GZA
Proactive by Design
GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT
3 Commerce Park North
Suite 3rd
Bedford, NH 03110
603.623.3600
603.624.9463 Fax
www.gza.com

HAND DELIVERED

September 9, 2015
File No. 04.0190030.00

Mr. and Mrs. Richard D. Higgins
9 Rennie Road
Hanover, New Hampshire 03755

Re: Residential Water Supply Well Sampling
Hydrogeologic Investigation
Dartmouth College, Rennie Farm Site
NHDES Site No. 201111109, DES Project No. 277737

Dear Mr. and Mrs. Higgins:

Dartmouth College will be collecting samples of groundwater from residential water supply wells (drinking water wells) in the Rennie Road area of Hanover, New Hampshire including the area near your property. We are sending you this letter to provide you with information regarding the sampling program and to request access to your property to collect samples of water for laboratory analysis.

The sampling is being performed due to the detection of a volatile organic compound known as 1,4 dioxane in groundwater samples collected at the Dartmouth College, Rennie Farm property located at 572 Center Hanover Road. 1,4 dioxane is manmade and was primarily used in solvents. It has also been used in varnishes and paint strippers, and can be present in certain personal care products. We have attached summary sheets developed by the United States Department of Health and Human Services and the New Hampshire Department of Environmental Services (NHDES) that provide information regarding 1,4-dioxane.

The investigation of 1,4-dioxane in groundwater at the Rennie Farm property is being performed by Dartmouth College in accordance with State of New Hampshire environmental regulations, and under the guidance of the NHDES. Detection of this contaminant in groundwater samples recently collected from the Rennie Farm property prompted Dartmouth College to proactively collect groundwater samples from residential water supply wells in the general vicinity of the Rennie Farm property. Water quality samples collected from residential water supply wells will be analyzed by a laboratory for 1,4-dioxane. A summary of the history of the Rennie Farm property relevant to the investigation and a figure illustrating the locations of features referenced in the history are attached.

Dartmouth College has contracted GZA GeoEnvironmental, Inc. (GZA) to perform the sampling. If you agree to be included in the sampling program, a GZA field technician will visit your property to collect the sample. Sampling your well should take about one-half hour. Sampling will involve running an outside spigot or faucet for about 20 minutes prior to sampling, and will require GZA to access the pressure tank for the well, which is usually located in the basement or attic.

GZA will be collecting two rounds of samples in your area, including an initial sample during the week of September 7, and a second sample approximately 2 weeks later to confirm the results of the initial sample.

Laboratory analysis of the samples typically takes about 1 week. Following completion of laboratory analysis of each of the samples, you would be provided with the results of analyses by telephone and by letter. The letter will provide you with an explanation of the results of the analysis and applicable information regarding the use of water from your well. A copy of the letter will also be submitted to Dartmouth College and the NHDES. NHDES may also send you a copy of the results and applicable information regarding the use of water from your well.

GZA will attempt to contact you to coordinate sampling your well, but would greatly appreciate you contacting Mr. James M. Wieck GZA at (603) 232-8732 or *james.wieck@gza.com* to set up a time that would be convenient for you. If you have any questions, please feel free to contact Dr. Maureen O'Leary, Director Environmental Health & Safety, Dartmouth College at (603) 646-1762 or Mr. Wieck of GZA. We have attached a copy of an agreement that, if signed by you, provides GZA with written authorization to access your property for the purpose of collecting the samples of water from your well and describes GZA's obligations.

On behalf of Dartmouth College, we appreciate your review of this letter and would greatly appreciate your cooperation in the sampling program.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

James M. Wieck, P.G.
Senior Project Manager

Steven R. Lamb, P.G., C.G.W.P
Principal

JMW/SRL:kr
P:\04Jobs\01900030\04 0190030 00\Work\DR Site Sampling\Access Request Letters\FINAL 04.0190030.00 LETTER TO RESIDENTS 090915 Higgins 9 Rennie Rd.docx

Attachments: U.S. Department of Health and Human Services Fact Sheet
New Hampshire Department of Environmental Services Fact Sheet
Rennie Farm Site History
Site/Site Vicinity Plan
Access Agreement

cc: Maureen O'Leary, PhD, MBA, CBSP – Dartmouth College
Mr. Paul Rydel, P.G. – NHDES Hazardous Waste Remediation Bureau

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

FACT SHEET

ACCESS AGREEMENT

1,4-Dioxane - ToxFAQs™

CAS # 123-91-1

This fact sheet answers the most frequently asked health questions (FAQs) about 1,4-dioxane. For more information, call the CDC Information Center at 1-800-232-4636. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It is important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Exposure to 1,4-dioxane occurs from breathing contaminated air, ingestion of contaminated food and drinking water, and dermal contact with products such as cosmetics that may contain small amounts of 1,4-dioxane. Exposure to high levels of 1,4-dioxane in the air can result in nasal cavity, liver, and kidney damage. Ingestion or dermal contact with high levels of 1,4-dioxane can result in liver and kidney damage. 1,4-Dioxane has been found in at least 31 of 1,689 National Priorities List (NPL) sites identified by the Environmental Protection Agency (EPA).

What is 1,4-dioxane?

1,4-Dioxane is a clear liquid that easily dissolves in water. It is used primarily as a solvent in the manufacture of chemicals and as a laboratory reagent. 1,4-Dioxane is a trace contaminant of some chemicals used in cosmetics, detergents, and shampoos. However, manufacturers now reduce 1,4-dioxane from these chemicals to low levels before these chemicals are made into products used in the home.

What happens to 1,4-dioxane when it enters the environment?

- 1,4-Dioxane can be released into the air, water, and soil at places where it is produced or used as a solvent.
- In air, 1,4-dioxane rapidly breaks down into different compounds.
- In water, 1,4-dioxane is stable and does not break down.
- In soil, 1,4-dioxane does not stick to soil particles, so it can move from soil into groundwater.
- Fish and plants will not accumulate 1,4-dioxane in their tissues.

How might I be exposed to 1,4-dioxane?

- Breathing air, drinking water, or eating foods that contain 1,4-dioxane. During showering, bathing, or laundering, 1,4-dioxane in tap water may volatilize and you can be exposed to 1,4-dioxane vapors.
- Your skin may contact 1,4-dioxane when you use cosmetics, detergents, bubble baths, and shampoos containing 1,4-dioxane.

How can 1,4-dioxane affect my health?

Few studies are available that provide information about the effects of 1,4-dioxane in humans. Exposure to very high levels of 1,4-dioxane can result in liver and kidney damage and death. Eye and nose irritation was reported by people inhaling low levels of 1,4-dioxane vapors for short periods (minutes to hours).

Studies in animals have shown that breathing vapors of 1,4-dioxane affects mainly the nasal cavity, liver, and kidneys. Ingesting 1,4-dioxane or having skin contact with 1,4-dioxane also affects the liver and kidneys.

How likely is 1,4-dioxane to cause cancer?

The limited number of studies available does not show whether 1,4-dioxane causes cancer in humans. Laboratory rats that breathed vapors of 1,4-dioxane during most of their lives developed cancer inside the nose and abdominal cavity. Laboratory rats and mice that drank water containing 1,4-dioxane during most of their lives developed liver cancer; the rats also developed cancer inside the nose. Scientists are debating the degree to which the findings in rats and mice apply to exposure situations commonly encountered by people.

The (DHHS) U.S. Department of Health and Human Services considers 1,4-dioxane as reasonably anticipated to be a human carcinogen.

1,4-Dioxane

CAS # 123-91-1

How can 1,4-dioxane affect children?

There are no studies of children exposed to 1,4-dioxane. However, children might experience health problems similar to those in adults if they were exposed to high concentrations of 1,4-dioxane.

Scientists do not know whether exposure of pregnant women to 1,4-dioxane can harm the unborn child.

How can families reduce the risk of exposure to 1,4-dioxane?

1,4-Dioxane may be a contaminant in cosmetics, detergents, bath products, shampoos, and some pharmaceuticals. 1,4-Dioxane is not intentionally added, but may occur as an unintentional byproduct in some ingredients that may be listed on the product label, including: PEG, polyethylene, polyethylene glycol, polyethoxyethylene, -eth or -oxynol . Many products on the market today (foods, pharmaceuticals, cosmetic products, detergents, etc.) contain 1,4-dioxane in very small amounts. However, some cosmetics, detergents, and shampoos may contain 1,4-dioxane at levels higher than recommended by the FDA for other products. Families wishing to avoid cosmetics containing the ingredients listed above may do so by reviewing the ingredient statement that is required to appear on the outer container label of cosmetics offered for retail sale.

1,4-Dioxane has been detected in some drinking water supplies. Bottled water may be less likely to be contaminated with 1,4-dioxane, and consumers should contact the bottler with specific questions on potential contaminants.

Is there a medical test to determine whether I've been exposed to 1,4-dioxane?

1,4-Dioxane and its breakdown products can be measured in your blood and urine, and positive results indicate you have been exposed to 1,4-dioxane. These tests do not predict whether exposure to 1,4-dioxane will produce harmful health effects. The tests are not routinely available at your doctor's office because they require special equipment, but the doctor can collect the samples and send them to a special laboratory. The tests need to be conducted within days after the exposure because 1,4-dioxane and its breakdown products leave the body fairly rapidly.

Has the federal government made recommendations to protect human health?

EPA has determined that exposure to 1,4-dioxane in drinking water at concentrations of 4 milligrams per liter (4 mg/L) for one day or 0.4 mg/L for 10 days is not expected to cause any adverse effects in children.

The Occupational Safety and Health Administration (OSHA) has set a limit for of 100 parts 1,4-dioxane per 1 million parts of air (100 ppm) in the workplace.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 2012. Toxicological Profile for 1,4-Dioxane. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Where can I get more information?

For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology and Human Health Sciences, 1600 Clifton Road NE, Mailstop F-57, Atlanta, GA 30333.

Phone: 1-800-232-4636

ToxFAQs™ Internet address via WWW is http://www.atsdr.cdc.gov/toxfaqs/index.asp.

ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES

ENVIRONMENTAL FACT SHEET

ENVIRONMENTAL
Fact Sheet

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

29 Hazen Drive, Concord, New Hampshire 03301 • (603) 271-3503 • www.des.nh.gov

ARD-EHP-30

2011

1,4-Dioxane: Health Information Summary

1,4-Dioxane is a clear liquid with a slight, ether-like odor. At one time, it was added to chlorinated solvents as a stabilizer, but that use has been discontinued. Current uses of 1,4-dioxane are as a solvent in paints, varnishes, adhesives, detergent and cleaning preparations, cosmetics and pesticides. It is also used during the production of flame retardant chemicals, pharmaceuticals and magnetic tape. 1,4-Dioxane can be found in antifreeze from the breakdown of common antifreeze compounds. 1,4-Dioxane may be produced as a contaminant during the manufacture of chemicals commonly added to many consumer products, including cosmetics, soaps, shampoo and bubble bath.

Low levels of 1,4-dioxane exist in ambient air, but it is degraded within a few days. 1,4-Dioxane is resistant to degradation in soil and binds only weakly to it. 1,4-Dioxane will readily migrate to groundwater where it is likely to persist. It is completely soluble in water. 1,4-Dioxane does not accumulate in plants or animals. Therefore, consuming home produced vegetables, fruit or meat is not likely to be a significant source of exposure.

1,4-Dioxane is an "emerging contaminant," meaning it has recently been recognized as a potential or actual threat to the environment and human health. Until fairly recently, it was not possible to detect it at the low concentrations usually present in the environment. Because of the improved ability to detect 1,4-dioxane at lower levels, environmental officials have increased sampling efforts to determine how widespread its presence is in soil and groundwater.

Health Effects

Exposure and Metabolism

In human and animal studies of how 1,4-dioxane is absorbed into the body, almost all of 1,4-dioxane that is ingested is absorbed. Approximately 80 percent of what is breathed in is absorbed and less than 1 percent of what comes in contact with the skin is absorbed. Both human and animal studies indicate that after exposure, 1,4-dioxane and its metabolites rapidly leave the body, with almost all of it eliminated within one day after exposure ceases.

Short-Term (Acute) Effects

There are few studies available that provide information about the health effects of 1,4-dioxane in humans. Accidental exposure to extremely high levels of 1,4-dioxane in the workplace has resulted in deaths due to liver and kidney damage. Studies on animals have shown that exposures

further from the excavation in the direction of groundwater flow. DES approved the work plan and the proposed wells were drilled during Spring 2015.

Samples collected this summer, from the newly drilled spring 2015 well sites, showed one sample point with 1,4-dioxane at levels in excess of the NH Groundwater Standard. In order to ensure the safety of our neighbors, and in consultation with DES, we are seeking permission to sample private water supply wells of neighbors in the vicinity of the Rennie Farm premises. Doing so will aid in the development of immediate and long-term groundwater management plans.

On September 2, an additional work-plan for the sampling of 9 drinking water well locations in the vicinity of the site was submitted to DES. These locations have been selected in concert with DES to ensure protection of public health in light of observed groundwater sampling results and groundwater flows in this area.

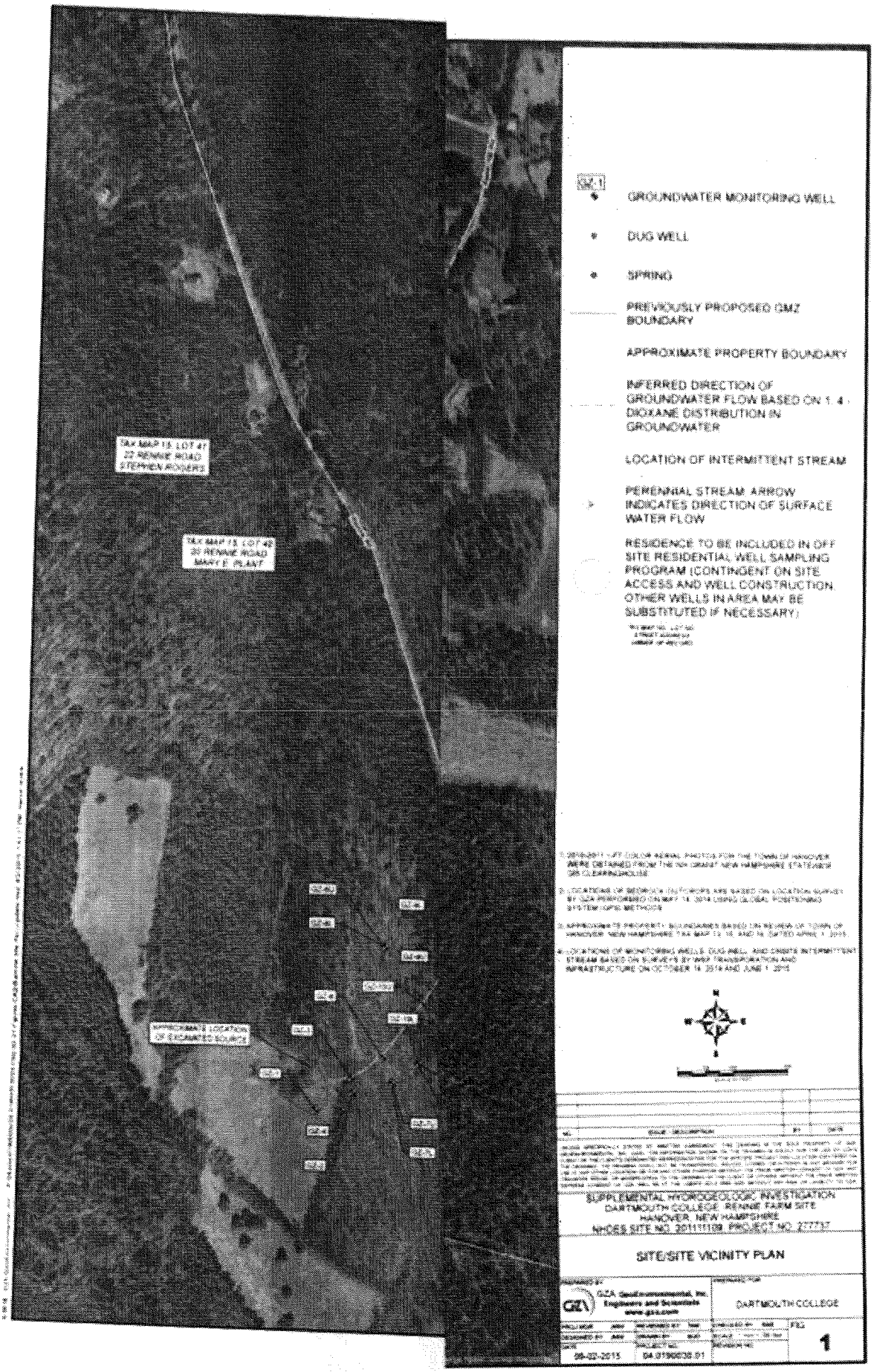
Prior to sampling drinking water wells, site access requests will be delivered and discussed with property owners during the week of September 8. Representatives from Dartmouth and GZA GeoEnvironmental, Inc (GZA), its environmental consultant, will answer questions and request property owner permission to sample the selected water supply wells for 1,4-dioxane. Results of the analysis are anticipated approximately one week after sample collection and will be communicated to property owners by phone and mail upon receipt. Owners can expect a letter from NH Health and Human Services as well to communicate test results and appropriate actions.

Should drinking water sampling results indicate the presence of 1,4-dioxane, Dartmouth will provide a replacement drinking water supply. Dartmouth and GZA will return to sample the drinking water wells approximately two weeks after the first sample date to perform a confirmatory test.

Dartmouth will continue monitoring existing groundwater wells and selected drinking water supply wells under a Groundwater Management Permit (GMP) to be issued by the DES. The groundwater management permit will outline the scope and interval of groundwater and drinking water testing. Permits are issued with 5-year terms but can be modified or extended based on testing data.

Please feel free to contact the Environmental Health & Safety (EHS) Office at Dartmouth College with any questions, 603-646-1762.

SITE/SITE VICINITY PLAN


TAX MAP 18 LOT 47
22 RENNIE ROAD
STEPHEN ROGERS
TAX MAP 18 LOT 48
30 RENNIE ROAD
MARY E. PLANT
APPROXIMATE LOCATION OF EXCAVATED SOURCE
GMW-1
GROUNDWATER MONITORING WELL
DUG WELL
SPRING
PREVIOUSLY PROPOSED GMZ BOUNDARY
APPROXIMATE PROPERTY BOUNDARY
INFERRED DIRECTION OF GROUNDWATER FLOW BASED ON 1,4-DIOXANE DISTRIBUTION IN GROUNDWATER
LOCATION OF INTERMITTENT STREAM
PERENNIAL STREAM. ARROW INDICATES DIRECTION OF SURFACE WATER FLOW
RESIDENCE TO BE INCLUDED IN OFF SITE RESIDENTIAL WELL SAMPLING PROGRAM (CONTINGENT ON SITE ACCESS AND WELL CONSTRUCTION. OTHER WELLS IN AREA MAY BE SUBSTITUTED IF NECESSARY)
1) 2014/2011 1-FT COLOUR AERIAL PHOTOS FOR THE TOWN OF HANOVER WERE OBTAINED FROM THE NH GRANIT NEW HAMPSHIRE STATEWIDE GIS CLEARINGHOUSE
2) LOCATIONS OF MONITORING WELLS AND SPRINGS ARE BASED ON LOCATION SURVEY BY GZA PERFORMED ON MAY 19, 2014 USING GLOBAL POSITIONING SYSTEM (GPS) METHODS
3) APPROXIMATE PROPERTY BOUNDARIES BASED ON MAPS OF TOWN OF HANOVER, NEW HAMPSHIRE, TAX MAP 18, 19, AND 14, DATED APRIL 1, 2015
4) LOCATIONS OF MONITORING WELLS, DUG WELL, AND ONSITE INTERMITTENT STREAM BASED ON SURVEYS BY WHIP TRANSPORTATION AND INFRASTRUCTURE ON OCTOBER 16, 2014 AND JUNE 1, 2015
N
W
E
S
NO. ISSUE DESCRIPTION BY DATE
SUPPLEMENTAL HYDROGEOLOGIC INVESTIGATION
DARTMOUTH COLLEGE - RENNIE FARM SITE
HANOVER, NEW HAMPSHIRE
NHDES SITE NO. 201111109 PROJECT NO. 277737
SITE/SITE VICINITY PLAN
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com
DARTMOUTH COLLEGE
DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY
SCALE
PROJECT NO.
DATE
09-02-2015
04.0139035.51
FIG.
1

RENNIE FARM SITE HISTORY

Dartmouth College HANOVER • NEW HAMPSHIRE • 03755
37 Dewey Field Rd, Suite 6216 • Tel: (603) 646-1762 • Fax: 646-2622
ENVIRONMENTAL HEALTH AND SAFETY
http://www.dartmouth.edu/~ehs/

Rennie Farm Site History

Historic Site Use. Since 1965, Dartmouth has owned the 223-acre Rennie Farm in Etna, NH. From the mid 1960's until 1978, a ¾ acre area on the property was used by Dartmouth as a State licensed burial site for animal carcasses from medical and other research.

Initial Site Cleanup. Plans for excavation and remediation of the site began in 2010. Site remediation was approved by the New Hampshire Department of Health and Human Services, Radiological Health Section (RHS) and began in late October 2011. In November 2011, unexpected hazardous chemical waste was encountered. Dartmouth notified the New Hampshire Department of Environmental Services (DES) and removed the contaminated materials.

Source removal and remediation continued through December 2011. Prior to undertaking the remediation and throughout the excavation, numerous soil and groundwater samples were collected and analyzed, consistent with State regulations and with State oversight, for purposes of site closure. After analyzing samples taken from the site, RHS deemed the site free of radiological contamination and safe for unrestricted use.

Groundwater. The focus of Dartmouth's work with DES has been related to groundwater contamination beneath the Rennie Farm in the area near the excavation. Prior to site excavation, four groundwater monitoring wells were installed and have been regularly sampled for radiological and chemical contaminants. In April 2012, for the first time, groundwater sample analysis at Rennie Farm detected 1,4-dioxane (a volatile organic compound [VOC] used in laboratories) at concentrations exceeding the New Hampshire groundwater standard. No other contaminants have been discovered in excess of NH Groundwater Standards.

Phased Investigation. Since the detection of 1,4-dioxane in groundwater, Dartmouth has continued to monitor groundwater quality and has conducted a phased investigation consistent with State environmental requirements. Results have indicated decreasing concentrations of 1,4-dioxane near the excavation area, but some testing results indicate that concentrations are not yet below the NH Groundwater Standard throughout the Rennie Farm site.

The movement of water and 1,4-dioxane below ground at the Rennie Farm site is complex. For complex sites like Rennie Farm, investigations to determine the area where contaminants are present are often completed in phases in accordance with State regulations. The results of each phase are used to design the next phase of work to ultimately determine the area impacted by the contaminant. Work by Dartmouth at the Rennie Farm site has included additional groundwater monitoring, geologic mapping and evaluation, sampling of a total of 17 groundwater sample points, and surface water sampling.

Five out of the total 17 groundwater sampling points were installed during 2014. Results from those samples indicated 1,4-dioxane was present in groundwater at the Rennie Farm site beyond the excavation area, but within Dartmouth property boundaries. The results of the sampling and analyses were presented to DES along with a work plan proposing the installation of eight additional sample points at Rennie Farm in locations within Dartmouth property boundaries

ToxFAQs for 1,4-Dioxane. Agency for Toxic Substances and Disease Registry (ATSDR). Atlanta, Ga. September, 2007. At: http://www.atsdr.cdc.gov/tfacts187.html.

Toxicological Profile for 1,4-Dioxane (Draft Update). Agency for Toxic Substances and Disease Registry (ATSDR). Atlanta, Ga. September, 2007. At: http://www.atsdr.cdc.gov/toxprofiles/tp187.html .

Toxicological information for 1,4-dioxane. Integrated Risk Information System (IRIS). USEPA, Office of Health and Environmental Assessment. Last revision : August, 2010. At: http://www.epa.gov/iris/subst/0326.htm .

Voluntary Children's Chemical Evaluation Program (VCCEP). Tiers 1, 2 and 3. Pilot Submission for 1,4-Dioxane. Sponsor: Ferro Corporation. Cleveland, Ohio. Author: The Sapphire Group Inc. March, 2007. At: http://www.epa.gov/oppt/vccep/pubs/chem16.htm .

to 1,4-dioxane affects the liver and kidneys. It should be noted that levels of 1,4-dioxane that are normally found in the environment or in consumer products are generally much lower than levels used in laboratory studies of animals.

Long-Term (Chronic) Effects
Exposure to 1,4-dioxane in animals for the majority of their lifespan has caused toxic effects to the liver and kidney such as swelling, degenerative changes, cell death, and lesions. The lowest concentration in animals that caused any of these toxic effects would be equivalent to a human exposed to 1,4-dioxane in drinking water at a concentration of approximately 3 million parts per billion (ppb, which is equal to micrograms per liter of water or ug/l).

Carcinogenic (Cancer-Causing) Effects
There are limited studies of humans exposed to 1,4-dioxane in the workplace relative to its ability to cause cancer. Several kinds of animals exposed to 1,4-dioxane in drinking water had increases in liver cancer. The U.S. Environmental Protection Agency has classified 1,4-dioxane as likely to be carcinogenic to humans based on the evidence from animal studies.

Reproductive/Developmental Effects
No studies are known regarding reproductive or developmental effects in humans. In the only known study specifically conducted to assess the reproductive and developmental effects of 1,4-dioxane, pregnant rats given very large amounts of the compound had some offspring with reduced body weight and minor bone malformations.

Health Standards and Criteria

The New Hampshire Ambient Groundwater Quality Standard (AGQS) for 1,4-dioxane is 3.0 ug/l. At the AGQS, there is a one-in-one-million increase in the risk of cancer for each 10 years of exposure assuming 2 liters of water are consumed daily. No non-cancer health effects are expected at 1,4-dioxane drinking water concentrations below 200 ug/l.

The Occupational Safety and Health Administration has developed a permissible exposure limit or PEL for 1,4-dioxane in workplace air of 100 parts per million (ppm) averaged over eight hours.

The Food and Drug Administration allows up to 10 ppm of 1,4-dioxane in the food supply for specific purposes where exposure is likely to be minimal, such as in some components of dietary supplement tablets and for adhesives used in food packaging.

For more information, please contact the DES Environmental Health Program, 29 Hazen Drive, Concord, NH 03302-0095; (603) 271-4608, or go on-line at http://des.nh.gov/organization/divisions/air/pehb/ehs/ehp/index.htm .

Suggested Reading and References

Casarett and Doull's Toxicology: The Basic Science of Poisons, Sixth Edition. Klaassen, C.D., ed. McGraw-Hill Publishing Co. Inc., New York, 2001.

mailed 9/10/15

SITE ACCESS AGREEMENT

Ms. / Mr. Debbie Higgins and Richard Higgins agrees to allow access to her/his property located at 9 Rennie Road, Hanover, New Hampshire, Tax Map No. 13, Lot No. 81-1 (the property), by employees of GZA GeoEnvironmental, Inc. (GZA), provided the following conditions are met.

The work will be as follows:

1. Dartmouth College's environmental consultant, GZA, would like to collect drinking water samples from your residence. The objective of the work is to evaluate the quality of your drinking water as your residence is located within the vicinity of the Rennie Farm property located at 572 Center Hanover Road in Hanover, New Hampshire, which is the site of an on-going investigation of groundwater quality. Your participation in this effort is voluntary and it is your choice to give permission to GZA to access your property.

2. GZA will exercise due care and caution in the performance of the work. GZA will be responsible for any property damage or personal injury caused by its sole negligence. You as the property owner shall not be responsible for such repair or personal injury of GZA personnel.

3. Once analytical drinking water analysis is complete, the results will be available to the owner, operator, or tenant as requested.

4. GZA shall maintain current insurance coverage in the amounts shown on the attached Certificate of insurance.

This agreement may be modified only in writing and signed by all parties.

This agreement shall take effect immediately on the last of the dates listed below.

This agreement will terminate one year from the date of signature below.

If acceptable to the property owners and GZA, this agreement may be extended.

Debbie Higgins - Debbie Higgins — 9/9/15

Richard Higgins — 9/9/15

Property Owner's Name (Print and Sign) — Date

Steven R. Lamb, P.G., C.G.W.P.; Principal
GZA GeoEnvironmental, Inc. (603) 623-3600

Date

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 3/5/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Risk Strategies Company
160 Federal St. 2nd Floor
Boston, MA 02110

CONTACT NAME:
PHONE (A/C, No, Ext): 617-330-5700 FAX (A/C, No): 617-439-3752
E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A:	Great Divide Insurance Company/ Nautilus Ins Group	25224
INSURER B:	The First Liberty Insurance Corp	33588
INSURER C:		
INSURER D:	Hartford Casualty Insurance	29424
INSURER E:	AIG Specialty Insurance Company	26883
INSURER F:		

INSURED
GZA GeoEnvironmental, Inc.
5 Commerce Park North
Suite 201
Bedford NH 03110

COVERAGES **CERTIFICATE NUMBER:** 23722710 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	✓ COMMERCIAL GENERAL LIABILITY		GLP20079571-11	2/28/2015	2/28/2016	EACH OCCURRENCE	$ 2,000,000
	CLAIMS MADE ✓ OCCUR					DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 500,000
						MED EXP (Any one person)	$ 10,000
						PERSONAL & ADV INJURY	$ 2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:					GENERAL AGGREGATE	$ 2,000,000
	✓ POLICY PRO-JECT LOC					PRODUCTS - COMP/OP AGG	$ 2,000,000
	OTHER:						$
B	AUTOMOBILE LIABILITY		AS6-Z11-261208-014	2/28/2015	2/28/2016	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	ANY AUTO					BODILY INJURY (Per person)	$
	✓ ALL OWNED AUTOS / SCHEDULED AUTOS					BODILY INJURY (Per accident)	$
	✓ HIRED AUTOS / ✓ NON-OWNED AUTOS					PROPERTY DAMAGE (Per accident)	$
							$
	UMBRELLA LIAB OCCUR					EACH OCCURRENCE	$
	EXCESS LIAB CLAIMS MADE					AGGREGATE	$
	DED RETENTION $						$
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY		08WBRI5940	2/28/2015	2/28/2016	✓ PER STATUTE / OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y / N / N/A					E.L. EACH ACCIDENT	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below					E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
						E.L. DISEASE - POLICY LIMIT	$ 1,000,000
E	Contractors Pollution/ Professional Liability		COPS3778297	2/28/2015	2/28/2016	Each Claim/ $1,000,000 Aggregate $1,000,000	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Re: Job #Sample Certificate
Issued as Evidence of Insurance

CERTIFICATE HOLDER

Sample Certificate

SAMPLE CERTIFICATE OF INSURANCE

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
Michael Christian