



May 17, 1999

Chuck Schwer
Waste Management Division
Sites Management Section
103 S Main St./West Building
Waterbury, VT 05676-0404

May 19 12:45 PM '99

Re: Wyeth Nutritionals and Vermont Whey
SMS Site # 98-2575 and 98-2541
DH 6584009.03 and 6584009.02

Dear Mr. Schwer:

Enclosed are copies of our Site Investigations for the subject properties. No petroleum contamination of significance were found at either site. We recommend that both of these sites be considered for SMAC designation.

Please feel free to write, call or e-mail your comments.

Very truly yours,

DUFRESNE-HENRY, INC.

F. David Deane, P.E.
Environmental Services

FDD/dim

Enclosures

cc G. William Edder
Harry J. Yekel, P.E.
Alec Tuscany w/o Enclosures

WNI/VWISITran051799

Phase (check one)	Type (check one)
<input checked="" type="checkbox"/> Initial Site Investigation <input type="checkbox"/> Corrective Action Feasibility Investigation <input type="checkbox"/> Corrective Action Plan <input type="checkbox"/> Corrective Action Summary Report <input type="checkbox"/> Operations & Monitoring Report	<input type="checkbox"/> Work Scope <input checked="" type="checkbox"/> Technical Report <input type="checkbox"/> PCF Reimbursement Request <input type="checkbox"/> General Correspondence

SITE INVESTIGATION

**Vermont Whey Company
Georgia, VT 05468**

SMS Site #98-2541

**A Facility Owned By:
Vermont Whey Company
P.O. Box 2129
Georgia, VT 05468
(802) 527 - 7737
Contact: G. William Edder**

**Prepared By:
Dufresne-Henry, Inc.
Precision Park
North Springfield, VT 05150
(802) 886-2261
Contact: F. David Deane, P.E.**

May 17, 1999

May 19 12 45 PM '99

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EXECUTIVE SUMMARY

A Site Investigation has been completed at the Vermont Whey Company in Georgia, Vermont. The investigation was in response to the discovery of a petroleum product release during a Tank Closure Assessment in September 1998. The subject was one (1) 30,000 gallon fuel oil UST. The release was attributed to failed piping in one area. PID readings up to 53 ppm were observed. Approximately 16 cubic yards of contaminated soil were excavated and polyencapsulated on site. No compounds above detection limits were found in soil samples from the piping and tank excavations when analyzed by EPA Methods 8021B and 8100(mod).

Two shallow groundwater monitoring wells were installed on the site in March 1999. The wells were installed in the area of observed contamination. Both soil and water samples from each boring were analyzed by EPA Methods 8021B and 8100(mod). No compounds above detection limits were found in either medium.

Soils on the site are silty sand and sandy silt. The permeability of the soil is likely to be relatively low. Bedrock was not encountered in either of the borings to a depth of twenty-four feet. Based on a single round of sounding, the direction of groundwater flow is to the southwest.

All of the tenants in the industrial park are on the municipal water supply system. There are a limited number of private residences within a half mile of the site. The nearest are separated from the site by a stream. The nearest surface water is Deer Brook located several hundred feet to the northwest. No odors have been reported in the Vermont Whey plant. Vapor impacts to off site structures are very unlikely.

Based on these findings, the site does not meet the SMS criteria for corrective actions. It is our opinion that additional investigation is not necessary to further characterize conditions at this site relative to petroleum contamination associated with the former UST, and that the site should be considered for Site Management Activity Completed (SMAC) designation.

SITE INVESTIGATION
VERMONT WHEY COMPANY
GEORGIA, VERMONT

Introduction

The Vermont Whey Company is located in the Georgia Dairy Industrial Park off of No. 31 Industrial Park Road in Georgia, Vermont. A site location map is included as Appendix A.

Dufresne-Henry, Inc., in conjunction with Engelberth Construction, Commercial Piping, Inc. and Environmental Products & Services, Inc., performed an Underground Storage Tank (UST) Closure Assessment at the site on September 18 and 24, 1998. The subject was one (1) 30,000 gallon #2 oil, single wall, steel UST. For part of its service life the tank stored #6 oil. Evidence of soil contamination above the reporting threshold was found under the piping within ten to fifteen feet of the building.

The Sites Management Section (SMS) requested in a letter dated January 13, 1999, that a Site Investigation be conducted. Wyeth Nutritionals, Inc. retained Dufresne-Henry to do the work in February 1999.

Work and Health and Safety Plans

A work plan to complete the investigation was forwarded to the SMS on February 12, 1999. Authorization from the SMS was received in a letter dated February 15, 1999. Dufresne-Henry prepared a Health and Safety Plan for the proposed activities at the site. Copies of these documents are in Appendix B. The remainder of this report describes the on-site activities and subsequent findings of the investigation.

Site Description

Vermont Whey is located in the Georgia Dairy Industrial Park in Georgia, Vermont. Vermont Whey is owned by Wyeth Nutritionals, Inc. The Vermont Whey operation occupies an 11.9± acre portion of a much larger complex. The facility consists of a large plant, a wastewater treatment building, nine treatment lagoons, paved roads and parking, a railroad siding, and undeveloped land. The property is served by the municipal water supply system, and an on-site wastewater disposal system. At the time of this investigation the plant had been shut down for approximately nine months. The site is quite flat, with a slight slope to the south and west. The site is bordered by Town Highway #31 to the north, tracks of Central Vermont Railway, Inc. to the east, Deer Brook and private property to the south, and Wyeth Nutritionals, Inc. to the west. A site plan is included as Appendix C.

The former heating oil UST was located in a lawn area on the north side of the plant and was oriented in a northeast-southwest direction. The supply, return, and steam piping crossed under a parking lot prior to entering the building. The tank and piping were 24 years old at the time of removal. There are no other known UST's on the site.

Site History

The history of the site is incompletely known. The plant has occupied the site since at least 1974. Major improvements were completed in the early 1980's.

The tank removed in September 1998 is the only known UST to have existed on the property.

The Fourth Quarter 1998 Update (January 19, 1999) Vermont Hazardous Waste Sites List maintained by the Hazardous Materials Management Division (HMMD) contains four other sites in Georgia. One (1) of the sites is within a one-half mile radius of the subject property. The Wyeth Nutritionals site (SMS #98-2575) directly abuts the subject property to the west, but is judged unlikely to have an impact on it.

Previous Investigations

No record of previous investigations was disclosed, other than the September 1998 UST closure. During that work headspace soil samples from around the UST produced PID readings ranging from 0.2 ppm to 1.2 ppm. Readings from under a limited section of the piping ranged from 0.2 ppm to 53 ppm. Approximately sixteen cubic yards of contaminated soil were excavated and polyencapsulated on the adjacent Wyeth Nutritionals property. Not all of the contaminated soil was judged to be removed, but additional excavation was not done because of site disturbance issues. With the authorization of the Underground Tank Program, the excavation was backfilled pending additional investigation. At the time of the closure, three (3) soil samples were collected from the UST excavation, and one (1) soil sample from the bottom of the piping excavation. No compounds above detection limits were found in any of the samples when analyzed by EPA Method 8021 and EPA Method 8100(mod). Relevant portions of the closure assessment are included as Appendix D.

Monitoring Well Installation

Two (2) shallow groundwater monitoring wells were installed on March 24 - 25, 1999 by Green Mountain Boring of East Barre, Vermont. All borings and well installations were

under the field observation of Dufresne-Henry personnel. The wells are designated MW-1 and MW-2. Per the approved work plan only one monitoring well was to be installed. The other location was to be a test boring only, with soil samples obtained. However, no evidence of contamination was discovered in the first location. It was not certain whether contamination would be found in the other location. As flowing sand and silt prevented abandoning the location without loss of the hole, a well was installed. Contamination subsequently found in the other boring necessitated the installation of a second well at that location. Well MW-1 was located approximately three feet east of the former piping trench, and well MW-2 was located approximately three feet west of the trench. The wells were located as close as practical to the zone of contamination observed during the closure assessment. The exact locations were influenced by an underground drain pipe. The boring locations are noted on the site plan in Appendix C. Logs of the borings and daily inspection reports are included as Appendix E.

During boring advancement continuous split spoon soil samples were taken starting below frost depth (three to four feet). All soil samples were screened for the presence of Volatile Organic Compounds (VOC's) with a Photovac HL-2,000 photoionization detector (10.6 eV lamp, calibrated on-site with 99.1 ppm Isobutylene). The screening was done at ambient temperatures in the headspace of the sample jars.

In well MW-1, no evidence of soil contamination was observed by visual or olfactory senses. Peak PID readings ranged from 0.1 ppm to 3.7 ppm. In MW-2, very faint - moderate oily odors were observed between the depths of four feet and twelve feet. No evidence of staining was observed. Peak PID readings ranged from 2.0 ppm to 49 ppm. The water table in

both locations was encountered between fifteen and sixteen feet. The total depth of the borings was twenty-four feet in MW-1 and twenty-two feet in MW-2. Refusal was not encountered in either boring.

Two-inch diameter PVC monitoring wells were installed in each of the borings. Each well was constructed from .010 inch machine slotted screen. The screened interval is ten feet in each well. The bottom of both wells is at twenty-two feet. Each well was backfilled with clean silica sand to a point above the screen and a bentonite seal installed. The wells were protected at the ground surface by grouting in watertight cast iron monitoring well boxes. The wells were developed by repeated bailing.

Soil Sampling

Analytical soil samples were collected from each of the borings. The sample from MW-1 was from the sixteen to eighteen foot split spoon. The sample from MW-2 was from the twelve to fourteen foot split spoon. The samples were kept refrigerated prior to being shipped via overnight carrier to Eastern Analytical, Inc. of Concord, New Hampshire on March 29, 1999. Both samples were analyzed for VOC's by EPA Method 8021B and for Total Petroleum Hydrocarbons (TPH) by EPA Method 8100(mod). The analyses found no compounds above method detection limits. A copy of the analytical report is included as Appendix F.

Monitoring Well Sampling

The two (2) Dufresne-Henry monitoring wells were sampled on April 8, 1999. The sampling was performed by Dufresne-Henry personnel. Three well volumes were purged from each well prior to drawing a sample. No sheens were observed in either of the monitoring wells.

The refrigerated samples were shipped to Eastern Analytical, Inc. on April 8, 1999 via overnight carrier. The samples were analyzed for VOC's by EPA Method 8021B and for TPH by EPA Method 8100(mod). No compounds above method detection limits were found in either sample. A copy of the contract laboratory analytical report is included as Appendix G.

Site Geology

Published surficial geology indicates the site is near the contact of an area of pebbly marine sand, and lake bottom sediments consisting of silt, silty clay, and/or clay containing ice rafted boulders. The deposits are associated with Lake Vermont, formed at the close of the Pleistocene glaciation. The SCS soil survey for Franklin County maps the soil as Windsor loamy fine sand. The test borings generally corroborate the soils as lake bottom sediments. The soils are very fine grained, alternating between silty very fine sand, and sandy silt. Stone content is virtually nonexistent, with only several apparently ice rafted pebbles observed. No evidence of filling was observed.

Published mapping indicates bedrock on the site is likely to be Dunham Dolomite. Dunham Dolomite is generally described as pink and cream to buff siliceous dolomite. The contact with the Cheshire quartzite is a short distance to the east. The contact is a fault line. The age of both rocks is Lower Cambrian. Some fracturing of the rock is likely. No bedrock outcrops were observed in the immediate vicinity.

Site Hydrogeology

At the time the monitoring wells were sampled on April 8, 1999, the depth to the water table at the Dufresne-Henry monitoring wells was approximately 15.9 feet. In addition to the

D-H wells, there are observation/monitoring wells on the south side of the plant associated with the treatment lagoons. Five of the wells, approximately 300 feet to 400 feet from the DH monitoring wells, were sounded at the same time. Based on this single sounding, the direction of groundwater flow is to the southwest. The gradient is relatively shallow at approximately 1.3%. A site plan showing the groundwater contours as of April 8, 1999 is included as Appendix H.

Potential Receptors

The most recent USGS quadrangle ¹⁹⁸⁷ (1972) shows less than a dozen structures within a half mile radius of the site. While the industrial park tenants are on the municipal water supply, it is not known whether these private residences are. The nearest houses are separated from the site by Deer Brook. Deer Brook, the nearest surface water body, is located several hundred feet northwest of the former UST. Deer Brook enters Arrowhead Mountain Lake approximately 2.25 miles downstream. The most likely receptor of vapors is the Vermont Whey plant which is immediately adjacent to the small area of remaining contaminated soil. The large plant has poured concrete frost walls and concrete floors within. No vapors have been reported in the plant. The former UST area has been backfilled and seeded. The trench excavation has been backfilled and paved with bituminous concrete. Both measures are sufficient to prevent dermal contact with near surface soil. Given the very limited extent of contamination, and the distances to them, vapor impacts to off-site buildings are quite unlikely.

Summary and Recommendations

The Vermont Whey Company plant has occupied the site since at least 1974. In addition to Vermont Whey, the industrial park is occupied by Wyeth Nutritionals and one other business. One lot is currently being cleared for an additional tenant.

Two (2) shallow groundwater monitoring wells were installed in March 1999. Evidence of soil contamination was observed in the boring on the west side of the trench for the former distribution piping. The odor indicated probable heating oil.

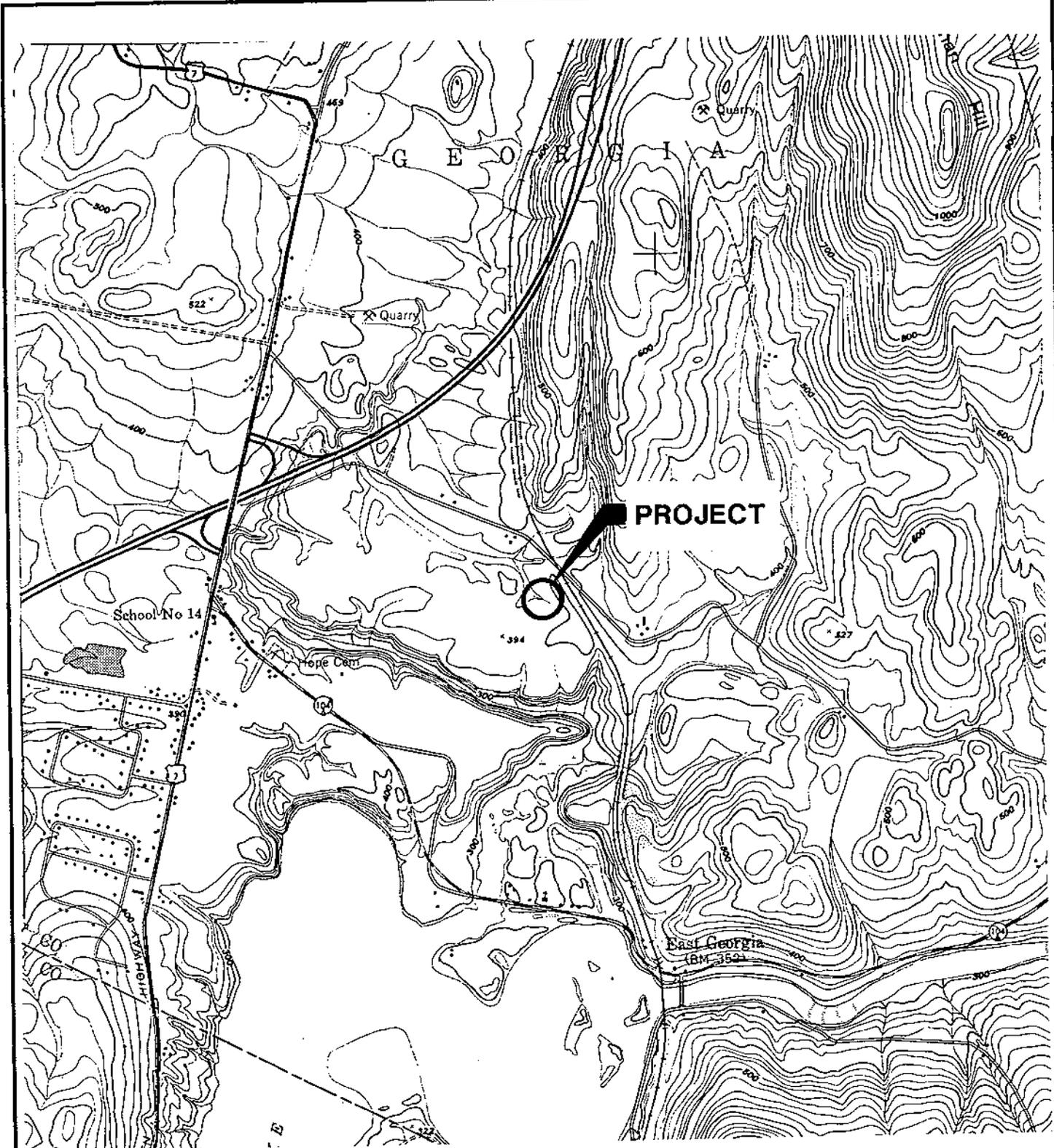
One soil sample was collected from each of the borings. The sample in the west boring was taken from below the zone of observed contamination. The monitoring wells were sampled once. Both sets of samples were analyzed for VOC's by EPA Method 8021B and for TPH by EPA Method 8100(mod). Neither the soil nor the water analyses found compounds above method detection limits, indicating that contamination has not reached the water table. The surface above the limited area of remaining contaminated soil has been repaved. Based on one round of sounding, the direction of groundwater flow is to the southwest.

All of the properties in the industrial park vicinity are connected to the municipal water supply system. The nearest surface water is Deer Brook, located several hundred feet northwest of the former UST. No vapors have been reported in the Vermont Whey plant. Migration of vapors to off-site buildings is very unlikely, given the extent of the contamination and the distance to those structures. There are no other UST's known to exist on the site.

Based on these findings, the site does not meet the SMS criteria for corrective actions. It is our opinion that additional investigation is not necessary to further characterize conditions at this site relative to petroleum contamination associated with the former UST, and that the site should be considered for Site Management Activity Completed (SMAC) designation.

APPENDIX A

SITE LOCATION MAP



SCALE
1:25,000

TAKEN FROM A QUADRANGLE MAP FOR MILTON, VT
PHOTOREVISED 1972



GEORGIA,

SITE LOCATION PLAN
VERMONT WHEY

VERMONT

Project No.	6584009.03
Proj. Mgr.	F.D.D.
Scale	1:25,000
Date	APR. 1999
	A

APPENDIX B

**SITE INVESTIGATION REQUEST,
WORK PLAN,
HEALTH AND SAFETY PLAN**

Waste Management Division
103 South Main Street/West Office
Waterbury, Vermont 05671-0404
(802) 241-3888
FAX (802) 241-3296

January 13, 1999

Mr. Mel Litchfield
Vermont Whey Company
P.O. Box 2129
Georgia, Vermont 05468

RE: Petroleum Contamination at Vermont Whey
Georgia, Vermont
SMS Site # 98-2541

Dear Mr. Litchfield:

The Sites Management Section (SMS) has received the Underground Storage Tank (UST) closure site report outlining subsurface conditions for the above referenced site. The fieldwork was conducted by Dufresne-Henry, Inc. on September 18-24, 1998. This report, dated October 19, 1998 and summarizes the degree and extent of contamination encountered. The USTs removed include:

- UST #1 - 30,000 gallon No. 2 / 6 fuel oil UST

During the site activities, soils screened had concentrations up to 53 parts per million (ppm) as measured by a photoionization detector (PID). The peak PID reading was measured at a depth of 7 feet below ground surface (fbgs) in the excavation. Approximately 16 cubic yards of excavated soil were stockpiled on-site due to the presence of PID elevated headspace readings. The limits of soil contamination were not defined. Free product of #6 oil was observed in the soil.

Site soils consisted of sand and gravel. Groundwater was not encountered at (maximum) depth of approximately 13 fbgs.

The Vermont Whey was not reported to have been inspected for potentially sensitive receptors. The receptors potentially affected include groundwater, basements of adjacent buildings, nearby surface water, and public or private drinking water wells which are located within the vicinity of the site.

Based on the report information, the SMS has determined that additional work is necessary at the site in order to determine the severity of contamination present. Due to the possibility of contaminant impact to nearby receptors, the SMS is requesting that Vermont Whey Company retain the services of a qualified environmental consultant to perform the following:

- Further define the degree and extent of contamination to the soil.
- As appropriate, determine if the airspace beneath the site building(s) or site adjacent buildings has been impacted by the release using a PID. Wall and floor construction as well as susceptibility to vapor migration should be noted. If the ambient airspace has been impacted, SMS requests that confirmatory sampling and laboratory analyses be performed using EPA Method TO-2.
- Determine the degree and extent of contamination, if any, to groundwater. A sufficient number of monitoring sites should be installed to adequately define the severity of contamination. All groundwater samples taken should be analyzed for TPH and BTEX compounds. At sites with nearby water supply sources, data should be collected to determine the hydrologic relationship of the contaminated area to the water supply source. Pumping influences should be considered in the evaluation.
- Assess the potential for sensitive receptors to be impacted by the contamination. Base this update on all available information. This assessment should include basements of adjacent buildings, nearby surface

water, any public or private drinking water wells which are located within the vicinity of the site, wetlands, sensitive ecologic areas, outdoor or indoor air, sewers, or utility corridors. If any water supplies appear at risk from this contamination, they should be sampled and analyzed for TPH and BTEX compounds.

- Determine the need for a long term treatment and/or monitoring plan which addresses the groundwater contamination.
- Develop a plan to treat and/or monitor the stockpiled soils. The soils must remain located in an area such that they have a low potential to impact nearby receptors. The soils must also remain properly encapsulated in plastic. The plan should demonstrate that child access to the soils is sufficiently restricted. If the soil is located in an area subject to public activity and where public access is not restricted, the soil pile should be surrounded by fence. The fence should be not less than 3 feet in height and of durable construction.
- Submit to the SMS a summary report which outlines the work performed, as well as provides conclusions and recommendations. Included should be analytical data, a site map showing the location of any potential sensitive receptors, stockpiled soils and monitoring or sample locations, an area map, detailed well logs (if appropriate) and a groundwater contour map.
- With the Workplan or Expressway notification, please submit a site location map at an approximate scale of 1:24000 showing the location of the site. The map should also contain a scale, a north arrow, the SMS site number, and a citation of the source map. The purpose of this map is to enable the SMS to enter the site location into a Geographical Information Systems database.

Please have your consultant submit a preliminary work plan and cost estimate or a site investigation expressway notification form within fifteen days of your receipt of this letter so that it may be approved prior to the initiation of onsite work. Enclosed please find a list of consultants who perform this type of work in the area as well as the brochure "*Selecting Your UST Cleanup Contractor*," which will help you in choosing an environmental consultant.

Based on current information, the underground storage tanks at Vermont Whey are eligible for participation in the Petroleum Cleanup Fund (PCF). You must provide written proof to the SMS that you hold no other applicable insurance in order to receive reimbursement from the PCF. The owner or permittee must pay for the removal and/or repair of the failed tank(s), and for the initial \$10,000.00 of the cleanup. The fund will reimburse the tank owner or permittee for additional eligible cleanup costs of up to \$1 million. All expenditures must be pre-approved by the Agency or performed in accordance with the "*Site Investigation Guidance*" expressway program. Please refer to the enclosed guidance document titled, "*Procedures for Reimbursement from the Petroleum Cleanup Fund*" for additional information concerning the PCF.

The Secretary of the Agency of Natural Resources reserves the right to seek cost recovery of fund monies spent at the Vermont Whey site if the Secretary concludes that Vermont Whey Company is in significant violation of the Vermont Underground Storage Tank Regulations or the Underground Storage Tank statute (10 V.S.A., Chapter 59).

We realize that this is a lot to absorb and respond to. We are here to help make this process as effective and uncomplicated as possible. Please review the enclosed documents and call me with any questions you may have. I can be reached at (802) 241-3876.

Sincerely,

Chuck Schwer, Supervisor
Sites Management Section

Enclosures (3)

cc: Georgia Selectboard w/o enclosure
Georgia Health Officer w/o enclosure
DEC Regional Office w/o enclosure (transmitted electronically) ✓
Oscar Garcia, Dufresne-Henry, Inc. w/o enclosure (transmitted electronically) ✓

Proposed Work Plan
Site Investigation

**VERMONT WHEY PLANT
GEORGIA, VERMONT**

This work plan outlines the tasks to be completed for a Site Investigation at the site of a former 30,000 gallon underground fuel oil storage tank (UST) at the Vermont Whey Plant in Georgia, Vermont. Prior to removal in late September 1998, the UST had historically stored No. 6 fuel oil, and more recently No. 2 fuel oil, to supply boilers for heat and manufacturing at the Whey Plant. This plan has been prepared as a result of a petroleum product release discovered during the Closure Assessment of the tank and associated piping.

Soil sample headspace PID readings from the tank grave ranged from 0.2 ppm to 1.2 ppm. Three soil samples obtained from the tank grave for laboratory analyses showed no compounds above detection limits for either Method 8021 or Method 8100 Modified. Positive PID readings were obtained from beneath the piping trench between the tank and the plant. At a distance of about 5' from the plant, and extending for a distance of about 10' along the trench, visual and olfactory evidence of petroleum was observed, and a peak PID reading of 53 ppm was obtained at a depth of about 7'. The trench was excavated to a depth of 9', with a sample from that depth yielding a PID reading of 50.2 ppm. A sample obtained from this location showed no compounds above detection limits when analyzed by the methods noted above. Evidence of solidified No. 6 oil was observed and removed. Approximately 16 cubic yards of contaminated soil was excavated and polyencapsulated on site. Not all of the contaminated soil was removed because additional excavation would have caused caving of the excavation and undermining of pavement. Neither the water table or bedrock was encountered at the maximum excavation depth of about 13'.

The purpose of the investigation is to determine the existence and extent of subsurface petroleum contamination at the site. The proposed boring and monitoring wells will be used to help ascertain the extent of a contamination plume and provide basic hydrogeologic data.

Because the soil contamination was limited to an area along the piping run, and the only apparent receptor is the Whey Plant itself, which has an elevated concrete slab floor constructed on a poured concrete foundation, it is recommended that the initial investigation be limited to the area in the immediate vicinity of the identified contaminated soil. At this time it is anticipated that two soil borings will be installed on either side and immediately adjacent to the former piping trench. A boring will not be installed directly in the former trench location because it would damage the PVC pipe sleeves that were installed at the time of closure in anticipation that a replacement UST and piping run may be installed in the future.

Continuous soil sampling will be performed for the full extent of both borings. A determination whether or not petroleum contamination is present will be based on visual and olfactory evidence as well as PID screening of samples. If the boring(s) appear to pass out of the contamination zone, a soil sample will be obtained for laboratory analysis below the apparent zone

of contamination. Whichever boring exhibits contamination to the greatest depth will be extended to the water table, which based on other nearby monitoring wells on the site is estimated to be at a depth of about 30'.

All field personnel are OSHA certified for hazardous site operations under 29 CFR part 1910.120.

BORINGS

It is anticipated that the borings for the monitoring well will be completed using 4 1/4" hollow stem augers. If possible, the proposed monitoring well will be extended a minimum of five (5) feet into the prevailing water table. It is anticipated that well depth will not exceed 40'. Petroleum based pipe dope for use on drill rods, tools, or casing will not be allowed. No type of drilling mud, including polymers, will be used. Should flowing sands be encountered, clean water obtained locally will be used to increase hydraulic head. If flowing sands are particularly problematic, casing will be used. All borings and monitoring well installations will be performed by Green Mountain Borings of Barre, Vermont or M & W Soils Engineering, Inc. of Charlestown, New Hampshire under the field supervision of Dufresne-Henry personnel.

SOIL SAMPLING

As noted above, it is anticipated that continuous split spoon soil samples will be taken in both of the proposed borings. . Reduced frequency will be a field decision of the Dufresne-Henry inspector. The split spoon sampler allows retrieval of relatively undisturbed soil samples from a known depth for classification and Volatile Organic Compound (VOC) screening. All soil samples and material from the auger flights will be screened for VOC's by headspace analysis with a Photovac HL-2000 photoionization detector (10.6 eV lamp, calibrated with Isobutylene). The act of driving the sampler (Standard Penetration Test) also gives an indication of the density or degree of compaction of the soil. Representative samples from each spoon will be placed in glass jars and retained by Dufresne-Henry. These are for project records only and are not intended for chemical analysis. Detailed logs of geology, drilling data, PID readings, and monitoring well installation will be prepared for each boring. At this time it is anticipated that one analytical soil sample will be collected from each boring from below the apparent zone of contamination.

MONITORING WELLS

The monitoring well will be constructed from 2", 0.010" machine slotted, threaded, flush joint, Schedule 40 PVC. Assuming no refusal, each monitoring well will consist of 10' to 15' of screen with sufficient riser to reach approximately 2" below the surface grade. The bottom of the well will be set such that approximately 5 feet of screen extends below the water table observed at the time of installation. The bottom of all wells will be provided with a PVC cap or point, or a plug with an expanding gasket. The annular space between the auger and the screen will be

carefully backfilled with clean silica sand to create a filter pack around the well. The filter pack will extend from the bottom of the well to approximately 2 feet above the screen. A bentonite seal will be installed above the filter pack, and the remainder of the hole will be backfilled with native soil. A protective monitoring well box will be grouted in flush at the surface. The well will have removable top cap for sampling and sounding. The well will be developed by surging, and by pumping or bailing.

DECONTAMINATION

The borings may, or may not, be completed within the zone of contamination. However, to prevent cross contamination between the borings, strict decontamination procedures will be followed. All in-ground tools and equipment will be decontaminated by steam cleaning prior to the start of work and between borings. All decontamination will be done on-site at a designated location. Within the known contaminated area, routine cleaning of equipment, such as split spoons, will use water obtained at the site and a product such as ALCONOX. Disposal of spent cleaning solution will be at the site. Excess contaminated soil will be stored on-site in the existing polyencapsulated stockpile.

WATER SAMPLING

Water quality samples will be obtained from the Dufresne-Henry installed monitoring wells, and possibly one or more of the other nearby wells on the site, following a period of stabilization. The samples will be taken by Dufresne-Henry personnel. Samples will be obtained with disposable bailers which will be left in the wells to facilitate future sampling. Samples may not be obtained from any well exhibiting free product. All of the monitoring wells will be analyzed for VOC's by EPA Method 8021B and for TPH by EPA Method 8100(mod). The analyses will be done by Eastern Analytical, Inc. of Concord, New Hampshire, or by Scitest, Inc.

SITE SURVEY

The relative locations and elevations of the monitoring well will be determined. Sufficient additional surveying will be performed to update the existing site plan.

RECEPTOR ASSESSMENT

A receptor assessment will be conducted to identify potential receptors including nearby water supply wells and surface waters. If they exist, the basements of nearby buildings, if any, will be screened with the PID as deemed necessary.

STOCKPILED SOILS

The approximately 16 cubic yards of petroleum contaminated soil that was excavated at the time of the piping removal is stockpiled on the facility property. The property is surrounded by a chain link security fence. Access to the site is tightly controlled at manned entry and exit points. The condition of the polyencapsulation will be observed as a part of this investigation. A monitoring plan or plan for off site disposal will be developed.

REPORTING

A report will be prepared summarizing the findings and recommendations of the investigation including the monitoring well installation, groundwater quality and overall characterization of shallow subsurface conditions, and the likely impacts on potential receptors. Conclusions and recommendations regarding the need for long term treatment and/or monitoring will be included. The report will be submitted within 45 days of the monitoring well installation.

A summary breakdown of estimated costs to complete the work described above will be attached. It is understood that should soil contamination be more widespread than anticipated, or groundwater contamination identified, additional monitoring points may be required to further characterize site conditions.

Waste Management Division
103 South Main Street/West Office
Waterbury, Vermont 05671-0404
(802) 241-3888
FAX (802) 241-3296

February 15, 1999

Mr. Bill Edder
Vermont Whey Company
P.O. Box 2129
Georgia, Vermont 05468

RE: Petroleum Contamination at Vermont Whey
Georgia, Vermont
SMS Site # 98-2541

Dear Mr. Edder:

The Sites Management Section (SMS) has received and reviewed the workplan to address petroleum contamination at the above referenced site. The workplan was submitted by Dufresne-Henry, Inc. and is dated February 12, 1999.

The SMS concurs with the elements of the workplan and approves its implementation. This investigation consists of a reduced workscope. Please understand that should significant contamination be detected a complete site investigation will be required.

Please note that reimbursement of the costs associated with this work is subject to:

- a site deductible of \$10,000 deductible;
- stipulations of the Consultants Fee Schedule contained in the *Sites Investigation Guidance Document* dated August 1996; and
- the provisions of the *Procedures for Reimbursement from the Petroleum Cleanup Fund* date September 1995.

If you have any questions or concerns, please call me at (802) 241-3892.

Sincerely,

Robert G. Butler, Jr.
Sites Management Section

cc: Dave Deane, Dufresne-Henry, Inc. w/o enclosure (transmitted electronically) ✓

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- Personnel Injury To D-H Employees In The Exclusion Zone
- Personnel Injury To D-H Employees In The Support Zone
- Fire/Explosion
- Personal Protective Equipment Failure
- Other Equipment Failure

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- Ambulance
- Hospital
- Police
- Fire Department
- Poison Center
- State Agency Incident Response
- Corporate
- Nearest Phone
- Location Of On-Site First Aid Kit
- Emergency Vehicle

SIGNATURE SHEET 12

PROJECT: VERMONT WHEY / WYETH NUTRITIONALS SITE INVESTIGATION
JOB NO.: 6584009.02 (VT WHEY) 6584009.03 (WYETH NUT.)

HEALTH AND SAFETY PLAN
FOR

SITE INVESTIGATION

VERMONT WHEY / WYETH NUTRITIONALS

GEORGIA, VERMONT

This Health and Safety Plan applies only to Dufresne-Henry, Inc. employees.

PROPOSED ON-SITE ACTIVITIES:

Vermont Whey - Completion of two (2) test borings, the installation of one (1) monitoring well, soil sampling, well development, decontamination, and groundwater sampling.

Wyeth Nutritionals - Completion of four (4) test borings, the installation of four (4) monitoring wells, soil sampling, well development, decontamination, and groundwater sampling.

PROPOSED DATE(S) OF WORK: Wells: March 24 - 26, 1999
Sampling: Week of March 29, 1999

ANTICIPATED WEATHER CONDITIONS: temperatures in the teens - 40's, possible snow or rain.

PROPOSED SITE INVESTIGATION TEAM:

<u>Personnel</u>	<u>Responsibilities</u>
F. David Deane	Project Manager
Bruce Cox	Site Safety Officer
Bruce Cox/Oscar Garcia	Field Team Leader (Monitoring Wells/Sampling)
William Edder	Site Representative
Chuck Schwer	ANR Representative

All Dufresne-Henry, Inc. personnel arriving or departing the Site should check in and out with the Site Safety Officer. All Dufresne-Henry activities on-Site must be cleared through the Field Team Leader or Project Manager.

Background Information

Site Status: Active Inactive Unknown

Site Description (Topography, on-site structures, vegetation, surrounding population, contaminated areas (if known))

Vermont Whey and Wyeth Nutritionals are both parts of the same company. The two plants are located across the street from each other.

Vermont Whey is located on Industrial Park Road. On-site utilities include underground water and sewer lines, underground and overhead power lines, underground gas lines, and underground stormwater piping. The depth to the water table is greater than 15'.

Wyeth Nutritionals is located on Industrial Park Road. On-site utilities include underground water and sewer lines, underground and overhead power lines, underground gas lines, and underground stormwater piping. The depth to the water table is greater than 15'.

Dig Safe was contacted on March 22, 1999. The sites are clear after 7:45 am on March 24, 1999. The Dig Safe number is 19991300303. Each company is responsible for the location of on-site utilities not covered by the Dig Safe service.

Site History:

The history of neither site is known at this time. Both have been on their respective sites for several years. One (1) fuel oil UST was removed at Vermont Whey in September 1998.

Monitoring or Sampling Data From Previous Site work:

A UST Closure Assessment was conducted at Vermont Whey between September 18 and 24, 1998. One (1) 30,000 gallon fuel oil UST was removed. Soil sample headspace readings up to 53 ppm were observed, as well as approximately 1/16" of free product.

Contaminated soil was encountered during the replacement of product piping between two 40,000 gallon oil UST's and the factory. PID readings up to 700 ppm were observed.

No other site investigations are known.

HAZARD REFERENCE

Waste Types:

Liquid Solid (soil) ___ Sludge Vapor ___ Unknown

Waste Characteristics:

___ Corrosive Ignitable ___ Radioactive
 Volatile ___ Toxic ___ Reactive
___ Unknown ___ Other ___ Persistent

Specific Substances of Greatest Concern (if known): fuel oil

Hazard Evaluation:

Task: Mon. Well Install. Low ___ Medium ___ High

Identification of Hazards: fuel oil

Task: Decontamination Low ___ Medium ___ High

Identification of Hazards: fuel oil

Task: Sampling Low ___ Medium ___ High

Identification of Hazards: fuel oil

Task: ___ Low ___ Medium ___ High

Identification of Hazards:

Other Physical Hazards: (weather, heavy equipment, site structures...)
Drill rig, traffic, weather.

PROJECT: VERMONT WHEY / WYETH NUTRITIONALS SITE INVESTIGATION
JOB NO.: 6584009.02 (VT WHEY) 6584009.03 (WYETH NUT.)

Hazard Assessment:

OVERALL HAZARD: ___ Serious ___ Moderate X Low ___ Unknown

On-Site Control

Site control is necessary to minimize potential exposure of workers to hazardous waste/materials, protect the public from the Site's chemical and physical hazards, and to facilitate work activity. The procedures to be followed involve the establishment of Site work zones, Site security, and safe work practices.

The on-Site staging area and support zone has been established at:

Vermont Whey - the paved parking area near the tank.

Wyeth Nutritionals - the paved parking area near the tanks.

The personal contamination reduction zone (decon area) has been established at:

Vermont Whey - the paved parking area near the tank

Wyeth Nutrtrionals - the paved parking area near the tanks

During the intrusive work, the exclusion area will be defined as follows:

A 15 foot radius around the drill rig.

The decontamination of sampling and/or heavy equipment will be conducted:

Vermont Whey - To be coordinated with company management. Steam cleaning will be done in a drum or other container.

Wyeth Nutritionals - To be coordinated with company management. Steam cleaning will be done in a drum or other container.

These sub-regions of on-Site control have been established in order to reduce the potential cross contamination and proliferation of contamination by potentially contaminated equipment and personal protective equipment.

SITE ACTIVITIES

Required Personal Protective Equipment (PPE)

<u>Task</u>	<u>Entry Level of Protection</u>	<u>Monitoring Equipment</u>	<u>Upgrade/Downgrade Contingency</u>
Well Install.	Mod D	Photovac HL-2000 Explosimeter O ₂ meter H ₂ S meter	Upgrade to Level C with PID readings over 10 ppm for 5 minutes in breathing space.
Decon.	Mod D	"	"
Sampling	Mod D	"	"

Note: Breathing space PID readings of 50 ppm, explosimeter readings over 25% of the LEL, O₂ deficiency or enrichment, or H₂S readings will result in shutting down the job and consulting with State officials and the client.

PROJECT: VERMONT WHEY / WYETH NUTRITIONALS SITE INVESTIGATION
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Specific protective equipment for each level of protection is as follows:

Level C: Full Face Respirator w/appropriate cartridge (Willson T45)
Chemically Resistant Suit (Tyvek®)
Outer Rubber Slush Boots
Outer Chemically Resistant Gloves
Surgical Gloves
Hard Hat
Steel Toe/Shank Work Boots

Modified Level D: Chemically Resistant Suit (Tyvek®)
Outer Rubber Slush Boots
Outer Chemically Resistant Gloves
Surgical Gloves
Hard Hat
Steel Toe/Shank Work Boots
Safety Glasses or Face Shield

Level D: Work Clothes
Steel Toe/Shank Work Boots
Surgical Gloves
Hard Hat

Rationale for change in level of protection:

Upgrade to Level C with PID readings of 10 ppm or more for 5 minutes in the breathing space. PID readings over 50 ppm in the breathing space, explosimeter readings of over 25% of the LEL, O₂ deficiency or enrichment, or H₂S readings will result in shutting down the job and consulting with State officials and the client.

NO CHANGES TO THE SPECIFIED LEVELS OF PROTECTION SHALL BE MADE WITHOUT THE APPROVAL OF THE SITE SAFETY OFFICER OR PROJECT MANAGER.

Monitoring Procedures

Site Monitoring Equipment:

Photovac MicroTIP (Model HL-2000, 10.6 eV lamp)
 Explosimeter
 Draeger Tube & Pump
 O₂ Meter
 Other: H₂S meter

Methods and Frequency of Monitoring:

Air space and soil samples: Photovac MicroTIP HL-2000.
Air space: explosimeter/O₂ meter/H₂S meter.

Frequency: Soil samples; as obtained.
Air; not to exceed every 15 minutes.

Decontamination and Disposal

Personnel Decontamination Procedure:

- Level C: Slush boot and glove wash, slush boot and glove rinse, tape removal, outer glove removal, (cartridge change), slush boot removal, suit removal, inner glove removal.
- Modified Level D: Slush boot and glove wash, slush boot and glove rinse, slush boot removal, suit removal, glove removal.

Equipment Decontamination:

The drill rig and tools will be decontaminated by steam cleaning prior to the start of work and between borings. The use of clean augers (not previously used on the job) will be permitted with washing of the bit in ALCONOX. All decontamination will be done on-site. Routine washing of split spoon samplers, etc will use water obtained at the site. Spent cleaning liquid will be drummed on site.

Disposal Procedure for Investigation-Derived Materials:
(decon waste, disposables)

All decon waste and disposables will remain on site. Contaminated soil will be placed on the existing polyencapsulated stockpile or drummed on site.

SITE OPERATING PROCEDURES/SAFETY GUIDELINES

- ** Always observe the buddy system. Never enter or exit site alone, and never work alone in an isolated area. Never wander off by yourself.
- ** Always maintain a line-of-sight.
- ** Practice contamination avoidance. Never sit down or kneel, never lay equipment on the ground, avoid obvious sources of contamination such as puddles, and avoid unnecessary contact with on-site objects
- ** No eating, drinking, or smoking outside the designated "clean" zone.
- ** In the event PPE is ripped or torn, work shall stop and PPE shall be removed and replaced as soon as possible.
- ** Be alert to any unusual changes in your own condition; never ignore warning signs. Notify Health and Safety Coordinator as to suspected exposures or accidents.
- ** A vehicle will be readily available exclusively for emergency use. All personnel going on-site shall be familiar with the most direct route to the nearest hospital.
- ** In the event of direct skin contact, the affected area shall be washed immediately with soap and water.
- ** Copies of the Health and Safety Plan shall be readily accessible at the command post.
- ** Note wind direction. Personnel shall remain upwind whenever possible during on-site activities.
- ** Never climb over or under refuse or obstacles. Use safety harness/safety lines when sampling lagoons, stream beds, and ravines with steep banks.
- ** Hands and face must be thoroughly washed before eating, drinking, etc.
- ** Any modifications to this safety plan MUST be approved by the Site Safety Officer.

PROJECT: VERMONT WHEY / WYETH NUTRITIONALS SITE INVESTIGATION
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Special Procedures:
Confined Space Entry

No attempt will be made to enter abandoned buildings, manholes, tanks, or any other confined areas.

Other:

Personnel Monitoring: (If applicable: Heat stress, frostbite, air sampling of individual breathing zone)

Monitoring of individual breathing space will be monitored by a Photovac MicroTIP HL-2000, explosimeter, and O₂ meter as outlined in monitoring procedures. Monitoring of weather related hazards will be dictated by existing conditions.

EMERGENCY SITUATIONS

The following standard emergency procedures will be used by Dufresne-Henry on-site personnel. The Site Safety Officer (SSO) shall be notified of any on-site emergencies and be responsible for ensuring that the appropriate procedures are followed.

Personnel Injury to Dufresne-Henry Employees in the Exclusion Zone

Upon notification of an injury to a Dufresne-Henry employee in the exclusion zone, a rescue team will enter the zone (if required) to remove the injured person to the hotline. The SSO and Project Manager should evaluate the nature of the injury, and the affected person should be decontaminated to the extent possible prior to movement to the support zone. The SSO shall arrange for appropriate first aid, and contact should be made for an ambulance and with the designated medical facility (if required). No Dufresne-Henry personnel shall re-enter the exclusion zone until the cause of the injury or symptoms are determined.

Personnel Injury to Dufresne-Henry Employees in the Support Zone

Upon notification of an injury to a Dufresne-Henry employee in the support zone, the Project Manager and SSO will assess the nature of the injury. If the cause of the injury or loss of the injured person does not affect the performance of site personnel, operations may continue, with the on-site Field Team Leader initiating the appropriate first aid and necessary follow-up as stated above. If the injury increases the risk to others, all Dufresne-Henry personnel shall move to the decon line for further instructions. Dufresne-Henry activities on-site will cease until the added risk is removed or minimized.

Fire/Explosion

Upon notification of a fire or explosion on-site, all Dufresne-Henry personnel will assemble at the decon line. The fire department shall be alerted and all Dufresne-Henry personnel moved to a safe distance from the involved area.

Personal Protective Equipment Failure

If any Dufresne-Henry site personnel experience a failure or alteration of protective equipment that effects the protection factor, that person and his/her buddy shall immediately leave the exclusion zone. Re-entry shall not be permitted until the equipment has been repaired or replaced.

Other Equipment Failure

If any other equipment on-site fails to operate properly, the Project Manager and SSO shall be notified and then determine the effect of this failure on continuing operations on-site. If the failure affects the safety of on-site Dufresne-Henry personnel or prevents the completion of the tasks, all Dufresne-Henry personnel shall leave the exclusion zone until the situation is evaluated and appropriate actions taken.

In all situations, when an on-site emergency results in evacuation of the exclusion zone, Dufresne-Henry personnel shall not re-enter until:

1. The conditions resulting in the emergency have been corrected.
2. The hazards have been reassessed.
3. The Site Safety Plan has been reviewed.
4. Dufresne-Henry personnel have been briefed on any changes in the Site Safety Plan.

PROJECT: VERMONT WHEY / WYETH NUTRITIONALS SITE INVESTIGATION
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EMERGENCY INFORMATION

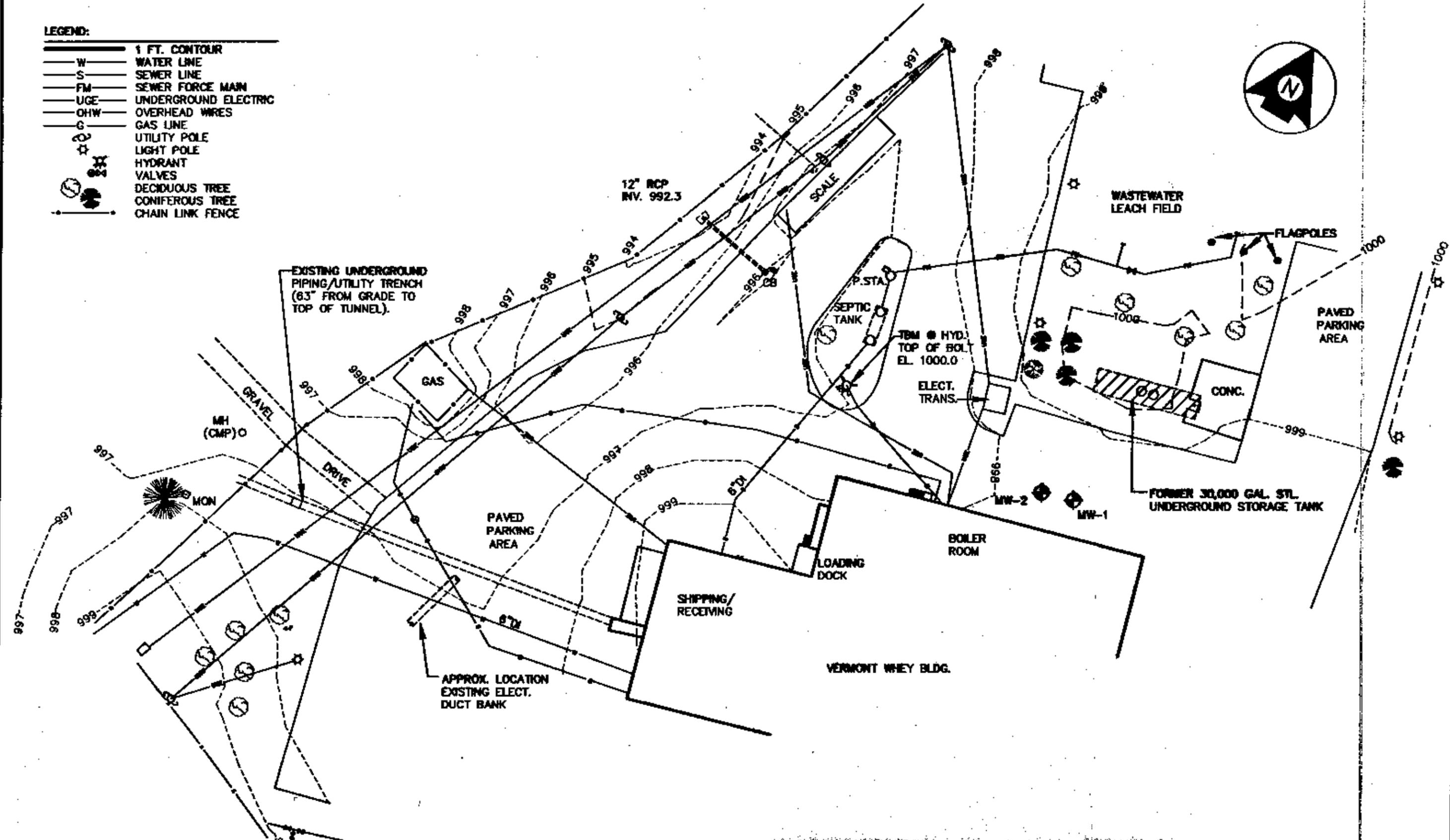
AMBULANCE:	Georgia	Phone:	9-1-1
HOSPITAL:	Northwestern Medical Center Fairfield Street St. Albans, VT (see attached map)	Phone:	(800) 696 - 0321
POLICE:	State Police (St. Albans)	Phone:	(802) 524 - 5993
FIRE DEPARTMENT:	Georgia	Phone:	9-1-1
POISON CENTER:		Phone:	(802) 658 - 3456
ANR INCIDENT RESPONSE:	Office Chuck Schwer	Phone:	(802) 241 - 3888 (802) 241 - 3876
CORPORATE:			
	Dufresne-Henry N. Springfield, VT	Phone:	(802) 886 - 2261
	Project Manager: F. David Deane		Ext 431
SITE REPRESENTATIVE	William Edder	Phone:	(802) 773 - 1813
NEAREST PHONE:	On site		
LOCATION OF ON-SITE FIRST AID KIT:	On site		
EMERGENCY VEHICLE:			

APPENDIX C

SITE PLAN

LEGEND:

- 1 FT. CONTOUR
- W — WATER LINE
- S — SEWER LINE
- FM — SEWER FORCE MAIN
- UGE — UNDERGROUND ELECTRIC
- OHW — OVERHEAD WIRES
- G — GAS LINE
- ⊙ — UTILITY POLE
- ☆ — LIGHT POLE
- ⊙ — HYDRANT
- ⊙ — VALVES
- ⊙ — DECIDUOUS TREE
- ⊙ — CONIFEROUS TREE
- — CHAIN LINK FENCE



 DH Dufresne-Henry, Inc. Consulting Engineers North Springfield, Vermont	VERMONT WHEY PLANT SITE INVESTIGATION SITE PLAN	Project No. 658-008.02
	GEORGIA, VERMONT B	Proj. Mgr. F.D.D.
	Scale 1"=40'	Date 4/28/99
	SK1	Date 4/28/99

APPENDIX D

**EXCERPTS FROM UST
CLOSURE ASSESSMENT**

October 19, 1998

Ms. Susan Thayer
Vermont Agency of Natural Resources
Department of Environmental Conservation
Waste Management Division
103 South Main Street / West Office
Waterbury, Vermont 05671-0404

Re: VT Whey Company - Georgia, VT
Facility Id. # 5277737
DH 6584009.01

Dear Ms. Thayer:

Enclosed please find the following information:

1. Expressway Notification Form.
2. U.S.T. Permanent Closure Form.
3. Dufresne-Henry, Inc. File Memo Documenting Site Observations.
4. Site Photographs.

The 30,000-gallon U.S.T. was removed on September 24 1998, and the piping was removed on September 18, 1998. The soil surrounding the U.S.T. produced P.I.D. readings ranging from 0.2 ppm to a peak of 1.2 ppm. There was no odor noted in any of the soil samples or from the excavation area. The soil surrounding the piping produced P.I.D. readings ranging from 0.2 ppm to 53 ppm.

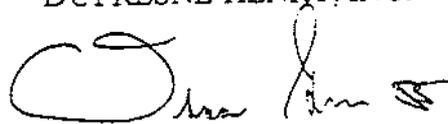
There was an area of contaminated soil roughly 10' long in the excavated piping trench. The contaminated soil was excavated to a depth of nine feet and a soil sample identified as P-1 was collected for laboratory analysis. This sample is representative of the soil conditions remaining in the ground at this location. Groundwater was not encountered during any of the excavation work at the site. The trench was not widened, as it would involve pavement removal, and underground drain pipe disturbance. Approximately 16 cubic yards of contaminated soil had been stockpiled at this point. Backfilling and repaving occurred in the piping trench prior to the tank removal.

Ms. Susan Thayer
October 19, 1998
Page 2

The laboratory results for all of the samples collected produced results which were below detection limits for the EPA methods used. The contaminated soil remaining in the location where laboratory sample P-1 was collected begins at a depth of roughly five feet, and has been paved over, making dermal contact quite unlikely. Based on these findings, it is the opinion of Dufresne-Henry Inc. that no further action be taken, and that this site be considered for permanent closure.

Sincerely,

DUFRESNE-HENRY, INC.



Oscar D. Garcia, Jr.
Environmental Services Division

ODG/dim

Enclosures

cc: Mr. Mel Litchfield - UST Owner Representative - w/o photographs
Mr. Richard Terk - Engelberth Construction, Inc. - w/o photographs

vtwheyltr.wpd

DH

UNDERGROUND STORAGE TANK PERMANENT CLOSURE FORM

Vermont Agency of Natural Resources, Department of Environmental Conservation, Waste Management Division
103 South Main Street, West Building, Waterbury, Vermont 05671-0404, Telephone: (802) 241-3888

Agency Use Only
Date of scheduled Activity: 9/1/01 Facility ID # 5277737 Closing: tanks, piping, system
DEC initials: ST SMS # _____ DEC evaluator: _____

Section A. Facility Information:

Name of facility: VT. WILCO / CO Number of employees: 8
Street address: Georgia Dairy Industrial Park Road #31 Town/city: Georgia
Owner of UST(s) to be closed: VT. Wilco Co Contact (if different than owner): Mal Hitchcock
Mailing address of owner: P.O. Box 2108 Georgia VT 05168
Telephone number of owner: 524-0521 Contact telephone #: (802) 527-0521 ext. 501

Section B. UST Closure Information: (please check one)

Reason for initiating UST closure: Suspected Leak Liability Replacement Abandoned

USTs (piping is considered a part of UST system) undergoing permanent closure. Include condition of USTs

UST #	Product	Size (gallons)	Tank age	Tank Condition	Piping age	Piping condition
1	#2 Form #6	20,000	24 years	Fair	24 years	Failed

Which tanks, if any, will be closed in-place: USTs# _____ Authorized by: _____ Date: 7/7
Disposal/destruction of removed UST(s): Location Fairfax Method Scrap Date: 9/28/98
Amount (gal.) and type of waste generated from USTs: 250 gallon product, water, sludge
Tank contents are hazardous wastes unless recovered as usable product?
Tank cleaning company (must be trained in confined space entry): Environmental Products Services Inc
Certified hazardous waste hauler: Same Generator ID number: VTD02545168

Section C. Initial site characterization:

Work in this section must be completed by a professional environmental consultant or hydrogeologist with experience in environmental sampling for the presence of hazardous materials. A full report from the consultant must accompany this form.

Excavation information: (some tank pulls require more than one excavation)

Tank(s) # and Excavation (A,B,C,etc)	Depth (ft)	Excavation size(ft ²)	Peak PID reading	Depth of Peak (ft)	Avg PID reading	Bedrock Depth (ft)	Groundwater encountered? (y/n) and at depth (ft)	Soil type
1	13'	990	1.2	4.5	0.4	N/A	No	Silty Sand
Tank #1 Piping	5'	200 ⁺	53	7'	18	N/A	No	1' Gravel then Silty Sand

Dig Safe Number: 982-310656 issued to ECL on 06/09/98 9-18-98, 10:00, Isobulbine
PID information: 9-25-98, 9:30, Isobulbine
Make: Phosor Model: HL-2000 Calibration information (date, time, gas): _____

Locate all readings and samples on site diagram

Number of soil samples collected for laboratory analysis? 4 results due date 10/3/98
Have any soils been polyencapsulated on site? Yes (#yds) 16 PID range above zero 0.2-53 No
Have any soils been transported off site? Yes list amount (yds): _____ No
Location transported to: _____ DEC official who approved _____
Amount of soils backfilled(yds³): _____ PID range above zero
Have limits of contamination been defined? Yes No (Piping)
Is there any other known contamination on-site? Yes No Comments: _____
Free Phase product encountered? Yes thickness 1/2" sheen No
Groundwater encountered? Yes depth(ft) _____ No
Are there existing monitoring wells on-site? Yes how many: _____ (locate on site diagram) No
Have new monitoring wells been installed? Yes how many: _____ (locate on site diagram) No
Samples obtained from monitoring wells for lab analysis? Yes results due date 1/1 No

Is there a water supply well on site? Yes (check type: shallow rock spring) No
Number of public water supply wells are located within a 0.5 mile radius? 0 min. distance (ft.): _____
Number of private water supply wells located within a 0.5 mile radius? 18 min distance (ft.): 425

Receptors impacted? soil indoor air ambient air groundwater surface water water supply

Facility ID# 5297737

Section D: Tanks/Piping Remaining/installed

Regardless of size, include USTs at site as to *status, e.g. "abandoned", "in use", or "to be installed". (Most installations require permits and advance notice to this office.)

UST#	Product	Size(gallons)	Tank age	*Tank status	Piping age	*Piping Status

X There are no other tanks at this site.

Section E. Statements of UST closure compliance:
(must have both signatures or site assessment not complete)

As the party responsible for compliance with the Vermont UST Regulations and related statutes at this facility, I hereby certify that the all of the information provided on this form is true and correct to the best of my knowledge.

A. Williams Edlin
Signature of UST owner or owner's authorized representative

10/15/98
Date of signature

As the environmental consultant on site, I hereby certify that the site assessment requirements were performed in accordance with DEC policy and regulations, and that information which I have provided on this form is true and correct to the best of my knowledge.

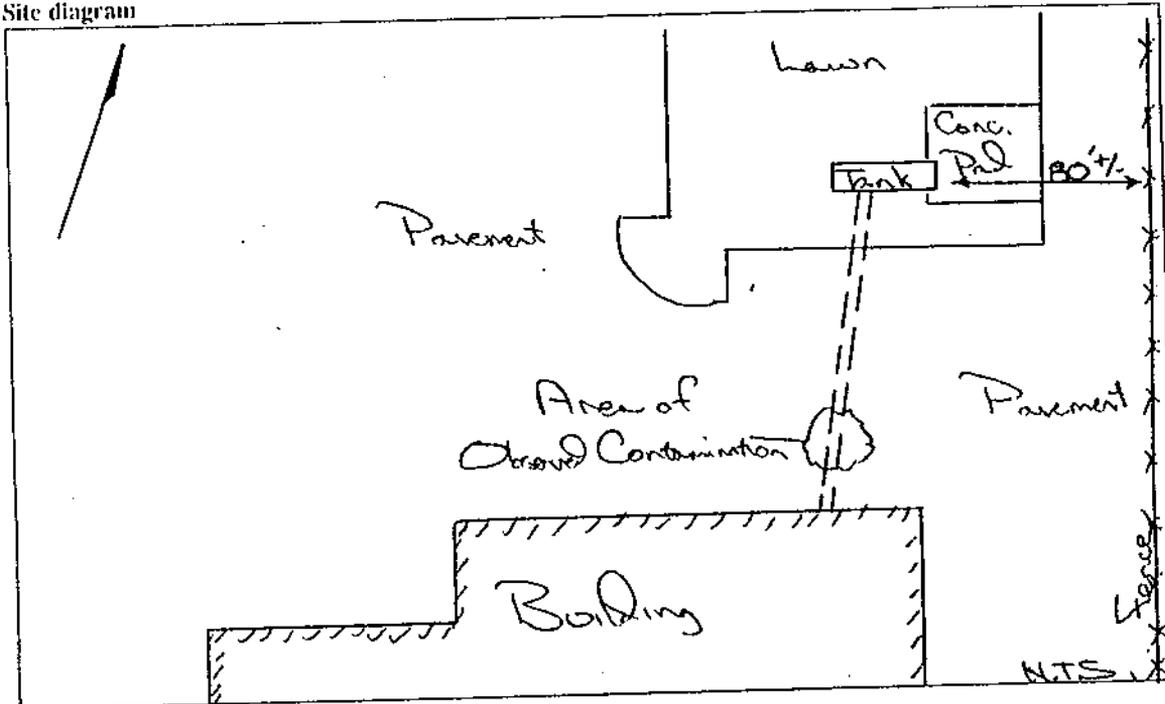
Cheryl Hunt
Signature of Environmental Consultant
Company: Dubois Environmental Inc
Telephone #: (800) 386-2261

10/19/98
Date of signature

Date of Closure: 9/25/98 Date of Assessment: 9/25/98

Return form along with complete narrative report and photographs to the Department of Environmental Conservation(DEC), Underground Storage Tank Program within 72 hours of closure.

Site diagram



This Closure Form may only be issued for the facility and the date indicated at top of page 1. Changes in the scheduled closure date should be phoned in at least 48 hours in advance. Both the yellow and white copies of this form must be returned to the address on the top of page 1 of this form; the pink copy should be retained by the UST owner. A written report from an environmental consultant covering all aspects of closure and site assessment, complete with photographs and any other relevant data, must accompany this form. All procedures must be conducted by qualified personnel, to include training required by 29 CFR 1910.120. Documentation of all methods and materials used must be adequate. All work must be performed in compliance with DEC policy "UST Closure and Site Assessment Requirements" as well as all applicable statutes, regulations, and additional policies. The DEC may reject inadequate closure forms and reports.

DUFRESNE-HENRY, INC.

MEMO TO: File

FROM: Oscar D. Garcia Jr.

DATE: September 21, 1998

SUBJECT: Vermont Whey Company
Facility Id # 5277737 DH #6584009.01

This report of field activities has been prepared by Dufresne-Henry, Inc. (DH). DH has been contracted by Engelberth Construction to provide the engineering services required for underground storage tank closure.

The excavation work was performed by Engelberth Construction. The distribution lines were disconnected by Commercial Piping Inc. Tank cleaning and waste disposal were performed by Environmental Products & Services, Inc.

On Friday, September 18, 1998, I was at the above referenced location to perform the closure assessment for the removal of the distribution lines from a 30,000-gallon #2 fuel oil (formerly #6 fuel oil) tank. The tank was scheduled to be removed the following week. The weather that day was sunny, windy and 70°. There was low humidity. The photoionization detector used that day was a Photovac Micro-TIP HL-2000 which uses a 10.6 eV lamp. The Photovac was calibrated on-site prior to use with Isobutylene at 100 ppm.

Upon arrival, the pipes had been exposed at the building and at a point just beyond the edge of pavement. The piping was found to be roughly five feet deep. The soil at that depth was dense silty sand. The pipe run contained five lines. There was a supply line and return line for the oil, a supply line and return line for steam, and a gauge line. All the lines were wrapped together in a layer of insulation. The steam lines were last used when the tank contained #6 fuel oil. The lines were in very poor condition with heavy rust and scale present.

Near the tank manholes there was a layer of old #6 oil. It was roughly two inches below the lawn surface. Using a hand shovel we dug test pits to find the limits of the oil. A backhoe was used to remove the oil and stockpile it on plastic. We also found a layer of #6 oil underneath the entire piping run, which was excavated, and stockpiled. Roughly ten feet from the building face we found an area of heavy contamination.

A soil sample was collected from below the pipes prior to their removal at the edge of pavement (station 0+0). The sample produced a 1.1 ppm headspace reading with no odor present. The product in the distribution lines was not removed prior to pulling. This resulted in #2 fuel oil being spilled. Approximately eleven gallons was lost from the piping in the area near the edge of pavement. Sorbent pads and buckets were used to collect eight gallons of product.

After the piping was removed, soil samples were collected at ten foot intervals along the piping run starting at the edge of pavement toward the building. The poly bag headspace reading at station 0+0 was 24.5 ppm with a fresh #2 fuel oil odor, at station 0+10 was 0.8 ppm with no odor present, at 0+20, 0.2 ppm, with no odor present. at 0+30, 1.1 ppm, with no odor present. at 0+42. 42.0 ppm (at the contaminated area), with a strong oily odor, and at station 0+52, 1.7 ppm (at building face) with no odor present.

Soil was excavated from station 0+0 and placed on plastic until the samples produced a 0.0 ppm reading with no odor present. We removed roughly five cubic yards of soil and were two feet below the piping bed.

The heavily contaminated area was worked last. Upon discovery, the trench had been saw cut and dug only 2.5 feet wide to remove the piping. The trench was scheduled to be patched during the mid-portion of the following week. As excavation of contaminated soil began, a pipe was uncovered crossing the trench. The maintenance people believed it to be a roof drain. This pipe was found within 6" below the piping bed. With soil conditions remaining consistent (dense sand throughout), we moved a few feet toward the building to attempt to determine the depth of contamination limits. A soil sample from two feet below the piping bed (seven feet overall) produced a 53 ppm headspace reading with a strong oily odor. We continued to excavated deeper. At an overall excavation depth of nine feet, the soil sample produced a 50.2 ppm reading with a similar strong oily odor. At this depth there was no groundwater or bedrock present. There was no free product observed.

At this point we had stockpiled a total of approximately 16 cubic yards of soil. In order to continue chasing the contamination, the pavement would have to be removed, as well as removing five feet of overburden. I telephoned Ms. Susan Thayer, of the State of Vermont, Underground Storage Tank program, to discuss site conditions. Our conversation resulted in backfilling the excavation with clean material, and collecting a soil sample for laboratory analysis. This sample, identified as laboratory sample P-1, was to be an indicator of the concentrations of the contaminants remaining in place.

The trench was to be backfilled and two 4" diameter PVC lines were to be installed and capped at each end. A layer of insulation board was to be placed over, and beside the pipes to help insulate the lines. The PVC lines were installed for possible future use. The slope of these lines will need to be verified prior to their use.

On Wednesday, September 23, 1998, The tank was cleaned in place. There was 250 gallons of product, water, and sludge removed. I was not present during the cleaning. All of the material in the tank was drummed and removed from the site.

On Thursday, September 24, 1998, I returned to the site to observe the removal of the tank. The stockpile of contaminated soil, which had been generated from the piping excavation, had been relocated. The soil was covered with plastic.

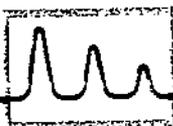
Upon arrival, the sod surrounding the tank had been removed. There was a portion of a

concrete pad removed as it was covering part of the tank. This pad was where the fill and vent pipes were located. Two soil samples were collected for headspace screening once the excavator was at a depth of 3' below the top of the tank on the north side. The westerly composite sample produced a 0.4 ppm reading while the sample from the center area of the tank produced a 1.2 ppm reading. There was no odor noted in either sample or from the excavation area. Two soil samples were collected on the southerly side of the tank at a depth of five feet below the top of the tank. The westerly sample produced a 0.3 ppm reading and the center area produced a 0.2 ppm reading. No odor was noted in the samples or from the excavation.

Once the tank was removed, four composite soil samples were obtained from below the tank bed. The tank was resting on a one foot thick sand bed above a concrete pad. The soil collected from the westerly end of the tank produced a 0.4 ppm reading. Soil from a third of the way toward the center from the west side produced a 0.2 ppm. Soil from a third of the way in from the east end produced a 0.3 ppm reading. Soil from the east end produced a 0.4 ppm reading. There was no odor noted from any of these samples or from the excavation area. There was no visual evidence of #6 fuel oil throughout the removal process. There were also three composite soil samples collected for laboratory analysis. The soil used for the laboratory samples was collected from the areas previously described and from intermediate points not field screened.

There was no bedrock or groundwater encountered to the excavation depth of 13 feet. The soil was silty sand throughout. There was a concrete pad approximately one foot below the tank bed, with four anchor bolts per side. Per the owners request, the concrete pad was partially exposed to determine its' dimensions and location for possible future use.

The steel tank measured 10.3 feet diameter by 46.6 feet long. The top of the tank was at 1.5 feet below the surface. The tank had heavy scale and surface bubbling present. There was moderate pits and rust. There was no holes or damp areas observed. The tank was judged to be in fair condition. The tank was scheduled to be removed from site the following Monday to be scrapped. The excavation area was backfilled, and material was to be hauled in to bring the area to grade.



Oscar Garcia
Dufresne-Henry
Precision Park
N.Springfield , VT 05150

RECEIVED

OCT 13 1998

DUFRESNE-HENRY, INC.

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 14132 DUFVT
Client Identification: VT Whey G584009
Date Received: 9/29/98

Dear Mr. Garcia :

Enclosed please find the laboratory report for the above identified project. All analyses were subjected to rigorous quality control measures to assure data accuracy. Unless otherwise stated, all holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol.

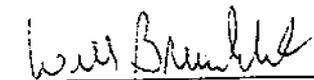
The following standard abbreviations and conventions apply throughout all Eastern Analytical, Inc. reports:

- < = "less than" followed by the detection limit
- TNR = Testing Not Requested
- ND = None Detected, no established detection limit
- BRL = Below Reporting Limits

If you have any questions regarding the results contained within, please feel free to directly contact me, the department supervisor, or the analytical chemist who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,



Will Brunkhorst, President

10/3/98
Date



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14132

Client Designation: VT Whey G584009

Client: Dufresne-Henry

Volatile Organic Compounds

Client ID:	30M	30W	30E	P-1
Matrix:	soil	soil	soil	soil
Date Received:	9/29/98	9/29/98	9/29/98	9/29/98
Date Analyzed:	9/30/98	9/30/98	9/30/98	9/30/98
Analyst:	VG	VG	VG	VG
Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Method:	8021	8021	8021	8021
Chloromethane	< 500	< 500	< 500	< 500
Vinyl chloride	< 100	< 100	< 100	< 100
Bromomethane	< 500	< 500	< 500	< 500
Chloroethane	< 500	< 500	< 500	< 500
1,1-Dichloroethene	< 50	< 50	< 50	< 50
1,2-Dichloroethene	< 50	< 50	< 50	< 50
trans-1,2-Dichloroethene	< 50	< 50	< 50	< 50
cis-1,2-Dichloroethene	< 50	< 50	< 50	< 50
Chloroform	< 50	< 50	< 50	< 50
1,1,1-Trichloroethane	< 50	< 50	< 50	< 50
Carbon tetrachloride	< 50	< 50	< 50	< 50
1,2-Dichloroethane	< 50	< 50	< 50	< 50
Trichloroethene	< 50	< 50	< 50	< 50
1,2-Dichloropropane	< 50	< 50	< 50	< 50
Bromodichloromethane	< 50	< 50	< 50	< 50
cis-1,3-Dichloropropene	< 50	< 50	< 50	< 50
trans-1,3-Dichloropropene	< 50	< 50	< 50	< 50
1,1,2-Trichloroethane	< 50	< 50	< 50	< 50
Tetrachloroethene	< 50	< 50	< 50	< 50
Dibromochloromethane	< 50	< 50	< 50	< 50
Chlorobenzene	< 50	< 50	< 50	< 50
Bromoform	< 50	< 50	< 50	< 50
1,1,2,2-Tetrachloroethane	< 50	< 50	< 50	< 50
MTBE	< 500	< 500	< 500	< 500
Benzene	< 50	< 50	< 50	< 50
Toluene	< 50	< 50	< 50	< 50
Ethylbenzene	< 50	< 50	< 50	< 50
m,p-Xylene	< 50	< 50	< 50	< 50
o-Xylene	< 50	< 50	< 50	< 50

Approved By Clifford Chase, Volatile Organics Supervisor

Clifford Chase 10/8/98



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 14132

Client: Dufresne-Henry

Client Designation: VT Whey G584009

Sample ID:	30M	30W	30E	P-1
Analytical Type:	Sample	Sample	Sample	Sample
Matrix:	soil	soil	soil	soil
Date Sampled:	9/25/98	9/25/98	9/25/98	9/18/98
Date Received:	9/29/98	9/29/98	9/29/98	9/29/98
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	9/29/98	9/29/98	9/29/98	9/29/98
Date of Analysis:	9/29/98	9/29/98	9/29/98	9/29/98
Analyst:	DJS	DJS	DJS	DJS
Method:	8100 Mod	8100 Mod	8100 Mod	8100 Mod
Dilution Factor:	1	1	1	1
TPH (C9-C40)	< 50	< 50	< 50	< 50

Approved By: Timothy Schaper Organics Supervisor

Timothy O. Schaper 9/30/98

APPENDIX E

BORING LOGS AND DAILY REPORTS

BORING LOCATION MW-1		INCLINATION V		BEARING		DATE START/FINISH 3/24/99 / 3/24/99				
CASING ID		CORE SIZE		TOTAL DEPTH 24 FT		DRILLED BY: GREEN MOUNTAIN BORING (R.G.)				
GROUND EL (AD) 998.02		DEPTH TO WATER/DATE 16± FT/ IMMED.		LOGGED BY: B. COX						
ELEV	SAMPLE			SAMP OD (IN)	LENGTH		REMARKS ON ADVANCE OF BORING	SIZE/TYPE BIT USED TO ADVANCE BORING	SOIL AND ROCK DESCRIPTION	
AD (FT)	DEPTH (FT)	TYPE AND NO.	B		REC (IN)	PENE-TRATION (IN)				
996.02	2.0						4 1/4" HSA	6"/CCH	0" - 2.5" BITUMINOUS CONCRETE pavement. 2.5" - 12" Medium brown, sandy GRAVEL. 12" - 2' Medium brown, silty SAND.	
995.02	3.0	SS-1	25* 56*	2	12	12	* frozen		Medium gray brown, sandy SILT. Dry. No odor or staining. 0.1 ppm.	
994.02	4.0						4 1/4" HSA	6"/CCH	Probable sandy SILT as above.	
992.02	6.0	SS-2	8 10 10 10	2	21	24			Light - medium gray brown, medium dense, sandy SILT. Very fine grained, well sorted sand. 80%+ non plastic, inorganic fines. Occasional faint horizontal layering. Dry. No odor or staining. 0.1 ppm.	
990.02	8.0	SS-3	7 7 8 10	2	24	24			Light - medium gray brown, medium dense, sandy SILT as above. Dry. No odor or staining. 0.1 ppm.	
988.02	10.0	SS-4	5 7 8 9	2	22	24			Light - medium gray brown, medium dense, sandy SILT similar to above, but slightly grayer and sandier. Dry. No odor or staining. 2.2 ppm.	
986.02	12.0	SS-5	5 6 7 7	2	24	24			Light - medium gray brown, medium dense, silty SAND. Very fine grained, well sorted sand. 50%± non plastic, inorganic fines. Dry. No odor or staining. 0.9 ppm.	
984.02	14.0	SS-6	11 7 7 4	2	24	24			12' - 12'6" Silty SAND as above. 12'6" - 14' Medium brown, medium dense, silty SAND. Very fine - fine grained, well sorted sand. 30%± non plastic fines. Dry - very slightly moist. No odor or staining. 0.7 ppm.	
982.02	16.0	SS-7	4 8 12 12	2	24	24			Medium brown and gray, medium dense, sandy SILT. The soil has a mottled appearance. Very fine - fine grained, well sorted sand. 50%+ non plastic, inorganic fines. Abundant, prominent, light - medium orange mottles throughout the bottom 18". Very damp - wet at bottom. No odor or staining. 1.6 ppm.	
980.02	18.0	SS-8	14 18 22 24	2	18	24			Medium - dark brown, dense, silty SAND. Very fine - fine grained, well sorted sand. 30%± non plastic fines. Saturated. No odor or staining. 2.3 ppm.	
978.02	20.0	SS-9	18 20 24 23	2	22	24			Medium - dark brown, dense, silty SAND similar to above. Very fine - rarely medium grained, moderately well sorted sand. 20% - 30% non plastic fines. Saturated. No odor or staining. 3.4 ppm.	
B - Penetration resistance, Blows/6" of a 140 lb hammer falling 30 in to drive a split spoon sampler. REC - Length of sample recovered. SS - Split spoon sample. U - Undisturbed samples S - Shelby tube D - Denison F - Fixed piston P - Pitcher O - Osterberg SAMP OD - Outside diameter of sampling spoon							NOTES HSA = Hollow Stem Auger CCH = Conical Cutter Head ppm Refers to PID reading (10.6 eV lamp) Top of PVC elev = 997.49		WYETH NUTRITIONALS, INC. VERMONT WHEY SITE INVESTIGATION GEORGIA, VERMONT DATE: 3/24/99 PROJECT: 6584009.02	
PAGE 1 OF 2					LOG OF BORING: MW-1					

BORING LOCATION MW-1 INCLINATION V BEARING DATE START/FINISH 3/24/99 / 3/24/99
 CASING ID CORE SIZE TOTAL DEPTH 24 FT DRILLED BY: GREEN MOUNTAIN BORING (R.G.)
 GROUND EL (AD) 998.02 DEPTH TO WATER/DATE 16± . FT/ IMMED. LOGGED BY: B. COX

ELEV		SAMPLE			SAMP OD (IN)	LENGTH		REMARKS ON ADVANCE OF BORING	SIZE/TYPE BIT USED TO ADVANCE BORING	SOIL AND ROCK DESCRIPTION
AD (FT)	DEPTH (FT)	TYPE AND NO.	B	REC (IN)		PENE-TRATION (IN)				
976.02	22.0	SS-10	3 4 6 7	2	20	24			Medium - dark brown, loose - medium dense, silty SAND similar to above. Trace of mica and mafic minerals. Saturated. No odor or staining. 3.4 ppm.	
974.02	24.0	SS-11	4 6 6 9	2	24	24			Medium - dark brown, loose - medium dense, silty SAND as above. Saturated. No odor or staining. 3.4 ppm.	
									No refusal to depth. Installed 10' of 2" dia, .010" slot, threaded, flush joint, Schd 40 PVC at 22'. Sand backfill to 9'. Bentonite seal 3' - 4'. Grouted in flush 8" cast iron monitoring well box.	

B - Penetration resistance, Blows/6" of a 140 lb hammer falling 30 in to drive a split spoon sampler.
 REC - Length of sample recovered.
 SS - Split spoon sample.
 U - Undisturbed samples
 S - Shelby tube D - Denison
 F - Fixed piston P - Pitcher
 O - Osterberg
 SAMP OD - Outside diameter of sampling spoon

NOTES
 HSA = Hollow Stem Auger
 CCH = Conical Cutter Head
 ppm Refers to PID reading (10.6 eV lamp)
 Top of PVC elev = 997.49

WYETH NUTRITIONALS, INC.
 VERMONT WHEY
 SITE INVESTIGATION

GEORGIA, VERMONT
 DATE: 3/24/99 PROJECT: 6584009.02

PAGE 2 OF 2 LOG OF BORING: MW-1



BORING LOCATION MW-2 INCLINATION V BEARING DATE START/FINISH 3/25/99 / 3/25/99
 CASING ID CORE SIZE TOTAL DEPTH 22 FT DRILLED BY: GREEN MOUNTAIN BORING (R.G.)
 GROUND EL (AD) 997.77 DEPTH TO WATER/DATE 15± FT/ IMMED. LOGGED BY: B. COX

ELEV		SAMPLE			SAMP OD (IN)	LENGTH		REMARKS ON ADVANCE OF BORING	SIZE/TYPE BIT USED TO ADVANCE BORING	SOIL AND ROCK DESCRIPTION
AD (FT)	DEPTH (FT)	TYPE AND NO.	B	REC (IN)		PENE-TRATION (IN)				
										Installed 10' of 2" dia, .010" slot, threaded, flush joint, Schd 40 PVC at 22'. Sand backfill to 10'. Bentonite seal 3' - 4'. Grouted in flush 8" cast iron monitoring well box.

B - Penetration resistance, Blows/6" of a 140 lb hammer falling 30 in to drive a split spoon sampler.
 REC - Length of sample recovered.
 SS - Split spoon sample.
 U - Undisturbed samples
 S - Shelby tube D - Denison
 F - Fixed piston P - Pitcher
 O - Osterberg
 SAMP OD - Outside diameter of sampling spoon

NOTES
 HSA = Hollow Stem Auger
 CCH = Conical Cutter Head
 ppm Refers to PID reading (10.6 eV lamp)
 Top of PVC elev = 997.45

WYETH NUTRITIONALS, INC.
 VERMONT WHEY
 SITE INVESTIGATION
 GEORGIA, VERMONT
 DATE: 3/25/99 PROJECT: 6584009.02



GREEN MOUNTAIN BORING

PO Box 218 ° East Barre, Vermont 05649 ° 802 476-5073

TO: Dufresne-Henry ATTN: Bruce Cox Precision Park North Springfield, VT 05150	PROJECT NAME: Vermont Whey and Wyeth Nutritionals Monitoring Wells LOCATION: Georgia, Vermont GMB JOB #: 99024	SHEET: 1 DATE: 3/24/99 HOLE #: MW-1 LINE & STA. OFFSET: None
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Ground Water Observations 16' at 0 hours	Augers-Size I.D. 4.25" Split Spoon 1 3/8" Hammer Wt. 140# Hammer Fall 30"	Surface Elev.: Date Started: 3/24/99 Date Completed: 3/24/99 Boring Foreman: Ronald Garneau Inspector: Soils Eng.: Bruce Cox
---	--	---

LOCATION OF BORING: As Directed

Depth	Casing Blows Per Foot	Sample Depths From/To	Type of Sample	Blows per 6" on Sampler	Moisture Density or Consist.	Strata Change Elev.	Soil Identification	Sample		
								No.	Pen.	Rec.
		2'-3'	D	25/56	Frozen		Very fine sand	1	12"	12"
		4'-6'	D	8/10/10/10	Dry		Very fine sand	2	24"	20"
		6'-8'	D	7/7/8/10	Dry		Very fine sand	3	24"	24"
		8'-10'	D	5/7/8/9	Dry		Very fine sand	4	24"	24"
		10'-12'	D	5/6/6/7	Dry		Very fine sand	5	24"	24"
		12'-14'	D	11/7/7/4	Dry	13'	Very fine to fine sand	6	24"	24"
		14'-16'	D	4/8/12/12	Damp		Very fine sand, some silt	7	24"	21"
		16'-18'	D	14/18/22/24	Wet		Very fine sand, little silt	8	24"	18"
		18'-20'	D	18/20/24/23	Wet	18'	Very fine sand	9	24"	22"
		20'-22'	D	3/4/6/7	Wet		Very fine sand	10	24"	20"
		22'-24'	D	4/6/6/9	Wet		Very fine sand	11	24"	24"
							Installed Well at 22' <u>Materials Used</u> 10' .010 Screen 12' Riser 2 Bags of Sand 1 Set of Caps ½ Bag of Bentonite 1 Curb Box ½ Bag of Cement			

Ground Surface to 20'

Used 4.25" Augers, then Split Spoon to 24' and Installed Well

SUMMARY: Earth Boring: 24'	Rock Coring:	Samples: 11
		HOLE # MW-1

GREEN MOUNTAIN BORING

PO Box 218 ° East Barre, Vermont 05649 ° 802 476-5073

TO: Dufresne-Henry ATTN: Bruce Cox Precision Park North Springfield, VT 05150	PROJECT NAME: Vermont Whey and Wyeth Nutritionals Monitoring Wells LOCATION: Georgia, Vermont GMB JOB #: 99024	SHEET: 2 DATE: 3/25/99 HOLE #: MW-2 LINE & STA. OFFSET: None
--	---	--

Ground Water Observations	Augers-Size I.D. 4.25" Split Spoon 1 3/8" Hammer Wt. 140# Hammer Fall 30"	Surface Elev.: Date Started: 3/25/99 Date Completed: 3/25/99 Boring Foreman: Ronald Garneau Inspector: Soils Eng.: Bruce Cox
15' at 0 hours		

LOCATION OF BORING: As Directed

Depth	Casing Blows Per Foot	Sample Depths From/To	Type of Sample	Blows per 6" on Sampler	Moisture Density or Consist.	Strata Change Elev.	Soil Identification	Sample		
								No.	Pen.	Rec.
							Drilled to 4'			
		4'-6'	D	12/9/9/9	Dry		Silt with a trace of very fine sand	1	24"	18"
		6'-8'	D	7/6/7/7	Dry		Silt with some very fine sand	2	24"	24"
		8'-10'	D	11/11/12/16	Dry		Silty very fine sand	3	24"	18"
		10'-12'	D	6/12/14/14	Dry		Silty very fine sand	4	24"	18"
		12'-14'	D	16/16/25/23	Dry		Silty very fine sand	5	24"	20"
		14'-16'	D	11/14/19/20	Saturated		Silt with some very fine sand into fine silty sand	6	24"	16"
		16'-18'	D	16/20/28/19	Saturated		Silt with some very fine sand into silty clay	7	24"	24"
		18'-20'	D	3/6/8/8	Wet		Silty clay	8	24"	12"
							Augered to 22' and Installed Well <u>Materials Used</u> 10' .010 Screen 11' Riser 2 Bags of Sand 1 Set of Caps ½ Bag of Bentonite 1 Curb Box ½ Bag of Cement			

Ground Surface to 22'

Used 4.25" Augers, then Installed Well at 22'

SUMMARY: Earth Boring: 22'

Rock Coring:

Samples: 8

HOLE # MW-2

VERMONT WHEY
SITE INVESTIGATION
GEORGIA, VERMONT

March 24, 1999

Dufresne-Henry, Inc. - Bruce Cox on site at 9:00± am.

Green Mountain Boring - Ronald Garneau and Michael McGinley on site at 9:30 am.

Dig Safe #19991300303.

A representative from Vermont Gas was supposed to meet me at 9:30 am. Target Online arrived on site at approximately 9:25 am. The gas representative did not show. Target tried to reach him, but no one knew where he was. At approximately 10:00 am the Target representative (who was only working for Bell Atlantic) had to leave for an emergency location job.

I met with Bill Edder and explained the situation to him. I also noted the Dig Safe mark out would not include private property, and that Vermont Whey/Wyeth Nutritionals would be responsible for that. Utilities at the Vermont Whey site were well enough known to start. The Wyeth site had too many dangerous utilities (electric and gas) to risk starting. Bill also noted that buried utilities had changed at Wyeth since the site plan in my possession. The decision was made that Bill Edder would contact Vermont Underground Locators for that work. An additional delay in getting underway was that a company representative from Wyeth-Ayerst Laboratories was not scheduled to arrive until 11:30 am±. The Vermont Gas representative arrived after 1:00 pm, and the Target Online representative arrived shortly after that. Vermont Underground Locators arrived at 2:00 pm±.

Bill Edder granted permission to start work at Vermont Whey prior to the W-AL representatives arrival.

MW-1

MW-1 is located on the east side of the former piping trench under the parking lot. An attempt was made to locate the boring in the previously observed contamination, but the exact location was influenced by an underground drainage pipe. The boring was started at 11:45 am. The rig and other equipment had been steam cleaned prior to arrival on site. All water used for cleaning split spoons and other tools was obtained at the site. Drilled with 4 1/4" hollow stem augers taking continuous split spoon samples starting at 4 feet. An attempt to start at 2 feet was thwarted by frost. All samples were screened for VOC's with a Photovac HL-2000 (10.6 eV lamp, calibrated with 99.1 ppm Isobutylene). Representative soil samples from each split spoon were stored in clear glass jars and retained by Dufresne-Henry. The total depth of the boring was 24', with no refusal to depth. The general geologic column is bituminous concrete pavement to approximately 2.5", sandy gravel to approximately 1', and silty sand and sandy silt to the limit of the boring. The water table was encountered at approximately 16'. No evidence of contamination by visual or olfactory senses was

observed in the samples or on the tools. Peak PID readings ranged from 0.1 ppm to 3.7 ppm. Installed a 10' long, 2" diameter, 0.010" machine slotted, threaded, flush joint, Schedule 40 PVC well at 22'. All pipe came from factory sealed plastic bags. The annular space was backfilled with clean silica sand to 9'. A bentonite seal was installed from 3' - 4'. An 8" diameter cast iron, watertight, monitoring well box was grouted in at the surface.

Materials: 10' of 2", 0.010" slot, threaded, flush joint, Schd 40 PVC.
11'9" of 2", solid wall, threaded, flush joint, Schd 40 PVC.
200 lb of silica sand.
25 lb± of bentonite chips.
40 lb of concrete mix.
1 2" push-on PVC cap.
1 2" expanding gasket cap.
1 8" monitoring well box.

Soil samples from the 16' - 18' split spoon for analysis of VOC's and TPH were collected at 1:15 pm.

Visitors: Bill Edder (VT Whey/Wyeth), Harry Yekel (Wyeth-Ayerst Laboratories).
Weather: Mostly sunny, 30's - 40's am, 40's pm, light wind.
Off site: 4:45 pm.

March 25, 1999

Dufresne-Henry, Inc. - Bruce Cox on site at 7:30± am.
Green Mountain Boring - Ronald Garneau and ? on site at 8:10 am.

MW-2

MW-2 is located on the west side of the former piping trench under the parking lot. An attempt was made to locate the boring in the previously observed contamination, but the exact location was influenced by an underground drainage pipe. The boring was started at 8:20 am. All water used for cleaning split spoons and other tools was obtained at the site. Drilled with 4 1/4" hollow stem augers taking continuous split spoon samples starting at 4 feet (the interval from 20' - 22' was not sampled due to flowing silt and sand). The augers had not previously been used on the site. All samples were screened for VOC's with a Photovac HL-2000 (10.6 eV lamp, calibrated with 99.1 ppm Isobutylene). Representative soil samples from each split spoon were stored in clear glass jars and retained by Dufresne-Henry. The total depth of the boring was 22', with no refusal to depth. The general geologic column is bituminous concrete pavement to approximately 2.5", sandy gravel to approximately 1', and silty sand and sandy silt to the limit of the boring. The water table was encountered at approximately 16'. Evidence of contamination by olfactory sense was observed in the samples between 4 feet and 12 feet. Peak PID readings ranged from 2.0 ppm to 49 ppm. Installed a 10' long, 2" diameter, 0.010" machine slotted, threaded, flush joint, Schedule 40 PVC

well at 22'. All pipe came from factory sealed plastic bags. The annular space was backfilled with clean silica sand to 10'±. A bentonite seal was installed from 3' - 4'. An 8" diameter cast iron, watertight, monitoring well box was grouted in at the surface.

Materials: 10' of 2", .010" slot, threaded, flush joint, Schd 40 PVC.
11'9" of 2", solid wall, threaded, flush joint, Schd 40 PVC.
200 lb of silica sand.
25 lb± of bentonite chips.
40 lb of concrete mix.
1 2" push-on PVC cap.
1 2" expanding gasket cap.
1 8" monitoring well box.

Soil samples from the 12' - 14' split spoon for analysis of VOC's and TPH were collected at 9:20 am.

Visitors: Bill Edder (VT Whey/Wyeth).

Weather: Mostly cloudy - overcast, frequent light - moderate flurries am, 20s - 30's, windy.

Off site: 12:05 pm.

APPENDIX F

**LABORATORY ANALYTICAL REPORT -
SOIL**



eastern analytical

professional laboratory services

David Deane
Dufresne-Henry
Precision Park
N. Springfield, VT 05150

RECEIVED

APR 19 1999

DUFRESNE-HENRY, INC.

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 16162 DUFVT
Client Identification: Vermont Whey 6584009.02
Date Received: 3/30/99

Dear Mr. Deane :

Enclosed please find the laboratory report for the above identified project. All analyses were subjected to rigorous quality control measures to assure data accuracy. Unless otherwise stated, all holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol.

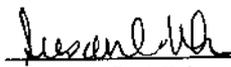
The following standard abbreviations and conventions apply throughout all Eastern Analytical, Inc. reports:

< = "less than" followed by the detection limit
TNR = Testing Not Requested
ND = None Detected, no established detection limit
RL = Reporting Limits

If you have any questions regarding the results contained within, please feel free to directly contact me, the department supervisor, or the analytical chemist who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,



Susan C. Uhler, Lab Director

4/15/99
Date



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 16162

Client: Dufresne-Henry

Client Designation: Vermont Whey 6584009.02

Sample ID: MW-1 16-18' MW-2 12-14'

Analytical Type:	Sample	Sample
Matrix:	soil	soil
Date Sampled:	3/24/99	3/25/99
Date Received:	3/30/99	3/30/99
Units:	µg/kg	µg/kg
Date of Analysis:	4/1/99	4/1/99
Analyst:	JDS	JDS
Method:	8021Bmod	8021Bmod
Dilution Factor:	1	1

Chloromethane	< 500	< 500
Vinyl chloride	< 100	< 100
Bromomethane	< 500	< 500
Chloroethane	< 500	< 500
1,1-Dichloroethene	< 50	< 50
Methylene chloride	< 50	< 50
trans-1,2-Dichloroethene	< 50	< 50
1,1-Dichloroethane	< 50	< 50
cis-1,2-Dichloroethene	< 50	< 50
Chloroform	< 50	< 50
1,1,1-Trichloroethane	< 50	< 50
Carbon tetrachloride	< 50	< 50
1,2-Dichloroethane	< 50	< 50
Trichloroethene	< 50	< 50
1,2-Dichloropropane	< 50	< 50
Bromodichloromethane	< 50	< 50
cis-1,3-Dichloropropene	< 50	< 50
trans-1,3-Dichloropropene	< 50	< 50
1,1,2-Trichloroethane	< 50	< 50
Tetrachloroethene	< 50	< 50
Dibromochloromethane	< 50	< 50
Chlorobenzene	< 50	< 50
Bromoform	< 50	< 50
1,1,2,2-Tetrachloroethane	< 50	< 50
Methyl-t-butyl ether(MTBE)	< 300	< 300
Benzene	< 50	< 50
Toluene	< 50	< 50
Ethylbenzene	< 50	< 50
mp-Xylene	< 50	< 50
o-Xylene	< 50	< 50
1,3,5-Trimethylbenzene	< 50	< 50
1,2,4-Trimethylbenzene	< 50	< 50
Naphthalene	< 50	< 50

8021Bmod: Samples were analyzed by GCMS using method 8260B.



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 16162

Client: Dufresne-Henry

Client Designation: Vermont Whey 6584009.02

Sample ID:	MW-1 16-18'	MW-2 12-14'
Analytical Type:	Sample	Sample
Matrix:	soil	soil
Date Sampled:	3/24/99	3/25/99
Date Received:	3/30/99	3/30/99
Units:	mg/kg	mg/kg
Date of Extraction/Prep:	4/8/99	4/8/99
Date of Analysis:	4/9/99	4/9/99
Analyst:	KH	KH
Method:	8100 Mod	8100 Mod
Dilution Factor:	6	5
TPH (C9-C40)	< 50	< 50

APPENDIX G

**LABORATORY ANALYTICAL REPORT -
GROUNDWATER**



eastern analytical

professional laboratory services

Oscar Garcia
Dufresne-Henry
Precision Park
N. Springfield, VT 05150

RECEIVED
APR 23 1999
DUFRESNE-HENRY, INC.

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 16318 DUFVT
Client Identification: Vermont Whey Georgia
Date Received: 4/9/99

Dear Mr. Garcia :

Enclosed please find the laboratory report for the above identified project. All analyses were subjected to rigorous quality control measures to assure data accuracy. Unless otherwise stated, all holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol.

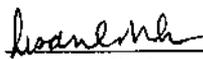
The following standard abbreviations and conventions apply throughout all Eastern Analytical, Inc. reports:

< = "less than" followed by the detection limit
TNR = Testing Not Requested
ND = None Detected, no established detection limit
RL = Reporting Limits

If you have any questions regarding the results contained within, please feel free to directly contact me, the department supervisor, or the analytical chemist who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,



Susan C. Uhler, Lab Director

4/19/99
Date



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 16318

Client: Dufresne-Henry

Client Designation: Vermont Whey Georgia

Sample ID:	MW-1	MW-2
Analytical Type:	Sample	Sample
Matrix:	aqueous	aqueous
Date Sampled:	4/8/99	4/8/99
Date Received:	4/9/99	4/9/99
Units:	µg/l	µg/l
Date of Analysis:	4/12/99	4/12/99
Analyst:	JDS	JDS
Method:	8021Bmod	8021Bmod
Dilution Factor:	1	1

Chloromethane	< 10	< 10
Vinyl chloride	< 2	< 2
Bromomethane	< 10	< 10
Chloroethane	< 10	< 10
1,1-Dichloroethene	< 1	< 1
Methylene chloride	< 2	< 2
trans-1,2-Dichloroethene	< 2	< 2
1,1-Dichloroethane	< 2	< 2
cis-1,2-Dichloroethene	< 2	< 2
Chloroform	< 2	< 2
1,1,1-Trichloroethane	< 2	< 2
Carbon tetrachloride	< 2	< 2
1,2-Dichloroethane	< 2	< 2
Trichloroethene	< 2	< 2
1,2-Dichloropropane	< 2	< 2
Bromodichloromethane	< 2	< 2
cis-1,3-Dichloropropene	< 2	< 2
trans-1,3-Dichloropropene	< 2	< 2
1,1,2-Trichloroethane	< 2	< 2
Tetrachloroethene	< 2	< 2
Dibromochloromethane	< 2	< 2
Chlorobenzene	< 2	< 2
Bromoform	< 2	< 2
1,1,2,2-Tetrachloroethane	< 2	< 2
Methyl-t-butyl ether(MTBE)	< 10	< 10
Benzene	< 1	< 1
Toluene	< 1	< 1
Ethylbenzene	< 1	< 1
mp-Xylene	< 1	< 1
o-Xylene	< 1	< 1
1,3,5-Trimethylbenzene	< 1	< 1
1,2,4-Trimethylbenzene	< 1	< 1
Naphthalene	< 5	< 5

8021Bmod: The samples were analyzed by GCMS using method 8260B.



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 16318

Client: Dufresne-Henry

Client Designation: Vermont Whey Georgia

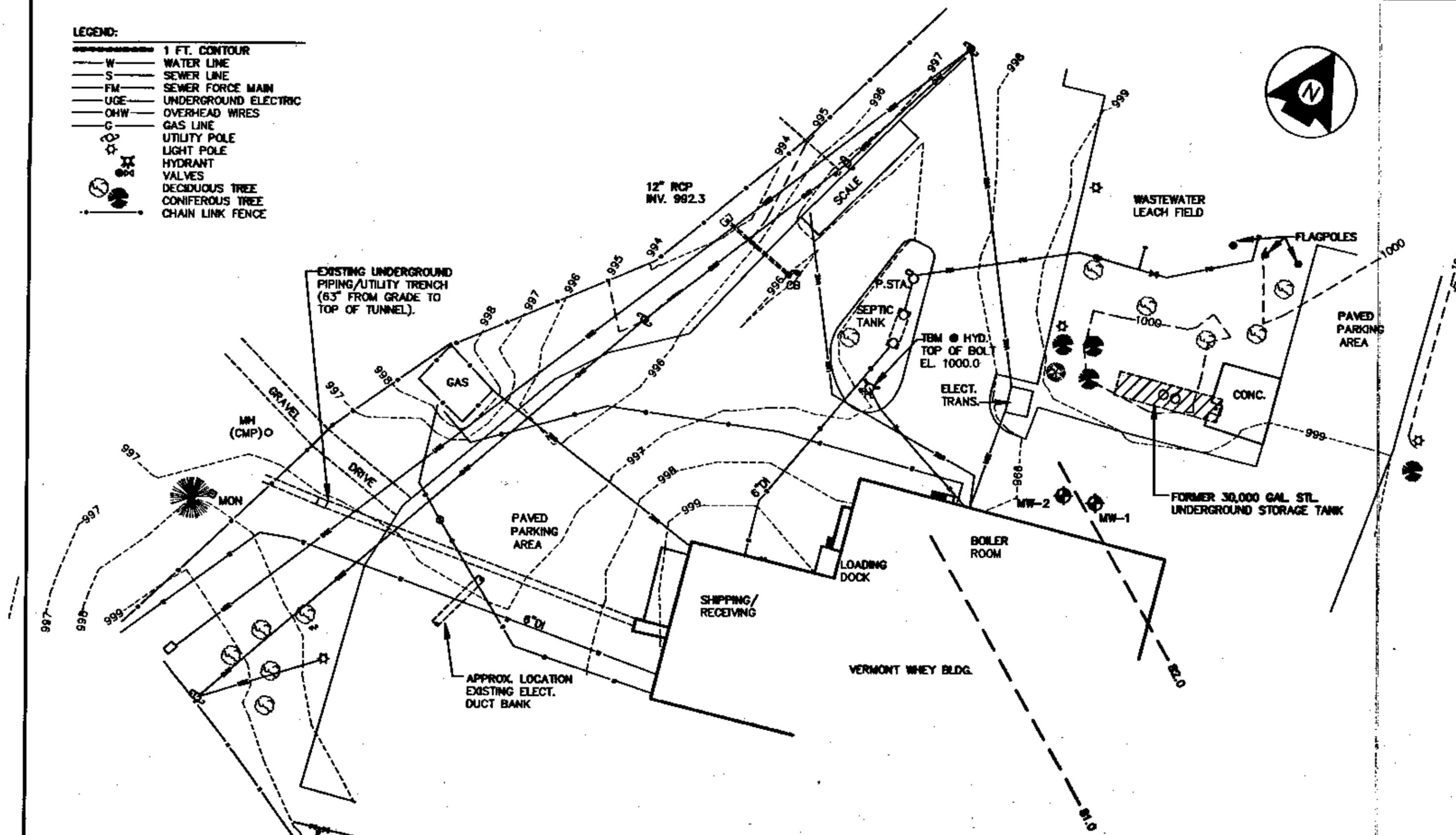
Sample ID:	MW-1	MW-2
Analytical Type:	Sample	Sample
Matrix:	aqueous	aqueous
Date Sampled:	4/8/99	4/8/99
Date Received:	4/9/99	4/9/99
Units:	mg/l	mg/l
Date of Extraction/Prep:	4/13/99	4/13/99
Date of Analysis:	4/15/99	4/15/99
Analyst:	KH	KH
Method:	8100 Mod	8100 Mod
Dilution Factor:	1	1
TPH (C9-C40)	< 0.5	< 0.5

APPENDIX H

GROUNDWATER CONTOUR MAP

LEGEND:

- 1 FT. CONTOUR
- W — WATER LINE
- S — SEWER LINE
- FM — SEWER FORCE MAIN
- UGE — UNDERGROUND ELECTRIC
- OHW — OVERHEAD WIRES
- G — GAS LINE
- — UTILITY POLE
- ⊙ — HYDRANT
- ⊙ — VALVES
- ⊙ — DECIDUOUS TREE
- ⊙ — CONIFEROUS TREE
- — CHAIN LINK FENCE



 Dufresne-Henry, Inc. Consulting Engineers North Springfield, Vermont	VERMONT WHEY PLANT SITE INVESTIGATION		Project No. 0584009.02
	GROUNDWATER ELEVATIONS ON 4/8/99		Proj. Mgr. F.D.D.
			Scale 1"=40'
			Date 4/28/99
	GEORGIA, VERMONT B		SK1