<250	<250	<250	–	<250
1,3-Dichlorobenzene	<250	<250	<250	<250	<250	<250	<250	–	<250
1,4-Dichlorobenzene	<250	<250	<250	<250	<250	<250	<250	–	<250
3,3'-Dichlorobenzidine	<500	<500	<500	<500	<500	<500	<500	–	<500
2,4-Dichlorophenol	<250	<250	<250	<250	<250	<250	<250	–	<250
2,6-Dichlorophenol	<250	<250	<250	<250	<250	<250	<250	–	<250
Diethyl phthalate	<250	<250	<250	<250	<250	<250	<250	–	<250
7,12-Dimethylbenzo(a)anthracene	<250	<250	<250	<250	<250	<250	<250	–	<250
2,4-Dimethylphenol	<250	<250	<250	<250	<250	<250	<250	–	<250
Dimethyl phthalate	<250	<250	<250	<250	<250	<250	<250	–	<250
2,4-Dinitrophenol	<500	<500	<500	<500	<500	<500	<500	–	<500
2,4-Dinitrotoluene	<250	<250	<250	<250	<250	<250	<250	–	<250
2,6-Dinitrotoluene	<250	<250	<250	<250	<250	<250	<250	–	<250
Diphenylamine	<250	<250	<250	<250	<250	<250	<250	–	<250
Fluoranthene	<250	<250	<250	<250	<250	5,000	170,000 a	–	<250
Fluorene	<250	<250	<250	<250	<250	540	73,000 a	–	<250
Hexachlorobenzene	<250	<250	<250	<250	<250	<250	<250	–	<250
Hexachlorobutadiene	<250	<250	<250	<250	<250	<250	<250	–	<250
Hexachlorocyclopentadiene	<250	<250	<250	<250	<250	<250	<250	–	<250
Hexachloroethane	<250	<250	<250	<250	<250	<250	<250	–	<250

Table 5

Groundwater Analytical Results, August 1999
Volatile Organic Compounds (VOCs)

Concentrations reported in micrograms per liter (µg/L)

Burke Lumber Company Site Investigation
TreeSource Industries, Inc.
Sutton, Vermont

Compound	EM-1	EM-2	EM-3	EM-4	EM-5	EM-6	EM-7	EM-8	EM-8D	EM-9	EM-10
Acetone	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Acrolein	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acrylonitrile	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8
Benzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Butanone (MEK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1	<1	<1	**1**	**3**	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Chloroethyl vinyl ether	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane (DBCP)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2-Dibromoethane (EDB)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,4-Dichloro-2-butene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1-Dichloroethane	<1	<1	<1	<1	<1	<1	<1	**4**	**6**	<1	<1
1,2-Dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	<1	<1	<1	<1	<1	<1	<1	**2**	**3**	<1	<1
trans-1,2-Dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethyl methacrylate	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-Hexanone	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Iodomethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-Methyl-2-pentanone (MIBK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene (PCE)	<1	<1	<1	<1	<1	<1	<1	**1**	**2**	<1	<1
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane (TCA)	<1	<1	<1	<1	<1	<1	<1	**2**	**4**	<1	<1
1,1,2-Trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene (TCE)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane (CFC 11)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl acetate	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vinyl chloride	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total xylenes	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2

Notes:
Volatile organic compounds analyzed by EPA Methods 8260.
< indicates that compound was not detected at or above the sample quantitation limit.
Bold indicates that compound was detected in sample.
Samples EM-1, EM-2, and EM-3 were also analyzed for naphthalene; however, naphthalene was not detected above the laboratory quantitation limit.

Table 4

Soil Analytical Results, August 1999
Total Metals

Concentrations reported in milligrams per kilogram (mg/kg)

Burke Lumber Company Site Investigation
TreeSource Industries, Inc.
Sutton, Vermont

Compound	Sample I.D.	SS-1	EM-4	EM-5	EM-6	EM-7	EM-8	EM-8	EM-9	EM-10
	Sample Depth (feet)	NA	8-10	8-10	14-16	14-16	0-2	2-4	10-12	10-12
Antimony		<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	--	<2.5
Arsenic		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0
Beryllium		**0.55**	**0.44**	**0.4**	**1.22**	**0.61**	**0.31**	**0.64**	--	**0.36**
Cadmium		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--	<0.5
Chromium		**20.7**	**13.4**	**13.1**	**27.9**	**18.2**	**14.4**	**17.7**	--	**5.38**
Chromium VI		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Copper		**35.1**	**11.9**	**9.22**	**15.1**	**18**	**11.5**	**13.9**	--	**6.1**
Lead		**18.7**	<5.0	<5.0	**8.32**	**6.32**	**7.71**	**19.6**	--	<5.0
Mercury		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	<0.2
Nickel		**43.9**	**21.5**	**14.8**	**27.6**	**30.5**	**14**	**22.6**	--	**11.7**
Selenium		<50 a	<10.0	<10.0	<10.0	<20 a	<10.0	<10.0	--	<10.0
Silver		<1.0 b	<0.5	<0.5	<0.5	<0.5	<1.0 a	<0.5	--	<0.5
Thallium		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	--	<50.0
Zinc		**41.3**	**26.8**	**20.1**	**34.2**	**29.7**	**29.2**	**31.1**	--	**10.9**

Notes:
Metals analyzed by EPA Method 6010B, except for mercury (EPA Method 7471A) and chromium VI (EPA Method 7196A).
Results normalized to dry weight.
Bold indicates that compound was detected in sample.
< indicates that compound was not detected at or above the sample quantitation limit.
-- = Sample not analyzed for compound.
(a) Detection limit is elevated because of matrix interferences and because the sample required dilution (dilution factor: 2).
(b) Detection limit is elevated because of matrix interferences and because the sample required dilution (dilution factor: 5).

Table 4

Soil Analytical Results, August 1999
Total Metals

Concentrations reported in milligrams per kilogram (mg/kg)

Burke Lumber Company Site Investigation
TreeSource Industries, Inc.
Sutton, Vermont

Compound	Sample I.D.	SS-1	EM-4	EM-5	EM-6	EM-7	EM-8	EM-8	EM-9	EM-10
	Sample Depth (feet)	NA	8-10	8-10	14-16	14-16	0-2	2-4	10-12	10-12
Antimony		<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	--	<2.5
Arsenic		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0
Beryllium		**0.55**	**0.44**	**0.4**	**1.22**	**0.61**	**0.31**	**0.64**	--	**0.36**
Cadmium		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--	<0.5
Chromium		**20.7**	**13.4**	**13.1**	**27.9**	**18.2**	**14.4**	**17.7**	--	**5.38**
Chromium VI		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Copper		**35.1**	**11.9**	**9.22**	**15.1**	**18**	**11.5**	**13.9**	--	**6.1**
Lead		**18.7**	<5.0	<5.0	**6.32**	**6.32**	**7.71**	**19.6**	--	<5.0
Mercury		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	<0.2
Nickel		**43.9**	**21.5**	**14.8**	**27.5**	**30.5**	**14**	**22.6**	--	**11.7**
Selenium		<50 a	<10.0	<10.0	<10.0	<20 a	<10.0	<10.0	--	<10.0
Silver		<1.0 b	<0.5	<0.5	<0.5	<0.5	<1.0 a	<0.5	--	<0.5
Thallium		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	--	<50.0
Zinc		**41.3**	**26.8**	**20.1**	**34.2**	**29.7**	**29.2**	**31.1**	--	**10.9**

Notes:
Metals analyzed by EPA Method 6010B, except for mercury (EPA Method 7471A) and chromium VI (EPA Method 7196A).
Results normalized to dry weight.
Bold indicates that compound was detected in sample.
< indicates that compound was not detected at or above the sample quantitation limit.
-- = Sample not analyzed for compound.
(a) Detection limit is elevated because of matrix interferences and because the sample required dilution (dilution factor: 2).
(b) Detection limit is elevated because of matrix interferences and because the sample required dilution (dilution factor: 5).

Table 6

Groundwater Analytical Results, August, 1999
Semi-Volatile Organic Compounds (SVOCs)

Concentrations reported in micrograms per liter (µg/L)

Burke Lumber Company Site Investigation
TreeSource Industries, Inc.
Sutton, Vermont

Compound	EM-4	EM-5	EM-6	EM-7	EM-8	EM-8D	EM-9
Acenaphthene	<5	<5	<5	<5	<5	<5	–
Acenaphthylene	<5	<5	<5	<5	<5	<5	–
Acetophenone	<5	<5	<5	<5	<5	<5	–
4-Aminobiphenyl	<5	<5	<5	<5	<5	<5	–
Aniline	<5	<5	<5	<5	<5	<5	–
Anthracene	<5	<5	<5	<5	<5	<5	–
Azobenzene	<5	<5	<5	<5	<5	<5	–
Benzidine	<20	<20	<20	<20	<20	<20	–
Benzo(a)anthracene	<5	<5	<5	<5	<5	<5	–
Benzo(a)pyrene	<5	<5	<5	<5	<5	<5	–
Benzo(b)fluoranthene	<5	<5	<5	<5	<5	<5	–
Benzo(g,h,i)perylene	<5	<5	<5	<5	<5	<5	–
Benzo(k)fluoranthene	<5	<5	<5	<5	<5	<5	–
Benzyl alcohol	<5	<5	<5	<5	<5	<5	–
Bis(2-chloroethoxy)methane	<5	<5	<5	<5	<5	<5	–
Bis(2-chloroethyl) ether	<5	<5	<5	<5	<5	<5	–
Bis(2-chloroisopropyl) ether	<5	<5	<5	<5	<5	<5	–
Bis(2-ethylhexyl) phthalate	<5	<5	<5	<5	<5	<5	–
4-Bromophenyl phenyl ether	<5	<5	<5	<5	<5	<5	–
Butyl benzyl phthalate	<5	<5	<5	<5	<5	<5	–
4-Chloro-3-methylphenol	<20	<20	<20	<20	<20	<20	–
4-Chloroaniline	<5	<5	<5	<5	<5	<5	–
1-Chloronaphthalene	<5	<5	<5	<5	<5	<5	–
2-Chloronaphthalene	<5	<5	<5	<5	<5	<5	–
2-Chlorophenol	<5	<5	<5	<5	<5	<5	–
4-Chlorophenyl phenyl ether	<5	<5	<5	<5	<5	<5	–
Chrysene	<5	<5	<5	<5	<5	<5	–
Di-n-butyl phthalate	<5	<5	<5	<5	<5	<5	–
Di-n-octyl phthalate	<5	<5	<5	<5	<5	<5	–
Dibenzo(a,j)acridine	<5	<5	<5	<5	<5	<5	–
Dibenzo(a,h)anthracene	<5	<5	<5	<5	<5	<5	–
Dibenzofuran	<5	<5	<5	<5	<5	<5	–
1,2-Dichlorobenzene	<5	<5	<5	<5	<5	<5	–
1,3-Dichlorobenzene	<5	<5	<5	<5	<5	<5	–
1,4-Dichlorobenzene	<5	<5	<5	<5	<5	<5	–
3,3'-Dichlorobenzidine	<20	<20	<20	<20	<20	<20	–
2,4-Dichlorophenol	<5	<5	<5	<5	<5	<5	–
2,6-Dichlorophenol	<5	<5	<5	<5	<5	<5	–

Table 6

Groundwater Analytical Results, August, 1999
Semi-Volatile Organic Compounds (SVOCs)

Concentrations reported in micrograms per liter (µg/L)

Burke Lumber Company Site Investigation
TreeSource Industries, Inc.
Sutton, Vermont

Compound	EM-4	EM-5	EM-6	EM-7	EM-8	EM-8D	EM-9
Acenaphthene	<5	<5	<5	<5	<5	<5	–
Acenaphthylene	<5	<5	<5	<5	<5	<5	–
Acetophenone	<5	<5	<5	<5	<5	<5	–
4-Aminobiphenyl	<5	<5	<5	<5	<5	<5	–
Aniline	<5	<5	<5	<5	<5	<5	–
Anthracene	<5	<5	<5	<5	<5	<5	–
Azobenzene	<5	<5	<5	<5	<5	<5	–
Benzidine	<20	<20	<20	<20	<20	<20	–
Benzo(a)anthracene	<5	<5	<5	<5	<5	<5	–
Benzo(a)pyrene	<5	<5	<5	<5	<5	<5	–
Benzo(b)fluoranthene	<5	<5	<5	<5	<5	<5	–
Benzo(g,h,i)perylene	<5	<5	<5	<5	<5	<5	–
Benzo(k)fluoranthene	<5	<5	<5	<5	<5	<5	–
Benzyl alcohol	<5	<5	<5	<5	<5	<5	–
Bis(2-chloroethoxy)methane	<5	<5	<5	<5	<5	<5	–
Bis(2-chloroethyl) ether	<5	<5	<5	<5	<5	<5	–
Bis(2-chloroisopropyl) ether	<5	<5	<5	<5	<5	<5	–
Bis(2-ethylhexyl) phthalate	<5	<5	<5	<5	<5	<5	–
4-Bromophenyl phenyl ether	<5	<5	<5	<5	<5	<5	–
Butyl benzyl phthalate	<5	<5	<5	<5	<5	<5	–
4-Chloro-3-methylphenol	<20	<20	<20	<20	<20	<20	–
4-Chloroaniline	<5	<5	<5	<5	<5	<5	–
1-Chloronaphthalene	<5	<5	<5	<5	<5	<5	–
2-Chloronaphthalene	<5	<5	<5	<5	<5	<5	–
2-Chlorophenol	<5	<5	<5	<5	<5	<5	–
4-Chlorophenyl phenyl ether	<5	<5	<5	<5	<5	<5	–
Chrysene	<5	<5	<5	<5	<5	<5	–
Di-n-butyl phthalate	<5	<5	<5	<5	<5	<5	–
Di-n-octyl phthalate	<5	<5	<5	<5	<5	<5	–
Dibenzo(a,j)acridine	<5	<5	<5	<5	<5	<5	–
Dibenzo(a,h)anthracene	<5	<5	<5	<5	<5	<5	–
Dibenzofuran	<5	<5	<5	<5	<5	<5	–
1,2-Dichlorobenzene	<5	<5	<5	<5	<5	<5	–
1,3-Dichlorobenzene	<5	<5	<5	<5	<5	<5	–
1,4-Dichlorobenzene	<5	<5	<5	<5	<5	<5	–
3,3'-Dichlorobenzidine	<20	<20	<20	<20	<20	<20	–
2,4-Dichlorophenol	<5	<5	<5	<5	<5	<5	–
2,6-Dichlorophenol	<5	<5	<5	<5	<5	<5	–

Table 6

continued

Compound	EM-4	EM-5	EM-6	EM-7	EM-8	EM-8D	EM-9
Diethyl phthalate	<5	<5	<5	<5	<5	<5	–
7,12-Dimethybenzo(a)anthracene	<5	<5	<5	<5	<5	<5	–
2,4-Dimethylphenol	<5	<5	<5	<5	<5	<5	–
Dimethyl phthalate	<5	<5	<5	<5	<5	<5	–
2,4-Dinitrophenol	<20	<20	<20	<20	<20	<20	–
2,4-Dinitrotoluene	<5	<5	<5	<5	<5	<5	–
2,6-Dinitrotoluene	<5	<5	<5	<5	<5	<5	–
Diphenylamine	<5	<5	<5	<5	<5	<5	–
Fluoranthene	<5	<5	<5	<5	<5	<5	–
Fluorene	<5	<5	<5	<5	<5	<5	–
Hexachlorobenzene	<5	<5	<5	<5	<5	<5	–
Hexachlorobutadiene	<5	<5	<5	<5	<5	<5	–
Hexachlorocyclopentadiene	<5	<5	<5	<5	<5	<5	–
Hexachloroethane	<5	<5	<5	<5	<5	<5	–
Indeno(1,2,3-cd)pyrene	<5	<5	<5	<5	<5	<5	–
Isophorone	<5	<5	<5	<5	<5	<5	–
2-Methyl-4,6-dinitrophenol	<20	<20	<20	<20	<20	<20	–
3-Methycholanthrene	<5	<5	<5	<5	<5	<5	–
2-Methylnaphthalene	<5	<5	<5	<5	<5	<5	–
2-Methyphenol	<5	<5	<5	<5	<5	<5	–
3-&4-Methyphenol	<5	<5	<5	<5	<5	<5	–
N-Nitrosodi-n-butylamine	<5	<5	<5	<5	<5	<5	–
N-Nitrosodi-n-propylamine	<5	<5	<5	<5	<5	<5	–
N-Nitrosodimethylamine	<5	<5	<5	<5	<5	<5	–
N-Nitrosodiphenylamine	<5	<5	<5	<5	<5	<5	–
N-nitrosopiperidine	<5	<5	<5	<5	<5	<5	–
Naphthalene	<5	<5	<5	<5	<5	<5	–
1-Naphthylamine	<5	<5	<5	<5	<5	<5	–
2-Naphthylamine	<5	<5	<5	<5	<5	<5	–
2-Nitroaniline	<5	<5	<5	<5	<5	<5	–
3-Nitroaniline	<5	<5	<5	<5	<5	<5	–
4-Nitroaniline	<5	<5	<5	<5	<5	<5	–
Nitrobenzene	<5	<5	<5	<5	<5	<5	–
2-Nitrophenol	<5	<5	<5	<5	<5	<5	–
4-Nitrophenol	<20	<20	<20	<20	<20	<20	–
p-Dimethylaminoazobenzene	<5	<5	<5	<5	<5	<5	–
Pentachlorobenzene	<5	<5	<5	<5	<5	<5	–
Pentachloronitrobenzene	<5	<5	<5	<5	<5	<5	–
Pentachlorophenol	<20	<20	<20	<20	<20	<20	–
Phenacetin	<5	<5	<5	<5	<5	<5	–
Phenanthrene	<5	<5	<5	<5	<5	<5	–
Phenol	<5	<5	<5	<5	<5	<5	–
2-Picoline	<5	<5	<5	<5	<5	<5	–
Pronamide	<5	<5	<5	<5	<5	<5	–
Pyrene	<5	<5	<5	<5	<5	<5	–
1,2,4,5-Tetrachlorobenzene	<5	<5	<5	<5	<5	<5	–
2,3,4,6-Tetrachlorophenol	<5	<5	<5	<5	<5	<5	–
1,2,4-Trichlorobenzene	<5	<5	<5	<5	<5	<5	–
2,4,5-Trichlorophenol	<5	<5	<5	<5	<5	<5	–
2,4,6-Trichlorophenol	<5	<5	<5	<5	<5	<5	–
Diesel Range Organics	–	–	–	–	–	–	<100

Notes:

SVOCs analyzed by EPA Method 3510/8270.

< indicates that compound was not detected at or above the sample quantitation limit.

– = not analyzed

Table 6 *continued*

Compound	EM-4	EM-5	EM-6	EM-7	EM-8	EM-8D	EM-9
Diethyl phthalate	<5	<5	<5	<5	<5	<5	--
7,12-Dimethybenzo(a)anthracene	<5	<5	<5	<5	<5	<5	--
2,4-Dimethylphenol	<5	<5	<5	<5	<5	<5	--
Dimethyl phthalate	<5	<5	<5	<5	<5	<5	--
2,4-Dinitrophenol	<20	<20	<20	<20	<20	<20	--
2,4-Dinitrotoluene	<5	<5	<5	<5	<5	<5	--
2,6-Dinitrotoluene	<5	<5	<5	<5	<5	<5	--
Diphenylamine	<5	<5	<5	<5	<5	<5	--
Fluoranthene	<5	<5	<5	<5	<5	<5	--
Fluorene	<5	<5	<5	<5	<5	<5	--
Hexachlorobenzene	<5	<5	<5	<5	<5	<5	--
Hexachlorobutadiene	<5	<5	<5	<5	<5	<5	--
Hexachlorocyclopentadiene	<5	<5	<5	<5	<5	<5	--
Hexachloroethane	<5	<5	<5	<5	<5	<5	--
Indeno(1,2,3-cd)pyrene	<5	<5	<5	<5	<5	<5	--
Isophorone	<5	<5	<5	<5	<5	<5	--
2-Methyl-4,6-dinitrophenol	<20	<20	<20	<20	<20	<20	--
3-Methycholanthrene	<5	<5	<5	<5	<5	<5	--
2-Methylnaphthalene	<5	<5	<5	<5	<5	<5	--
2-Methyphenol	<5	<5	<5	<5	<5	<5	--
3-&4-Methyphenol	<5	<5	<5	<5	<5	<5	--
N-Nitrosodi-n-butylamine	<5	<5	<5	<5	<5	<5	--
N-Nitrosodi-n-propylamine	<5	<5	<5	<5	<5	<5	--
N-Nitrosodimethylamine	<5	<5	<5	<5	<5	<5	--
N-Nitrosodiphenylamine	<5	<5	<5	<5	<5	<5	--
N-nitrosopiperidine	<5	<5	<5	<5	<5	<5	--
Naphthalene	<5	<5	<5	<5	<5	<5	--
1-Naphthylamine	<5	<5	<5	<5	<5	<5	--
2-Naphthylamine	<5	<5	<5	<5	<5	<5	--
2-Nitroaniline	<5	<5	<5	<5	<5	<5	--
3-Nitroaniline	<5	<5	<5	<5	<5	<5	--
4-Nitroaniline	<5	<5	<5	<5	<5	<5	--
Nitrobenzene	<5	<5	<5	<5	<5	<5	--
2-Nitrophenol	<5	<5	<5	<5	<5	<5	--
4-Nitrophenol	<20	<20	<20	<20	<20	<20	--
p-Dimethylaminoazobenzene	<5	<5	<5	<5	<5	<5	--
Pentachlorobenzene	<5	<5	<5	<5	<5	<5	--
Pentachloronitrobenzene	<5	<5	<5	<5	<5	<5	--
Pentachlorophenol	<20	<20	<20	<20	<20	<20	--
Phenacetin	<5	<5	<5	<5	<5	<5	--
Phenanthrene	<5	<5	<5	<5	<5	<5	--
Phenol	<5	<5	<5	<5	<5	<5	--
2-Picoline	<5	<5	<5	<5	<5	<5	--
Pronamide	<5	<5	<5	<5	<5	<5	--
Pyrene	<5	<5	<5	<5	<5	<5	--
1,2,4,5-Tetrachlorobenzene	<5	<5	<5	<5	<5	<5	--
2,3,4,6-Tetrachlorophenol	<5	<5	<5	<5	<5	<5	--
1,2,4-Trichlorobenzene	<5	<5	<5	<5	<5	<5	--
2,4,5-Trichlorophenol	<5	<5	<5	<5	<5	<5	--
2,4,6-Trichlorophenol	<5	<5	<5	<5	<5	<5	--
Diesel Range Organics	--	--	--	--	--	--	<100

Notes:

SVOCs analyzed by EPA Method 3510/8270.

< indicates that compound was not detected at or above the sample quantitation limit.

-- = not analyzed

Table 7

Groundwater Analytical Results, August 1999
Total Metals

Concentrations reported in micrograms per liter (µg/L)

Burke Lumber Company Site Investigation
TreeSource Industries, Inc.
Sutton, Vermont

Compound	EPA Method	EM-4	EM-5	EM-6	EM-7	EM-8	EM-8D	EM-10
Antimony	204.2	<5	<5	<5	<5	<5	<5	<5
Arsenic	206.2	<10 a	<5	**6**	<5	<5	<5	<5
Beryllium	210.2	**9**	<2	**4**	<2	<2	<2	<2
Cadmium	213.2	<1	<1	**1**	<1	<1	<1	<1
Chromium	200.7	**180**	<30	**80**	<30	<30	<30	<30
Chromium VI	SM 3500C	<10	<10	<10	<10	<10	<10	<10
Copper	220.1	**620**	<50	**260**	<50	<50	<50	<50
Lead	239.2	**226**	<2	**106**	<2	**9**	<2	<2
Mercury	245.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel	200.7	**700**	<50	**400**	<50	<50	<50	<50
Selenium	270.2	<5	<5	<5	<5	<5	<5	<5
Silver	200.7	<20 a	<10	<10	<10	<10	<10	<10
Thallium	279.2	**6**	<2	**5**	<2	<2	<2	<2
Zinc	289.1	**490**	<50	**210**	<50	<50	<50	<50

Notes:

Bold indicates that compound was detected in sample.
< indicates that analyte was not detected at or above the sample quantitation limit.
(a) Detection limit is elevated because of matrix interferences and because the sample required dilution (dilution factor: 2).

Table 8

Sediment Analytical Results, August 1999
Volatile Organic Compounds (VOCs)

Concentrations reported in micrograms per kilogram (µg/kg)

Burke Lumber Company Site Investigation
TreeSource Industries, Inc.
Sutton, Vermont

Compound	*Sample I.D.*		
	SD-1	SD-2	SD-3
Acetone	<50	<50	<50
Acrolein	<10	<10	<10
Acrylonitrile	<10	<10	<10
Benzene	<1	<1	<1
Bromodichloromethane	<1	<1	<1
Bromoform	<1	<1	<1
Bromomethane	<1	<1	<1
2-Butanone (MEK)	<10	<10	<10
Carbon Disulfide	<1	<1	<1
Carbon Tetrachloride	<1	<1	<1
Chlorobenzene	<1	<1	<1
Chloroethane	<1	<1	<1
Chloroform	<1	<1	<1
Chloromethane	<1	<1	<1
2-Chloroethyl vinyl ether	<10	<10	<10
Dibromochloromethane	<1	<1	<1
1,2-Dibromo-3-chloropropane (DBCP)	<10	<10	<10
1,2-Dibromoethane (EDB)	<1	<1	<1
1,2-Dichlorobenzene	<1	<1	<1
1,3-Dichlorobenzene	<1	<1	<1
1,4-Dichlorobenzene	<1	<1	<1
trans-1,4-Dichloro-2-butene	<10	<10	<10
1,1-Dichloroethane	<1	<1	<1
1,2-Dichloroethane	<1	<1	<1
1,1-Dichloroethene	<1	<1	<1
cis-1,2-Dichloroethene	<1	<1	<1
trans-1,2-Dichloroethene	<1	<1	<1
Dichlorodifluoromethane	<1	<1	<1
Ethylbenzene	<1	<1	<1
Ethyl methacrylate	<10	<10	<10
2-Hexanone	<10	<10	<10
Iodomethane	<10	<10	<10
Methylene chloride	<10	<10	<10
4-Methyl-2-pentanone (MIBK)	<10	<10	<10
Styrene	<1	<1	<1
1,1,1,2-Tetrachloroethane	<1	<1	<1
1,1,2,2-Tetrachloroethane	<1	<1	<1
Tetrachloroethene (PCE)	<1	<1	<1
Toluene	<1	<1	<1
1,1,1-Trichloroethane (TCA)	<1	<1	<1
1,1,2-Trichloroethane	<1	<1	<1
Trichloroethene (TCE)	<1	<1	<1
Trichlorofluoromethane (CFC 11)	<1	<1	<1
1,2,3-Trichloropropane	<1	<1	<1
Vinyl acetate	<10	<10	<10
Vinyl chloride	<1	<1	<1
Total xylenes	<2	<2	<2

Notes:
Volatile Organic Compounds analyzed by EPA Method 8260B.
Results normalized to dry weight.
< indicates that compound was not detected at or above the sample quantitation limit.

Table 9

Sediment Analytical Results, August 1999
Semi-Volatile Organic Compounds (SVOCs)

Concentrations reported in micrograms per kilogram (µg/kg)

Burke Lumber Company Site Investigation
TreeSource Industries, Inc.
Sutton, Vermont

Compound	Sample I.D.		
	SD-1	SD-2	SD-3
Acenaphthene	<250	<250	<250
Acenaphthylene	<250	<250	<250
Acetophenone	<250	<250	<250
4-Aminobiphenyl	<250	<250	<250
Aniline	<250	<250	<250
Anthracene	<250	<250	<250
Azobenzene	<250	<250	<250
Benzidine	<500	<500	<500
Benzo(a)anthracene	<250	<250	<250
Benzo(a)pyrene	<250	<250	<250
Benzo(b)fluoranthene	<250	<250	<250
Benzo(g,h,i)perylene	<250	<250	<250
Benzo(k)fluoranthene	<250	<250	<250
Benzyl alcohol	<250	<250	<250
Bis(2-chloroethoxy)methane	<250	<250	<250
Bis(2-chloroethyl) ether	<250	<250	<250
Bis(2-chloroisopropyl) ether	<250	<250	<250
Bis(2-ethylhexyl) phthalate	<250	<250	<250
4-Bromophenyl phenyl ether	<250	<250	<250
Butyl benzyl phthalate	<250	<250	<250
4-Chloro-3-methylphenol	<500	<500	<500
4-Chloroaniline	<250	<250	<250
1-Chloronaphthalene	<250	<250	<250
2-Chloronaphthalene	<250	<250	<250
2-Chlorophenol	<250	<250	<250
4-Chlorophenyl phenyl ether	<250	<250	<250
Chrysene	<250	<250	<250
Di-n-butyl phthalate	<250	<250	<250
Di-n-octyl phthalate	<250	<250	<250
Dibenzo(a,,j)acridine	<250	<250	<250
Dibenzo(a,h)anthracene	<250	<250	<250
Dibenzofuran	<250	<250	<250
1,2-Dichlorobenzene	<250	<250	<250
1,3-Dichlorobenzene	<250	<250	<250
1,4-Dichlorobenzene	<250	<250	<250
3,3'-Dichlorobenzidine	<500	<500	<500
2,4-Dichlorophenol	<250	<250	<250
2,6-Dichlorophenol	<250	<250	<250
Diethyl phthalate	<250	<250	<250
7,12-Dimethybenzo(a)anthracene	<250	<250	<250
2,4-Dimethylphenol	<250	<250	<250
Dimethyl phthalate	<250	<250	<250
2,4-Dinitrophenol	<500	<500	<500
2,4-Dinitrotoluene	<250	<250	<250
2,6-Dinitirotoluene	<250	<250	<250
Diphenylamine	<250	<250	<250
Fluoranthene	<250	<250	<250
Fluorene	<250	<250	<250
Hexachlorobenzene	<250	<250	<250

Table 9

continued

Compound	Sample I.D.		
	SD-1	SD-2	SD-3
Hexachlorobutadiene	<250	<250	<250
Hexachlorocyclopentadiene	<250	<250	<250
Hexachloroethane	<250	<250	<250
Indeno(1,2,3-cd)pyrene	<250	<250	<250
Isophorone	<250	<250	<250
2-Methyl-4,6-dinitrophenol	<500	<500	<500
3-Methycholanthrene	<250	<250	<250
2-Methylnaphthalene	<250	<250	<250
2-Methyphenol	<250	<250	<250
3-&4-Methyphenol	<250	<250	<250
N-Nitrosodi-n-butylamine	<250	<250	<250
N-Nitrosodi-n-propylamine	<250	<250	<250
N-Nitrosodimethylamine	<250	<250	<250
N-Nitrosodiphenylamine	<250	<250	<250
N-nitrosopiperidine	<250	<250	<250
Naphthalene	<250	<250	<250
1-Naphthylamine	<250	<250	<250
2-Naphthylamine	<250	<250	<250
2-Nitroaniline	<250	<250	<250
3-Nitroaniline	<250	<250	<250
4-Nitroaniline	<250	<250	<250
Nitrobenzene	<250	<250	<250
2-Nitrophenol	<250	<250	<250
4-Nitrophenol	<500	<500	<500
p-Dimethylaminoazobenzene	<250	<250	<250
Pentachlorobenzene	<250	<250	<250
Pentachloronitrobenzene	<250	<250	<250
Pentachlorophenol	<500	<500	<500
Phenacetin	<250	<250	<250
Phenanthrene	<250	<250	<250
Phenol	<250	<250	<250
2-Picoline	<250	<250	<250
Pronamide	<250	<250	<250
Pyrene	<250	<250	<250
1,2,4,5-Tetrachlorobenzene	<250	<250	<250
2,3,4,6-Tetrachlorophenol	<250	<250	<250
1,2,4-Trichlorobenzene	<250	<250	<250
2,4,5-Trichlorophenol	<250	<250	<250
2,4,6-Trichlorophenol	<250	<250	<250

Notes:

SVOCs analyzed by EPA Methods 3550/8270C

< indicates that compound was not detected at or above the sample quantitation limit.

Table 10

Sediment Analytical Results, August 1999
Total Metals

Concentrations reported in milligrams per kilogram (mg/kg)

Burke Lumber Company Site Investigation
TreeSource Industries, Inc.
Sutton, Vermont

Compound	*Sample I.D.*					
	SD-1		SD-2		SD-3	
Antimony	<3.38	a	<3.75	a	<2.5	
Arsenic	<6.8	a	<7.5	a	<5.0	
Beryllium	**0.36**		**0.23**		<0.15	
Cadmium	<0.68	a	<0.75	a	<0.5	
Chromium	**10.2**		**7.73**		**4.93**	
Chromium VI	<1.0		<1.0		<1.0	
Copper	**8.67**		**5.93**		**2.66**	
Lead	**8.17**		<7.5	a	<5.0	
Mercury	<0.2		<0.2		<0.2	
Nickel	**16.8**		**13**		**9.09**	
Selenium	<27.0	a,b	<30.0	a,b	<20.0	a,b
Silver	<0.68	a	<0.75	a	**1.75**	
Thallium	<67.6	a	<75.1	a	<50.0	
Zinc	**23.5**		**23.7**		**11.5**	

Notes:
Metals analyzed by EPA Method 6010B, except for mercury (EPA Method 7471A) and chromium VI (EPA Method 7196A).
(a) Sample quantitation limit is elevated because of low percent solids in the sample as received.
(b) Sample quantitation limit is elevated because of matrix interferences and because the sample required dilution (dilution factor: 2).
Results normalized to dry weight.
Bold indicates that compound was detected in sample.
< indicates that compound was not detected at or above the sample quantitation limit.

Table 11

Comparison of Maximum Soil Concentrations to USEPA Region III Risk-Based Soil Concentrations

Concentrations reported in milligrams per kilogram (mg/kg)

Burke Lumber Company Site Investigation
TreeSource Industries, Inc.
Sutton, Vermont

Compound	Maximum Concentration	USEPA Region III Risk-Based Concentrations (RBCs)					
		Industrial	Exceeds?	Location(s) of Exceedance	Residential	Exceeds?	Location(s) of Exceedance
Volatile Organic Compounds (VOCs)							
Acetone	0.12	200,000	No	–	7,800	No	–
2-Butanone (MEK)	0.024	1,200,000	No	–	47,000	No	–
1,2-Dichlorobenzene	0.007	180,000	No	–	7,000	No	–
1,1-Dichloroethane	0.001	200,000	No	–	7,800	No	–
1,2-Dichloroethane	0.002	63	No	–	7	No	–
cis-1,2-Dichloroethene	0.004	20,000	No	–	780	No	–
Ethylbenzene	0.006	200,000	No	–	7,800	No	–
1,1,2,2-Tetrachloroethane	0.005	29	No	–	3.2	No	–
Tetrachloroethene (PCE)	0.011	110	No	–	12	No	–
Toluene	0.085	410,000	No	–	16,000	No	–
1,1,1-Trichloroethane (TCA)	0.001	41,000	No	–	1,600	No	–
Trichloroethene (TCE)	0.001	520	No	–	58	No	–
Total xylenes	0.044	4,100,000	No	–	160,000	No	–
Semi-Volatile Organic Compounds (SVOCs)							
Acenaphthene	110	120,000	No	–	4,700	No	–
Anthracene	25	610,000	No	–	23,000	No	–
Benzo(a)anthracene	16	7.8	Yes	EM-8	0.87	Yes	EM-8
Benzo(a)pyrene	3.5	0.78	Yes	EM-8	0.087	Yes	EM-8
Benzo(b)fluoranthene	4.8	7.8	No	–	0.87	Yes	EM-8
Benzo(g,h,i)perylene*	0.87	41,000	No	–	1,600	No	–
Benzo(k)fluoranthene	4.2	78	No	–	8.7	No	–
Bis(2-ethylhexyl) phthalate	0.56	410	No	–	46	No	–
Chrysene	15	780	No	–	87	No	–
Dibenzofuran	59	8,200	No	–	310	No	–
Fluoranthene	170	82,000	No	–	3,100	No	–
Fluorene	73	82,000	No	–	3,100	No	–
Indeno(1,2,3-cd)pyrene	0.73	7.8	No	–	0.87	No	–
2-Methylnaphthalene	42	41,000	No	–	1,600	No	–
Naphthalene	8.4	41,000	No	–	1,600	No	–
Phenanthrene*	280	41,000	No	–	1,600	No	–
Pyrene	84	61,000	No	–	2,300	No	–
Total Metals							
Beryllium	1.22	4,100	No	–	160	No	–
Chromium**	27.9	6,100	No	–	230	No	–
Copper	35.1	82,000	No	–	3,100	No	–
Lead	19.6	400***	No	–	400***	No	–
Nickel	43.9	41,000	No	–	1,600	No	–
Zinc	41.3	610,000	No	–	23,000	No	–

Notes:

– = not available or not applicable

USEPA = United States Environmental Protection Agency

* RBCs not available for this compound. Naphthalene RBCs used as surrogate values.

**RBC for hexavalent chromium.

***RBCs not available for lead; however, a default screening level of 400 mg/kg has been set for lead based on USEPA, 1994.

Table 12

Comparison of Maximum Groundwater Concentrations to Vermont Groundwater Enforcement Standards

Concentrations reported in micrograms per liter (µg/L)

Burke Lumber Company Site Investigation
TreeSource Industries, Inc.
Sutton, Vermont

	Maximum Concentration*	VT GWES **	Exceeds?	Wells in Exceedance
Volatile Organic Compounds (VOCs)				
Chloroethane	3	--	--	NA
1,1-Dichloroethane	6	70	No	NA
cis-1,2-Dichloroethene	3	70	No	NA
Tetrachloroethene (PCE)	2	5	No	NA
1,1,1-Trichloroethane (TCA)	4	200	No	NA
Total Metals				
Arsenic	6	50	No	NA
Beryllium	9	4	Yes	EM-4
Cadmium	1	5	No	NA
Chromium	180	100	Yes	EM-4
Copper	620	1300	No	NA
Lead	226	15	Yes	EM-4; EM-6
Nickel	700	100	Yes	EM-4; EM-6
Thallium	6	2	Yes	EM-4; EM-6
Zinc***	490	5000	No	NA

Notes:
*Maximum detected concentration from all August 1999 monitoring well analytical results.
**Source: Rule 97-P14, Chapter 12: Groundwater Protection Rule and Strategy, Subchapter 7. State of Vermont Agency of Natural Resources, Department of Environmental Conservation.
***Secondary groundwater standard
-- = GWES not available
NA = Not applicable

Table 13

Comparison of Maximum Sediment Concentrations to Ecological Sediment Screening Benchmarks

Concentrations reported in milligrams per kilogram (mg/kg)

Burke Lumber Company Site Investigation
TreeSource Industries, Inc.
Sutton, Vermont

Compound	Maximum Concentration	Sediment Screening Level (ER-L*)	Maximum Exceeds Screening Level?	Location(s) of Exceedance
Beryllium	0.36	--	--	--
Chromium	10.2	81	No	--
Copper	8.67	34	No	--
Lead	8.17	46.7	No	--
Nickel	16.8	20.9	No	--
Silver	1.75	1	No	--
Zinc	23.7	150	**Yes**	SD-3
			No	--

Notes:

* ER-L = Effects Range Low, based on Long et al., 1995, and recommended by USEPA, 1996.
-- = not available/ not applicable

APPENDIX A

BORING LOGS AND WELL CONSTRUCTION DIAGRAMS

Drilling Log

IT CORPORATION
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Monitoring Well **EM-4**

Project *Burke Lumber Company Mill* Owner *TreeSource Industries, Inc.*
Location *Sutton, Vermont* Proj. No. *797253*
Surface Elev. _____ Total Hole Depth *30 ft.* Diameter _____
Top of Casing _____ Water Level Initial *25.3 ft.* Static *27.9 ft.*
Screen: Dia *2.0 in.* Length *10 ft.* Type/Size *0.010 PVC in.*
Casing: Dia *2.0 in.* Length _____ Type *PVC*
Fill Material *Sand/Bentonite/Cement* Rig/Core _____
Drill Co. *Tri-State Drilling & Boring* Method _____
Driller _____ Log By *C. Sprague* Date *8/24/1999* Permit # _____
Checked By _____ License No. _____

See Site Map For Boring Location

COMMENTS:

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2							
0							Ground Surface
		2.0	S-1	4,3, 3,4			WOOD CHIPS, dry
2							WOOD CHIPS, dry to damp
		11	S-2	2,2, 2,4			
4							Layer of gray SANDY FILL, tan weathered wood chips with a gravel sized rock, moist
		5.0	S-3	4,6, 5,3			
6							Gray, SANDY FILL with tan weathered wood chips, moist
		10	S-4	3,3, 3,6			
8							Gray brown, SANDY FILL with black wood chips, little gravel
		20	S-5	5,8, 6,5			
10							Same as above
		10	S-6	5,5, 5,5			
12							Layer of gray SAND and dark brown wood chips, little gravel, damp
		8.0	S-7	3,1, 2,3			
14							Same as above
		7.0	S-8	4,2, 2,3			
16							Same as above with more SAND and fewer wood chips
		2.0	S-9	4,4, 5,6			
18							Same as above; gray SAND, layered with very weathered brown wood chips, damp
		3.0	S-10	2,2, 2,4			
20							Same as above
		3.0	S-11	4,2, 2,3			
22							Primarily, very weathered WOOD CHIPS, (resembles organic rich soil) with some wood chips, few layers of gray sand, gravel sized rock, damp
		2.0	S-12	2,3, 4,6			
24							

Drilling Log

IT CORPORATION
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Monitoring Well **EM-4**

Project *Burke Lumber Company Mill* Owner *TreeSource Industries, Inc.*
Location *Sutton, Vermont* Proj. No. *797253*

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
24							Presumed native material, layer of black SAND and gravel over brown sand and gravel, saturated
		1.5	S-13	6,7, 7,14			
26							Dark gray SAND, some gravel, unsorted, saturated
		1.0	S-14	6,7, 7,17			
28							
		BDL	S-15	22,18, 24,18			
30							Bottom of exploration at 30 feet.
32							
34							
36							
38							
40							
42							
44							
46							
48							
50							
52							
54							
56							

Drilling Log

IT CORPORATION
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Monitoring Well **EM-5**

Project *Burke Lumber Company Mill* Owner *TreeSource Industries, Inc.*
Location *Sutton, Vermont* Proj. No. *797253*
Surface Elev. _____ Total Hole Depth *18 ft.* Diameter _____
Top of Casing _____ Water Level Initial *14.5 ft.* Static *15.6 ft.*
Screen: Dia *2.0 in.* Length *10 ft.* Type/Size *0.010 PVC in.*
Casing: Dia *2.0 in.* Length _____ Type *PVC*
Fill Material *Sand/Bentonite/Cement* Rig/Core _____
Drill Co. *Tri-State Drilling & Boring* Method _____
Driller _____ Log By *C. Sprague* Date *8/24+25/99* Permit # _____
Checked By _____ License No. _____

See Site Map For Boring Location

COMMENTS:

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2							Ground Surface
0		50	S-1	4,1, 1,2			Brown SAND with brown WOOD CHIPS and organic matter, large tan wood chip in tip of spoon, damp
2		110	S-2	1,1, 1,1			Brown and tan WOOD CHIPS, damp
4		16	S-3	4,5, 8,12			Brown SAND with brown and tan WOOD CHIPS, damp
6		10	S-4	2,1, 1,1			Loose, very fine, brown and tan WOOD CHIPS, damp
8		120	S-5	6,7, 12,14			Dark brown WOOD CHIPS with gray SAND and tan SAND, damp
10		70	S-6	3,6, 24,18			Dark brown and black, fine SAND and SILT, overlying white granite broken rock, damp
12		BDL	S-7	6,13, 12,11			Gray-tan SAND with iron staining, saturated, some gravel
14		BDL	S-8	5,6, 5,11			Dark brown to black SAND with layers of iron staining, tan sand, some gravel, saturated.
16		BDL	S-9	5,12, 18,16			Areas of black and tan SAND and GRAVEL, with layers of coarse, light tan sand, saturated
18							Bottom of exploration at 18 feet.
20							
22							
24							

Drilling Log

IT CORPORATION
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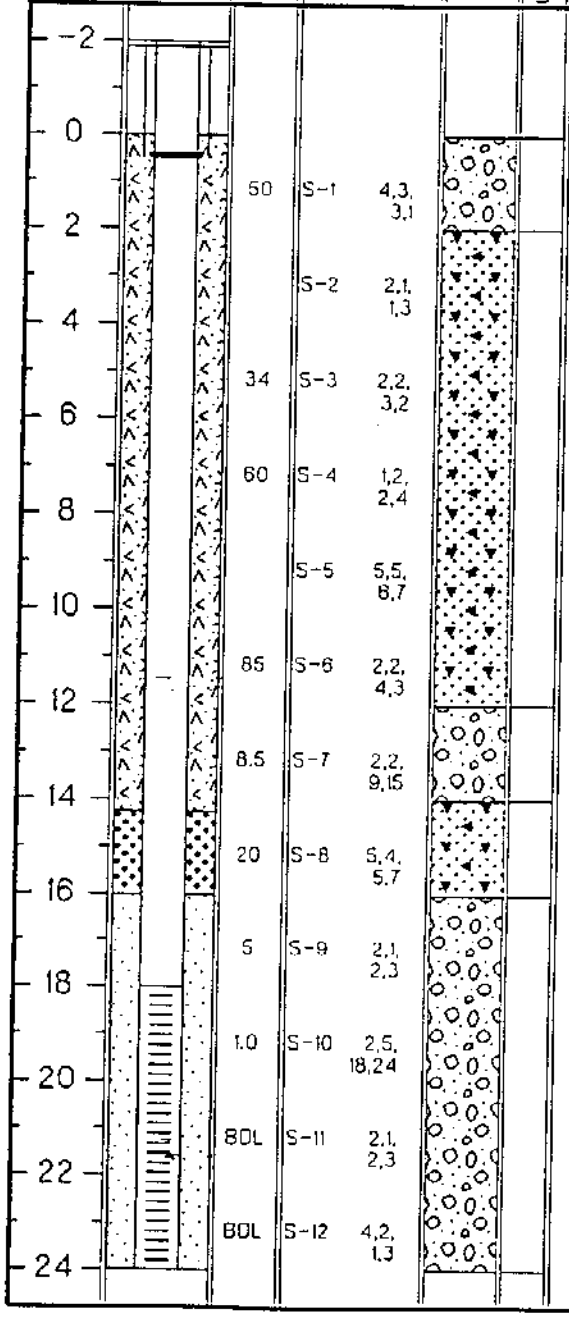
Monitoring Well EM-6

Project *Burke Lumber Company Mill* Owner *TreeSource Industries, Inc.*
Location *Sutton, Vermont* Proj. No. *797253*
Surface Elev. _____ Total Hole Depth *28 ft.* Diameter _____
Top of Casing _____ Water Level Initial _____ Static *27.56 ft.*
Screen: Dia *2.0 in.* Length *10 ft.* Type/Size *0.010 PVC in.*
Casing: Dia *2.0 in.* Length _____ Type *PVC*
Fill Material *Sand/Bentonite/Cement* Rig/Core _____
Drill Co. *Tri-State Drilling & Boring* Method _____
Driller _____ Log By *C. Sprague* Date *8/26/1999* Permit # _____
Checked By _____ License No. _____

See Site Map For Boring Location

COMMENTS:



Depth (ft.)	PID (ppm)	Sample ID	Blow Count/ % Recovery	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2				
0				Ground Surface
	50	S-1	4,3, 3,1	Brown SAND, some gravel, trace wood chips, dry
2				Brown WOOD CHIPS with little brown sand, damp
		S-2	2,1, 1,3	
4				Dark brown WOOD CHIPS with brown sand, little gravel, moist rock, moist
	34	S-3	2,2, 3,2	
6				Same as above
	60	S-4	1,2, 2,4	
8				Same as above
		S-5	5,5, 6,7	
10				Same as above
	85	S-6	2,2, 4,3	
12				Brown SAND, little fine gravel, damp
	8.5	S-7	2,2, 9,15	
14				Gray and black SAND with little wood chips over red brown, fine sand, some gravel, damp, odor
	20	S-8	5,4, 5,7	
16				Dark brown SAND with few layers of brown over gray-brown sand, damp, loose
	5	S-9	2,1, 2,3	
18				Brown SAND overlying light gray sand, little fine to medium gravel, dry
	1.0	S-10	2,5, 18,24	
20				Brown and gray SAND, damp on top, lower 0.5' (at 21.5' - 22.0'), saturated
	BDL	S-11	2,1, 2,3	
22				Brown SAND, trace gravel, saturated
	BDL	S-12	4,2, 1,3	
24				

Drilling Log

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Monitoring Well **EM-6**

Project *Burke Lumber Company Mill* Owner *TreeSource Industries, Inc.*
Location *Sutton, Vermont* Proj. No. *797253*

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
24		BDL	S-13	2,3, 9,7			Dark brown SAND, overlying orange-tan, medium to coarse sand overlying medium brown sand and gravel, some black staining of sand, saturated
26							
28							Bottom of exploration at 28 feet.
30							
32							
34							
36							
38							
40							
42							
44							
46							
48							
50							
52							
54							
56							

Drilling Log

IT CORPORATION
A Member of the IT Group

Monitoring Well **EM-7**

Project *Burke Lumber Company Mill* Owner *TreeSource Industries, Inc.*
Location *Sutton, Vermont* Proj. No. *797253*
Surface Elev. _____ Total Hole Depth *20 ft.* Diameter _____
Top of Casing _____ Water Level Initial _____ Static *16.93 ft.*
Screen: Dia *2.0 in.* Length *10 ft.* Type/Size *0.010 PVC in.*
Casing: Dia *2.0 in.* Length _____ Type *PVC*
Fill Material *Sand/Bentonite/Cement* Rig/Core _____
Drill Co. *Tri-State Drilling & Boring* Method _____
Driller _____ Log By *C. Sprague* Date *8/26/99* Permit # _____
Checked By _____ License No. _____

See Site Map For Boring Location

COMMENTS:

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2							
0							Ground Surface
		5.0	S-1	2.2, 1.3			Brown, very weathered WOOD CHIPS/ORGANIC MATTER, damp
2		2.0	S-2	6.5, 4.7			Dark brown, rich ORGANIC MATERIAL/decomposed WOOD CHIPS, over olive- tan, fine to medium sand, little medium gravel, damp, medium to coarse sand in tip of spoon, few fine roots
4		7.5	S-3	8.9, 17.13			Olive-tan, fine to medium SAND, trace fine gravel over gray and brown layers of sand, gravel, coarse sand, damp
6		4.6	S-4	7.9, 10.8			Dark tan SAND and GRAVEL, overlying fine to medium, tan sand, damp
8		1.0	S-5	5.7, 7.8			Tan, medium to coarse SAND, over gray rock fragment, over tan sand and gravel, over tan medium sand, damp
10		2.5	S-6	5.6, 6.8			Light tan, fine to medium SAND over tan sand and gravel, damp
12		1.5	S-7	4.4 5.7			Gray-tan SAND and GRAVEL, with layer of dark gray sand over brown- orange-tan, medium sand, moist
14		4.5	S-8	3.5, 7.7			Gray, tan and dark gray SAND and GRAVEL, saturated
16		2.0	S-9	5.5, 7.5			Dark gray, tan, black areas of SAND and GRAVEL, no real structure, saturated
18		1.0	S-10	7.5, 5.9			Tan, gray and black SAND and GRAVEL, saturated
20							Bottom of exploration at 20 feet.
22							
24							

Drilling Log

IT CORPORATION
A Member of the IT Group

Monitoring Well **EM-8**

Project *Burke Lumber Company Mill* Owner *TreeSource Industries, Inc.*
Location *Sutton, Vermont* Proj. No. *797253*
Surface Elev. _____ Total Hole Depth *22 ft.* Diameter _____
Top of Casing _____ Water Level Initial _____ Static *19.95 ft.*
Screen: Dia *2.0 in.* Length *10 ft.* Type/Size *0.010 PVC in.*
Casing: Dia *2.0 in.* Length _____ Type *PVC*
Fill Material *Sand/Bentonite/Cement* Rig/Core _____
Drill Co. *Tri-State Drilling & Boring* Method _____
Driller _____ Log By *C. Sprague* Date *8/25/99* Permit # _____
Checked By _____ License No. _____

See Site Map For Boring Location

COMMENTS:

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2							
0							Ground Surface
2		30	S-1	10,11, 11,10			Layered tan SAND, black to dark brown stained fine sand, tan and brown sand and gravel with dark brown wood chips in bottom of spoon, dry
		55	S-2	5,6, 7,9			Black stained fine SAND with WOOD CHIPS, brown and tan sand, some gravel, dry to damp
4		20	S-3	8,11, 12,15			Layers of gray brown SAND and GRAVEL, brown sand and tan sand, black chunk approximately 1" x 0.5", dry
6		20	S-4	7,12, 19,19			Tan and light brown coarse SAND, black sand and some gravel in bottom of spoon
8		4.0	S-5	6,10, 4,15			Layer of medium brown SAND, white crushed rock, light gray/tan sand, gray sand and gravel, medium brown sand, dry
10		4.0	S-6	50,56, 44,46			White crushed STONE overlying gray and brown SAND, little fine gravel, medium brown fine to medium sand, dry
12		3.5	S-7	14,7, 7,9			Layers of brown, tan, dark brown SAND, with areas of broken rock, sand and gravel, dry
14		4.0	S-8	5,9, 9,11			Grey medium SAND with iron staining, dry
16		1.0	S-9	5,10, 9,6			Black SAND with small stringers of gray sand, over broken white granite, over black sand with some gravel, saturated
18		5.0	S-10	9,7, 6,11			Black, tan, gray SAND overlying layer of gray silt, saturated
20		2.0	S-11	50/3"			Broken rock over pulverized gray weathered rock, saturated
							Bottom of exploration at 20 feet.
22							
24							

Drilling Log

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Monitoring Well EM-9

Project *Burke Lumber Company Mill* Owner *TreeSource Industries, Inc.*
Location *Sutton, Vermont* Proj. No. *797253*
Surface Elev. _____ Total Hole Depth *16 ft.* Diameter _____
Top of Casing _____ Water Level Initial _____ Static *14.82 ft.*
Screen: Dia *2.0 in.* Length *10 ft.* Type/Size *0.010 PVC in.*
Casing: Dia *2.0 in.* Length _____ Type *PVC*
Fill Material *Sand/Bentonite/Cement* Rig/Core _____
Drill Co. *Tri-State Drilling & Boring* Method _____
Driller _____ Log By *C. Sprague* Date *8/26/1999* Permit # _____
Checked By _____ License No. _____

See Site Map For Boring Location

COMMENTS:

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2							
0							Ground Surface
2		BDL	S-1	4,6, 5,4			Brown SAND, little gravel, damp, loose
		0.5	S-2	3,2, 3,4			Brown SAND, damp
4		BDL	S-3	2,3, 3,2			Brown SAND, little gravel, damp
6		BDL	S-4	14,14, 15,15			Dark gray to black SAND with iron staining throughout, gravel and broken rock from 7.0' - 7.2', dense
8		BDL	S-5	3,3, 3,4			Tan SAND with beds of medium to coarse sand, some iron banding, native, loose, damp
10		BDL	S-6	3,3, 2,5			Same as above, saturated at 10.5'
12		BDL	S-7	2,3, 4,7			Tan SAND with iron staining, very loose, not much structure, saturated
14		BDL	S-8	2,3, 4,7			Gray, medium to coarse SAND over 0.5' fine tan sand, over 0.6' dark gray sand, iron staining, saturated
16							Bottom of exploration at 16 feet.
18							
20							
22							
24							

Drilling Log

IT CORPORATION
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Monitoring Well **EM-10**

Project *Burke Lumber Company Mill* Owner *TreeSource Industries, Inc.*
Location *Sutton, Vermont* Proj. No. *797253*
Surface Elev. _____ Total Hole Depth *15.0 ft.* Diameter _____
Top of Casing _____ Water Level Initial _____ Static *11.98 ft.*
Screen: Dia _____ Length _____ Type/Size _____
Casing: Dia _____ Length _____ Type _____
Fill Material *Sand/Bentonite/Cement* Rig/Core _____
Drill Co. *Tri-State Drilling & Boring* Method _____
Driller _____ Log By *C. Sprague* Date *8/27/1999* Permit # _____
Checked By _____ License No. _____

See Site Map For Boring Location

COMMENTS:

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2							Ground Surface
0		19.5	S-1	3,3, 4,2			Brown SAND with WOOD CHIPS, over gray sand and gravel, over red brown sand, damp
2		19.5	S-2	2,2, 1,3			Brown SAND, some gravel over gray gravel, some sand over orange brown sand
4		19	S-3	2,2, 2,2			Dark brown to medium brown SAND, finely stratified, moist
6		17.5	S-4	2,2, 1,2			Stratified tan and brown, fine to medium to coarse SAND, saturated
8		18.5	S-5	2,1, 2,3			Stratified brown and orange brown SAND, little fine gravel, saturated
10		1600	S-6	4,7, 4,4			Dark gray and brown, stratified, SAND little fine gravel with layer of sand and fine gravel, saturated
12		400	S-7	4,4, 6,5			Stratified orange, tan, gray, black, and brown SAND and GRAVEL, saturated
14							Auger refusal at 14.5 feet.
16							
18							
20							
22							
24							

"Rite in the Rain"
ALL-WEATHER WRITING PAPER

Name Cindy Sprague
Sutton, VT

Address

Phone

Project

Yellow Polyethylene Protective Slipcovers (Item #31) are available for this style of notebook. Helps protect your notebook from wear & tear. Contact your dealer or the J. L. Darling Corporation.

CONTENTS

PAGE	REFERENCE	DATE
2	Bunkl Lumber Add. Invest	8.24.99
	797253-010 00 00	

8.24.99

Burke Lumber

supplies. 797253-01000000

SS auger

2 jugs water black jugs

drum

PID

Spritzer

V meters

Hanna

[illegible]

Dis/pump

- 8:45 arrive on site - notes by CAS plan to meet Joe Hayes to review scope of work + well locations. Plan to meet Tristate Drilling Co personnel here between 9:00 - 9:30

Jason + Wayne - TSD. Dave Q

Dan Persons

Doug Harris - Burke Lumber Mgr

→ Dale Hackette

Wayne Ault, Jason Faulkner

most wells 10-12' to water

Linda Proventure SHS

- Review all well loc. w/ Drillers + Burke Lumber

10:15 Start drilling @ EM-10 (background)

10:00 CAS + JH collect SS-1 (smaller hand auger boring)

Calibrate HNu w/ 10.2 ev lamp.

Span = 3.54

- nitric acid rinse? - do not have -

Joe says its OK not to use that for Dean

SS-1 - 0-1' med brown ~~sand~~ SAND 10:00

dry, loose

collect samples for VOC's (EPA 8260B)

SVOC (EPA 8270C) PPM EPA 6010

• weather sunny, warm high 80°F - 85°F

light breeze

802 351-2669 Joe pager

8.25.99

7:30 CAS arrives on site.
- calibrate PID w/ 10.2 eV lamp to 93.1 ppm cal gas

- weather sunny, warm, high low 80's light ~~breeze~~ breeze.

- plan - complete EM-5
  - move onto old dump area (EM-6 + EM-7)

~10:30 finish EM-5

- drillers go to steam clean

~10:45 Linda Prevention (SMS - state) shows up on site.
- I give here a tour of the property + update here on progress.

~10:45 Linda leaves site.

~11:30-11:45 Drillers try to cross RR tracks to ~~get~~ get to SB-4 (EM-7)
- get wheels across but bottom of rig keeps hitting the tracks, so we decide to bag it and use the track rig another day

Safety Klean - 802-479-1200
picks up hazardous waste

Decide to go to EM-8 and drill there
~12:00 -
Driller is heading to EM-8 + crosses RR tracks @ normal crossing area.
~~bottom of~~ Valve on Deisel fuel tank on rig snaps off on tracks + fuel begins to spill onto the ground

- approx. 15 gal of deisel is thought to have spilled before we could plug the hole.
- have sorbent pads on the ground and are collecting the fuel in plastic garbage bags.
Bucks lumber personnel are @ the site quickly + have add pads.
- dig trench to contain spill ~~[illegible]~~
- poured garbage bags filled w/ fuel into drum.
- have 2 other drums for soils.

~ ~~[illegible]~~ ~1:15 CAS calls office (spill under control)

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2:30 move onto EM-8 - Dip Tank Area

collect analytical samples for

EM8 0-2' @ 2:45 pm!

4:45 - begin setting well EM-8

6:30 finish installing well
leave site

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Weather sunny in am predicted cloudy in pm
chance of showers, 80°F

- calibrate HNu span - 3.08

8:00 move onto site EM-6
(top of old LF)
begin drilling.

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- Dale stops by - mentions he is not sure. Buke Lumber owns prop by RR - will have to look into this. Dale is checking his maps

doing cont.

- soils were not ~~[illegible]~~ dug up yesterday - some sort of lack of comm.

- told them again today to dig up soils - put on corner of stock pile - leave excavated area as is until I check w/ PID.

- need to find alt loc for up grad well

- 11:50 - Talk w/ Joe - decide to move dg. old LF well to ramp above RR spur due to uncertainty on prop boundary. He is passing this by Linda P.

12:20 move onto site EM-9
west oil tank

8·26·99 / 8·27·99

Notes - continued

~ 5:15 Complete boring EM-7
begin well installation.

~6:30 finish well - Drillers leave

- CAS does round of $\bar{\nabla}$ readings

7:00 CAS leaves site - pick up supplies.

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7:55 CAS arrives on site..
calibrate PID @ motel
Span = 2.78
review alt upgradient well site
w/ Dale - decide to try along
drive behind office Bldg.

Weather: ptly cloudy sunny, calm, high pred ~ 80°F

- 8:30 Start drilling EM-10
~10:15 finish well
Driller going to finish all wells w/
add grout if necessary + Protective casings

10:45 CAS to develop wells
calibrate Horiba WQ meter
- all parameters calibrate!

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Water level Summary Table

Well #	BPVC. $\bar{\nabla}$	PVC(su)	time/Date		Devel
EM-4	27.90		6:15p	8·26·99	✓ turbid
EM-5	15.60	2.50'	6:25p	8·26·99	✓ cloudy
EM-6	27.56	2.65	6:30p	8·26·99	✓ [illegible]
EM-7	16.93	2.40	6:35	"	✓ fairly clear
EM-8	19.95	2.20	6:40	"	✓ still turbid
EM-9	14.82'	2.50'	6:05	8·26·99	✓ clear
EM-10	11.98	2.5'	10:30	8·27·99	✓ clear

asked driller to cut PVC down to 2.4'
(cut off 0.25')

Develop EM-9 — w/ Peristaltic pump

time	amt	pH	Cond	Turb	Temp	comm
11:50	1gal	8.37	0.375	999	12.0	very turbid - brown sand
11:53	2gal	10.10	0.253	999	10.8	clearing a little - jiggle tube to remove more fines
11:57	4gal	9.05	0.325	999	[illegible]	
12:02	6gal	8.57	0.364	935	10.6	water clearing
12:08	8.5gal	8.05	0.369	48	10.9	water clear
12:11	10	8.48	0.348	387	10.7	jiggle hose - water slightly brown - but was clear
12:13	11	8.05	0.368	189	10.6	water clear again

Dev EM-8 — w/ peristaltic pump

time	amt	pH	cond	Turb	Temp	com
12:39	start	7.16	0.531	999	12.4	very turbid
12:41	2gal	7.02	0.502	999	11.5	very turbid - brown
12:43	—	—	—	—		static to pump well dry - turn down flow rate
12:46	3gal	6.89	0.548	999	11.1	very turbid - brown - shut off pump to let well recover
12:52	4gal	6.70	0.564	999	11.7	very turbid - keep having to turn pump off every 1gal to allow recovery
12:57	5gal	6.70	0.564	999	11.7	
1:45	start pump again					
1:47	6gal	6.92	0.506	999	12.3	very turbid
1:52	7gal	6.95	0.506	210	11.4	very turbid
1:56	8gal	6.71	0.559	999	11.9	very turbid - pump dry

— END OF DEV.

- does not appear that it will clear up.

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EM-7 well Dev w/ Per Pump °C

time	(gal) Amt	pH SU	Cond mS/sec	Turb NTU	Temp °C	
2:15	Initial	7.25	0.392	999	11.7	Start pumping - very turbid
2:18	2 gal	7.19	0.382	999	10.9	starting to clear - still turbid
2:31	4 gal	6.96	0.374	999	10.8	2:20 - battery dead on Per Pump - hook up to car but
2:34	6 gal	7.03	0.359	999	10.6	clearing but still mod turbid
2:37	7 gal	6.95	0.364	816	10.5	" "
2:40	8 gal	6.94	0.344	999	10.5	stirred up water by jiggling tube - turbid increased
2:42	9 gal	6.89	0.344	335	10.6	water clearing again

EM-6 - well Dev - $\bar{\nabla}$ too deep for per pump - need to bail! use disposable bailer

3:08	start	7.08	0.536	175	10.4	very turbid
3:14	2 gal	6.90	0.539	999	9.1	very turbid
3:20	4 gal	6.80	0.521	207	9.7	very turbid
3:43	6 gal	6.91	0.524	999	9.7	" "
3:49	8 gal	6.83	0.521	999	9.5	" " not clearing up - decide is done based on WQ parameters + amt bailed

EM-5

					°C	
4:07	0.5 gal	6.92	0.611	999	12.1	very turbid
4:11	2 gal	7.07	0.575	173*	11.4	very turbid - water is brown meter incorrect
4:16	4 gal	7.02	0.528	999	11.2	"
4:20	6 gal	6.96	0.515	999	11.0	still very turbid but starting to clear
4:25	8 gal	6.94	0.516	670	10.9	clearing - still cloudy brown
4:29	10 gal	6.96	0.515	905	10.7	
4:33	11 gal	6.95	0.496	825	10.9	cloudy brown - based on WQ parameters END OF DEWA

EM-4 well dev. - bailer

8-27-99

time	amt	pH su	Cond	turbid	Temp	Comments
5:13	0.25 gal	6.89	0.461	999	10.1	very turbid... dark brown water
521	3 gal	6.99	0.381	999	8.9	very turbid
5:29	6 gal	7.01	0.348	999	8.9	" "
5:36	9 gal	7.05	0.330	999	9.2	" " no signs of clearing

Finished based on WQ parameters

EM-4 - center of "New Dump"

8.24.99

Sample #	Depth	Blows/6"	PID (ppm) (HS)	Recov	
S-1	0-2'	4,3 3,4	2.0	0.2'	wood chips dry
S-2	2-4	2,2, 2,4	11	0.2'	wood chips - dry to damp
S-3	4-6	4 6 5 3	5	0.4	layers of grey sand fill, tan colored wood chips with a gravel sized rock, moist
S-4	6-8	3.3 3.6	10	0.4	grey sandy fill w/ tan colored wood chips, moist.
S-5	8-10	5,8 6.5	20	1.3	grey brown sandy fill w/ black wood chips, little gravel ←
S-6	10-12	5.5,5,5	10	0.9	Same as above
S-7	12-14	3,1,2,3	8	0.9	layers of grey SAND and dark brown wood chips, little gravel damp same as above
S-8	14-16	4,2 2,3	7	1.0	
S-9	16-18	4,4 5,6	2 (small sample	0.5	Same as above only more sand and fewer wood chips

EM-4 continued 8-24-99

	depth	Blows/6"	PID HS	Recov
S-10	18-20	2,2 2,4	3	1.2
S-11	20-22'	4.2 2.3	3	1.0
S-12	22-24	2,3 4,6	2	0.9
S-13	24-26	6,7 7,14	1.5	0.9
S-14	26-28	6,7 7,17	1	0.8
S-15	28-30	22,18 24,19	0	0.9

END OF BORING

Collect analytical samples from S-5 (8-10')

log

Same as above - gray sand layered w/ very weathered brown wood chips; damp

Same as above

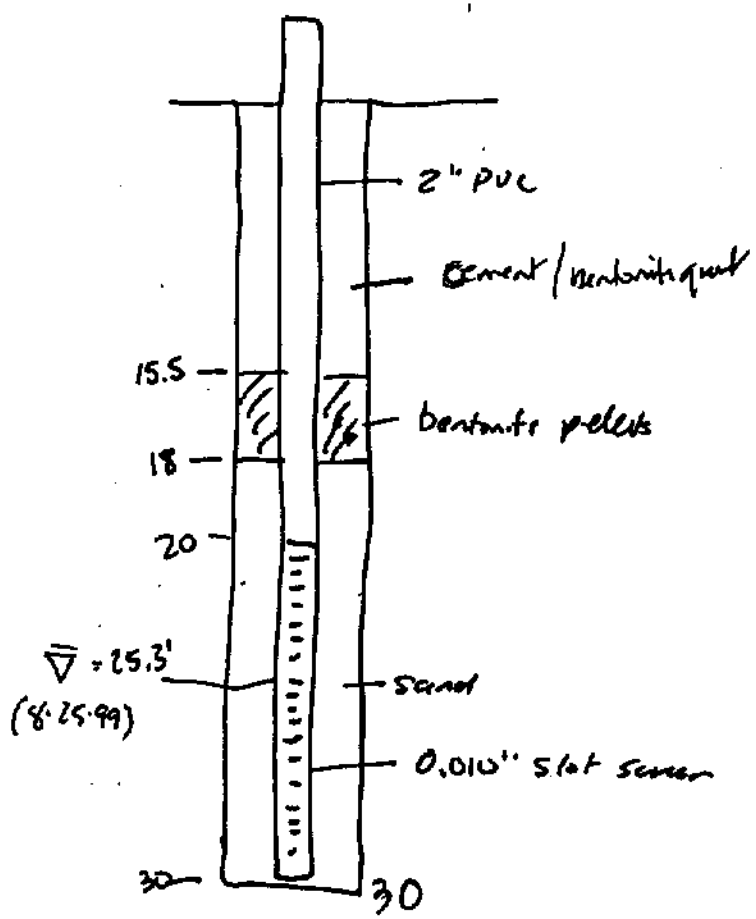
primarily very weathered wood chips (look like organic rich soil) w/ some more distinct wood chips, few layers of gray sand, ~~trace gravel~~ one qvl. sized rock frag damp

Native material (I think) layer of black ~~sand~~ SAND and gravel over brown ~~sand~~ SAND + Gravel saturated Dark Gray SAND some Gravel - unsorted Sat.

⇒ down auger ≈ 25.3' - set well @ 30'

@ 2:15 pm, VOC's, SVOC, metals Cr^{+6}

EM-4 8-24-99



Drillers are not equipped w/ materials for grouting well, so they leave site to pick up tub, pump, cement hose, etc.

well installation 2:15 - 4:45

(not including protective casing)
4:45 - 5:15 steam & move
5:15 move onto site EM-5

EM-5 8.24.99

Sample	Depth	blows	HS PID (ppm)	Recov
S-1	0-2	4,1 1,2	50	0.6'
S-2	2-4	1,1 1,1	10 (small jar)	0.4'
S-3	4-6	4,5 8,12	16ppm	0.5'
S-4	6-8	2,1 1,1	10	0.3
S-5	8-10	6,7 12,14	120	1.2
S-6	10-12	3,6, 24-18	70	1.1
(8.25.99)				
S-7	12-14	6,13 12,11	0	1.1
S-8	14-16	5,6 5,11	0	1.3'

log

brown SAND w/ numerous brown wood chips + organic matter. large tan wood chip in tip of spoon. damp

Brown + tan wood chips, damp

Brown SAND w/ numerous brown + tan wood chips, damp

loose, very fine brown + tan wood chips damp

dark brown wood chips intermixed w/ gray ~~sand~~ SAND and tan SAND damp

dark Brown to black f. SAND and SILT over lying white quartz broken rock, damp

gray tan SAND w/ Fe staining, saturated some gravel

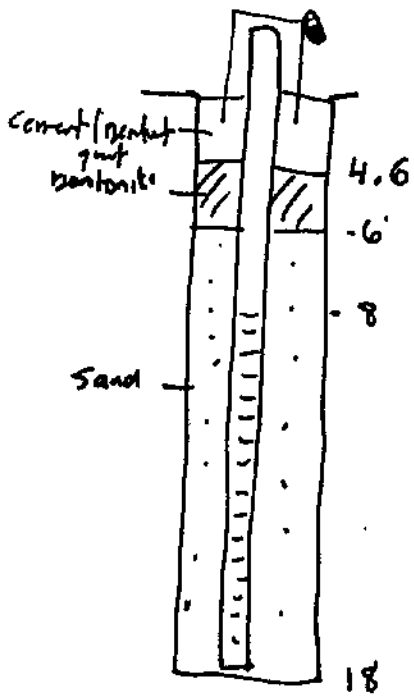
dark brown to black SAND w/ layers of Fe stained tan SAND, some gvl. sat.

Water level @ 14.5' dies in auger

EM-5 - continued

Sample	Depth	blows	HSPID	Hcow
5-9	16-18	5,12 18,16	0.0	1.0

END OF BORING



8.25.99

log

B. areas of black and tan SAND and Gravel, w/ layer of C. Light tan SAND, sat.

Collect analytical sample from
5-5 (8-10') @ 9:15 am
• SVOC's, VOC's metals and Cr^{+6}

10:00 Drillers grouting well

8-26-99 EM-6

old Landfill

Sample	depth	blows	recov	PID	Comment
1	0-2	4 3 3 1	0.9'	50	"woody"
2	2-4	2 1 1 3	0.2	not enough sample	
3	4-6	2,2 3,2	1.0	34	"woody"
4	6-8	1,2 2,4	0.9'	60	"woody smell"
5	8-10	5,5 6,7	0.0	–	–
6	10-12	2,2 4,3	0.4'	85	(limited sample amt) "woody smell"
7	12-14	2,2 9,15	0.5'	8.5	sl. LF (leachate) smell
8	14-16	5,4 5,7	1.0'	20	Landfill smell
9	16-18	2,1 2,3	1.	5	not much smell

log

brown SAND, some Gravel, trace wood chips dry

dry brown wood chips w/ little brown SAND damp.

dark brown wood chips w/ brown SAND ~~sand~~ little Gravel, moist.

same as above

driller has already accessed down to 10' - but cuttings remain wood chips

same as 5-4 + 5-3

brown SAND, little f. Gravel - damp

gray and black SAND w/ little wood chips over red brown f. SAND, some Gravel damp, sl. "landfill" smell.

dk brown SAND w/ few layers of brown and gray-brown SAND. damp, loose

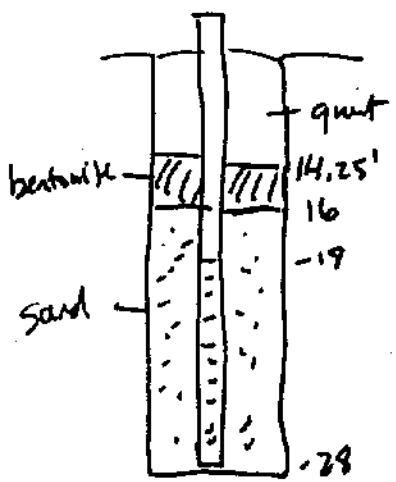
8-26-99 EM-6 .014 LF

Sample	depth	blows	reco's	HS PID	Comments
10	18-20	2.5 18,24	0.8'	1.0	
11	20-22	2,1 2,3	1.0'	0.0	no odor unusual
12	22-24	4,2 1,3	1.4'	0.0	
13	24-26	2.3 9.7	0.9	0.0	

Driller neglects to collect sample from 26-28

Driller augers to 28' → install well

10:30 - begin installing well



Log

brown SAND overlying light Grey SAND, little f-m Gravel dry -

Brown and Grey SAND (damp) ~~overlying~~ on top - lower 0.5' is saturated

Brown SAND, trace Gravel. sat

Dk brown SAND, overlying orange tan m-c SAND overlying ~~[illegible]~~ med brown SAND and Gravel. Some black staining of sand. sat.

collect sample for analysis

(~~[illegible]~~) (14-16) @ 11:00

for PPM + Cr^{+6}, EPA 8270c

EPA 8260B

Sally

(203) 481-6231 x419 staying

860-669-9541 home

call mesh

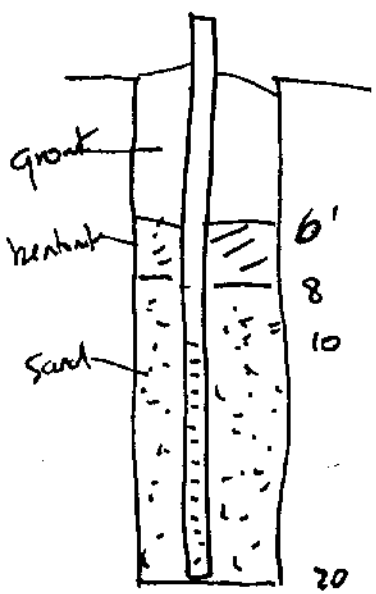
EM-7 8.26.99

	depth	blows	Rec (ppm)	DIB (ppm)	
1	0-2	2 2 13	1.5	5	brown very weather wood chips/organic matter, damp
2	2-4	6,5 4,7	1.6	2	dk brown organic rich material / decomposed wood chips, over olive tan f-m SAND little med Gravel, damp, m-c SAND in top of spoon few fine roots
3	4-6	8,9 17,13	1.5	7.5	olive tan f-m SAND, trace f Gravel, over gray and brown layers of SAND, GRAVEL c SAND. damp
4	6-8	7,9 10,8	1.1	4.6	lark tan SAND and GRAVEL overlying stratified f-m tan SAND.. damp
5	8-10	5 7 7,8	1.2	1,0	tan m-c SAND over gray rock fragment over tan SAND and GRAVEL over tan m. SAND, damp.
6	10-12	5,6 6,8	1.2	2.5	light tan f-m SAND over tan SAND and GRAVEL damp
7	12-14	4,4 5,7	1.3	1.5	gray tan SAND and GRAVEL overlying and layer of dark gray SAND over brownish orange tan m SAND moist

8-26-99 $\boxed{\text{EM-7}}$ down grad of old ct. comm

Sample	depth	blows	Recov	PID	
S-8	14-16	3,5 7,7	1.0'	4.5	est ∇ @ 15'
S-9	16-18	5,5 7,5	0.9'	2	
S-10	18-20	7,5 5,9	0.7	1.0	

END OF BORING - Auger to 20'



gray tan and dark gray SAND and GRAVEL sat.

dk gray, tan black ~~[illegible]~~ areas of SAND and GRAVEL - no real structure sat (may be wash)

tan Gray and black SAND and GRAVEL sat.

5:15pm collect analyted samples from 14-16' (water table)

Dip Tank area

EM-8

8.25.99

SS#	depth	HS PID	Blows	recov	notes
1	0-2	30	10,11 11,10	1.5	Analytical
2	2-4	55	5,6,7,9	1.5	Analytical
3	4-6	20	8,11 12,15	1.3	
4	6-8	20	7,12 19,19	0.7	
5	8-10	4	6,10 4,15	1.2	
6	10-12	4	50,56 44,46	1.0	
7	12-14	3.5	14,7 7,9	1.2	
8	14-16	4	5,9 9,11	0.8	

log

black stained f. SAND w/ wood chips dry-damp
overlying brown + tan SAND some Gravel,

2:45

~~[illegible]~~ layered Tan SAND, black, dk brown stained f. SAND, tan brown SAND and Gravel w dk wood brown wood chips @ bottom of spoon, dry
layers of gray brown SAND and Gravel, brown SAND, and tan SAND
contains black chunck approx 1" x 0.5" dry
~~[illegible]~~ tan and lt brown c SAND, black sand bottom of spoon
some Gravel in lower portion of spoon, dry

layer of med brown SAND, white crushed rock, light gray/tan SAND, gray SAND and GRAVEL med brown SAND, dry
white crushed stone overlying gray + brown SAND, little f. Gravel, over med brown f-m SAND, dry
3:40 layered brown, tan, dk brown SAND w/ areas of broken rock and SAND and GRAVEL. DRY

Gray m SAND w/ fe staining, dry

Boreas Drilling

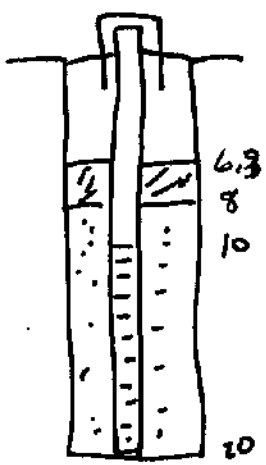
EM-8 continued 8.25.99

SS #	depth	#s PID	Blows	Recov
9	16-18	1.0	5,10 9,6	1.5
10	18-20	5.0	9,7 6,11	0.8
11	20-22	2.0	50/3" bouncing on rock	0.3

Auger refusal @ ~20'

END OF Boring - set well

EM-8



log

black SAND w/ small stringers of Gray SAND. over broken white granite, over Black SAND w/ Sam Gravel sat.

Black, tan + gray SAND overlying 0.2 ~~[illegible]~~' layer of gray SILT. sat.

broken rock over pulverized gray weathered rock, sat

- Select ~~Collect~~ sample from 2'-4' for analytical analysis.

5:25 pm collect soil sample

6-26-99

EM-9 waste oil tank

Sample	depth	blows	recov	PID ppm	comments
S-2	0-2	4-6 5-4	[illegible]	0.0	
S-2	2-4	3-2- 3-4	0.3	0.5	
S-3	4-6	2 3 3 2	0.8	0.0	
S-4	6-8	14,14 15,15	1.6	0.0	
S-5	8-10	3,3 3,4	1.2	0.0	
S-6	10-12	3,3 2,5	1.3	0.0	
S-7	12-14	2,3 4,7	1.0	0.0	
S-8	14-16	2,5 9,39	1.6	0.0	

END OF BORING

- No visual or olifactory signs of contamination

log

~~Brown SAND, damp~~ brown SAND, little Gravel damp, loose

Brown SAND, damp

Brown SAND, little Gravel, damp

dk Gray to Black SAND w/ Fe staining throughout, Gravel + Broken Rock fm ~7-7.2' damp, dense

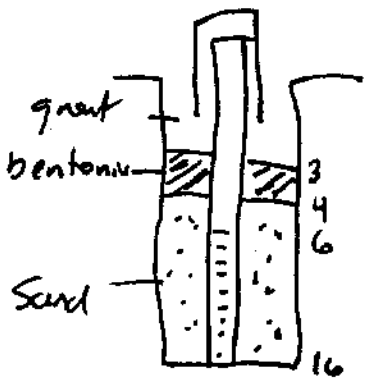
stratified Tan SAND - w/ beds of m-c SAND some Fe Banding, - native, ~~[illegible]~~ loose, damp.

Same as above only saturated @ ± 10.5'

tan sand w/ Fe staining - very loose not much structure (possible wash) sat

0.4' gray m-c SAND over 0.5' f tan SAND over 0.6' dk gray SAND, Fe staining SAT.

EM-9



1:55 -

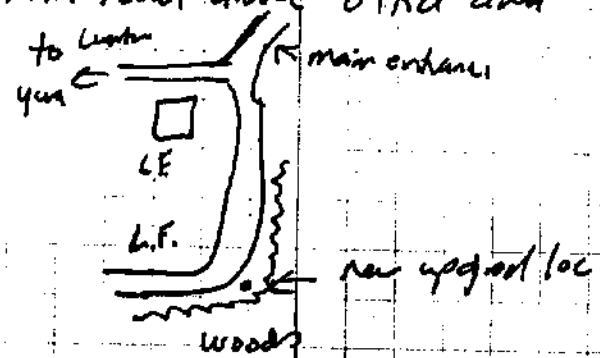
NOTES CONT. 8-26-99 9

1:40 begin installation well EM-9

1:55 collect analytical samples
10-12' for WC + TPH

move to EM-10 (up gradient)

- moved location to along outside of turn in road above office area



241-3897 - Linda Proventure
direct line

→ 4:00 move to EM-7 alt loc for
downgrad of old LF

8.27.99

EM-10 upgrad

sample	depth	blows	recov.	HS PID ppm	comment
1	0-2	3, 3 4, 2	0.8	19.5	no odor
2	2-4	2, 2 1, 3	0.9	19.5	
3	4-6	2, 2 2, 2	1.2	19	
4	6-8*	2, 2 1, 2	1.3	17.5	
5	8-10	2, 1 2, 3	0.9	18.5	
6	10-12	4.7 4, 4	1.3	1600	← collect analytic sample
7	12-14	4, 4 6, 5	1.1'	400	

Auger to 15' Then set well
(hit auger refusal - prob Bedrock @ 15')

Loc: New East corner of shed behind office

log.

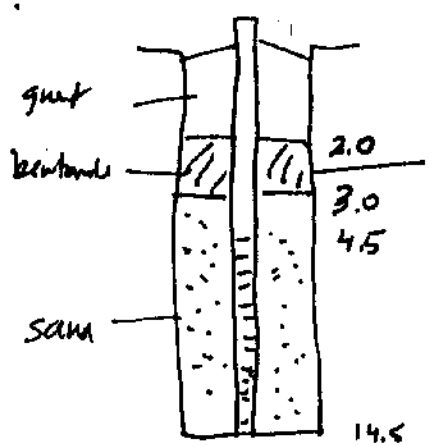
brown SAND w/ wood chips over gray SAND and GRAVEL, over red brown SAND, damp
brown SAND and some Gravel over gray GRAVEL some Sand over sl. orange brown SAND
dark brown - med brown SAND
finely stratified, moist
Stratified tan and brown f-m-c SAND saturated
Strat brown & orange brown SAND, little f-m Gravel, sat.
dk gray and brown stratified SAND, little f Gravel, w/ layer of SAND and f-m GRAVEL, sat
Stratified orange tan, gray, black and brown SAND and Gravel, sat.

NOTE: PID readings are very strong - needle moves slowly to between 17-20 ppm? must be real

collect analytical sample from 10-12'
9:55 am - had to use re-cleaned sample bottle for VOCs, but bottle was thoroughly washed, rinsed w/ DI water air dryed

8.27.99

EM-10



Used distilled H_2O to hydrate bentonite pellets

Develop EM-10 - w/ peristaltic pump

time	removed amt	pH (SU)	mS/cm Cond	* NTU Turb	Temp °C	Visual
11:00	—	6.76				Very turbid
11:10	1/2 gal	[illegible]	0.353	162*	15.5	"
11:14	2 gal	6.82	0.240	159*	14.7	" removed lots of fines - pumping fast cleaning
11:18	4 gal	6.99	0.221	999*	14.6	
11:21	6 gal	6.91	0.213	308	14.1	water fairly clear
11:25	8 gal	6.82	0.211	156	14.0	
11:30	10 gal	6.78	0.205	268	13.9	water pretty clear, [illegible] hint of brown color

END OF WELL DEVELOPMENT

8.27.99

NOTES - Contin

11:40 - 12:15 develop EM-9 =
Clears up nicely
12:15 - develop EM-8
1:00 leave to go to Lyndonville Hardware Store
to get more poly tubing for well dev
1:45 back on site finish dev EM-8
2:05 move to EM-7 then EM6 + EM5
4:40 - call Joe - (page) asks me to call lab
4:45 - call CAS Tom Kissinger - says OK
to ship samples Mon for Tue delivery.
Sorts have 4 day hold time
- 5:45 leave site

* water so turbid I don't think meter can read that high - so turb. reading not accurate.

3 well vol = ± 2.5 gal

8.31.99

- GW sampling.
weather - Sunny, warm high 75-80°F.
Calibrate HNu w/ 10.2 eV lamp.
- where possible use peristaltic pump to purge
+ Sample wells. when ∇ is too deep -
use disposable bailers.
Use Horiba WQ meter for WQ parameters

EM-10

TIME	PID ppm	∇ BPVC ft	depth ft BPVC	head	1 well vol (gal)
11:50	16.5	12.29	16.95 + 0.28 = 17.23	4.94'	0.81

3 well vol = 2.42 gal
5 well vol = 4.05 gal

Time	amt (pH)	pH	Cond	Turbid	Temp °C	visual
12:18	initial	5.99	0.305	53	14.0	rusty colored
12:21	1 gal	6.58	0.209	not ~~10~~ cal.	13.9	rusty colored
12:23	2 gal	6.82	0.199	not calib	13.8	" / Mod turbid
12:25	3 "	6.96	0.195	—	13.9	"
12:30	4 gal	7.05	0.194	—	13.6	clearing
12:33	5 gal	7.08	0.195	—	13.6	clear

Collect Sample @ 12:35pm

∇ probe - add 0.28' to reading to get total depth

- purge + sample w/ bailer -
not enough to bring

EM-9

PID	∇ BPVC	(BPVC) Depth ft	(ft) head	gal 1 well vol	(gal) 3-5 well vol
0.5 ppm	14.92'	18.78'	3.86	0.63 gal	1.89-3.15

Time	Amt	pH ok	Cond ok	Turbid	Temp °C ok	visual
1:35	initial	7.22	0.353	999	12.6	very turbid
1:39	1 gal	7.43	0.354	"	11.6	"
1:41	2 gal	7.35	0.357	"	10.8	"
1:43	3 gal	7.19	0.356	"	10.8	

Sample @ 1:50pm
VOC, TPH

turbidity function flashing

collect sample for VOC + PPM + Cr+6
@ 12:35.

good - collect samples!

Dan Persons - soil stockpile

8-31-99 Bunk Lunker Add Time

EM-4

Purge + sample w/ bailer - (∇ too deep for pump)

PID (well)	∇ ft BPVC	BPVC ft Depth	head	(gal) 1 well vol	(gal) 3-5 well vol
10 ppm	28.06'	31.83	3.77'	0.62 gal	1.85 - 3.08

TIME	Amt	pH ok	Cond ok	Temp ok	Turb/visual
2:45	initial	6.94	0.351	12.1	very turbid
2:48	0.6 gal	6.73	0.356	10.2	v. turbid
2:51	1.2	6.68	0.335	9.5	v. turbid
2:53	2.0 gal	6.47	0.326	9.4	"
2:56	2.6 gal	6.51	0.315	9.2	"

Collect gw samples.

EM-6 (use bailer)

PID	∇ ft BPVC	BPVC ft Depth	ft head	(gal) 1 well vol	(gal) 3-5 well vol
0 ppm	27.35	31.38	4.03	0.66 gal	1.97 - 3.29

TIME	Amt	pH	Cond ok	Temp ok	Turb/visual
3:40	Initial	6.75	0.490	11.9	very turbid
3:43	0.7 gal	6.83	0.494	9.9	"
3:44	1.3	6.78	0.494	9.6	"
3:46	2 gal	6.62	0.504	9.2	"
3:50	3 gal	6.55	0.499	9.2	

sample @ 4:00

EM-7

Purge + sample w/ Peristaltic pump (gal)

well PID	∇ BPVC	BPVC Depth	head	1 well vol	3-5 well vol (gal)
0.0	16.99	21.91	4.92	0.80	2.41 - 4.01

TIME	Amt	pH ok	Cond ok	Temp °C	Turb/visual
4:30	initial	7.05	0.351	13.7	305 fairly clear
4:33	1 gal	6.93	0.342	12.1	666 "
4:35	2 gal	6.84	0.338	11.3	332 clear
4:37	2.5 g	6.75	0.337	11.1	? clear
4:39	3.2 g	6.65	0.334	11.0	— clear
4:40	3.7	6.64	0.329	11.0	— clear
	4.0				

Sample well @ 4:45 pm

EM-5 - peristaltic pump

well PID	∇ BPVC	Depth	head	1 well vol	3-5 well vol
0.0 ppm	15.73'	20.26'	4.53'	0.74 gal	2.22 - 3.70 gal

Time	Amt	pH	Cond	Temp °C	Turbid
5:35	initial	6.85	0.537	10.8	mod turbid
5:37	0.75 g	7.02	0.572	13.1	clear
5:39	1.5 g	7.02	0.504	14.3	cloudy
5:41	2.25 g	7.02	0.516	12.5	cloudy
5:44	3.0 g	6.99	0.497	12.0	clear
5:46	3.75	6.93	0.499	11.7	clear

Sample well @ 5:50 pm

6.31.99 Burke Lumber

EM-8

PID	$\bar{V}$ BPVC	Depth BPVC	head ft	one well vol.(g)	3-5 well vol (gal)
0.0	20.00'	21.72'	1.72	0.28 gal	0.84-1.40 g.

Time	Amt	pH	Cond	Temp	Visual Turbid
6:25p	initial	4.90	0.489	17.9	mod turbid
6:30	0.28g	6.82	0.450	12.2	cloudy
6:31	0.6g	6.80	0.446	11.6	clear
6:32	1.1g	6.77	0.447	11.4	cloudy
6:34	1.5g	6.74	0.452	11.4	cloudy
6:36	1.8	6.73	0.454	11.4	cloudy

collect gw sample @ and duplicate
from EM-8

original sample @ 6:40
dup @ 6:50

7:30 - leave site.

Notes:

- EM-5 well casing needs repair
- all wells need locks.

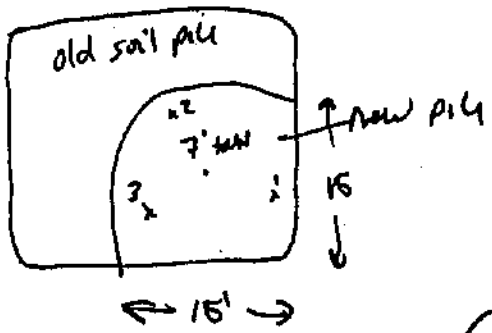
9.1.99

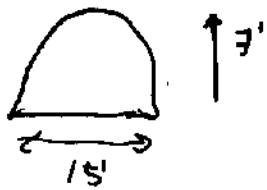
- add ice to coolers
- Stop by Ambuchon Hardware to get old
- tubing to sample wells

9:15 arrive on site

- calibrate PID / span = 2.64
- check new soil stockpile w/ PID
- check head space in plastic bag

- new soil stock piles is well covered





Sample #	PID HS
1	> 2000 ppm
2	> 2000 ppm
3	1400 ppm

soil is sandy, gravely w/ boulders

weather - sunny warm high 85°, calm

calibrate horiba - OK except turbidity does not cal

9.1.99

Sample existing wells - 8260B

EM-2

PID	∇ BPVC	Depth BPVC	Head	1 well vol.	3-5 well vol.
1.0 ppm	10.49'	13.98'	3.49'	0.57g	1.71 - 2.85g

Time	Amt	pH	Cond	Temp	Turbid Wave
10:30	init	6.49	0.537	12.2	very turbid
10:32	1gal	6.68	0.471	11.6	mod turbid
10:34	2gal	6.72	0.462	11.3	sl. turbid
10:37	3gal	6.79	0.460	11.6	"
10:39	4gal	6.78	0.465	11.3	"

collect samples @ 10:45

EM-1

PID	∇ BPVC	BPVC Depth	Head	1 well vol	3-5 well vol
12 ppm	11.01'	13.75'	2.74	0.45g	1.34 - 2.24g

Time	Amt	pH	Cond	Temp	Turb
11:16	initial	6.38	0.417	17.7	mod turb
11:18	0.75g	6.55	0.409	13.8	clear
11:19	1.25	6.55	0.412	12.9	"
11.21	2.0	6.50	0.420	12.7	"
11.23	2.5	6.45	0.422	12.5	"

collect samples @ 11:30

9.1.99 Burke Lumber Aad Jmy

EM3

PID	∇ BPVC	Depth BPVC	head	1 well vol	3-5 well
6.5	10.22	13.63'	3.41'	0.56g	1.67 - 2.78g

Time	amt	pH	ms/cm cond	°C Temp	visual turbid
11:51	initial	6.51	0.293	18.9	Very turbid
11:56	0.5g	6.67	0.297	14.2	pretty clear
11:57	1.0g	6.70	0.291	13.4	"
12:00	1.75g	6.67	0.289	13.1	"
12:07	2.5	6.56	0.288	13.0	clear
12:04	3.25	6.55	0.289	12.8	clear

Sample @ 12:15

leave site @ 12:30 - go to Fed Ex
+ back to office

APPENDIX B

SOIL ANALYTICAL DATA

Columbia Analytical Services INC.
An Employee-Owned Company

September 21, 1999

Service Request No. J9902586

Certification Numbers:

Florida DEP:	930298G
Florida HRS:	E82502; 82483
Massachusetts:	M-FL937
New Hampshire:	294297-A; 294297-B
North Carolina:	527
South Carolina:	96021001
A2LA	0490-02

Joe Hayes
IT-EMCON
Chace Mill E-2, 1 Mill Street, Box B15
Burlington, VT 05401

RE: Project No.: 797253 01000000
Project Name: Burke Lumber Additional Invest.

Dear Joe Hayes:

Enclosed are the results of the samples(s) submitted to our laboratory on August 31, 1999. For your reference, these analyses have been assigned our service request number: J9902586.

All analyses were performed according to our laboratory's quality assurance program. All results are intended to be considered in the entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the samples analyzed.

Please call if you have any questions.

Respectfully submitted,

Columbia Analytical Services, Inc.

Tom Kissinger
Project Chemist

TK/jg

8540 Baycenter Rd. • Jacksonville, FL 32256 • (904) 739-2277 • Fax (904) 739-2011

Columbia Analytical Services INC.
An Employee Owned Company

CHAIN OF CUSTODY/LABORATORY ANALYSIS REPORT FORM

8540 Baycenter Rd • Jacksonville, FL 32256 • (904) 739-2277 • 800-695-7222 • FAX (904) 739-2011

DATE 8-24-99 PAGE 1 OF 1

PROJECT NAME Burke Lumber Additional Invest.
PROJECT # 797253 01000000
COMPANY/ADDRESS IT-EMCON
1 Mill Street E-2/Box B-15
Burlington, VT 05401 PHONE 802/658-6884
REPORT TO: Joe Hayes

ANALYSIS REQUEST

SAMPLE I.D.	DATE	TIME	SAMPLE MATRIX	NUMBER OF CONTAINERS	EPA 8260B (VOCs)	EPA 8270C (SVOCs)	Priority Pollutant Metals plus Chromium	EPA 8100M (TPH)													REMARKS
SS-1	8.24.99	10:00A	Soil	2	✓	✓	✓														
EM-4 8-10'	8.24.99	2:15p	Soil	2	✓	✓	✓														
EM-5 8-10'	8.25.99	9:15A	Soil	2	✓	✓	✓														
EM-8 0-2	8.25.99	2:45p	Soil	2	✓	✓	✓														
EM-8 2-4	8.25.99	5:25p	Soil	2	✓	✓	✓														
EM-6 14-16'	8.26.99	11:00A	Soil	2	✓	✓	✓														
EM-9 10-12'	8.26.99	1:55p	Soil	2	✓			✓													
EM-7 14-16'	8.26.99	5:15p	Soil	2	✓	✓	✓														
EM-10 10-12'	8.27.99	9:55A	Soil	2	✓	✓	✓														

RELINQUISHED BY:
Signature: [signature]
Printed Name: Cynthia Sprague
Firm: Emcon / IT
Date/Time: 8.30.99 9:30A

RECEIVED BY:
Signature: FED EX
Printed Name:
Firm:
Date/Time:

TURNAROUND REQUIREMENTS
___ 24 hr. ___ 48 hr. ___ 5 day
✓ Standard (7-10 working days)
___ Provide Verbal Preliminary Results
✓ Provide FAX Preliminary Results
Requested Report Date ___

REPORT REQUIREMENTS
✓ I. Routine Report
___ II. Report (includes DUP,MAS MSD, as required, may be charged as samples)
___ III. Data Validation Report (includes All Raw Data)
___ IV. CLP Deliverable Report

INVOICE INFORMATION:
P.O.# ___
Bill To EMCON
1 Mill St. E-2/Box B-15
Burlington, VT 05401

SAMPLE RECEIPT:
Shipping VIA: ___
Shipping to: ___
Condition: ___
Lab No: ___

RELINQUISHED BY:
Signature:
Printed Name:
Firm:
Date/Time:

RECEIVED BY:
Signature: [signature]
Printed Name: Paul Gunsaulies
Firm: AS
Date/Time: 8/31/99 1000

SPECIAL INSTRUCTIONS/COMMENTS:

J9902586

SAMPLER'S SIGNATURE: [signature]

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Soil

Service Request: J9902586
Date Collected: 8/24-27/99
Date Received: 8/31/99
Date Extracted: NA

Volatile Organic Compounds
EPA Method 8260
Units: µg/Kg (ppb)
Dry Weight Basis

	Sample Name:	SS-1	EM-4 8-10'	EM-5 8-10'
	Lab Code:	J9902586-01	J9902586-02	J9902586-03
	Date Analyzed:	9/2/99	9/2/99	9/2/99
Analyte	**MRL**			
Acetone	50	U	U	U
Acrolein	10	U	U	U
Acrylonitrile	10	U	U	U
Benzene	1	U	U	U
Bromodichloromethane	1	U	U	U
Bromoform	1	U	U	U
Bromomethane	1	U	U	U
2-Butanone (MEK)	10	U	U	U
Carbon Disulfide	1	U	U	U
Carbon Tetrachloride	1	U	U	U
Chlorobenzene	1	U	U	U
Chloroethane	1	U	U	U
Chloroform	1	U	U	U
Chloromethane	1	U	U	U
2-Chloroethyl Vinyl Ether	10	U	U	U
Dibromochloromethane	1	U	U	U
1,2-Dibromo-3-chloropropane (DBCP)	10	U	U	U
1,2-Dibromoethane (EDB)	1	U	U	U
1,2-Dichlorobenzene	1	U	U	U
1,3-Dichlorobenzene	1	U	U	U
1,4-Dichlorobenzene	1	U	U	U
trans-1,4-Dichloro-2-butene	10	U	U	U
1,1-Dichloroethane	1	U	U	U
1,2-Dichloroethane	1	U	U	U
1,1-Dichloroethene	1	U	U	U
cis-1,2-Dichloroethene	1	U	U	U
trans-1,2-Dichloroethene	1	U	U	U
Dichlorodifluoromethane	1	U	U	U
Ethylbenzene	1	U	U	U
Ethyl Methacrylate	10	U	U	U
2-Hexanone	10	U	U	U
Iodomethane	10	U	U	U
Methylene Chloride	10	U	U	U
4-Methyl-2-pentanone (MIBK)	10	U	U	U
Styrene	1	U	U	U
1,1,1,2-Tetrachloroethane	1	U	U	U
1,1,2,2-Tetrachloroethane	1	U	U	U
Tetrachloroethene (PCE)	1	U	U	U
Toluene	1	U	1	U
1,1,1-Trichloroethane (TCA)	1	U	U	U
1,1,2-Trichloroethane	1	U	U	U
Trichloroethene (TCE)	1	U	U	U
Trichlorofluoromethane (CFC 11)	1	U	U	U
1,2,3-Trichloropropane	1	U	U	U
Vinyl Acetate	10	U	U	U
Vinyl Chloride	1	U	U	U
Total Xylenes	2	U	U	U

U Not detected at or above the MRL.

Approved By: Tom D. Hessinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Soil

Service Request: J9902586
Date Collected: 8/24-27/99
Date Received: 8/31/99
Date Extracted: NA

Volatile Organic Compounds
EPA Method 8260
Units: µg/Kg (ppb)
Dry Weight Basis

	Sample Name:	EM-8 0-2'	EM-8 2-4'	EM-6 14-16'
	Lab Code:	J9902586-04	J9902586-05	J9902586-06
	Date Analyzed:	9/2/99	9/2/99	9/2/99
Analyte	**MRL**			
Acetone	50	U	U	120
Acrolein	10	U	U	U
Acrylonitrile	10	U	U	U
Benzene	1	U	U	U
Bromodichloromethane	1	U	U	U
Bromoform	1	U	U	U
Bromomethane	1	U	U	U
2-Butanone (MEK)	10	U	U	24
Carbon Disulfide	1	U	U	U
Carbon Tetrachloride	1	U	U	U
Chlorobenzene	1	U	U	U
Chloroethane	1	U	U	U
Chloroform	1	U	U	U
Chloromethane	1	U	U	U
2-Chloroethyl Vinyl Ether	10	U	U	U
Dibromochloromethane	1	U	U	U
1,2-Dibromo-3-chloropropane (DBCP)	10	U	U	U
1,2-Dibromoethane (EDB)	1	U	U	U
1,2-Dichlorobenzene	1	U	7	U
1,3-Dichlorobenzene	1	U	U	U
1,4-Dichlorobenzene	1	U	U	U
trans-1,4-Dichloro-2-butene	10	U	U	U
1,1-Dichloroethane	1	U	1	U
1,2-Dichloroethane	1	U	2	U
1,1-Dichloroethene	1	U	U	U
cis-1,2-Dichloroethene	1	U	4	U
trans-1,2-Dichloroethene	1	U	U	U
Dichlorodifluoromethane	1	U	U	U
Ethylbenzene	1	6	1	U
Ethyl Methacrylate	10	U	U	U
2-Hexanone	10	U	U	U
Iodomethane	10	U	U	U
Methylene Chloride	10	U	U	U
4-Methyl-2-pentanone (MIBK)	10	U	U	U
Styrene	1	U	U	U
1,1,1,2-Tetrachloroethane	1	U	U	U
1,1,2,2-Tetrachloroethane	1	5	U	U
Tetrachloroethene (PCE)	1	11	6	U
Toluene	1	85	27	2
1,1,1-Trichloroethane (TCA)	1	U	1	U
1,1,2-Trichloroethane	1	U	U	U
Trichloroethene (TCE)	1	U	1	U
Trichlorofluoromethane (CFC 11)	1	U	U	U
1,2,3-Trichloropropane	1	U	U	U
Vinyl Acetate	10	U	U	U
Vinyl Chloride	1	U	U	U
Total Xylenes	2	44	25	U

U Not detected at or above the MRL.

Approved By: Tom D. Hessinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Soil

Service Request: J9902586
Date Collected: 8/24-27/99
Date Received: 8/31/99
Date Extracted: NA

Volatile Organic Compounds
EPA Method 8260
Units: µg/Kg (ppb)
Dry Weight Basis

	Sample Name:	EM-9 10-12'	EM-7 14-16'	EM-10 10-12'
	Lab Code:	J9902586-07	J9902586-08	J9902586-09
	Date Analyzed:	9/2/99	9/2/99	9/2/99
Analyte	**MRL**			
Acetone	50	U	U	U
Acrolein	10	U	U	U
Acrylonitrile	10	U	U	U
Benzene	1	U	U	U
Bromodichloromethane	1	U	U	U
Bromoform	1	U	U	U
Bromomethane	1	U	U	U
2-Butanone (MEK)	10	U	U	U
Carbon Disulfide	1	U	U	U
Carbon Tetrachloride	1	U	U	U
Chlorobenzene	1	U	U	U
Chloroethane	1	U	U	U
Chloroform	1	U	U	U
Chloromethane	1	U	U	U
2-Chloroethyl Vinyl Ether	10	U	U	U
Dibromochloromethane	1	U	U	U
1,2-Dibromo-3-chloropropane (DBCP)	10	U	U	U
1,2-Dibromoethane (EDB)	1	U	U	U
1,2-Dichlorobenzene	1	U	U	U
1,3-Dichlorobenzene	1	U	U	U
1,4-Dichlorobenzene	1	U	U	U
trans-1,4-Dichloro-2-butene	10	U	U	U
1,1-Dichloroethane	1	U	U	U
1,2-Dichloroethane	1	U	U	U
1,1-Dichloroethene	1	U	U	U
cis-1,2-Dichloroethene	1	U	U	U
trans-1,2-Dichloroethene	1	U	U	U
Dichlorodifluoromethane	1	U	U	U
Ethylbenzene	1	U	U	U
Ethyl Methacrylate	10	U	U	U
2-Hexanone	10	U	U	U
Iodomethane	10	U	U	U
Methylene Chloride	10	U	U	U
4-Methyl-2-pentanone (MIBK)	10	U	U	U
Styrene	1	U	U	U
1,1,1,2-Tetrachloroethane	1	U	U	U
1,1,2,2-Tetrachloroethane	1	U	U	U
Tetrachloroethene (PCE)	1	U	U	U
Toluene	1	U	U	U
1,1,1-Trichloroethane (TCA)	1	U	U	U
1,1,2-Trichloroethane	1	U	U	U
Trichloroethene (TCE)	1	U	U	U
Trichlorofluoromethane (CFC 11)	1	U	U	U
1,2,3-Trichloropropane	1	U	U	U
Vinyl Acetate	10	U	U	U
Vinyl Chloride	1	U	U	U
Total Xylenes	2	U	U	U

U Not detected at or above the MRL.

Approved By: Tom D. Thessing Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Soil

Service Request: J9902586
Date Collected: NA
Date Received: NA
Date Extracted: NA

Volatile Organic Compounds
EPA Method 8260
Units: µg/Kg (ppb)
Dry Weight Basis

Sample Name:		**Method Blank**
Lab Code:		J990901-MB
Date Analyzed:		9/1/99
Analyte	**MRL**	
Acetone	50	U
Acrolein	10	U
Acrylonitrile	10	U
Benzene	1	U
Bromodichloromethane	1	U
Bromoform	1	U
Bromomethane	1	U
2-Butanone (MEK)	10	U
Carbon Disulfide	1	U
Carbon Tetrachloride	1	U
Chlorobenzene	1	U
Chloroethane	1	U
Chloroform	1	U
Chloromethane	1	U
2-Chloroethyl Vinyl Ether	10	U
Dibromochloromethane	1	U
1,2-Dibromo-3-chloropropane (DBCP)	10	U
1,2-Dibromoethane (EDB)	1	U
1,2-Dichlorobenzene	1	U
1,3-Dichlorobenzene	1	U
1,4-Dichlorobenzene	1	U
trans-1,4-Dichloro-2-butene	10	U
1,1-Dichloroethane	1	U
1,2-Dichloroethane	1	U
1,1-Dichloroethene	1	U
cis-1,2-Dichloroethene	1	U
trans-1,2-Dichloroethene	1	U
Dichlorodifluoromethane	1	U
Ethylbenzene	1	U
Ethyl Methacrylate	10	U
2-Hexanone	10	U
Iodomethane	10	U
Methylene Chloride	10	U
4-Methyl-2-pentanone (MIBK)	10	U
Styrene	1	U
1,1,1,2-Tetrachloroethane	1	U
1,1,2,2-Tetrachloroethane	1	U
Tetrachloroethene (PCE)	1	U
Toluene	1	U
1,1,1-Trichloroethane (TCA)	1	U
1,1,2-Trichloroethane	1	U
Trichloroethene (TCE)	1	U
Trichlorofluoromethane (CFC 11)	1	U
1,2,3-Trichloropropane	1	U
Vinyl Acetate	10	U
Vinyl Chloride	1	U
Total Xylenes	2	U

U Not detected at or above the MRL.

Approved By: Tom D. Hissinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Soil

Service Request: J9902586
Date Collected: 8/24/99
Date Received: 8/31/99
Date Extracted: 9/7/99

Base Neutral/Acid Semivolatile Organic Compounds
EPA Methods 3550/8270
Units: µg/Kg (ppb)
Dry Weight Basis

Sample Name:		SS-1	EM-4 8-10'	EM-5 8-10'
Lab Code:		J9902586-01	J9902586-02	J9902586-03
Date Analyzed:		9/9/99	9/9/99	9/9/99
Analyte	**MRL**			
Acenaphthene	250	U	U	U
Acenaphthylene	250	U	U	U
Acetophenone	250	U	U	U
4-Aminobiphenyl	250	U	U	U
Aniline	250	U	U	U
Anthracene	250	U	U	U
Azobenzene	250	U	U	U
Benzidine	500	U	U	U
Benz(a)anthracene	250	U	U	U
Benzo(a)pyrene	250	U	U	U
Benzo(b)fluoranthene	250	U	U	U
Benzo(ghi)perylene	250	U	U	U
Benzo(k)fluoranthene	250	U	U	U
Benzyl alcohol	250	U	U	U
Bis(2-chloroethoxy)methane	250	U	U	U
Bis(2-chloroethyl) Ether	250	U	U	U
Bis(2-chloroisopropyl) Ether	250	U	U	U
Bis(2-ethylhexyl) Phthalate	250	U	U	U
4-Bromophenyl Phenyl Ether	250	U	U	U
Butyl Benzyl Phthalate	250	U	U	U
4-Chloro-3-methylphenol	500	U	U	U
4-Chloroaniline	250	U	U	U
1-Chloronaphthalene	250	U	U	U

U Not detected at or above the MRL.

Approved By: Tom D. Hessinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Soil

Service Request: J9902586
Date Collected: 8/24/99
Date Received: 8/31/99
Date Extracted: 9/7/99

Base Neutral/Acid Semivolatile Organic Compounds
EPA Methods 3550/8270
Units: µg/Kg (ppb)
Dry Weight Basis

Sample Name:		SS-1	EM-4 8-10'	EM-5 8-10'
Lab Code:		J9902586-01	J9902586-02	J9902586-03
Date Analyzed:		9/9/99	9/9/99	9/9/99
Analyte	**MRL**			
2-Chloronaphthalene	250	U	U	U
2-Chlorophenol	250	U	U	U
4-Chlorophenyl Phenyl Ether	250	U	U	U
Chrysene	250	U	U	U
Di-n-butyl Phthalate	250	U	U	U
Di-n-octyl Phthalate	250	U	U	U
Dibenz(a,j)acridine	250	U	U	U
Dibenz(a,h)anthracene	250	U	U	U
Dibenzofuran	250	U	U	U
1,2-Dichlorobenzene	250	U	U	U
1,3-Dichlorobenzene	250	U	U	U
1,4-Dichlorobenzene	250	U	U	U
3,3'-Dichlorobenzidine	500	U	U	U
2,4-Dichlorophenol	250	U	U	U
2,6-Dichlorophenol	250	U	U	U
Diethyl Phthalate	250	U	U	U
7,12-Dimethybenz(a)anthracene	250	U	U	U
2,4-Dimethylphenol	250	U	U	U
Dimethyl Phthalate	250	U	U	U
2,4-Dinitrophenol	500	U	U	U
2,4-Dinitrotoluene	250	U	U	U

U Not detected at or above the MRL.

Approved By: Tom D. Hissinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	IT-EMCON	**Service Request:**	J9902586
Project:	Burke Lumber Additional Invest. / 797253 01000000	**Date Collected:**	8/24/99
Sample Matrix:	Soil	**Date Received:**	8/31/99
		Date Extracted:	9/7/99

Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3550/8270
Units: µg/Kg (ppb)
Dry Weight Basis

	Sample Name:	**SS-1**	**EM-4 8-10'**	**EM-5 8-10'**
	Lab Code:	J9902586-01	J9902586-02	J9902586-03
	Date Analyzed:	9/9/99	9/9/99	9/9/99
Analyte	**MRL**			
2,6-Dinitrotoluene	250	U	U	U
Diphenylamine	250	U	U	U
Fluoranthene	250	U	U	U
Fluorene	250	U	U	U
Hexachlorobenzene	250	U	U	U
Hexachlorobutadiene	250	U	U	U
Hexachlorocyclopentadiene	250	U	U	U
Hexachloroethane	250	U	U	U
Indeno(1,2,3-cd)pyrene	250	U	U	U
Isophorone	250	U	U	U
2-Methyl-4,6-dinitrophenol	500	U	U	U
3-Methylcholanthrene	250	U	U	U
2-Methylnaphthalene	250	U	U	U
2-Methyphenol	250	U	U	U
3- & 4-Methyphenol*	250	U	U	U
N-nitrosodi-n-butylamine	250	U	U	U
N-Nitrosodi-n-propylamine	250	U	U	U
N-Nitrosodimethylamine	250	U	U	U
N-Nitrosodiphenylamine	250	U	U	U
N-nitrosopiperidine	250	U	U	U
Naphthalene	250	U	U	U

U Not detected at or above the MRL.
* Quantified as 4-Methylphenol.

Approved By: Tom D. Hissinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Soil

Service Request: J9902586
Date Collected: 8/24/99
Date Received: 8/31/99
Date Extracted: 9/7/99

Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3550/8270
Units: µg/Kg (ppb)
Dry Weight Basis

	Sample Name:	**SS-1**	**EM-4 8-10'**	**EM-5 8-10'**
	Lab Code:	J9902586-01	J9902586-02	J9902586-03
	Date Analyzed:	9/9/99	9/9/99	9/9/99
Analyte	**MRL**			
1-Naphthylamine	250	U	U	U
2-Naphthylamine	250	U	U	U
2-Nitroaniline	250	U	U	U
3-Nitroaniline	250	U	U	U
4-Nitroaniline	250	U	U	U
Nitrobenzene	250	U	U	U
2-Nitrophenol	250	U	U	U
4-Nitrophenol	500	U	U	U
p-dimethylaminoazobenzene	250	U	U	U
Pentachlorobenzene	250	U	U	U
Pentachloronitrobenzene	250	U	U	U
Pentachlorophenol	500	U	U	U
Phenacetin	250	U	U	U
Phenanthrene	250	U	U	U
Phenol	250	U	U	U
2-Picoline	250	U	U	U
Pronamide	250	U	U	U
Pyrene	250	U	U	U
1,2,4,5-Tetrachlorobenzene	250	U	U	U
2,3,4,6-Tetrachlorophenol	250	U	U	U
1,2,4-Trichlorobenzene	250	U	U	U
2,4,5-Trichlorophenol	250	U	U	U
2,4,6-Trichlorophenol	250	U	U	U

U Not detected at or above the MRL.

Approved By: Tom D. Kissinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Soil

Service Request: J9902586
Date Collected: 8/24/99
Date Received: 8/31/99
Date Extracted: 9/7/99

Base Neutral/Acid Semivolatile Organic Compounds
EPA Methods 3550/8270
Units: µg/Kg (ppb)
Dry Weight Basis

Sample Name:		EM-8 0-2'	EM-8 2-4'	EM-6 14-16'
Lab Code:		J9902586-04	J9902586-05	J9902586-06
Date Analyzed:		9/9/99	9/9/99	9/9/99
Analyte	**MRL**			
Acenaphthene	250	1300	110000 (a)	U
Acenaphthylene	250	U	U	U
Acetophenone	250	U	U	U
4-Aminobiphenyl	250	U	U	U
Aniline	250	U	U	U
Anthracene	250	U	25000 (a)	U
Azobenzene	250	U	U	U
Benzidine	500	U	U	U
Benz(a)anthracene	250	720	16000 (a)	U
Benzo(a)pyrene	250	330	3500	U
Benzo(b)fluoranthene	250	340	4800	U
Benzo(ghi)perylene	250	U	670	U
Benzo(k)fluoranthene	250	530	4200	U
Benzyl alcohol	250	U	U	U
Bis(2-chloroethoxy)methane	250	U	U	U
Bis(2-chloroethyl) Ether	250	U	U	U
Bis(2-chloroisopropyl) Ether	250	U	U	U
Bis(2-ethylhexyl) Phthalate	250	560	540	U
4-Bromophenyl Phenyl Ether	250	U	U	U
Butyl Benzyl Phthalate	250	U	U	U
4-Chloro-3-methylphenol	500	U	U	U
4-Chloroaniline	250	U	U	U
1-Chloronaphthalene	250	U	U	U

U Not detected at or above the MRL.
(a) Result is from the analysis of a diluted sample, performed on 9/10/99. Dilution factor 1:50.

Approved By: Tom D Hessinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Soil

Service Request: J9902586
Date Collected: 8/24/99
Date Received: 8/31/99
Date Extracted: 9/7/99

Base Neutral/Acid Semivolatile Organic Compounds
EPA Methods 3550/8270
Units: µg/Kg (ppb)
Dry Weight Basis

Sample Name:		**EM-8 0-2'**	**EM-8 2-4'**	**EM-6 14-16'**
Lab Code:		J9902586-04	J9902586-05	J9902586-06
Date Analyzed:		9/9/99	9/9/99	9/9/99
Analyte	**MRL**			
2-Chloronaphthalene	250	U	U	U
2-Chlorophenol	250	U	U	U
4-Chlorophenyl Phenyl Ether	250	U	U	U
Chrysene	250	780	15000 (a)	U
Di-n-butyl Phthalate	250	U	U	U
Di-n-octyl Phthalate	250	U	U	U
Dibenz(a,j)acridine	250	U	U	U
Dibenz(a,h)anthracene	250	U	U	U
Dibenzofuran	250	440	59000 (a)	U
1,2-Dichlorobenzene	250	U	U	U
1,3-Dichlorobenzene	250	U	U	U
1,4-Dichlorobenzene	250	U	U	U
3,3'-Dichlorobenzidine	500	U	U	U
2,4-Dichlorophenol	250	U	U	U
2,6-Dichlorophenol	250	U	U	U
Diethyl Phthalate	250	U	U	U
7,12-Dimethybenz(a)anthracene	250	U	U	U
2,4-Dimethylphenol	250	U	U	U
Dimethyl Phthalate	250	U	U	U
2,4-Dinitrophenol	500	U	U	U
2,4-Dinitrotoluene	250	U	U	U

U Not detected at or above the MRL.
(a) Result is from the analysis of a diluted sample, performed on 9/10/99. Dilution factor 1:50.

Approved By: Tam D. Hessinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Soil

Service Request: J9902586
Date Collected: 8/24/99
Date Received: 8/31/99
Date Extracted: 9/7/99

Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3550/8270
Units: µg/Kg (ppb)
Dry Weight Basis

Sample Name:		EM-8 0-2'	EM-8 2-4'	EM-6 14-16'
Lab Code:		J9902586-04	J9902586-05	J9902586-06
Date Analyzed:		9/9/99	9/9/99	9/9/99
Analyte	**MRL**			
2,6-Dinitrotoluene	250	U	U	U
Diphenylamine	250	U	U	U
Fluoranthene	250	5000	170000 (a)	U
Fluorene	250	540	73000 (a)	U
Hexachlorobenzene	250	U	U	U
Hexachlorobutadiene	250	U	U	U
Hexachlorocyclopentadiene	250	U	U	U
Hexachloroethane	250	U	U	U
Indeno(1,2,3-cd)pyrene	250	U	730	U
Isophorone	250	U	U	U
2-Methyl-4,6-dinitrophenol	500	U	U	U
3-Methylcholanthrene	250	U	U	U
2-Methylnaphthalene	250	330	42000 (a)	U
2-Methyphenol	250	U	U	U
3- & 4-Methyphenol*	250	U	U	U
N-nitrosodi-n-butylamine	250	U	U	U
N-Nitrosodi-n-propylamine	250	U	U	U
N-Nitrosodimethylamine	250	U	U	U
N-Nitrosodiphenylamine	250	U	U	U
N-nitrosopiperidine	250	U	U	U
Naphthalene	250	U	8400	U

U Not detected at or above the MRL.
* Quantified as 4-Methylphenol.
(a) Result is from the analysis of a diluted sample, performed on 9/10/99. Dilution factor 1:50.

Approved By: Tom D. Hissinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	IT-EMCON	**Service Request:**	J9902586
Project:	Burke Lumber Additional Invest. / 797253 01000000	**Date Collected:**	8/24/99
Sample Matrix:	Soil	**Date Received:**	8/31/99
		Date Extracted:	9/7/99

Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3550/8270
Units: µg/Kg (ppb)
Dry Weight Basis

	Sample Name:	**EM-8 0-2'**	**EM-8 2-4'**	**EM-6 14-16'**
	Lab Code:	J9902586-04	J9902586-05	J9902586-06
	Date Analyzed:	9/9/99	9/9/99	9/9/99
Analyte	**MRL**			
1-Naphthylamine	250	U	U	U
2-Naphthylamine	250	U	U	U
2-Nitroaniline	250	U	U	U
3-Nitroaniline	250	U	U	U
4-Nitroaniline	250	U	U	U
Nitrobenzene	250	U	U	U
2-Nitrophenol	250	U	U	U
4-Nitrophenol	500	U	U	U
p-dimethylaminoazobenzene	250	U	U	U
Pentachlorobenzene	250	U	U	U
Pentachloronitrobenzene	250	U	U	U
Pentachlorophenol	500	U	U	U
Phenacetin	250	U	U	U
Phenanthrene	250	890	280000 (a)	U
Phenol	250	U	U	U
2-Picoline	250	U	U	U
Pronamide	250	U	U	U
Pyrene	250	4000	84000 (a)	U
1,2,4,5-Tetrachlorobenzene	250	U	U	U
2,3,4,6-Tetrachlorophenol	250	U	U	U
1,2,4-Trichlorobenzene	250	U	U	U
2,4,5-Trichlorophenol	250	U	U	U
2,4,6-Trichlorophenol	250	U	U	U

U Not detected at or above the MRL.
(a) Result is from the analysis of a diluted sample, performed on 9/10/99. Dilution factor 1:50.

Approved By: Tom D. Hissing Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Soil

Service Request: J9902586
Date Collected: 8/24/99
Date Received: 8/31/99
Date Extracted: 9/7/99

Base Neutral/Acid Semivolatile Organic Compounds
EPA Methods 3550/8270
Units: µg/Kg (ppb)
Dry Weight Basis

Sample Name:		EM-7 14-16'	EM-10 10-12'	Method Blank
Lab Code:		J9902586-08	J9902586-09	J990907-MB
Date Analyzed:		9/9/99	9/9/99	9/9/99
Analyte	**MRL**			
Acenaphthene	250	U	U	U
Acenaphthylene	250	U	U	U
Acetophenone	250	U	U	U
4-Aminobiphenyl	250	U	U	U
Aniline	250	U	U	U
Anthracene	250	U	U	U
Azobenzene	250	U	U	U
Benzidine	500	U	U	U
Benz(a)anthracene	250	U	U	U
Benzo(a)pyrene	250	U	U	U
Benzo(b)fluoranthene	250	U	U	U
Benzo(ghi)perylene	250	U	U	U
Benzo(k)fluoranthene	250	U	U	U
Benzyl alcohol	250	U	U	U
Bis(2-chloroethoxy)methane	250	U	U	U
Bis(2-chloroethyl) Ether	250	U	U	U
Bis(2-chloroisopropyl) Ether	250	U	U	U
Bis(2-ethylhexyl) Phthalate	250	U	U	U
4-Bromophenyl Phenyl Ether	250	U	U	U
Butyl Benzyl Phthalate	250	U	U	U
4-Chloro-3-methylphenol	500	U	U	U
4-Chloroaniline	250	U	U	U
1-Chloronaphthalene	250	U	U	U

U Not detected at or above the MRL.

Approved By: Tom D. Kissinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Soil

Service Request: J9902586
Date Collected: 8/24/99
Date Received: 8/31/99
Date Extracted: 9/7/99

Base Neutral/Acid Semivolatile Organic Compounds
EPA Methods 3550/8270
Units: µg/Kg (ppb)
Dry Weight Basis

	Sample Name:	EM-7 14-16'	EM-10 10-12'	Method Blank
	Lab Code:	J9902586-08	J9902586-09	J990907-MB
	Date Analyzed:	9/9/99	9/9/99	9/9/99
Analyte	**MRL**			
2-Chloronaphthalene	250	U	U	U
2-Chlorophenol	250	U	U	U
4-Chlorophenyl Phenyl Ether	250	U	U	U
Chrysene	250	U	U	U
Di-n-butyl Phthalate	250	U	U	U
Di-n-octyl Phthalate	250	U	U	U
Dibenz(a,j)acridine	250	U	U	U
Dibenz(a,h)anthracene	250	U	U	U
Dibenzofuran	250	U	U	U
1,2-Dichlorobenzene	250	U	U	U
1,3-Dichlorobenzene	250	U	U	U
1,4-Dichlorobenzene	250	U	U	U
3,3'-Dichlorobenzidine	500	U	U	U
2,4-Dichlorophenol	250	U	U	U
2,6-Dichlorophenol	250	U	U	U
Diethyl Phthalate	250	U	U	U
7,12-Dimethybenz(a)anthracene	250	U	U	U
2,4-Dimethylphenol	250	U	U	U
Dimethyl Phthalate	250	U	U	U
2,4-Dinitrophenol	500	U	U	U
2,4-Dinitrotoluene	250	U	U	U

U Not detected at or above the MRL.

Approved By: Tom D. Hussing Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Soil

Service Request: J9902586
Date Collected: 8/24/99
Date Received: 8/31/99
Date Extracted: 9/7/99

Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3550/8270
Units: µg/Kg (ppb)
Dry Weight Basis

Sample Name:		EM-7 14-16'	EM-10 10-12'	Method Blank
Lab Code:		J9902586-08	J9902586-09	J990907-MB
Date Analyzed:		9/9/99	9/9/99	9/9/99
Analyte	**MRL**			
2,6-Dinitrotoluene	250	U	U	U
Diphenylamine	250	U	U	U
Fluoranthene	250	U	U	U
Fluorene	250	U	U	U
Hexachlorobenzene	250	U	U	U
Hexachlorobutadiene	250	U	U	U
Hexachlorocyclopentadiene	250	U	U	U
Hexachloroethane	250	U	U	U
Indeno(1,2,3-cd)pyrene	250	U	U	U
Isophorone	250	U	U	U
2-Methyl-4,6-dinitrophenol	500	U	U	U
3-Methylcholanthrene	250	U	U	U
2-Methylnaphthalene	250	U	U	U
2-Methyphenol	250	U	U	U
3- & 4-Methyphenol*	250	U	U	U
N-nitrosodi-n-butylamine	250	U	U	U
N-Nitrosodi-n-propylamine	250	U	U	U
N-Nitrosodimethylamine	250	U	U	U
N-Nitrosodiphenylamine	250	U	U	U
N-nitrosopiperidine	250	U	U	U
Naphthalene	250	U	U	U

U Not detected at or above the MRL.
* Quantified as 4-Methylphenol.

Approved By: Tom D. Kissinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Soil

Service Request: J9902586
Date Collected: 8/24/99
Date Received: 8/31/99
Date Extracted: 9/7/99

Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3550/8270
Units: µg/Kg (ppb)
Dry Weight Basis

Sample Name:		**EM-7 14-16'**	**EM-10 10-12'**	**Method Blank**
Lab Code:		J9902586-08	J9902586-09	J990907-MB
Date Analyzed:		9/9/99	9/9/99	9/9/99
Analyte	**MRL**			
1-Naphthylamine	250	U	U	U
2-Naphthylamine	250	U	U	U
2-Nitroaniline	250	U	U	U
3-Nitroaniline	250	U	U	U
4-Nitroaniline	250	U	U	U
Nitrobenzene	250	U	U	U
2-Nitrophenol	250	U	U	U
4-Nitrophenol	500	U	U	U
p-dimethylaminoazobenzene	250	U	U	U
Pentachlorobenzene	250	U	U	U
Pentachloronitrobenzene	250	U	U	U
Pentachlorophenol	500	U	U	U
Phenacetin	250	U	U	U
Phenanthrene	250	U	U	U
Phenol	250	U	U	U
2-Picoline	250	U	U	U
Pronamide	250	U	U	U
Pyrene	250	U	U	U
1,2,4,5-Tetrachlorobenzene	250	U	U	U
2,3,4,6-Tetrachlorophenol	250	U	U	U
1,2,4-Trichlorobenzene	250	U	U	U
2,4,5-Trichlorophenol	250	U	U	U
2,4,6-Trichlorophenol	250	U	U	U

U Not detected at or above the MRL.

Approved By: Tom D. Hessinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Soil

Service Request: J9902586
Date Collected: 8/26/99
Date Received: 8/31/99
Date Extracted: 9/7/99
Date Analyzed: 9/8/99

Diesel Range Organics
EPA Methods 3550/8100M (DRO)
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name	Lab Code	MRL	Result
EM-9 10-12'	J9902586-07	10	U
Method Blank	J990907-MB	10	U

U Not detected at or above the MRL.

Approved By: Tom D. Kissinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	IT-EMCON	**Service Request:**	J9902586
Project:	Burke Lumber Additional Invest. / 797253 01000000	**Date Collected:**	8/24-25/99
Sample Matrix:	Soil	**Date Received:**	8/31/99
		Date Extracted:	9/2/99

Total Metals
Units: mg/Kg(ppm)
Dry Weight Basis

		Sample Name:	**SS-1**	**EM-4 8-10'**	**EM-5 8-10'**
		Lab Code:	J9902586-01	J9902586-02	J9902586-03
		Date Analyzed:	9/14-18/99	9/14-18/99	9/14-18/99
Analyte	**EPA Method**	**MRL**			
Antimony	6010B	2.5	U	U	U
Arsenic	6010B	5.0	U	U	U
Beryllium	6010B	0.15	0.55	0.44	0.40
Cadmium	6010B	0.5	U	U	U
Chromium	6010B	1.5	20.7	13.4	13.1
Copper	6010B	1.25	35.1	11.9	9.22
Lead	6010B	5.0	18.7	U	U
Mercury	7471A	0.2	U	U	U
Nickel	6010B	2.5	43.9	21.5	14.8
Selenium	6010B	10.0	50U (a)	U	U
Silver	6010B	0.5	1.0U (b)	U	U
Thallium	6010B	50.0	U	U	U
Zinc	6010B	1.5	41.3	26.8	20.1

U Not detected at or above the MRL.

a MRL is elevated because of matrix interferences and because the sample required diluting.
Dilution Factor: 2

b MRL is elevated because of matrix interferences and because the sample required diluting.
Dilution Factor: 5

Approved By: Tom D. Hissinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Soil

Service Request: J9902586
Date Collected: 8/25-26/99
Date Received: 8/31/99
Date Extracted: 9/2/99

Total Metals
Units: mg/Kg(ppm)
Dry Weight Basis

		Sample Name:	EM-8 0-2'	EM-8 2-4'	EM-6 14-16'
		Lab Code:	J9902586-04	J9902586-05	J9902586-06
		Date Analyzed:	9/14-18/99	9/14-18/99	9/14-18/99
Analyte	**EPA Method**	**MRL**			
Antimony	6010B	2.5	U	U	U
Arsenic	6010B	5.0	U	U	U
Beryllium	6010B	0.15	0.31	0.54	1.22
Cadmium	6010B	0.5	U	U	U
Chromium	6010B	1.5	14.4	17.7	27.9
Copper	6010B	1.25	11.5	13.9	15.1
Lead	6010B	5.0	7.71	19.6	6.32
Mercury	7471A	0.2	U	U	U
Nickel	6010B	2.5	14.0	22.6	27.5
Selenium	6010B	10.0	U	U	U
Silver	6010B	0.5	1.0U (a)	U	U
Thallium	6010B	50.0	U	U	U
Zinc	6010B	1.5	29.2	31.1	34.2

U Not detected at or above the MRL.
a MRL is elevated because of matrix interferences and because the sample required diluting.
Dilution Factor: 2

Approved By: Tam D. Hessinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Soil

Service Request: J9902586
Date Collected: 8/26-27/99
Date Received: 8/31/99
Date Extracted: 9/2/99

Total Metals
Units: mg/Kg(ppm)
Dry Weight Basis

		Sample Name:	**EM-7 14-16'**	**EM-10 10-12'**	**Method Blank**
		Lab Code:	J9902586-08	J9902586-09	J990902-MB
		Date Analyzed:	9/14-18/99	9/14-18/99	9/14-18/99
Analyte	**EPA Method**	**MRL**			
Antimony	6010B	2.5	U	U	U
Arsenic	6010B	5.0	U	U	U
Beryllium	6010B	0.15	0.61	0.36	U
Cadmium	6010B	0.5	U	U	U
Chromium	6010B	1.5	18.2	5.38	U
Copper	6010B	1.25	18.0	6.10	U
Lead	6010B	5.0	6.32	U	U
Mercury	7471A	0.2	U	U	U
Nickel	6010B	2.5	30.5	11.7	U
Selenium	6010B	10.0	20.0U (a)	U	U
Silver	6010B	0.5	U	U	U
Thallium	6010B	50.0	U	U	U
Zinc	6010B	1.5	29.7	10.9	U

U Not detected at or above the MRL.
a MRL is elevated because of matrix interferences and because the sample required diluting.
Dilution Factor: 2

Approved By: Tom D. Hissinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	IT-EMCON	**Service Request:**	J9902586
Project:	Burke Lumber Additional Invest. / 797253 01000000	**Date Collected:**	8/24/99 1000
Sample Matrix:	Soil	**Date Received:**	8/31/99
		Date Extracted:	NA

Inorganic Parameters

				Sample Name:	SS-1	EM-4 8-10'	EM-5 8-10'
				Lab Code:	J9902586-01	J9902586-02	J9902586-03
Analyte	**Units**	**EPA Method**	**MRL**	**Date/Time Analyzed**			
Chromium, Hexavalent	mg/Kg (ppm	7196A	1	9/16/99 0947	U	U	U
Solids, Total	%	160.3	1	8/31/99 1425	97.1	84.8	78.8

U Not detected at or above the MRL.

Approved By: Tom D. Kissinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	IT-EMCON	**Service Request:**	J9902586
Project:	Burke Lumber Additional Invest. / 797253 01000000	**Date Collected:**	8/24/99 1000
Sample Matrix:	Soil	**Date Received:**	8/31/99
		Date Extracted:	NA

Inorganic Parameters

				Sample Name:	**EM-8 0-2'**	**EM-8 2-4'**	**EM-6 14-16'**
				Lab Code:	J9902586-04	J9902586-05	J9902586-06
Analyte	**Units**	**EPA Method**	**MRL**	**Date/Time Analyzed**			
Chromium, Hexavalent	mg/Kg (ppm	7196A	1	9/16/99 0947	U	U	U
Solids, Total	%	160.3	1	8/31/99 1425	90.4	89	77.2

U Not detected at or above the MRL.

Approved By: Tom D. Kissinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Soil

Service Request: J9902586
Date Collected: 8/24/99 1000
Date Received: 8/31/99
Date Extracted: NA

Inorganic Parameters

				Sample Name:	EM-9 10-12'	EM-7 14-16'	EM-10 10-12'
				Lab Code:	J9902586-07	J9902586-08	J9902586-09
Analyte	**Units**	**EPA Method**	**MRL**	**Date/Time Analyzed**			
Chromium, Hexavalent	mg/Kg (ppm	7196A	1	9/16/99 0947	U	U	U
Solids, Total	%	160.3	1	8/31/99 1425	83.1	89.5	84.7

U Not detected at or above the MRL.

Approved By: Tom D. Ilgenfritz Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	IT-EMCON	**Service Request:**	J9902586
Project:	Burke Lumber Additional Invest. / 797253 01000000	**Date Collected:**	8/24/99 1000
Sample Matrix:	Soil	**Date Received:**	8/31/99
		Date Extracted:	NA

Inorganic Parameters

Sample Name: **Method Blank**
Lab Code: J990831-MB

Analyte	Units	EPA Method	MRL	Date/Time Analyzed	
Chromium, Hexavalent	mg/Kg (ppm	7196A	1	9/16/99 0947	U

U Not detected at or above the MRL.

Approved By: Tom D. Hessinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Soil

Service Request: J9902586
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 9/1-2/99

Surrogate Recovery Summary
Volatile Organic Compounds
EPA Method 8260

Sample Name	Lab Code	Percent Recovery		
		Dibromofluoromethane	Toluene-d_8	4-Bromofluorobenzene
SS-1	J9902586-01	98	105	85
EM-4 8-10'	J9902586-02	97	96	91
EM-5 8-10'	J9902586-03	97	96	89
EM-8 0-2'	J9902586-04	103	104	100
EM-8 2-4'	J9902586-05	97	99	99
EM-6 14-16'	J9902586-06	98	97	94
EM-9 10-12'	J9902586-07	93	96	95
EM-7 14-16'	J9902586-08	97	101	97
EM-10 10-12'	J9902586-09	97	102	96
Method Blank	J990901-MB	98	100	93
Laboratory Control Sample	J990901-LCS	101	97	91
Batch QC	J9902556-02MS	98	100	95
Batch QC	J9902556-02MSD	98	98	93
CAS Acceptance Limits:		83-117	81-119	65-135

Approved By: Tom D. Higgins Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	IT-EMCON	**Service Request:**	J9902586
Project:	Burke Lumber Additional Invest. / 797253 01000000	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
		Date Extracted:	NA
		Date Analyzed:	9/1/99

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds
EPA Method 8260
Units: µg/Kg (ppb)

Sample Name: Batch QC
Lab Code: Batch QC

	Spike Level		Sample	Spike Result		Percent Recovery		EPA Acceptance	Relative Percent
Analyte	**MS**	**DMS**	**Result**	**MS**	**DMS**	**MS**	**DMS**	**Limits**	**Difference**
1,1-Dichloroethene	50	50	U	36	36	72	72	56-126	<1
Benzene	50	50	U	43	45	86	90	55-130	5
Trichloroethene	50	50	U	44	46	88	92	47-130	4
Toluene	50	50	U	43	45	86	90	51-129	5
Chlorobenzene	50	50	U	43	45	86	90	38-131	5

Approved By: Tom D. Hissinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	IT-EMCON	**Service Request:**	J9902586
Project:	Burke Lumber Additional Invest. / 797253 01000000	**Date Collected:**	NA
LCS Matrix:	Soil	**Date Received:**	NA
		Date Extracted:	NA
		Date Analyzed:	9/1/99

Laboratory Control Sample Summary
Volatile Organic Compounds
EPA Method 8260
Units: µg/Kg (ppb)

Analyte	True Value	Result	Percent Recovery	EPA Percent Recovery Acceptance Limits
1,1-Dichloroethene	50	38	76	56-126
Benzene	50	47	94	55-130
Trichloroethene	50	45	90	47-130
Toluene	50	44	88	51-129
Chlorobenzene	50	45	90	38-131

Approved By: Tom D. Hessinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	IT-EMCON	**Service Request:**	J9902586
Project:	Burke Lumber Additional Invest. / 797253 01000000	**Date Collected:**	8/24/99
Sample Matrix:	Soil	**Date Received:**	8/31/99
		Date Extracted:	9/7/99
		Date Analyzed:	9/9/99

Surrogate Recovery Summary
Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3550/8270

		Percent Recovery					
Sample Name	**Lab Code**	NBZ	FBP	TPH	PHL	2FP	TBP
SS-1	J9902586-01	74	88	81	47	51	35
EM-4 8-10'	J9902586-02	78	92	83	54	58	101
EM-5 8-10'	J9902586-03	81	94	91	70	78	101
EM-8 0-2'	J9902586-04	71	74	71	21	32	26
EM-8 2-4'	J9902586-05	58	77	109	19	24	64
EM-6 14-16'	J9902586-06	68	91	76	58	67	103
EM-7 14-16'	J9902586-08	71	93	83	66	75	109
EM-10 10-12'	J9902586-09	68	91	83	60	77	99
Method Blank	J990907-MB	72	85	75	60	70	82
Laboratory Control Sample	J990907-LCS	82	95	83	77	82	103
Batch QC	J9902586-03MS	80	95	90	76	78	108
Batch QC	J9902586-03MS	83	97	91	78	82	111
CAS Acceptance Limits:		35-114	43-116	33-141	10-94	21-100	10-123

NBZ	Nitrobenzene-d5
FBP	2-Fluorobiphenyl
TPH	Terphenyl-d14
PHL	Phenol-d6
2FP	2-Fluorophenol
TBP	2,4,6-Tribromophenol

Approved By: Tom D. Hasinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	IT-EMCON	**Service Request:**	J9902586
Project:	Burke Lumber Additional Invest. / 797253 01000000	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
		Date Extracted:	9/7/99
		Date Analyzed:	9/9/99

Matrix Spike/Duplicate Matrix Spike Summary
Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3550/8270
Units: µg/Kg (ppb)

Sample Name: Batch QC
Lab Code: Batch QC

Analyte	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	CAS Acceptance Limits	Relative Percent Difference
Phenol	5000	5000	U	4000	4150	80	83	56-115	4
2-Chlorophenol	5000	5000	U	4100	4300	82	86	52-117	5
1,4-Dichlorobenzene	2500	2500	U	2000	2150	80	86	60-122	7
N-Nitroso-di-n-propylamine	2500	2500	U	1800	1750	72	70	52-128	3
1,2,4-Trichlorobenzene	2500	2500	U	2450	2500	98	100	63-121	2
4-Chloro-3-methylphenol	5000	5000	U	4750	4600	95	92	59-132	3
Acenaphthene	2500	2500	U	2100	2100	84	84	66-123	<1
4-Nitrophenol	5000	5000	U	4400	4300	88	86	48-144	2
2,4-Dinitrotoluene	2500	2500	U	2050	2000	82	80	63-130	2
Pentachlorophenol	5000	5000	U	3950	4050	79	81	20-161	3
Pyrene	2500	2500	U	2000	2000	80	80	49-120	<1

U Not detected at or above the MRL.

Approved By: Tom D. Hessinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	IT-EMCON	**Service Request:**	J9902586
Project:	Burke Lumber Additional Invest. / 797253 01000000	**Date Collected:**	NA
LCS Matrix:	Soil	**Date Received:**	NA
		Date Extracted:	9/7/99
		Date Analyzed:	9/9/99

Laboratory Control Sample Summary
Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3550/8270
Units: µg/Kg (ppb)

Analyte	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Phenol	5000	4000	80	56-115
2-Chlorophenol	5000	4200	84	52-117
1,4-Dichlorobenzene	2500	2100	84	60-122
N-Nitroso-di-n-propylamine	2500	1750	70	52-128
1,2,4-Trichlorobenzene	2500	2450	98	63-121
4-Chloro-3-methylphenol	5000	4400	88	59-132
Acenaphthene	2500	2100	84	66-123
4-Nitrophenol	5000	3800	76	48-144
2,4-Dinitrotoluene	2500	2000	80	63-130
Pentachlorophenol	5000	1900	38	20-161
Pyrene	2500	1800	72	49-120

Approved By: Tom D. Hessinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Soil

Service Request: J9902586
Date Collected: 8/26/99
Date Received: 8/31/99
Date Extracted: 9/7/99
Date Analyzed: 9/8/99

Surrogate Recovery Summary
Diesel Range Organics
EPA Methods 3550/8100M (DRO)

Sample Name	**Lab Code**	**Percent Recovery** p-Terphenyl
EM-9 10-12'	J9902586-07	85
Method Blank	J990907-MB	87
Lab Control Sample	J990907-LCS	83
Batch QC	J9902568-07MS	78
Batch QC	J9902568-07DMS	80

CAS Acceptance Limits: 36-136

Approved By: Tom D. Higginson Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	IT-EMCON	**Service Request:**	J9902586
Project:	Burke Lumber Additional Invest. / 797253 01000000	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
		Date Extracted:	9/7/99
		Date Analyzed:	9/8/99

Matrix Spike/Duplicate Matrix Spike Summary
Diesel Range Organics
EPA Methods 3550/8100M (DRO)
Units: mg/Kg (ppm)

Sample Name: Batch QC
Lab Code: Batch QC

	Spike Level		Sample	Spike Result		Percent Recovery				
Analyte	MS	DMS	**Result**	MS	DMS	MS	DMS	CAS Acceptance Limits	**Relative Percent Difference**	**CAS RPD Acceptance Limit**
Diesel	250	250	U	205	215	82	86	60-140	5	40

U Not detected at or above the MRL.

Approved By: Tom D. Hissinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	IT-EMCON	**Service Request:**	J9902586
Project:	Burke Lumber Additional Invest. / 797253 01000000	**Date Collected:**	NA
LCS Matrix:	Soil	**Date Received:**	NA
		Date Extracted:	9/7/99
		Date Analyzed:	9/8/99

Laboratory Control Sample
Diesel Range Organics
EPA Methods 3550/8100M (DRO)
Units: mg/Kg (ppm)

			Percent Recovery	
Analyte	**True Value** LCS	**Result** LCS	LCS	CAS Acceptance Limits
Diesel	250	215	86	60-140

Approved By: Tam D. Ilsinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Soil

Service Request: J9902586
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 9/14-18/99

Duplicate Matrix Spike Summary
Total Metals
Units: mg/Kg (ppm)

Sample Name: Batch QC
Lab Code: Batch QC

Analyte	EPA Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Note
Antimony	6010B	2.5	75.8	83.0	79.4	9	
Arsenic	6010B	5.0	87.3	88.4	87.8	1	
Beryllium	6010B	0.15	89.9	93.0	91.4	3	
Cadmium	6010B	0.5	92.5	94.7	93.6	2	
Chromium	6010B	1.5	95.8	98.0	96.9	2	
Copper	6010B	1.25	95.8	98.1	97.0	2	
Lead	6010B	5.0	90.4	92.2	91.3	2	
Mercury	7471A	0.2	0.52	0.54	0.53	4	
Nickel	6010B	2.5	96.9	100	98.4	3	
Selenium	6010B	10.0	84.1	85.9	85.0	2	
Silver	6010B	0.5	43.0	44.2	43.6	3	
Thallium	6010B	50.0	109	102	106	7	
Zinc	6010B	1.5	105	109	107	4	

U Not detected at or above the MRL.

Approved By: Tom D. Hussinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Soil

Service Request: J9902586
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 9/14-18/99

Matrix Spike Summary
Total Metals
Units: mg/Kg (ppm)

Sample Name: Batch QC
Lab Code: Batch QC

Analyte	EPA Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptanc Limits	Result Note
Antimony	6010B	2.5	94.3	U	75.8	80	75-125	
Arsenic	6010B	5.0	94.3	U	87.3	93	75-125	
Beryllium	6010B	0.15	94.3	0.31	89.9	95	75-125	
Cadmium	6010B	0.5	94.3	U	92.5	98	75-125	
Chromium	6010B	1.5	94.3	10.3	95.8	91	75-125	
Copper	6010B	1.25	94.3	7.27	95.8	94	75-125	
Lead	6010B	5.0	94.3	U	90.4	96	75-125	
Mercury	7471A	0.2	0.50	U	0.52	104	75-125	
Nickel	6010B	2.5	94.3	11.7	96.9	90	75-125	
Selenium	6010B	10.0	94.3	U	84.1	89	75-125	
Silver	6010B	0.5	47.1	U	43.0	91	75-125	
Thallium	6010B	50.0	94.3	U	109	116	75-125	
Zinc	6010B	1.5	94.3	15.8	105	95	75-125	

U Not detected at or above the MRL.

Approved By: Tam D. Hassinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	IT-EMCON	**Service Request:**	J9902586
Project:	Burke Lumber Additional Invest. / 797253 01000000	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
		Date Analyzed:	9/14-18/99

Laboratory Control Sample Summary
Total Metals
Units: mg/Kg (ppm)

Analyte	EPA Method	TRUE VALUE	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Antimony	6010B	77.6	54.4	70 (a)	75-125
Arsenic	6010B	36.5	32.4	89	75-125
Beryllium	6010B	77.0	81.6	106	75-125
Cadmium	6010B	34.6	37.0	107	75-125
Chromium	6010B	108	109	101	75-125
Copper	6010B	61.7	66.0	107	75-125
Lead	6010B	50.2	49.0	98	75-125
Mercury	7471A	1.00	0.99	99	75-125
Nickel	6010B	48.4	48.2	100	75-125
Selenium	6010B	45.7	33.1	72 (a)	75-125
Silver	6010B	34.1	35.9	105	75-125
Thallium	6010B	106	113	107	75-125
Zinc	6010B	137	147	107	75-125

a Outside of acceptance limits. Since the associated MS results are acceptable, no further corrective action was taken.

Approved By: Tom D. Kissinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Soil

Service Request: J9902586
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed:

Duplicate Summary
Inorganic Parameters

Sample Name: Batch QC
Lab Code: Batch QC

Analyte	Units	EPA Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference
Chromium, Hexavalent	mg/Kg (ppm	7196A	1	U	U	U	<1
Solids, Total	%	160.3	1	90.4	93.1	91.8	2.94

U Not detected at or above the MRL.

Approved By: Tom D Hissinger Date: 9/21/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: IT-EMCON
Project: Burke Lumber Additional Invest. / 797253 01000000
Sample Matrix: Water

Service Request: J9902586
Date Collected: NA
Date Received: NA
Date Analyzed:

Laboratory Control Sample Summary
Inorganic Parameters

Analyte	Units	EPA Method	TRUE Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Chromium, Hexavalent	mg/Kg (ppm)	7196A	20	19.2	96	75-125

Approved By: Tom D. Hassinger Date: 9/21/99

Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form

Client: IT-EMCON Work order: J9902586
Project: Burke Lumber Additional Invest. / 797253 01000000
Cooler received on 8/31/99 1000 and opened on 8/31/99 1000 by PG

		Yes	No	N/A
1	Were custody seals on outside of cooler?	☒	☐	☐
	If yes, how many and where?	1 on lid		☐
	Were signature and date correct?	☒	☐	☐
2	Were custody papers properly filled out (ink, signed, etc....)?	☒	☐	☐
3	Did all bottles arrive in good condition (unbroken, etc....)?	☒	☐	☐
4	Were all bottle labels correct (analysis, preservation, etc....)?	☒	☐	☐
5	Did all bottle labels and tags agree with custody papers?	☒	☐	☐
6	Were correct bottles used for test indicated?	☒	☐	☐
7	Were VOA vials checked for absence of air bubbles, and noted?	☐	☐	☒
8	Temperature of cooler upon receipt	2.6 Degrees C		

Explain any discrepancies:

		Yes	No
pH	Reagent		
12	NaOH		
2	HNO_3		
2	H_2SO_4		

Yes = all samples OK
No = Samples were preserved at lab as listed

Comments:

Sample I.D.	Reagent	Vol.

APPENDIX C

GROUNDWATER ANALYTICAL DATA

Columbia Analytical Services INC.
An Employee-Owned Company

September 17, 1999

Service Request No. J9902614

Certification Numbers:

Florida DEP:	930298G
Florida HRS:	E82502: 82483
Massachusetts:	M-FL937
New Hampshire:	294297-A; 294297-B
North Carolina:	527
South Carolina:	96021001
A2LA	0490-02

Joe Hayes
EMCON
Chace Mill E-2, 1 Mill Street, Box B15
Burlington, VT 05401

RE: Project No.: 797253-010.00000
Project Name: Burke Lumber Additional Invest.

Dear Joe Hayes:

Enclosed are the results of the samples(s) submitted to our laboratory on September 02, 1999. For your reference, these analyses have been assigned our service request number: J9902614.

All analyses were performed according to our laboratory's quality assurance program. All results are intended to be considered in the entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the samples analyzed.

Please call if you have any questions.

Respectfully submitted,

Columbia Analytical Services, Inc.

Tom Kissinger
Project Chemist

TK/jg

8540 Baymeadows Rd. • Jacksonville, FL 32256 • (904) 739-2277 • Fax (904) 739-2011

Columbia Analytical Services INC.
An Employee Owned Company

CHAIN OF CUSTODY/LABORATORY ANALYSIS REPORT FORM

8540 Baycenter Rd. • Jacksonville, FL 32256 • (904) 739-2277 • 800-695-7222 • FAX (904) 739-2011

DATE 8.31.99 - 9.1.99 PAGE 1 OF 2

PROJECT NAME Burke Lumber Add Invest.
PROJECT # 797253-010.0000
COMPANY/ADDRESS EMCON / IT
Chace Mill, 1 Mill St. E-2 entrance
Burlington, VT 05401 PHONE (802) 658-6889
REPORT TO: Joe Hayes

ANALYSIS REQUEST

SAMPLE I.D.	DATE	TIME	SAMPLE MATRIX	NUMBER OF CONTAINERS	VOC's EPA 8260B	TPH 8100 m	Priority Pollutant Metals	Chromium +6	SVOC's EPA 8270C	REMARKS
EM-10	8.31.99	12:35p	H_2O	5	X		X	X		
EM-9	8.31.99	1:50p	H_2O	4	X	X				
Trip Blank	—	—	water	3	X					
EM-4	8.31.99	2:50p	water	6	X		X	X	X	
EM-6	8.31.99	4:00p	water	6	X		X	X	X	
EM-7	8.31.99	4:45p	water	6	X		X	X	X	
EM-5	8.31.99	5:50p	water	6	X		X	X	X	
EM-8	8.31.99	6:40p	water	6	X		X	X	X	water cloudy
EM-8D	8.31.99	6:50p	water	6	X		X	X	X	water clear

RELINQUISHED BY:
Signature: [signature]
Printed Name: Cynthia Spragins
Firm: EMCON / IT
Date/Time: 9.1.99 1:15pm

RECEIVED BY:
Signature: FED EX
Printed Name:
Firm:
Date/Time:

TURNAROUND REQUIREMENTS
___ 24 hr. ___ 48 hr. ___ 5 day
X Standard (7-10 working days)
___ Provide Verbal Preliminary Results
___ Provide FAX Preliminary Results
Requested Report Date ___

REPORT REQUIREMENTS
X I. Routine Report
___ II. Report (includes DUP, MAS, MSD, as required, may be charged as samples)
___ III. Data Validation Report (includes All Raw Data)
___ IV. CLP Deliverable Report

INVOICE INFORMATION:
P.O.# ___
Bill To ___

SAMPLE RECEIPT:
Shipping VIA: ___
Shipping to: ___
Condition: ___
Lab No: ___

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature: Paul Gunsaulies
Printed Name: Paul Gunsaulies
Firm: CAS
Date/Time: 9/2/99 1000

SPECIAL INSTRUCTIONS/COMMENTS:
J9902614

SAMPLER'S SIGNATURE: [signature]

DISTRIBUTION: WHITE - return to originator; YELLOW - lab; PINK - retained by originator

Columbia Analytical Services

CHAIN OF CUSTODY/LABORATORY ANALYSIS REPORT FORM

8540 Baycenter Rd. • Jacksonville, FL 32256 • (904) 739-2277 • 800-695-7222 • FAX (904) 739-2011

DATE 9.1.99 (8.31) PAGE 2 OF 2

PROJECT NAME Burke Lumber Add Invest

PROJECT # 797253-010.00000

COMPANY/ADDRESS EMCON/IT
Chace Mill, 1 Mill St E-2 Entrance
Burlington, VT 05401 PHONE 802 658-6884

REPORT TO: Joe Hayes

ANALYSIS REQUEST

SAMPLE I.D.	DATE	TIME	SAMPLE MATRIX	NUMBER OF CONTAINERS	EPA 8260B	REMARKS
EM-2	9.1.99	10:45	water	3	X	
EM-1	9.1.99	11:30	water	3	X	
EM-3	9.1.99	12:15	water	3	X	
Trip Blank (lab)	—	—	water	3	X	

RELINQUISHED BY:
Signature: [signature]
Printed Name: Cynthia Sprague
Firm: EMCON/IT
Date/Time: 9.1.99 1:15 pm

RECEIVED BY:
Signature: Fed Ex
Printed Name:
Firm:
Date/Time:

TURNAROUND REQUIREMENTS
___ 24 hr. ___ 48 hr. ___ 5 day
X Standard (7-10 working days)
___ Provide Verbal Preliminary Results
___ Provide FAX Preliminary Results
Requested Report Date ___

REPORT REQUIREMENTS
X I. Routine Report
___ II. Report (includes DUP, MAS, MSD, as required, may be charged as samples)
___ III. Data Validation Report (includes All Raw Data)
___ IV. CLP Deliverable Report

INVOICE INFORMATION:
P.O.# ___
Bill To ___

SAMPLE RECEIPT:
Shipping VIA: ___
Shipping to: ___
Condition: ___
Lab No: ___

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature: [signature]
Printed Name: Paul Gunsaulies
Firm: CAS
Date/Time: 9/2/99 1000

SPECIAL INSTRUCTIONS/COMMENTS:

J9906/4

SAMPLER'S SIGNATURE: [signature]

DISTRIBUTION: WHITE - [illegible] YELLOW - lab; PINK - retained by originator

Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form

Client: EMCON Work order: J9902614

Project: Burke Lumber Additional Invest. / 797253-010.00000

Cooler received on 09/02/99 100and opened on 09/02/99 100 by PG

		Yes	No	N/A
1	Were custody seals on outside of cooler?	☒	☐	☐
	If yes, how many and where?	1 on lid		☐
	Were signature and date correct?	☒	☐	☐
2	Were custody papers properly filled out (ink, signed, etc....)?	☒	☐	☐
3	Did all bottles arrive in good condition (unbroken, etc....)?	☒	☐	☐
4	Were all bottle labels correct (analysis, preservation, etc....)?	☒	☐	☐
5	Did all bottle labels and tags agree with custody papers?	☒	☐	☐
6	Were correct bottles used for test indicated?	☒	☐	☐
7	Were VOA vials checked for absence of air bubbles, and noted?	☒	☐	☐
8	Temperature of cooler upon receipt	3.1 Degrees C		

Explain any discrepancies:

		Yes	No
pH	Reagent		
12	NaOH		
2	HNO_3	X	
2	H_2SO_4	X	

Yes = all samples OK
No = Samples were preserved at lab as listed

Comments:

Sample I.D.	Reagent	Vol.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
Sample Matrix: Water

Service Request: J9902614
Date Collected: 8/31-9/1/99
Date Received: 9/2/99
Date Extracted: NA

Volatile Organic Compounds
EPA Method 8260
Units: µg/L (ppb)

		Sample Name:	**EM-10**	**EM-9**	**Trip Blank**
		Lab Code:	J9902614-01	J9902614-02	J9902614-03
		Date Analyzed:	9/11/99	9/11/99	9/12/99
Analyte	**MRL**				
Acetone	50		U	U	U
Acrolein	10		U	U	U
Acrylonitrile	8		U	U	U
Benzene	1		U	U	U
Bromodichloromethane	1		U	U	U
Bromoform	1		U	U	U
Bromomethane	1		U	U	U
2-Butanone (MEK)	10		U	U	U
Carbon Disulfide	1		U	U	U
Carbon Tetrachloride	1		U	U	U
Chlorobenzene	1		U	U	U
Chloroethane	1		U	U	U
Chloroform	1		U	U	U
Chloromethane	1		U	U	U
2-Chloroethyl Vinyl Ether	10		U	U	U
Dibromochloromethane	1		U	U	U
1,2-Dibromo-3-chloropropane (DBCP)	10		U	U	U
1,2-Dibromoethane (EDB)	1		U	U	U
1,2-Dichlorobenzene	1		U	U	U
1,3-Dichlorobenzene	1		U	U	U
1,4-Dichlorobenzene	1		U	U	U
trans-1,4-Dichloro-2-butene	10		U	U	U
1,1-Dichloroethane	1		U	U	U
1,2-Dichloroethane	1		U	U	U
1,1-Dichloroethene	1		U	U	U
cis-1,2-Dichloroethene	1		U	U	U
trans-1,2-Dichloroethene	1		U	U	U
Dichlorodifluoromethane	1		U	U	U
Ethylbenzene	1		U	U	U
Ethyl Methacrylate	5		U	U	U
2-Hexanone	10		U	U	U
Iodomethane	10		U	U	U
Methylene Chloride	5		U	U	U
4-Methyl-2-pentanone (MIBK)	10		U	U	U
Styrene	1		U	U	U
1,1,1,2-Tetrachloroethane	1		U	U	U
1,1,2,2-Tetrachloroethane	1		U	U	U
Tetrachloroethene (PCE)	1		U	U	U
Toluene	1		U	U	U
1,1,1-Trichloroethane (TCA)	1		U	U	U
1,1,2-Trichloroethane	1		U	U	U
Trichloroethene (TCE)	1		U	U	U
Trichlorofluoromethane (CFC 11)	1		U	U	U
1,2,3-Trichloropropane	1		U	U	U
Vinyl Acetate	10		U	U	U
Vinyl Chloride	1		U	U	U
Total Xylenes	2		U	U	U

U Not detected at or above the MRL.

Approved By: Tom D. Hissinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
Sample Matrix: Water

Service Request: J9902614
Date Collected: 8/31-9/1/99
Date Received: 9/2/99
Date Extracted: NA

Volatile Organic Compounds
EPA Method 8260
Units: µg/L (ppb)

		Sample Name:	EM-4	EM-6	EM-7
		Lab Code:	J9902614-04	J9902614-05	J9902614-06
		Date Analyzed:	9/12/99	9/12/99	9/12/99
Analyte	**MRL**				
Acetone	50		U	U	U
Acrolein	10		U	U	U
Acrylonitrile	8		U	U	U
Benzene	1		U	U	U
Bromodichloromethane	1		U	U	U
Bromoform	1		U	U	U
Bromomethane	1		U	U	U
2-Butanone (MEK)	10		U	U	U
Carbon Disulfide	1		U	U	U
Carbon Tetrachloride	1		U	U	U
Chlorobenzene	1		U	U	U
Chloroethane	1		U	U	U
Chloroform	1		U	U	U
Chloromethane	1		U	U	U
2-Chloroethyl Vinyl Ether	10		U	U	U
Dibromochloromethane	1		U	U	U
1,2-Dibromo-3-chloropropane (DBCP)	10		U	U	U
1,2-Dibromoethane (EDB)	1		U	U	U
1,2-Dichlorobenzene	1		U	U	U
1,3-Dichlorobenzene	1		U	U	U
1,4-Dichlorobenzene	1		U	U	U
trans -1,4-Dichloro-2-butene	10		U	U	U
1,1-Dichloroethane	1		U	U	U
1,2-Dichloroethane	1		U	U	U
1,1-Dichloroethene	1		U	U	U
cis -1,2-Dichloroethene	1		U	U	U
trans -1,2-Dichloroethene	1		U	U	U
Dichlorodifluoromethane	1		U	U	U
Ethylbenzene	1		U	U	U
Ethyl Methacrylate	5		U	U	U
2-Hexanone	10		U	U	U
Iodomethane	10		U	U	U
Methylene Chloride	5		U	U	U
4-Methyl-2-pentanone (MIBK)	10		U	U	U
Styrene	1		U	U	U
1,1,1,2-Tetrachloroethane	1		U	U	U
1,1,2,2-Tetrachloroethane	1		U	U	U
Tetrachloroethene (PCE)	1		U	U	U
Toluene	1		U	U	U
1,1,1-Trichloroethane (TCA)	1		U	U	U
1,1,2-Trichloroethane	1		U	U	U
Trichloroethene (TCE)	1		U	U	U
Trichlorofluoromethane (CFC 11)	1		U	U	U
1,2,3-Trichloropropane	1		U	U	U
Vinyl Acetate	10		U	U	U
Vinyl Chloride	1		U	U	U
Total Xylenes	2		U	U	U

U Not detected at or above the MRL.

Approved By: Tom D. Hessinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
Sample Matrix: Water

Service Request: J9902614
Date Collected: 8/31-9/1/99
Date Received: 9/2/99
Date Extracted: NA

Volatile Organic Compounds
EPA Method 8260
Units: µg/L (ppb)

	Sample Name:	EM-5	EM-8	EM-8D
	Lab Code:	J9902614-07	J9902614-08	J9902614-09
	Date Analyzed:	9/12/99	9/12/99	9/12/99
Analyte	**MRL**			
Acetone	50	U	U	U
Acrolein	10	U	U	U
Acrylonitrile	8	U	U	U
Benzene	1	U	U	U
Bromodichloromethane	1	U	U	U
Bromoform	1	U	U	U
Bromomethane	1	U	U	U
2-Butanone (MEK)	10	U	U	U
Carbon Disulfide	1	U	U	U
Carbon Tetrachloride	1	U	U	U
Chlorobenzene	1	U	U	U
Chloroethane	1	U	1	3
Chloroform	1	U	U	U
Chloromethane	1	U	U	U
2-Chloroethyl Vinyl Ether	10	U	U	U
Dibromochloromethane	1	U	U	U
1,2-Dibromo-3-chloropropane (DBCP)	10	U	U	U
1,2-Dibromoethane (EDB)	1	U	U	U
1,2-Dichlorobenzene	1	U	U	U
1,3-Dichlorobenzene	1	U	U	U
1,4-Dichlorobenzene	1	U	U	U
trans -1,4-Dichloro-2-butene	10	U	U	U
1,1-Dichloroethane	1	U	4	6
1,2-Dichloroethane	1	U	U	U
1,1-Dichloroethene	1	U	U	U
cis -1,2-Dichloroethene	1	U	2	3
trans -1,2-Dichloroethene	1	U	U	U
Dichlorodifluoromethane	1	U	U	U
Ethylbenzene	1	U	U	U
Ethyl Methacrylate	5	U	U	U
2-Hexanone	10	U	U	U
Iodomethane	10	U	U	U
Methylene Chloride	5	U	U	U
4-Methyl-2-pentanone (MIBK)	10	U	U	U
Styrene	1	U	U	U
1,1,1,2-Tetrachloroethane	1	U	U	U
1,1,2,2-Tetrachloroethane	1	U	U	U
Tetrachloroethene (PCE)	1	U	1	2
Toluene	1	U	U	U
1,1,1-Trichloroethane (TCA)	1	U	2	4
1,1,2-Trichloroethane	1	U	U	U
Trichloroethene (TCE)	1	U	U	U
Trichlorofluoromethane (CFC 11)	1	U	U	U
1,2,3-Trichloropropane	1	U	U	U
Vinyl Acetate	10	U	U	U
Vinyl Chloride	1	U	U	U
Total Xylenes	2	U	U	U

U Not detected at or above the MRL.

Approved By: Tom D. Tessmier Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
Sample Matrix: Water

Service Request: J9902614
Date Collected: 8/31-9/1/99
Date Received: 9/2/99
Date Extracted: NA

Volatile Organic Compounds
EPA Method 8260
Units: µg/L (ppb)

		Sample Name:	**EM-2**	**EM-1**	**EM-3**
		Lab Code:	J9902614-10	J9902614-11	J9902614-12
		Date Analyzed:	9/12/99	9/12/99	9/12/99
Analyte	**MRL**				
Acetone	50		U	U	U
Acrolein	10		U	U	U
Acrylonitrile	8		U	U	U
Benzene	1		U	U	U
Bromodichloromethane	1		U	U	U
Bromoform	1		U	U	U
Bromomethane	1		U	U	U
2-Butanone (MEK)	10		U	U	U
Carbon Disulfide	1		U	U	U
Carbon Tetrachloride	1		U	U	U
Chlorobenzene	1		U	U	U
Chloroethane	1		U	U	U
Chloroform	1		U	U	U
Chloromethane	1		U	U	U
2-Chloroethyl Vinyl Ether	10		U	U	U
Dibromochloromethane	1		U	U	U
1,2-Dibromo-3-chloropropane (DBCP)	10		U	U	U
1,2-Dibromoethane (EDB)	1		U	U	U
1,2-Dichlorobenzene	1		U	U	U
1,3-Dichlorobenzene	1		U	U	U
1,4-Dichlorobenzene	1		U	U	U
trans-1,4-Dichloro-2-butene	10		U	U	U
1,1-Dichloroethane	1		U	U	U
1,2-Dichloroethane	1		U	U	U
1,1-Dichloroethene	1		U	U	U
cis-1,2-Dichloroethene	1		U	U	U
trans-1,2-Dichloroethene	1		U	U	U
Dichlorodifluoromethane	1		U	U	U
Ethylbenzene	1		U	U	U
Ethyl Methacrylate	5		U	U	U
2-Hexanone	10		U	U	U
Iodomethane	10		U	U	U
Methylene Chloride	5		U	U	U
4-Methyl-2-pentanone (MIBK)	10		U	U	U
Styrene	1		U	U	U
1,1,1,2-Tetrachloroethane	1		U	U	U
1,1,2,2-Tetrachloroethane	1		U	U	U
Tetrachloroethene (PCE)	1		U	U	U
Toluene	1		U	U	U
1,1,1-Trichloroethane (TCA)	1		U	U	U
1,1,2-Trichloroethane	1		U	U	U
Trichloroethene (TCE)	1		U	U	U
Trichlorofluoromethane (CFC 11)	1		U	U	U
1,2,3-Trichloropropane	1		U	U	U
Vinyl Acetate	10		U	U	U
Vinyl Chloride	1		U	U	U
Total Xylenes	2		U	U	U

U Not detected at or above the MRL.

Approved By: Tom D. Lissinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
Sample Matrix: Water

Service Request: J9902614
Date Collected: 8/31-9/1/99
Date Received: 9/2/99
Date Extracted: NA

Volatile Organic Compounds
EPA Method 8260
Units: µg/L (ppb)

REVISED
9-22-99

	Sample Name:	EM-2	EM-1	EM-3
	Lab Code:	J9902614-10	J9902614-11	J9902614-12
	Date Analyzed:	9/12/99	9/12/99	9/12/99
Analyte	**MRL**			
Acetone	50	U	U	U
Acrolein	10	U	U	U
Acrylonitrile	8	U	U	U
Benzene	1	U	U	U
Bromodichloromethane	1	U	U	U
Bromoform	1	U	U	U
Bromomethane	1	U	U	U
2-Butanone (MEK)	10	U	U	U
Carbon Disulfide	1	U	U	U
Carbon Tetrachloride	1	U	U	U
Chlorobenzene	1	U	U	U
Chloroethane	1	U	U	U
Chloroform	1	U	U	U
Chloromethane	1	U	U	U
2-Chloroethyl Vinyl Ether	10	U	U	U
Dibromochloromethane	1	U	U	U
1,2-Dibromo-3-chloropropane (DBCP)	10	U	U	U
1,2-Dibromoethane (EDB)	1	U	U	U
1,2-Dichlorobenzene	1	U	U	U
1,3-Dichlorobenzene	1	U	U	U
1,4-Dichlorobenzene	1	U	U	U
trans -1,4-Dichloro-2-butene	10	U	U	U
1,1-Dichloroethane	1	U	U	U
1,2-Dichloroethane	1	U	U	U
1,1-Dichloroethene	1	U	U	U
cis -1,2-Dichloroethene	1	U	U	U
trans -1,2-Dichloroethene	1	U	U	U
Dichlorodifluoromethane	1	U	U	U
Ethylbenzene	1	U	U	U
Ethyl Methacrylate	5	U	U	U
2-Hexanone	10	U	U	U
Iodomethane	10	U	U	U
Methylene Chloride	5	U	U	U
4-Methyl-2-pentanone (MIBK)	10	U	U	U
Styrene	1	U	U	U
1,1,1,2-Tetrachloroethane	1	U	U	U
1,1,2,2-Tetrachloroethane	1	U	U	U
Tetrachloroethene (PCE)	1	U	U	U
Toluene	1	U	U	U
1,1,1-Trichloroethane (TCA)	1	U	U	U
1,1,2-Trichloroethane	1	U	U	U
Trichloroethene (TCE)	1	U	U	U
Trichlorofluoromethane (CFC 11)	1	U	U	U
1,2,3-Trichloropropane	1	U	U	U
Vinyl Acetate	10	U	U	U
Vinyl Chloride	1	U	U	U
Total Xylenes	2	U	U	U
Naphthalene	1	U	U	U

U Not detected at or above the MRL.

Approved By: Tam D. Kissinger Date: 9/22/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
Sample Matrix: Water

Service Request: J9902614
Date Collected: 8/31-9/1/99
Date Received: 9/2/99
Date Extracted: NA

Volatile Organic Compounds
EPA Method 8260
Units: µg/L (ppb)

		Sample Name:	**Trip Blank (lab)**	**Method Blank**
		Lab Code:	J9902614-13	J990911-MB
		Date Analyzed:	9/12/99	9/11/99
Analyte	**MRL**			
Acetone	50		U	U
Acrolein	10		U	U
Acrylonitrile	8		U	U
Benzene	1		U	U
Bromodichloromethane	1		U	U
Bromoform	1		U	U
Bromomethane	1		U	U
2-Butanone (MEK)	10		U	U
Carbon Disulfide	1		U	U
Carbon Tetrachloride	1		U	U
Chlorobenzene	1		U	U
Chloroethane	1		U	U
Chloroform	1		U	U
Chloromethane	1		U	U
2-Chloroethyl Vinyl Ether	10		U	U
Dibromochloromethane	1		U	U
1,2-Dibromo-3-chloropropane (DBCP)	10		U	U
1,2-Dibromoethane (EDB)	1		U	U
1,2-Dichlorobenzene	1		U	U
1,3-Dichlorobenzene	1		U	U
1,4-Dichlorobenzene	1		U	U
trans -1,4-Dichloro-2-butene	10		U	U
1,1-Dichloroethane	1		U	U
1,2-Dichloroethane	1		U	U
1,1-Dichloroethene	1		U	U
cis -1,2-Dichloroethene	1		U	U
trans -1,2-Dichloroethene	1		U	U
Dichlorodifluoromethane	1		U	U
Ethylbenzene	1		U	U
Ethyl Methacrylate	5		U	U
2-Hexanone	10		U	U
Iodomethane	10		U	U
Methylene Chloride	5		U	U
4-Methyl-2-pentanone (MIBK)	10		U	U
Styrene	1		U	U
1,1,1,2-Tetrachloroethane	1		U	U
1,1,2,2-Tetrachloroethane	1		U	U
Tetrachloroethene (PCE)	1		U	U
Toluene	1		U	U
1,1,1-Trichloroethane (TCA)	1		U	U
1,1,2-Trichloroethane	1		U	U
Trichloroethene (TCE)	1		U	U
Trichlorofluoromethane (CFC 11)	1		U	U
1,2,3-Trichloropropane	1		U	U
Vinyl Acetate	10		U	U
Vinyl Chloride	1		U	U
Total Xylenes	2		U	U

U Not detected at or above the MRL.

Approved By: Tom D. Hessinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	EMCON	**Service Request:**	J9902614
Project:	Burke Lumber Additional Invest. / 797253-010.00000	**Date Collected:**	8/31/99
Sample Matrix:	Water	**Date Received:**	9/2/99
		Date Extracted:	9/2/99

Base Neutral/Acid Semivolatile Organic Compounds
EPA Methods 3510/8270
Units: µg/L (ppb)

	Sample Name:	EM-4	EM-6	EM-7
	Lab Code:	J9902614-04	J9902614-05	J9902614-06
	Date Analyzed:	9/13/99	9/13/99	9/13/99
Analyte	**MRL**			
Acenaphthene	5	U	U	U
Acenaphthylene	5	U	U	U
Acetophenone	5	U	U	U
4-Aminobiphenyl	5	U	U	U
Aniline	5	U	U	U
Anthracene	5	U	U	U
Azobenzene	5	U	U	U
Benzidine	20	U	U	U
Benz(a)anthracene	5	U	U	U
Benzo(a)pyrene	5	U	U	U
Benzo(b)fluoranthene	5	U	U	U
Benzo(ghi)perylene	5	U	U	U
Benzo(k)fluoranthene	5	U	U	U
Benzyl alcohol	5	U	U	U
Bis(2-chloroethoxy)methane	5	U	U	U
Bis(2-chloroethyl) Ether	5	U	U	U
Bis(2-chloroisopropyl) Ether	5	U	U	U
Bis(2-ethylhexyl) Phthalate	5	U	U	U
4-Bromophenyl Phenyl Ether	5	U	U	U
Butyl Benzyl Phthalate	5	U	U	U
4-Chloro-3-methylphenol	20	U	U	U
4-Chloroaniline	5	U	U	U
1-Chloronaphthalene	5	U	U	U

U Not detected at or above the MRL.

Approved By: Tom D. Hassinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
Sample Matrix: Water

Service Request: J9902614
Date Collected: 8/31/99
Date Received: 9/2/99
Date Extracted: 9/2/99

Base Neutral/Acid Semivolatile Organic Compounds
EPA Methods 3510/8270
Units: µg/L (ppb)

Sample Name:		EM-5	EM-8	EM-8D
Lab Code:		J9902614-07	J9902614-08	J9902614-09
Date Analyzed:		9/13/99	9/13/99	9/13/99
Analyte	**MRL**			
Acenaphthene	5	U	U	U
Acenaphthylene	5	U	U	U
Acetophenone	5	U	U	U
4-Aminobiphenyl	5	U	U	U
Aniline	5	U	U	U
Anthracene	5	U	U	U
Azobenzene	5	U	U	U
Benzidine	20	U	U	U
Benz(a)anthracene	5	U	U	U
Benzo(a)pyrene	5	U	U	U
Benzo(b)fluoranthene	5	U	U	U
Benzo(ghi)perylene	5	U	U	U
Benzo(k)fluoranthene	5	U	U	U
Benzyl alcohol	5	U	U	U
Bis(2-chloroethoxy)methane	5	U	U	U
Bis(2-chloroethyl) Ether	5	U	U	U
Bis(2-chloroisopropyl) Ether	5	U	U	U
Bis(2-ethylhexyl) Phthalate	5	U	U	U
4-Bromophenyl Phenyl Ether	5	U	U	U
Butyl Benzyl Phthalate	5	U	U	U
4-Chloro-3-methylphenol	20	U	U	U
4-Chloroaniline	5	U	U	U
1-Chloronaphthalene	5	U	U	U

U Not detected at or above the MRL.

Approved By: Tom D. Thessing Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	EMCON	**Service Request:**	J9902614
Project:	Burke Lumber Additional Invest. / 797253-010.00000	**Date Collected:**	8/31/99
Sample Matrix:	Water	**Date Received:**	9/2/99
		Date Extracted:	9/2/99

Base Neutral/Acid Semivolatile Organic Compounds
EPA Methods 3510/8270
Units: µg/L (ppb)

Sample Name:	**Method Blank**
Lab Code:	J990831-MB
Date Analyzed:	9/13/99

Analyte	**MRL**	
Acenaphthene	5	U
Acenaphthylene	5	U
Acetophenone	5	U
4-Aminobiphenyl	5	U
Aniline	5	U
Anthracene	5	U
Azobenzene	5	U
Benzidine	20	U
Benz(a)anthracene	5	U
Benzo(a)pyrene	5	U
Benzo(b)fluoranthene	5	U
Benzo(ghi)perylene	5	U
Benzo(k)fluoranthene	5	U
Benzyl alcohol	5	U
Bis(2-chloroethoxy)methane	5	U
Bis(2-chloroethyl) Ether	5	U
Bis(2-chloroisopropyl) Ether	5	U
Bis(2-ethylhexyl) Phthalate	5	U
4-Bromophenyl Phenyl Ether	5	U
Butyl Benzyl Phthalate	5	U
4-Chloro-3-methylphenol	20	U
4-Chloroaniline	5	U
1-Chloronaphthalene	5	U

U Not detected at or above the MRL.

Approved By: Tom D. Hassinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
Sample Matrix: Water

Service Request: J9902614
Date Collected: 8/31/99
Date Received: 9/2/99
Date Extracted: 9/2/99

Base Neutral/Acid Semivolatile Organic Compounds
EPA Methods 3510/8270
Units: µg/L (ppb)

	Sample Name:	**EM-4**	**EM-6**	**EM-7**
	Lab Code:	J9902614-04	J9902614-05	J9902614-06
	Date Analyzed:	9/13/99	9/13/99	9/13/99
Analyte	**MRL**			
2-Chloronaphthalene	5	U	U	U
2-Chlorophenol	5	U	U	U
4-Chlorophenyl Phenyl Ether	5	U	U	U
Chrysene	5	U	U	U
Di-n-butyl Phthalate	5	U	U	U
Di-n-octyl Phthalate	5	U	U	U
Dibenz(a,j)acridine	5	U	U	U
Dibenz(a,h)anthracene	5	U	U	U
Dibenzofuran	5	U	U	U
1,2-Dichlorobenzene	5	U	U	U
1,3-Dichlorobenzene	5	U	U	U
1,4-Dichlorobenzene	5	U	U	U
3,3'-Dichlorobenzidine	20	U	U	U
2,4-Dichlorophenol	5	U	U	U
2,6-Dichlorophenol	5	U	U	U
Diethyl Phthalate	5	U	U	U
7,12-Dimethybenz(a)anthracene	5	U	U	U
2,4-Dimethylphenol	5	U	U	U
Dimethyl Phthalate	5	U	U	U
2,4-Dinitrophenol	20	U	U	U
2,4-Dinitrotoluene	5	U	U	U

U Not detected at or above the MRL.

Approved By: Tom D. Hissinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	EMCON	**Service Request:**	J9902614
Project:	Burke Lumber Additional Invest. / 797253-010.00000	**Date Collected:**	8/31/99
Sample Matrix:	Water	**Date Received:**	9/2/99
		Date Extracted:	9/2/99

Base Neutral/Acid Semivolatile Organic Compounds
EPA Methods 3510/8270
Units: µg/L (ppb)

		Sample Name:	**EM-5**	**EM-8**	**EM-8D**
		Lab Code:	J9902614-07	J9902614-08	J9902614-09
		Date Analyzed:	9/13/99	9/13/99	9/13/99
Analyte	**MRL**				
2-Chloronaphthalene	5		U	U	U
2-Chlorophenol	5		U	U	U
4-Chlorophenyl Phenyl Ether	5		U	U	U
Chrysene	5		U	U	U
Di-n-butyl Phthalate	5		U	U	U
Di-n-octyl Phthalate	5		U	U	U
Dibenz(a,j)acridine	5		U	U	U
Dibenz(a,h)anthracene	5		U	U	U
Dibenzofuran	5		U	U	U
1,2-Dichlorobenzene	5		U	U	U
1,3-Dichlorobenzene	5		U	U	U
1,4-Dichlorobenzene	5		U	U	U
3,3'-Dichlorobenzidine	20		U	U	U
2,4-Dichlorophenol	5		U	U	U
2,6-Dichlorophenol	5		U	U	U
Diethyl Phthalate	5		U	U	U
7,12-Dimethybenz(a)anthracene	5		U	U	U
2,4-Dimethylphenol	5		U	U	U
Dimethyl Phthalate	5		U	U	U
2,4-Dinitrophenol	20		U	U	U
2,4-Dinitrotoluene	5		U	U	U

U Not detected at or above the MRL.

Approved By: Tom D. Kissinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
Sample Matrix: Water

Service Request: J9902614
Date Collected: 8/31/99
Date Received: 9/2/99
Date Extracted: 9/2/99

Base Neutral/Acid Semivolatile Organic Compounds
EPA Methods 3510/8270
Units: µg/L (ppb)

Sample Name:	**Method Blank**
Lab Code:	J990831-MB
Date Analyzed:	9/13/99

Analyte	**MRL**	
2-Chloronaphthalene	5	U
2-Chlorophenol	5	U
4-Chlorophenyl Phenyl Ether	5	U
Chrysene	5	U
Di-n-butyl Phthalate	5	U
Di-n-octyl Phthalate	5	U
Dibenz(a,j)acridine	5	U
Dibenz(a,h)anthracene	5	U
Dibenzofuran	5	U
1,2-Dichlorobenzene	5	U
1,3-Dichlorobenzene	5	U
1,4-Dichlorobenzene	5	U
3,3'-Dichlorobenzidine	20	U
2,4-Dichlorophenol	5	U
2,6-Dichlorophenol	5	U
Diethyl Phthalate	5	U
7,12-Dimethybenz(a)anthracene	5	U
2,4-Dimethylphenol	5	U
Dimethyl Phthalate	5	U
2,4-Dinitrophenol	20	U
2,4-Dinitrotoluene	5	U

U Not detected at or above the MRL.

Approved By: Tom D. Hobson Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	EMCON	**Service Request:**	J9902614
Project:	Burke Lumber Additional Invest. / 797253-010.00000	**Date Collected:**	8/31/99
Sample Matrix:	Water	**Date Received:**	9/2/99
		Date Extracted:	9/2/99

Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3510/8270
Units: µg/L (ppb)

		Sample Name:	**EM-4**	**EM-6**	**EM-7**
		Lab Code:	J9902614-04	J9902614-05	J9902614-06
		Date Analyzed:	9/13/99	9/13/99	9/13/99
Analyte	**MRL**				
2,6-Dinitrotoluene	5		U	U	U
Diphenylamine	5		U	U	U
Fluoranthene	5		U	U	U
Fluorene	5		U	U	U
Hexachlorobenzene	5		U	U	U
Hexachlorobutadiene	5		U	U	U
Hexachlorocyclopentadiene	5		U	U	U
Hexachloroethane	5		U	U	U
Indeno(1,2,3-cd)pyrene	5		U	U	U
Isophorone	5		U	U	U
2-Methyl-4,6-dinitrophenol	20		U	U	U
3-Methylcholanthrene	5		U	U	U
2-Methylnaphthalene	5		U	U	U
2-Methyphenol	5		U	U	U
3- & 4-Methyphenol*	5		U	U	U
N-nitrosodi-n-butylamine	5		U	U	U
N-Nitrosodi-n-propylamine	5		U	U	U
N-Nitrosodimethylamine	5		U	U	U
N-Nitrosodiphenylamine	5		U	U	U
N-nitrosopiperidine	5		U	U	U
Naphthalene	5		U	U	U

U Not detected at or above the MRL.
* Quantified as 4-Methylphenol.

Approved By: Tom D. Kissinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
Sample Matrix: Water

Service Request: J9902614
Date Collected: 8/31/99
Date Received: 9/2/99
Date Extracted: 9/2/99

Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3510/8270
Units: µg/L (ppb)

Sample Name:		EM-5	EM-8	EM-8D
Lab Code:		J9902614-07	J9902614-08	J9902614-09
Date Analyzed:		9/13/99	9/13/99	9/13/99
Analyte	**MRL**			
2,6-Dinitrotoluene	5	U	U	U
Diphenylamine	5	U	U	U
Fluoranthene	5	U	U	U
Fluorene	5	U	U	U
Hexachlorobenzene	5	U	U	U
Hexachlorobutadiene	5	U	U	U
Hexachlorocyclopentadiene	5	U	U	U
Hexachloroethane	5	U	U	U
Indeno(1,2,3-cd)pyrene	5	U	U	U
Isophorone	5	U	U	U
2-Methyl-4,6-dinitrophenol	20	U	U	U
3-Methylcholanthrene	5	U	U	U
2-Methylnaphthalene	5	U	U	U
2-Methyphenol	5	U	U	U
3- & 4-Methyphenol*	5	U	U	U
N-nitrosodi-n-butylamine	5	U	U	U
N-Nitrosodi-n-propylamine	5	U	U	U
N-Nitrosodimethylamine	5	U	U	U
N-Nitrosodiphenylamine	5	U	U	U
N-nitrosopiperidine	5	U	U	U
Naphthalene	5	U	U	U

U Not detected at or above the MRL.
* Quantified as 4-Methylphenol.

Approved By: Tom D. Hassinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	EMCON	**Service Request:**	J9902614
Project:	Burke Lumber Additional Invest. / 797253-010.00000	**Date Collected:**	8/31/99
Sample Matrix:	Water	**Date Received:**	9/2/99
		Date Extracted:	9/2/99

Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3510/8270
Units: µg/L (ppb)

Sample Name:	**Method Blank**
Lab Code:	J990831-MB
Date Analyzed:	9/13/99

Analyte	**MRL**	
2,6-Dinitrotoluene	5	U
Diphenylamine	5	U
Fluoranthene	5	U
Fluorene	5	U
Hexachlorobenzene	5	U
Hexachlorobutadiene	5	U
Hexachlorocyclopentadiene	5	U
Hexachloroethane	5	U
Indeno(1,2,3-cd)pyrene	5	U
Isophorone	5	U
2-Methyl-4,6-dinitrophenol	20	U
3-Methylcholanthrene	5	U
2-Methylnaphthalene	5	U
2-Methyphenol	5	U
3- & 4-Methyphenol*	5	U
N-nitrosodi-n-butylamine	5	U
N-Nitrosodi-n-propylamine	5	U
N-Nitrosodimethylamine	5	U
N-Nitrosodiphenylamine	5	U
N-nitrosopiperidine	5	U
Naphthalene	5	U

U Not detected at or above the MRL.
* Quantified as 4-Methylphenol.

Approved By: Tam D. Kissinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
Sample Matrix: Water

Service Request: J9902614
Date Collected: 8/31/99
Date Received: 9/2/99
Date Extracted: 9/2/99

Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3510/8270
Units: µg/L (ppb)

Sample Name:		EM-4	EM-6	EM-7
Lab Code:		J9902614-04	J9902614-05	J9902614-06
Date Analyzed:		9/13/99	9/13/99	9/13/99
Analyte	**MRL**			
1-Naphthylamine	5	U	U	U
2-Naphthylamine	5	U	U	U
2-Nitroaniline	5	U	U	U
3-Nitroaniline	5	U	U	U
4-Nitroaniline	5	U	U	U
Nitrobenzene	5	U	U	U
2-Nitrophenol	5	U	U	U
4-Nitrophenol	20	U	U	U
p-dimethylaminoazobenzene	5	U	U	U
Pentachlorobenzene	5	U	U	U
Pentachloronitrobenzene	5	U	U	U
Pentachlorophenol	20	U	U	U
Phenacetin	5	U	U	U
Phenanthrene	5	U	U	U
Phenol	5	U	U	U
2-Picoline	5	U	U	U
Pronamide	5	U	U	U
Pyrene	5	U	U	U
1,2,4,5-Tetrachlorobenzene	5	U	U	U
2,3,4,6-Tetrachlorophenol	5	U	U	U
1,2,4-Trichlorobenzene	5	U	U	U
2,4,5-Trichlorophenol	5	U	U	U
2,4,6-Trichlorophenol	5	U	U	U

U Not detected at or above the MRL.

Approved By: Tom D. Hissinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
Sample Matrix: Water

Service Request: J9902614
Date Collected: 8/31/99
Date Received: 9/2/99
Date Extracted: 9/2/99

Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3510/8270
Units: µg/L (ppb)

Sample Name:		**EM-5**	**EM-8**	**EM-8D**
Lab Code:		J9902614-07	J9902614-08	J9902614-09
Date Analyzed:		9/13/99	9/13/99	9/13/99
Analyte	**MRL**			
1-Naphthylamine	5	U	U	U
2-Naphthylamine	5	U	U	U
2-Nitroaniline	5	U	U	U
3-Nitroaniline	5	U	U	U
4-Nitroaniline	5	U	U	U
Nitrobenzene	5	U	U	U
2-Nitrophenol	5	U	U	U
4-Nitrophenol	20	U	U	U
p-dimethylaminoazobenzene	5	U	U	U
Pentachlorobenzene	5	U	U	U
Pentachloronitrobenzene	5	U	U	U
Pentachlorophenol	20	U	U	U
Phenacetin	5	U	U	U
Phenanthrene	5	U	U	U
Phenol	5	U	U	U
2-Picoline	5	U	U	U
Pronamide	5	U	U	U
Pyrene	5	U	U	U
1,2,4,5-Tetrachlorobenzene	5	U	U	U
2,3,4,6-Tetrachlorophenol	5	U	U	U
1,2,4-Trichlorobenzene	5	U	U	U
2,4,5-Trichlorophenol	5	U	U	U
2,4,6-Trichlorophenol	5	U	U	U

U Not detected at or above the MRL.

Approved By: Tom D. Hessinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
Sample Matrix: Water

Service Request: J9902614
Date Collected: 8/31/99
Date Received: 9/2/99
Date Extracted: 9/2/99

Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3510/8270
Units: µg/L (ppb)

Sample Name:	**Method Blank**
Lab Code:	J990831-MB
Date Analyzed:	9/13/99

Analyte	**MRL**	
1-Naphthylamine	5	U
2-Naphthylamine	5	U
2-Nitroaniline	5	U
3-Nitroaniline	5	U
4-Nitroaniline	5	U
Nitrobenzene	5	U
2-Nitrophenol	5	U
4-Nitrophenol	20	U
p-dimethylaminoazobenzene	5	U
Pentachlorobenzene	5	U
Pentachloronitrobenzene	5	U
Pentachlorophenol	20	U
Phenacetin	5	U
Phenanthrene	5	U
Phenol	5	U
2-Picoline	5	U
Pronamide	5	U
Pyrene	5	U
1,2,4,5-Tetrachlorobenzene	5	U
2,3,4,6-Tetrachlorophenol	5	U
1,2,4-Trichlorobenzene	5	U
2,4,5-Trichlorophenol	5	U
2,4,6-Trichlorophenol	5	U

U Not detected at or above the MRL.

Approved By: Tom D. Kistner Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	EMCON	**Service Request:**	J9902614
Project:	Burke Lumber Additional Invest. / 797253-010.00000	**Date Collected:**	8/31/99
Sample Matrix:	Water	**Date Received:**	9/2/99
		Date Extracted:	9/9/99
		Date Analyzed:	9/9/99

Diesel Range Organics
EPA Methods 3510/8100M (DRO)
Units: mg/L (ppm)

Sample Name	Lab Code	MRL	Result
EM-9	J9902614-02	0.10	U
Method Blank	J990909-MB	0.10	U

U Not detected at or above the MRL.

Approved By: Tom D. Ilsinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
Sample Matrix: Water

Service Request: J9902614
Date Collected: 8/31/99
Date Received: 9/2/99
Date Extracted: 9/10/99

Total Metals
Units: mg/L(ppm)

		Sample Name:	EM-10	EM-4	EM-6
		Lab Code:	J9902614-01	J9902614-04	J9902614-05
		Date Analyzed:	9/8-13/99	9/8-13/99	9/8-13/99
Analyte	**EPA Method**	**MRL**			
Antimony	204.2	0.005	U	U	U
Arsenic	206.2	0.005	U	0.01U(a)	0.006
Beryllium	210.2	0.0020	U	0.009	0.004
Cadmium	213.2	0.0010	U	U	0.0010
Chromium	200.7	0.03	U	0.18	0.08
Copper	220.1	0.05	U	0.62	0.26
Lead	239.2	0.002	U	0.226	0.106
Mercury	245.1	0.0005	U	U	U
Nickel	200.7	0.05	U	0.70	0.40
Selenium	270.2	0.005	U	U	U
Silver	200.7	0.01	U	0.02U(a)	U
Thallium	279.2	0.002	U	0.006	0.005
Zinc	289.1	0.05	U	0.49	0.21

U Not detected at or above the MRL.
a MRL is elevated because of matrix interferences and because the sample required diluting.
Dilution Factor: 2

Approved By: Tom D. Hessinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	EMCON	**Service Request:**	J9902614
Project:	Burke Lumber Additional Invest. / 797253-010.00000	**Date Collected:**	8/31/99
Sample Matrix:	Water	**Date Received:**	9/2/99
		Date Extracted:	9/10/99

Total Metals
Units: mg/L(ppm)

		Sample Name:	**EM-7**	**EM-5**	**EM-8**
		Lab Code:	J9902614-06	J9902614-07	J9902614-08
		Date Analyzed:	9/8-13/99	9/8-13/99	9/8-13/99
Analyte	**EPA Method**	**MRL**			
Antimony	204.2	0.005	U	U	U
Arsenic	206.2	0.005	U	U	U
Beryllium	210.2	0.0020	U	U	U
Cadmium	213.2	0.0010	U	U	U
Chromium	200.7	0.03	U	U	U
Copper	220.1	0.05	U	U	U
Lead	239.2	0.002	U	U	0.009
Mercury	245.1	0.0005	U	U	U
Nickel	200.7	0.05	U	U	U
Selenium	270.2	0.005	U	U	U
Silver	200.7	0.01	U	U	U
Thallium	279.2	0.002	U	U	U
Zinc	289.1	0.05	U	U	U

U Not detected at or above the MRL.

Approved By: Tom D. Hessinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
Sample Matrix: Water

Service Request: J9902614
Date Collected: 8/31/99
Date Received: 9/2/99
Date Extracted: 9/10/99

Total Metals
Units: mg/L(ppm)

		Sample Name:	**EM-8D**	**Method Blank**
		Lab Code:	J9902614-09	J990910-MB
		Date Analyzed:	9/8-13/99	9/8-13/99
Analyte	**EPA Method**	**MRL**		
Antimony	204.2	0.005	U	U
Arsenic	206.2	0.005	U	U
Beryllium	210.2	0.0020	U	U
Cadmium	213.2	0.0010	U	U
Chromium	200.7	0.03	U	U
Copper	220.1	0.05	U	U
Lead	239.2	0.002	U	U
Mercury	245.1	0.0005	U	U
Nickel	200.7	0.05	U	U
Selenium	270.2	0.005	U	U
Silver	200.7	0.01	U	U
Thallium	279.2	0.002	U	U
Zinc	289.1	0.05	U	U

U Not detected at or above the MRL.

Approved By: Tom D. Hassinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	EMCON	**Service Request:**	J9902614
Project:	Burke Lumber Additional Invest. / 797253-010.00000	**Date Collected:**	8/31/99 1235
Sample Matrix:	Water	**Date Received:**	9/2/99 1000
		Date Analyzed:	9/2/99 1700

Chromium, Hexavalent
EPA Method SM 3500C
Units: mg/L (ppm)

Sample Name	Lab Code	MRL	Result
EM-10	J9902614-01	0.01	U
EM-4	J9902614-04	0.01	U
EM-6	J9902614-05	0.01	U
EM-7	J9902614-06	0.01	U
EM-5	J9902614-07	0.01	U
EM-8	J9902614-08	0.01	U
EM-8D	J9902614-09	0.01	U
Method Blank	J990902-MB	0.01	U

U Not detected at or above the MRL.

Approved By: Tom D. Kissinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
Sample Matrix: Water

Service Request: J9902614
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 9/11-12/99

Surrogate Recovery Summary
Volatile Organic Compounds
EPA Method 8260

Sample Name	Lab Code	Percent Recovery		
		Dibromofluoromethane	Toluene-d_8	4-Bromofluorobenzene
EM-10	J9902614-01	103	107	101
EM-9	J9902614-02	103	107	102
Trip Blank	J9902614-03	103	107	102
EM-4	J9902614-04	104	107	103
EM-6	J9902614-05	104	107	103
EM-7	J9902614-06	104	108	103
EM-5	J9902614-07	104	108	103
EM-8	J9902614-08	106	108	103
EM-8D	J9902614-09	105	108	103
EM-2	J9902614-10	104	108	103
EM-1	J9902614-11	105	108	104
EM-3	J9902614-12	105	106	102
Trip Blank (lab)	J9902614-13	104	108	105
Method Blank	J990911-MB	103	106	102
Laboratory Control Sample	J990911-LCS	112	108	103
Batch QC	J9902596-01MS	111	107	102
Batch QC	J9902596-01MSD	112	106	102
CAS Acceptance Limits:		83-117	81-119	72-128

Approved By: Tam D. Hissinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	EMCON	**Service Request:**	J9902614
Project:	Burke Lumber Additional Invest. / 797253-010.00000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	NA
		Date Analyzed:	9/11/99

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds
EPA Method 8260
Units: µg/L (ppb)

Sample Name: Batch QC
Lab Code: Batch QC

						Percent Recovery			
	Spike Level		Sample	Spike Result				EPA Acceptance	Relative Percent
Analyte	**MS**	**DMS**	**Result**	**MS**	**DMS**	**MS**	**DMS**	**Limits**	**Difference**
1,1-Dichloroethene	50	50	U	39	39	78	78	25-135	<1
Benzene	50	50	U	40	40	80	80	32-136	<1
Trichloroethene	50	50	U	39	38	78	76	28-134	3
Toluene	50	50	U	39	39	78	78	37-129	<1
Chlorobenzene	50	50	U	41	40	82	80	34-133	2

Approved By: Tom D. Hissinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
LCS Matrix: Water

Service Request: J9902614
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 9/11/99

Laboratory Control Sample Summary
Volatile Organic Compounds
EPA Method 8260
Units: µg/L (ppb)

Analyte	True Value	Result	Percent Recovery	EPA Percent Recovery Acceptance Limits
1,1-Dichloroethene	50	40	80	25-135
Benzene	50	41	82	32-136
Trichloroethene	50	39	78	28-134
Toluene	50	40	80	37-129
Chlorobenzene	50	41	82	34-133

Approved By: Tom D. Kissinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	EMCON	**Service Request:**	J9902614
Project:	Burke Lumber Additional Invest. / 797253-010.00000	**Date Collected:**	8/31/99
Sample Matrix:	Water	**Date Received:**	9/2/99
		Date Extracted:	9/2/99
		Date Analyzed:	9/13/99

Surrogate Recovery Summary
Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3510/8270

		Percent Recovery					
Sample Name	**Lab Code**	NBZ	FBP	TPH	PHL	2FP	TBP
EM-4	J9902614-04	92	80	85	(a)	(a)	(a)
EM-6	J9902614-05	86	101	74	(a)	(a)	16
EM-7	J9902614-06	83	90	88	(a)	(a)	43
EM-5	J9902614-07	93	94	84	(a)	(a)	(a)
EM-8	J9902614-08	91	108	82	(a)	(a)	(a)
EM-8D	J9902614-09	88	92	77	(a)	(a)	(a)
Method Blank	J990831-MB	96	89	91	39	54	89
Laboratory Control Sample	J990831-LCS	97	88	94	43	57	94
Batch QC	J9902614-04MS	97	84	96	23	26	80
Batch QC	J9902614-04DMS	96	88	99	27	32	83
CAS Acceptance Limits:		35-114	43-116	33-141	10-94	21-100	10-123

NBZ	Nitrobenzene-d5
FBP	2-Fluorobiphenyl
TPH	Terphenyl-d14
PHL	Phenol-d6
2FP	2-Fluorophenol
TBP	2,4,6-Tribromophenol

(a) Outside of acceptance limits because of matrix interferences.

Approved By: Tom D. Hissinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
Sample Matrix: Water

Service Request: J9902614
Date Collected: NA
Date Received: NA
Date Extracted: 9/2/99
Date Analyzed: 9/13/99

Matrix Spike/Duplicate Matrix Spike Summary
Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3510/8270
Units: µg/L (ppb)

Sample Name: Batch QC
Lab Code: Batch QC

Analyte	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	CAS Acceptance Limits	Relative Percent Difference
Phenol	100	100	U	24	29	24	29	13-90	19
2-Chlorophenol	100	100	U	53	59	53	59	35-136	11
1,4-Dichlorobenzene	50	50	U	44	44	88	88	63-118	<1
N-Nitroso-di-n-propylamine	50	50	U	55	55	110	110	55-129	<1
1,2,4-Trichlorobenzene	50	50	U	45	46	90	92	59-117	2
4-Chloro-3-methylphenol	100	100	U	59	62	59	62	32-155	5
Acenaphthene	50	50	U	44	46	88	92	62-127	4
4-Nitrophenol	100	100	U	46	48	46	48	19-96	4
2,4-Dinitrotoluene	50	50	U	45	45	90	90	56-138	<1
Pentachlorophenol	100	100	U	75	77	75	77	42-146	3
Pyrene	50	50	U	49	51	98	102	54-126	4

U Not detected at or above the MRL.

Approved By: Tom D. Kissinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	EMCON	**Service Request:**	J9902614
Project:	Burke Lumber Additional Invest. / 797253-010.00000	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Extracted:	9/2/99
		Date Analyzed:	9/13/99

Laboratory Control Sample Summary
Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3510/8270
Units: µg/L (ppb)

Analyte	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Phenol	100	44	44	13-90
2-Chlorophenol	100	81	81	35-136
1,4-Dichlorobenzene	50	44	88	63-118
N-Nitroso-di-n-propylamine	50	56	112	55-129
1,2,4-Trichlorobenzene	50	44	88	59-117
4-Chloro-3-methylphenol	100	93	93	32-155
Acenaphthene	50	45	90	62-127
4-Nitrophenol	100	39	39	19-96
2,4-Dinitrotoluene	50	41	82	56-138
Pentachlorophenol	100	68	68	42-146
Pyrene	50	47	94	54-126

Approved By: Tom D. Kissinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
Sample Matrix: Water

Service Request: J9902614
Date Collected: 8/31/99
Date Received: 9/2/99
Date Extracted: 9/9/99
Date Analyzed: 9/9/99

Surrogate Recovery Summary
Diesel Range Organics
EPA Methods 3510/8100M (DRO)

Sample Name	Lab Code	Percent Recovery p-Terphenyl
EM-9	J9902614-02	75
Method Blank	J990909-MB	80
Laboratory Control Sample	J990909-LCS	83
Batch QC	J9902614-02MS	82
Batch QC	J9902614-02DMS	82

CAS Acceptance Limits: 36-136

Approved By: Tom D. Hissinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	EMCON	**Service Request:**	J9902614
Project:	Burke Lumber Additional Invest. / 797253-010.00000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	9/9/99
		Date Analyzed:	9/9/99

Matrix Spike/Duplicate Matrix Spike Summary
Diesel Range Organics
EPA Methods 3510/8100M (DRO)
Units: mg/L (ppm)

Sample Name: Batch QC
Lab Code: Batch QC

						Percent Recovery				
	Spike Level		**Sample**	**Spike Result**				CAS	**Relative**	**CAS RPD**
Analyte	MS	DMS	**Result**	MS	DMS	MS	DMS	Acceptance Limits	**Percent Difference**	**Acceptance Limit**
Diesel	5.0	5.0	U	4.8	4.9	96	98	60-140	2	40

U Not detected at or above the MRL.

Approved By: [signature] Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	EMCON	**Service Request:**	J9902614
Project:	Burke Lumber Additional Invest. / 797253-010.00000	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Extracted:	9/9/99
		Date Analyzed:	9/9/99

Laboratory Control Sample
Diesel Range Organics
EPA Methods 3510/8100M (DRO)
Units: mg/L (ppm)

			Percent Recovery	
Analyte	**True Value** LCS	**Result** LCS	LCS	CAS Acceptance Limits
Diesel	5.0	4.6	92	60-140

Approved By: Tom D. Thesing Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	EMCON	**Service Request:**	J9902614
Project:	Burke Lumber Additional Invest. / 797253-010.00000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	NA
		Date Analyzed:	9/8-13/99

Duplicate Matrix Spike Summary
Total Metals
Units: mg/L(ppm)

Sample Name: Batch QC
Lab Code: Batch QC

Analyte	EPA Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Note
Antimony	204.2	0.005	0.020	0.020	0.020	<1	
Arsenic	206.2	0.005	0.019	0.019	0.019	<1	
Beryllium	210.2	0.0020	0.0038	0.0039	0.0038	3	
Cadmium	213.2	0.0010	0.0019	0.0019	0.0019	<1	
Chromium	200.7	0.03	1.97	1.94	1.96	2	
Copper	220.1	0.05	2.0	2.0	2.0	<1	
Lead	239.2	0.002	0.019	0.019	0.019	<1	
Mercury	245.1	0.0005	0.0051	0.0050	0.0050	2	
Nickel	200.7	0.05	1.99	2.02	2.00	2	
Selenium	270.2	0.005	0.020	0.020	0.020	<1	
Silver	200.7	0.01	0.99	0.98	0.98	1	
Thallium	279.2	0.002	0.017	0.018	0.018	6	
Zinc	289.1	0.05	0.98	0.99	0.98	1	

U Not detected at or above the MRL.

Approved By: Tom D. Chessinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
Sample Matrix: Water

Service Request: J9902614
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 9/8-13/99

Matrix Spike Summary
Total Metals
Units: mg/L(ppm)

Sample Name: Batch QC
Lab Code: Batch QC

Analyte	EPA Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptanc Limits	Result Note
Antimony	204.2	0.005	0.020	U	0.020	100	60-130	
Arsenic	206.2	0.005	0.020	U	0.019	95	80-120	
Beryllium	210.2	0.0020	0.0040	U	0.0038	95	80-120	
Cadmium	213.2	0.0010	0.0020	U	0.0019	95	80-120	
Chromium	200.7	0.03	2.00	U	1.97	98	80-125	
Copper	220.1	0.05	2.0	U	2.0	100	80-120	
Lead	239.2	0.002	0.020	U	0.019	95	80-120	
Mercury	245.1	0.0005	0.0050	U	0.0051	102	80-120	
Nickel	200.7	0.05	2.00	U	1.99	100	80-120	
Selenium	270.2	0.005	0.020	U	0.020	100	70-120	
Silver	200.7	0.01	1.00	U	0.99	99	70-130	
Thallium	279.2	0.002	0.020	U	0.017	85	80-120	
Zinc	289.1	0.05	1.0	U	0.98	98	80-120	

U Not detected at or above the MRL.

Approved By: Tom D. Hissinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
Sample Matrix: Water

Service Request: J9902614
Date Collected: NA
Date Received: NA
Date Analyzed: 9/8-13/99

Laboratory Control Sample Summary
Total Metals
Units: mg/L(ppm)

Analyte	EPA Method	TRUE VALUE	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Antimony	204.2	0.020	0.018	90	60-130
Arsenic	206.2	0.020	0.020	100	80-120
Beryllium	210.2	0.0040	0.0040	100	80-120
Cadmium	213.2	0.0020	0.0019	95	80-120
Chromium	200.7	2.00	2.12	106	80-125
Copper	220.1	2.0	2.0	100	80-120
Lead	239.2	0.020	0.019	95	80-120
Mercury	245.1	0.0050	0.0051	102	80-120
Nickel	200.7	2.00	2.18	109	80-120
Selenium	270.2	0.020	0.021	105	70-120
Silver	200.7	1.00	1.07	107	70-130
Thallium	279.2	0.020	0.020	100	80-120
Zinc	289.1	1.0	0.95	95	80-120

Approved By: Tam D. Kissinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
Sample Matrix: Water

Service Request: J9902614
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 9/2/99 1700

Duplicate Summary
Inorganic Parameters

Sample Name: Batch QC
Lab Code: Batch QC

Analyte	Units	EPA Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference
Chromium, Hexavalent	mg/L (ppm)	SM 3500C	0.01	U	U	U	<1

U Not detected at or above the MRL.

Approved By: Tom D. Kissinger Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
Sample Matrix: Water

Service Request: J9902614
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 9/2/99 1700

Matrix Spike Summary
Inorganic Parameters

Sample Name: Batch QC
Lab Code: Batch QC

Analyte	Units	EPA Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Chromium, Hexavalent	mg/L (ppm)	SM 3500C	0.01	0.25	U	0.247	98.8	75-125

U Not detected at or above the MRL.

Approved By: Tom D. Ashington Date: 9/17/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Burke Lumber Additional Invest. / 797253-010.00000
Sample Matrix: Water

Service Request: J9902614
Date Collected: NA
Date Received: NA
Date Analyzed: 9/2/99 1700

Laboratory Control Sample Summary
Inorganic Parameters

Analyte	Units	EPA Method	TRUE Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Chromium, Hexavalent	mg/L (ppm)	SM 3500C	0.5	0.503	101	75-125

Approved By: Tom D. Hastings Date: 9/17/99

APPENDIX D

SEDIMENT ANALTYICAL DATA

Columbia Analytical Services INC.
An Employee-Owned Company

September 03, 1999

Service Request No. J9902469

Joe Hayes
EMCON
Chace Mill E-2, 1 Mill Street, Box B15
Burlington, VT 05401

Certification Numbers:

Florida DEP:	930298G
Florida HRS:	E82502; 82483
Massachusetts:	M-FL937
New Hampshire:	294297-A; 294297-B
North Carolina:	527
South Carolina:	96021001
A2LA	0490-02

RE: Project No.: 797253.010.000
Project Name: Burke Lumber Co.

Dear Joe Hayes:

Enclosed are the results of the samples(s) submitted to our laboratory on August 20, 1999. For your reference, these analyses have been assigned our service request number: J9902469.

All analyses were performed according to our laboratory's quality assurance program. All results are intended to be considered in the entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the samples analyzed.

Please call if you have any questions.

Respectfully submitted,

Columbia Analytical Services, Inc.

Tom Kissinger

Tom Kissinger
Project Chemist

TK/jg

8540 Baycenter Rd. ▪ Jacksonville, FL 32256 ▪ (904) 739-2277 ▪ Fax (904) 739-2011

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Co. / 797253.010.000
Sample Matrix: Soil

Service Request: J9902469
Date Collected: 8/19/99
Date Received: 8/20/99
Date Extracted: NA

Volatile Organic Compounds
EPA Method 8260B
Units: µg/Kg (ppb)
Dry Weight Basis

		Sample Name:	SD-1	SD-2	SD-3
		Lab Code:	J9902469-01	J9902469-02	J9902469-03
		Date Analyzed:	8/25/99	8/25/99	8/25/99
Analyte	**MRL**				
Acetone	50		U	U	U
Acrolein	10		U	U	U
Acrylonitrile	10		U	U	U
Benzene	1		U	U	U
Bromodichloromethane	1		U	U	U
Bromoform	1		U	U	U
Bromomethane	1		U	U	U
2-Butanone (MEK)	10		U	U	U
Carbon Disulfide	1		U	U	U
Carbon Tetrachloride	1		U	U	U
Chlorobenzene	1		U	U	U
Chloroethane	1		U	U	U
Chloroform	1		U	U	U
Chloromethane	1		U	U	U
2-Chloroethyl Vinyl Ether	10		U	U	U
Dibromochloromethane	1		U	U	U
1,2-Dibromo-3-chloropropane (DBCP)	10		U	U	U
1,2-Dibromoethane (EDB)	1		U	U	U
1,2-Dichlorobenzene	1		U	U	U
1,3-Dichlorobenzene	1		U	U	U
1,4-Dichlorobenzene	1		U	U	U
trans -1,4-Dichloro-2-butene	10		U	U	U
1,1-Dichloroethane	1		U	U	U
1,2-Dichloroethane	1		U	U	U
1,1-Dichloroethene	1		U	U	U
cis -1,2-Dichloroethene	1		U	U	U
trans -1,2-Dichloroethene	1		U	U	U
Dichlorodifluoromethane	1		U	U	U
Ethylbenzene	1		U	U	U
Ethyl Methacrylate	10		U	U	U
2-Hexanone	10		U	U	U
Iodomethane	10		U	U	U
Methylene Chloride	10		U	U	U
4-Methyl-2-pentanone (MIBK)	10		U	U	U
Styrene	1		U	U	U
1,1,1,2-Tetrachloroethane	1		U	U	U
1,1,2,2-Tetrachloroethane	1		U	U	U
Tetrachloroethene (PCE)	1		U	U	U
Toluene	1		U	U	U
1,1,1-Trichloroethane (TCA)	1		U	U	U
1,1,2-Trichloroethane	1		U	U	U
Trichloroethene (TCE)	1		U	U	U
Trichlorofluoromethane (CFC 11)	1		U	U	U
1,2,3-Trichloropropane	1		U	U	U
Vinyl Acetate	10		U	U	U
Vinyl Chloride	1		U	U	U
Total Xylenes	2		U	U	U

U Not detected at or above the MRL.

Approved By: Tom D. Hisinger Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Co. / 797253.010.000
Sample Matrix: Soil

Service Request: J9902469
Date Collected: NA
Date Received: NA
Date Extracted: NA

Volatile Organic Compounds
EPA Method 8260B
Units: µg/Kg (ppb)
Dry Weight Basis

Sample Name:	**Method Blank**
Lab Code:	J990825-MB
Date Analyzed:	8/25/99

Analyte	**MRL**	
Acetone	50	U
Acrolein	10	U
Acrylonitrile	10	U
Benzene	1	U
Bromodichloromethane	1	U
Bromoform	1	U
Bromomethane	1	U
2-Butanone (MEK)	10	U
Carbon Disulfide	1	U
Carbon Tetrachloride	1	U
Chlorobenzene	1	U
Chloroethane	1	U
Chloroform	1	U
Chloromethane	1	U
2-Chloroethyl Vinyl Ether	10	U
Dibromochloromethane	1	U
1,2-Dibromo-3-chloropropane (DBCP)	10	U
1,2-Dibromoethane (EDB)	1	U
1,2-Dichlorobenzene	1	U
1,3-Dichlorobenzene	1	U
1,4-Dichlorobenzene	1	U
trans -1,4-Dichloro-2-butene	10	U
1,1-Dichloroethane	1	U
1,2-Dichloroethane	1	U
1,1-Dichloroethene	1	U
cis -1,2-Dichloroethene	1	U
trans -1,2-Dichloroethene	1	U
Dichlorodifluoromethane	1	U
Ethylbenzene	1	U
Ethyl Methacrylate	10	U
2-Hexanone	10	U
Iodomethane	10	U
Methylene Chloride	10	U
4-Methyl-2-pentanone (MIBK)	10	U
Styrene	1	U
1,1,1,2-Tetrachloroethane	1	U
1,1,2,2-Tetrachloroethane	1	U
Tetrachloroethene (PCE)	1	U
Toluene	1	U
1,1,1-Trichloroethane (TCA)	1	U
1,1,2-Trichloroethane	1	U
Trichloroethene (TCE)	1	U
Trichlorofluoromethane (CFC 11)	1	U
1,2,3-Trichloropropane	1	U
Vinyl Acetate	10	U
Vinyl Chloride	1	U
Total Xylenes	2	U

U Not detected at or above the MRL.

Approved By: Tan D. Kissinger Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Co. / 797253.010.000
Sample Matrix: Soil

Service Request: J9902469
Date Collected: 8/19/99
Date Received: 8/20/99
Date Extracted: 8/24/99

Base Neutral/Acid Semivolatile Organic Compounds
EPA Methods 3550/8270C
Units: µg/Kg (ppb)
Dry Weight Basis

Sample Name:		SD-1	SD-2	SD-3
Lab Code:		J9902469-01	J9902469-02	J9902469-03
Date Analyzed:		8/26/99	8/26/99	8/26/99
Analyte	**MRL**			
Acenaphthene	250	U	U	U
Acenaphthylene	250	U	U	U
Acetophenone	250	U	U	U
4-Aminobiphenyl	250	U	U	U
Aniline	250	U	U	U
Anthracene	250	U	U	U
Azobenzene	250	U	U	U
Benzidine	500	U	U	U
Benz(a)anthracene	250	U	U	U
Benzo(a)pyrene	250	U	U	U
Benzo(b)fluoranthene	250	U	U	U
Benzo(ghi)perylene	250	U	U	U
Benzo(k)fluoranthene	250	U	U	U
Benzyl alcohol	250	U	U	U
Bis(2-chloroethoxy)methane	250	U	U	U
Bis(2-chloroethyl) Ether	250	U	U	U
Bis(2-chloroisopropyl) Ether	250	U	U	U
Bis(2-ethylhexyl) Phthalate	250	U	U	U
4-Bromophenyl Phenyl Ether	250	U	U	U
Butyl Benzyl Phthalate	250	U	U	U
4-Chloro-3-methylphenol	500	U	U	U
4-Chloroaniline	250	U	U	U
1-Chloronaphthalene	250	U	U	U

U Not detected at or above the MRL.

Approved By: Tom D Kissinger Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Co. / 797253.010.000
Sample Matrix: Soil

Service Request: J9902469
Date Collected: 8/19/99
Date Received: 8/20/99
Date Extracted: 8/24/99

Base Neutral/Acid Semivolatile Organic Compounds
EPA Methods 3550/8270C
Units: µg/Kg (ppb)
Dry Weight Basis

Sample Name:		SD-1	SD-2	SD-3
Lab Code:		J9902469-01	J9902469-02	J9902469-03
Date Analyzed:		8/26/99	8/26/99	8/26/99
Analyte	**MRL**			
2-Chloronaphthalene	250	U	U	U
2-Chlorophenol	250	U	U	U
4-Chlorophenyl Phenyl Ether	250	U	U	U
Chrysene	250	U	U	U
Di-n-butyl Phthalate	250	U	U	U
Di-n-octyl Phthalate	250	U	U	U
Dibenz(a,j)acridine	250	U	U	U
Dibenz(a,h)anthracene	250	U	U	U
Dibenzofuran	250	U	U	U
1,2-Dichlorobenzene	250	U	U	U
1,3-Dichlorobenzene	250	U	U	U
1,4-Dichlorobenzene	250	U	U	U
3,3'-Dichlorobenzidine	500	U	U	U
2,4-Dichlorophenol	250	U	U	U
2,6-Dichlorophenol	250	U	U	U
Diethyl Phthalate	250	U	U	U
7,12-Dimethybenz(a)anthracene	250	U	U	U
2,4-Dimethylphenol	250	U	U	U
Dimethyl Phthalate	250	U	U	U
2,4-Dinitrophenol	500	U	U	U
2,4-Dinitrotoluene	250	U	U	U

U Not detected at or above the MRL.

Approved By: Tom D. Kissinger Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Co. / 797253.010.000
Sample Matrix: Soil

Service Request: J9902469
Date Collected: 8/19/99
Date Received: 8/20/99
Date Extracted: 8/24/99

Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3550/8270C
Units: µg/Kg (ppb)
Dry Weight Basis

Sample Name:		SD-1	SD-2	SD-3
Lab Code:		J9902469-01	J9902469-02	J9902469-03
Date Analyzed:		8/26/99	8/26/99	8/26/99
Analyte	**MRL**			
2,6-Dinitrotoluene	250	U	U	U
Diphenylamine	250	U	U	U
Fluoranthene	250	U	U	U
Fluorene	250	U	U	U
Hexachlorobenzene	250	U	U	U
Hexachlorobutadiene	250	U	U	U
Hexachlorocyclopentadiene	250	U	U	U
Hexachloroethane	250	U	U	U
Indeno(1,2,3-cd)pyrene	250	U	U	U
Isophorone	250	U	U	U
2-Methyl-4,6-dinitrophenol	500	U	U	U
3-Methylcholanthrene	250	U	U	U
2-Methylnaphthalene	250	U	U	U
2-Methyphenol	250	U	U	U
3- & 4-Methyphenol*	250	U	U	U
N-nitrosodi-n-butylamine	250	U	U	U
N-Nitrosodi-n-propylamine	250	U	U	U
N-Nitrosodimethylamine	250	U	U	U
N-Nitrosodiphenylamine	250	U	U	U
N-nitrosopiperidine	250	U	U	U
Naphthalene	250	U	U	U

U Not detected at or above the MRL.
* Quantified as 4-Methylphenol.

Approved By: Tom D. Kissinger Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Co. / 797253.010.000
Sample Matrix: Soil

Service Request: J9902469
Date Collected: 8/19/99
Date Received: 8/20/99
Date Extracted: 8/24/99

Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3550/8270C
Units: µg/Kg (ppb)
Dry Weight Basis

Sample Name:		SD-1	SD-2	SD-3
Lab Code:		J9902469-01	J9902469-02	J9902469-03
Date Analyzed:		8/26/99	8/26/99	8/26/99
Analyte	**MRL**			
1-Naphthylamine	250	U	U	U
2-Naphthylamine	250	U	U	U
2-Nitroaniline	250	U	U	U
3-Nitroaniline	250	U	U	U
4-Nitroaniline	250	U	U	U
Nitrobenzene	250	U	U	U
2-Nitrophenol	250	U	U	U
4-Nitrophenol	500	U	U	U
p-dimethylaminoazobenzene	250	U	U	U
Pentachlorobenzene	250	U	U	U
Pentachloronitrobenzene	250	U	U	U
Pentachlorophenol	500	U	U	U
Phenacetin	250	U	U	U
Phenanthrene	250	U	U	U
Phenol	250	U	U	U
2-Picoline	250	U	U	U
Pronamide	250	U	U	U
Pyrene	250	U	U	U
1,2,4,5-Tetrachlorobenzene	250	U	U	U
2,3,4,6-Tetrachlorophenol	250	U	U	U
1,2,4-Trichlorobenzene	250	U	U	U
2,4,5-Trichlorophenol	250	U	U	U
2,4,6-Trichlorophenol	250	U	U	U

U Not detected at or above the MRL.

Approved By: Tom D. Higgins Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Co. / 797253.010.000
Sample Matrix: Soil

Service Request: J9902469
Date Collected: 8/19/99
Date Received: 8/20/99
Date Extracted: 8/24/99

Base Neutral/Acid Semivolatile Organic Compounds
EPA Methods 3550/8270C
Units: µg/Kg (ppb)
Dry Weight Basis

Sample Name:	**Method Blank**
Lab Code:	J990824-MB
Date Analyzed:	8/26/99

Analyte	**MRL**	
Acenaphthene	250	U
Acenaphthylene	250	U
Acetophenone	250	U
4-Aminobiphenyl	250	U
Aniline	250	U
Anthracene	250	U
Azobenzene	250	U
Benzidine	500	U
Benz(a)anthracene	250	U
Benzo(a)pyrene	250	U
Benzo(b)fluoranthene	250	U
Benzo(ghi)perylene	250	U
Benzo(k)fluoranthene	250	U
Benzyl alcohol	250	U
Bis(2-chloroethoxy)methane	250	U
Bis(2-chloroethyl) Ether	250	U
Bis(2-chloroisopropyl) Ether	250	U
Bis(2-ethylhexyl) Phthalate	250	U
4-Bromophenyl Phenyl Ether	250	U
Butyl Benzyl Phthalate	250	U
4-Chloro-3-methylphenol	500	U
4-Chloroaniline	250	U
1-Chloronaphthalene	250	U

U Not detected at or above the MRL.

Approved By: Tom D. Kissinger Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Co. / 797253.010.000
Sample Matrix: Soil

Service Request: J9902469
Date Collected: 8/19/99
Date Received: 8/20/99
Date Extracted: 8/24/99

Base Neutral/Acid Semivolatile Organic Compounds
EPA Methods 3550/8270C
Units: µg/Kg (ppb)
Dry Weight Basis

Sample Name:	**Method Blank**
Lab Code:	J990824-MB
Date Analyzed:	8/26/99

Analyte	**MRL**	
2-Chloronaphthalene	250	U
2-Chlorophenol	250	U
4-Chlorophenyl Phenyl Ether	250	U
Chrysene	250	U
Di-n-butyl Phthalate	250	U
Di-n-octyl Phthalate	250	U
Dibenz(a,j)acridine	250	U
Dibenz(a,h)anthracene	250	U
Dibenzofuran	250	U
1,2-Dichlorobenzene	250	U
1,3-Dichlorobenzene	250	U
1,4-Dichlorobenzene	250	U
3,3'-Dichlorobenzidine	500	U
2,4-Dichlorophenol	250	U
2,6-Dichlorophenol	250	U
Diethyl Phthalate	250	U
7,12-Dimethybenz(a)anthracene	250	U
2,4-Dimethylphenol	250	U
Dimethyl Phthalate	250	U
2,4-Dinitrophenol	500	U
2,4-Dinitrotoluene	250	U

U Not detected at or above the MRL.

Approved By: Tom D. Hysinger Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Co. / 797253.010.000
Sample Matrix: Soil

Service Request: J9902469
Date Collected: 8/19/99
Date Received: 8/20/99
Date Extracted: 8/24/99

Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3550/8270C
Units: µg/Kg (ppb)
Dry Weight Basis

Sample Name:	**Method Blank**
Lab Code:	J990824-MB
Date Analyzed:	8/26/99

Analyte	**MRL**	
2,6-Dinitrotoluene	250	U
Diphenylamine	250	U
Fluoranthene	250	U
Fluorene	250	U
Hexachlorobenzene	250	U
Hexachlorobutadiene	250	U
Hexachlorocyclopentadiene	250	U
Hexachloroethane	250	U
Indeno(1,2,3-cd)pyrene	250	U
Isophorone	250	U
2-Methyl-4,6-dinitrophenol	500	U
3-Methylcholanthrene	250	U
2-Methylnaphthalene	250	U
2-Methyphenol	250	U
3- & 4-Methyphenol*	250	U
N-nitrosodi-n-butylamine	250	U
N-Nitrosodi-n-propylamine	250	U
N-Nitrosodimethylamine	250	U
N-Nitrosodiphenylamine	250	U
N-nitrosopiperidine	250	U
Naphthalene	250	U

U Not detected at or above the MRL.
* Quantified as 4-Methylphenol.

Approved By: Tom D. Hassinger Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Co. / 797253.010.000
Sample Matrix: Soil

Service Request: J9902469
Date Collected: 8/19/99
Date Received: 8/20/99
Date Extracted: 8/24/99

Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3550/8270C
Units: µg/Kg (ppb)
Dry Weight Basis

Sample Name: **Method Blank**
Lab Code: J990824-MB
Date Analyzed: 8/26/99

Analyte	**MRL**	
1-Naphthylamine	250	U
2-Naphthylamine	250	U
2-Nitroaniline	250	U
3-Nitroaniline	250	U
4-Nitroaniline	250	U
Nitrobenzene	250	U
2-Nitrophenol	250	U
4-Nitrophenol	500	U
p-dimethylaminoazobenzene	250	U
Pentachlorobenzene	250	U
Pentachloronitrobenzene	250	U
Pentachlorophenol	500	U
Phenacetin	250	U
Phenanthrene	250	U
Phenol	250	U
2-Picoline	250	U
Pronamide	250	U
Pyrene	250	U
1,2,4,5-Tetrachlorobenzene	250	U
2,3,4,6-Tetrachlorophenol	250	U
1,2,4-Trichlorobenzene	250	U
2,4,5-Trichlorophenol	250	U
2,4,6-Trichlorophenol	250	U

U Not detected at or above the MRL.

Approved By: Tom D. Kissinger Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Co. / 797253.010.000
Sample Matrix: Soil

Service Request: J9902469
Date Collected: 8/19/99
Date Received: 8/20/99
Date Extracted: 8/30/99

Total Metals
Units: mg/Kg(ppm)
As Received Basis

		Sample Name:	SD-1	SD-2	SD-3
		Lab Code:	J9902469-01	J9902469-02	J9902469-03
		Date Analyzed:	8/25-9/3/99	8/25-9/3/99	8/25-9/3/99
Analyte	**EPA Method**	**MRL**			
Antimony	6010B	2.5	3.38U(a)	3.75U(a)	U
Arsenic	6010B	5.0	6.8U(a)	7.5U(a)	U
Beryllium	6010B	0.15	0.36	0.23	U
Cadmium	6010B	0.5	0.68U(a)	0.75U(a)	U
Chromium	6010B	1.5	10..2	7.73	4.93
Copper	6010B	0.05	8.67	5.93	2.66
Lead	6010B	5.0	8.17	7.5U(a)	U
Mercury	7471	0.2	U	U	U
Nickel	6010B	2.5	16.8	13.0	9.09
Selenium	6010B	10.0	27.0U(a,b)	30.0U(a,b)	20.0U(a,b)
Silver	6010B	0.50	0.68U(a)	0.75U(a)	1.75
Thallium	6010B	50.0	67.6U(a)	75.1U(a)	U
Zinc	6010B	1.50	23.5	23.7	11.5

U Not detected at or above the MRL.
a MRL is elevated because of the low percent solids in the sample as received.
b MRL is elevated because of matrix interferences and because the sample required diluting.
Dilution Factor: 2

Approved By: Tom D. Hessinger Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber Co. / 797253.010.000
Sample Matrix: Soil

Service Request: J9902469
Date Collected: 8/19/99
Date Received: 8/20/99
Date Extracted: 8/30/99

Total Metals
Units: mg/Kg(ppm)
As Received Basis

Sample Name:	**Method Blank**
Lab Code:	J990830-MB
Date Analyzed:	8/25-9/3/99

Analyte	**EPA Method**	**MRL**	
Antimony	6010B	2.5	U
Arsenic	6010B	5.0	U
Beryllium	6010B	0.15	U
Cadmium	6010B	0.5	U
Chromium	6010B	1.5	U
Copper	6010B	0.05	U
Lead	6010B	5.0	U
Mercury	7471	0.2	U
Nickel	6010B	2.5	U
Selenium	6010B	10.0	U
Silver	6010B	0.50	U
Thallium	6010B	50.0	U
Zinc	6010B	1.50	U

U Not detected at or above the MRL.

Approved By: Tom D. Hoisinger Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	EMCON	**Service Request:**	J9902469
Project:	Burke Lumber C0. 797253.010.000	**Date Collected:**	8/19/99 1215
Sample Matrix:	Soil	**Date Received:**	8/20/99 1000
		Date Extracted:	NA

Inorganic Parameters

				Sample Name:	SD-1	SD-2	SD-3
				Lab Code:	J9902469-01	J9902469-02	J9902469-03
Analyte	**Units**	**EPA Method**	**MRL**	**Date/Time Analyzed**			
Chromium, Hexavalent	mg/Kg	W846 7196	1	8/31/99 1740	U	U	U
Solids, Total	%	160.3	1	8/20/99 1155	68.9	64.5	82.4

U Not detected at or above the MRL.

Approved By: Tom D. Kissinger Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Burke Lumber C0. 797253.010.000
Sample Matrix: Soil

Service Request: J9902469
Date Collected: 8/19/99 1215
Date Received: 8/20/99 1000
Date Extracted: NA

Inorganic Parameters

Sample Name: **Method Blank**
Lab Code: J990831-MB

Analyte	**Units**	**EPA Method**	**MRL**	**Date/Time Analyzed**	
Chromium, Hexavalent	mg/Kg	W846 7196	1	8/31/99 1740	U

U Not detected at or above the MRL.

Approved By: Jane D. Hessinger Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Burke Lumber Co. / 797253.010.000
Sample Matrix: Soil

Service Request: J9902469
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 8/25/99

Surrogate Recovery Summary
Volatile Organic Compounds
EPA Method 8260B

		Percent Recovery		
Sample Name	**Lab Code**	Dibromofluoromethane	Toluene-d_8	4-Bromofluorobenzene
SD-1	J9902469-01	95	101	78
SD-2	J9902469-02	95	99	81
SD-3	J9902469-03	101	102	88
Method Blank	J990825-MB	97	99	90
Laboratory Control Sample	J990825-LCS	97	100	93
Batch QC	J9902469-01MS	97	102	87
Batch QC	J9902469-01MSD	94	101	94
CAS Acceptance Limits:		83-117	81-119	65-135

Approved By: Tom D. Hassinger Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Burke Lumber Co. / 797253.010.000
Sample Matrix: Soil

Service Request: J9902469
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 8/25/99

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds
EPA Method 8260B
Units: µg/Kg (ppb)

Sample Name: Batch QC
Lab Code: Batch QC

Analyte	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	EPA Acceptance Limits	Relative Percent Difference
1,1-Dichloroethene	50	50	U	39	36	78	72	56-126	8
Benzene	50	50	U	41	38	82	76	55-130	8
Trichloroethene	50	50	U	41	38	82	76	47-130	8
Toluene	50	50	U	43	39	86	78	51-129	10
Chlorobenzene	50	50	U	40	35	80	70	38-131	13

Approved By: Tom D. Hissinger Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Burke Lumber Co. / 797253.010.000
LCS Matrix: Soil

Service Request: J9902469
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 8/25/99

Laboratory Control Sample Summary
Volatile Organic Compounds
EPA Method 8260B
Units: µg/Kg (ppb)

Analyte	True Value	Result	Percent Recovery	EPA Percent Recovery Acceptance Limits
1,1-Dichloroethene	50	40	80	56-126
Benzene	50	45	90	55-130
Trichloroethene	50	45	90	47-130
Toluene	50	45	90	51-129
Chlorobenzene	50	45	90	38-131

Approved By: Tom D. Hysinger Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Burke Lumber Co. / 797253.010.000
Sample Matrix: Soil

Service Request: J9902469
Date Collected: 8/19/99
Date Received: 8/20/99
Date Extracted: 8/24/99
Date Analyzed: 8/26/99

Surrogate Recovery Summary
Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3550/8270C

Sample Name	Lab Code	Percent Recovery					
		NBZ	FBP	TPH	PHL	2FP	TBP
SD-1	J9902469-01	67	79	70	64	71	97
SD-2	J9902469-02	66	74	71	64	71	102
SD-3	J9902469-03	66	78	71	63	71	94
Method Blank	J990824-MB	60	66	65	58	64	88
Laboratory Control Sample	J990824-LCS	70	85	72	73	76	106
Batch QC	J9902469-01MS	70	86	72	72	75	103
Batch QC	J9902469-01DMS	69	84	72	70	74	101
CAS Acceptance Limits:		35-114	43-116	33-141	10-94	21-100	10-123

NBZ	Nitrobenzene-d5
FBP	2-Fluorobiphenyl
TPH	Terphenyl-d14
PHL	Phenol-d6
2FP	2-Fluorophenol
TBP	2,4,6-Tribromophenol

Approved By: Tom D. Kissinger Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Burke Lumber Co. / 797253.010.000
Sample Matrix: Soil

Service Request: J9902469
Date Collected: NA
Date Received: NA
Date Extracted: 8/24/99
Date Analyzed: 8/26/99

Matrix Spike/Duplicate Matrix Spike Summary
Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3550/8270C
Units: µg/Kg (ppb)

Sample Name: Batch QC
Lab Code: Batch QC

Analyte	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	CAS Acceptance Limits	Relative Percent Difference
Phenol	5000	5000	U	3750	3650	75	73	56-115	3
2-Chlorophenol	5000	5000	U	3850	3800	77	76	52-117	1
1,4-Dichlorobenzene	2500	2500	U	2050	2000	82	80	60-122	2
N-Nitroso-di-n-propylamine	2500	2500	U	1900	1850	76	74	52-128	3
1,2,4-Trichlorobenzene	2500	2500	U	2400	2300	96	92	63-121	4
4-Chloro-3-methylphenol	5000	5000	U	4000	3950	80	79	59-132	1
Acenaphthene	2500	2500	U	2100	2000	84	80	66-123	5
4-Nitrophenol	5000	5000	U	3900	3900	78	78	48-144	<1
2,4-Dinitrotoluene	2500	2500	U	2100	2000	84	80	63-130	5
Pentachlorophenol	5000	5000	U	4200	4300	84	86	20-161	2
Pyrene	2500	2500	U	1800	1800	72	72	49-120	<1

U Not detected at or above the MRL.

Approved By: Tom D. Hessinger Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Burke Lumber Co. / 797253.010.000
LCS Matrix: Soil

Service Request: J9902469
Date Collected: NA
Date Received: NA
Date Extracted: 8/24/99
Date Analyzed: 8/26/99

Laboratory Control Sample Summary
Base Neutral/ Acid Semivolatile Organic Compounds
EPA Methods 3550/8270C
Units: µg/Kg (ppb)

Analyte	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Phenol	5000	3750	75	56-115
2-Chlorophenol	5000	3900	78	52-117
1,4-Dichlorobenzene	2500	2100	84	60-122
N-Nitroso-di-n-propylamine	2500	1850	74	52-128
1,2,4-Trichlorobenzene	2500	2400	96	63-121
4-Chloro-3-methylphenol	5000	3900	78	59-132
Acenaphthene	2500	2000	80	66-123
4-Nitrophenol	5000	3400	68	48-144
2,4-Dinitrotoluene	2500	1950	78	63-130
Pentachlorophenol	5000	2700	54	20-161
Pyrene	2500	1700	68	49-120

Approved By: Tam D. Hassinger Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Burke Lumber Co. / 797253.010.000
Sample Matrix: Soil

Service Request: J9902469
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 8/25-9/3/99

Duplicate Matrix Spike Summary
Total Metals
Units: mg/Kg (ppm)

Sample Name: Batch QC
Lab Code: Batch QC

Analyte	EPA Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Note
Antimony	6010B	2.5	75.9	71.1	73.5	7	
Arsenic	6010B	5.0	109	112	110	3	
Beryllium	6010B	0.15	96.9	90.9	93.9	6	
Cadmium	6010B	0.5	98.5	91.6	95.0	7	
Chromium	6010B	1.5	101	94.5	97.8	7	
Copper	6010B	0.05	102	96.2	99.1	6	
Lead	6010B	5.0	106	98.2	102	8	
Mercury	7471	0.2	0.50	0.55	0.52	10	
Nickel	6010B	2.5	103	97.3	100	6	
Selenium	6010B	10.0	103	95.8	99.4	7	
Silver	6010B	0.50	49.4	45.9	47.6	7	
Thallium	6010B	50.0	90.2	82.6	86.4	9	
Zinc	6010B	1.50	58.1	54.1	56.1	7	

U Not detected at or above the MRL.

Approved By: Tom D. Kissinger Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Burke Lumber Co. / 797253.010.000
Sample Matrix: Soil

Service Request: J9902469
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 8/25-9/3/99

Matrix Spike Summary
Total Metals
Units: mg/Kg (ppm)

Sample Name: Batch QC
Lab Code: Batch QC

Analyte	EPA Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptanc Limits	Result Note
Antimony	6010B	2.5	91.5	U	75.9	83	75-125	
Arsenic	6010B	5.0	111	U	109	98	75-125	
Beryllium	6010B	0.15	91.5	0.17	96.9	106	75-125	
Cadmium	6010B	0.5	111	U	98.5	89	75-125	
Chromium	6010B	1.5	111	8.44	101	83	75-125	
Copper	6010B	0.05	91.5	U	102	111	75-125	
Lead	6010B	5.0	111	U	106	95	75-125	
Mercury	7471	0.2	0.50	U	0.50	100	75-125	
Nickel	6010B	2.5	91.5	3.56	103	109	75-125	
Selenium	6010B	10.0	91.5	U	103	113	75-125	
Silver	6010B	0.50	45.7	U	49.4	108	75-125	
Thallium	6010B	50.0	91.5	U	90.2	99	75-125	
Zinc	6010B	1.50	45.7	13.2	58.1	98	75-125	

U Not detected at or above the MRL.

Approved By: Tam D. Hoskinson Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Burke Lumber Co. / 797253.010.000
Sample Matrix: Soil

Service Request: J9902469
Date Collected: NA
Date Received: NA
Date Analyzed: 8/25-9/3/99

Laboratory Control Sample Summary
Total Metals
Units: mg/Kg (ppm)

Analyte	EPA Method	TRUE VALUE	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Antimony	6010B	77.6	57.6	74 (a)	75-125
Arsenic	6010B	36.5	37.0	101	75-125
Beryllium	6010B	77.0	74.8	97	75-125
Cadmium	6010B	34.6	35.2	102	75-125
Chromium	6010B	108	107	99	75-125
Copper	6010B	61.7	62.5	101	75-125
Lead	6010B	50.2	54.0	108	75-125
Mercury	7471	1.00	1.08	108	75-125
Nickel	6010B	48.4	47.2	98	75-125
Selenium	6010B	45.7	43.2	95	75-125
Silver	6010B	34.1	34.0	100	75-125
Thallium	6010B	106	88.9	84	75-125
Zinc	6010B	137	140	102	75-125

a LCS value is within ERA acceptance limits.

Approved By: Tamed. Kissinger Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Burke Lumber C0. 797253.010.000
Sample Matrix: Soil

Service Request: J9902469
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 8/20-31/99

Duplicate Summary
Inorganic Parameters

Sample Name: Batch QC
Lab Code: Batch QC

Analyte	Units	EPA Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference
Chromium, Hexavalent	mg/Kg	W846 7196	1	U	U	U	<1
Solids, Total	%	160.3	1	68.9	73.5	71.2	6

U Not detected at or above the MRL.

Approved By: Tom D. Kissinger Date: 9/3/99

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Burke Lumber C0. 797253.010.000
Sample Matrix: Water

Service Request: J9902469
Date Collected: NA
Date Received: NA
Date Analyzed: 8/20-31/99

Laboratory Control Sample Summary
Inorganic Parameters

Analyte	Units	EPA Method	TRUE Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Chromium, Hexavalent	mg/Kg	W846 7196	20	19.2	96	75-125

Approved By: Tom D Kissinger Date: 9/3/99

Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form

Client: EMCON Work order: J9902469
Project: Burke Lumber Co. / 797253.010.000
Cooler received on 8/20/99 1000 and opened on 8/20/99 1000 by THT

		Yes	No	N/A
1	Were custody seals on outside of cooler?	☒	☐	☐
	If yes, how many and where? One on lid			☐
	Were signature and date correct?	☒	☐	☐
2	Were custody papers properly filled out (ink, signed, etc....)?	☒	☐	☐
3	Did all bottles arrive in good condition (unbroken, etc....)?	☒	☐	☐
4	Were all bottle labels correct (analysis, preservation, etc....)?	☒	☐	☐
5	Did all bottle labels and tags agree with custody papers?	☒	☐	☐
6	Were correct bottles used for test indicated?	☒	☐	☐
7	Were VOA vials checked for absence of air bubbles, and noted?	☐	☐	☒
8	Temperature of cooler upon receipt	2.7 Degrees C		

Explain any discrepancies:

		Yes	No
pH	Reagent		
12	NaOH		
2	HNO_3		
2	H_2SO_4		

Yes = all samples OK
No = Samples were preserved at lab as listed

Comments:

Sample I.D.	Reagent	Vol.

Columbia Analytical Services™
An Entergroup Division of Columbia Analytical Services, Inc.

CHAIN OF CUSTODY/LABORATORY ANALYSIS REPORT FORM

8540 Baycenter Rd. • Jacksonville, FL 32256 • (904) 739-2277 • 800-695-7222 • FAX (904) 739-2011

DATE 8-19-99 PAGE 1 OF 1

PROJECT NAME Burke Lumber Co.
PROJECT # 797253 01000000
COMPANY/ADDRESS I·T-EMCON
1 Mill Street E-2/Box B-15
Burlington, VT 05401 PHONE 802/658-6884
REPORT TO Joe Hayes

ANALYSIS REQUEST

SAMPLE I.D.	DATE	TIME	SAMPLE MATRIX	NUMBER OF CONTAINERS	EPA 8260B	EPA 8270C	Priority Pollutant Metals plus Cr+6	REMARKS
SD-1	8-19-99	12:15	Sediment	2	X	X	X	
SD-2	8-19-99	1:30	Sediment	2	X	X	X	
SD-3	8-19-99	2:00	Sediment	2	X	X	X	

RELINQUISHED BY:
Signature: [signature]
Printed Name: Joseph J. Hayes
Firm: IT-EMCON
Date/Time: 8-19-99/3:00

RECEIVED BY:
Signature: Travis Trader
Printed Name: Travis Trader
Firm: CAS
Date/Time: 8/20/99 1000

TURNAROUND REQUIREMENTS
✓ 24 hr. ___ 48 hr. ___ 5 day
✓ Standard (7-10 working days)
___ Provide Verbal Preliminary Results
✓ Provide FAX Preliminary Results
Requested Report Date ___

REPORT REQUIREMENTS
✓ I. Routine Report
___ II. Report (includes DUP,MAS, MSD, as required, may be charged as samples)
___ III. Data Validation Report (includes All Raw Data)
___ IV. CLP Deliverable Report

INVOICE INFORMATION:
P.O.# ___
Bill To: EMCON
1 Mill Street Box B-15
Burlington, VT 05401

SAMPLE RECEIPT:
Shipping VIA: Fed Ex
Shipping to: ___
Condition: ___
Lab No: ___

RELINQUISHED BY:
Signature ___
Printed Name ___
Firm ___
Date/Time ___

RECEIVED BY:
Signature ___
Printed Name ___
Firm ___
Date/Time ___

SPECIAL INSTRUCTIONS/COMMENTS:

SAMPLER'S SIGNATURE: Joseph J. Hayes

J9902469