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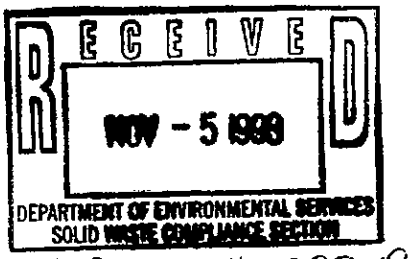
SANBORN, HEAD & ASSOCIATES, INC.



WMD 206 # 798-93

Contamination Assessment
Refuse Relocation Project
Consumat-Sanco, Inc. Landfill
Bethlehem, New Hampshire

Prepared for
Consumat-Sanco, Inc.

by
SANBORN, HEAD & ASSOCIATES, INC.

November 1993

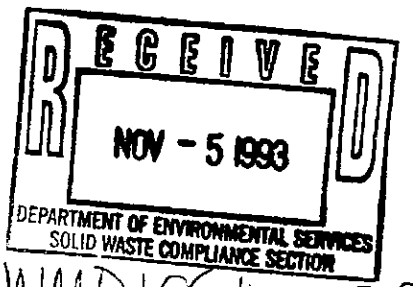
PADRS

SANBORN, HEAD & ASSOCIATES, INC.
ENVIRONMENTAL SCIENTISTS CONSULTING ENGINEERS

PAUL M. SANBORN
CHARLES L. HEAD
R. SCOTT SHILLABER
CHARLES A. CROCETTI
GREGORY R. MORLEY

November 5, 1993
File No. 1003

Richard S. Reed, Supervisor
Solid Waste Compliance Section
Waste Management Division
New Hampshire Department of Environmental Services
6 Hazen Drive
Concord, NH 03301



WMD LOG# 798-93

Re: Contamination Assessment
Refuse Relocation Project
Consumat-Sanco, Inc. Landfill
Bethlehem, New Hampshire

Dear Mr. Reed:

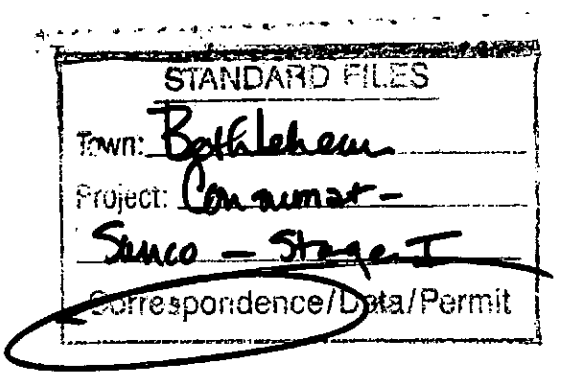
On behalf of Consumat-Sanco, Inc., we are transmitting herewith three copies of our report of the Contamination Assessment completed following refuse relocation from the unlined landfill and extension area at the Consumat-Sanco, Inc. site. The assessment was completed in accordance with our June 25, 1993 work plan and the conditions presented in your September 1, 1993 letter approving that plan.

Please call if you have any questions regarding the enclosed information.

Very truly yours,
SANBORN, HEAD & ASSOCIATES, INC.

for Paul M. Sanborn
President/Principal

PMS:ljm
Enc.
cc: Leo Larochelle
James Bohlig
Robert Massey



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SANBORN, HEAD & ASSOCIATES, INC.
ENVIRONMENTAL SCIENTISTS CONSULTING ENGINEERS

PAUL M. SANBORN
CHARLES L. HEAD
R. SCOTT SHILLABER
CHARLES A. CROCETTI
GREGORY R. MORLEY

November 4, 1993
File No. 1003

Leo R. Larochelle, P.E.
Consumat-Sanco, Inc.
100 Hall Street
Suite 301C, Box 6
Concord, NH 03301

Re: Contamination Assessment
Refuse Relocation Project
Consumat-Sanco, Inc. Landfill
Bethlehem, New Hampshire

Dear Leo:

Sanborn, Head & Associates, Inc. (SHA) has completed an assessment of soil conditions in the area of the unlined landfill and extension area at the Consumat-Sanco facility in Bethlehem, New Hampshire. This work was completed in accordance with our June 25, 1993 work plan, which was approved with conditions by the New Hampshire Department of Environmental Services (NHDES) in a letter dated September 1, 1993.

The objectives of our services were to:

- Conduct subsurface explorations to obtain soil samples for field screening and analytical testing to evaluate the extent of soil contamination which may exist in the area of the unlined landfill and extension area; and, on the basis of these conditions,

- Develop recommendations to stabilize the site.

Please note that our report is subject to the limitations presented in Appendix A.

Background

Following NHDES and local approval, refuse from the unlined landfill and the extension area located to the east of Stage I of the facility was excavated and relocated into Stage I, a doubled-lined landfill. The relocation involved removing previously landfilled materials and visibly stained soils. The refuse relocation began in December 1991 and the final refuse was moved into Phase IV of Stage I after Consumat-Sanco received the Phase IV Operating Permit in August 1993. Following relocation, which was substantially completed in early October 1993, Cartographics Associates, Inc. (Cartographics) of Littleton, New Hampshire performed a topographic survey of the grades in the relocation area. In addition, Cartographics established a 100-foot by 100-foot grid throughout the area. The site topography based on Cartographics' October 13, 1993 survey and the grid layout are shown on Sheet 1.

Subsurface Explorations and Sampling

On October 19 and 20, SHA observed and logged 38 test pits excavated at the site. The test pits were excavated to permit direct observation of soils for evidence of contamination such as staining and to obtain samples for field screening and laboratory testing. Test pit locations are shown on Sheet 1 and logs of test pits are contained in Appendix B. As required by Condition 1 of NHDES' September 1, 1993 letter, one test pit (TP-1) was excavated about 300 feet to the west of the unlined landfill area, to assess "background" soil conditions.

The test pits were excavated to depths of 7 to 11.5 feet below the ground surface. During excavation, air quality within and in the vicinity of each test pit was screened for the presence of volatile organic compounds (VOCs) with an organic vapor meter (OVM) with a 10.0 electron volt photoionization detector calibrated to an isobutylene standard. Soil samples were obtained from depths of 2 and 6 feet below the ground surface in each test pit and screened with the OVM using head space techniques. Field screening results are compiled in Table 1. In addition, samples were obtained from depths of 2 and 6 feet and placed in an iced cooler. At the completion of the excavation program, samples from similar depths were composited to provide six composite samples, three each from depths of 2 and 6 feet below ground surface, as indicated below:

Sample Designation	Depth	Test Pits
S-1	2'	TP-2 through 11, 33 and 38
S-1A	6'	TP-2 through 11, 33 and 38
S-2	2'	TP-12 through 19, 34 through 37
S-2A	6'	TP-12 through 19, 34 through 37
S-3	2'	TP-20 through 32
S-3A	6	TP-20 through 32

Discrete samples were obtained from test pits TP-1, 10, 13, 22, 27, and 34. These samples were selected, in addition to the "background" sample, to provide reasonable areal distribution throughout the excavation area, at locations where OVM screening observations exceeded background (ND) levels. Finally, one soil sample was obtained from the stockpile of soil located near the center of the excavation area. Shortly after completion of our field work, the stockpiled soils were moved into the Phase IV area of Stage I for use as daily cover. The soil samples were delivered to Eastern Analytical, Inc. (EAI) of Concord, New Hampshire for analysis for VOCs by EPA Method 8240.

Field Observations and Results of Analytical Testing

Topography following excavation of landfill materials is shown on Sheet 1. Widespread surficial staining of the soils in the excavation area was not observed. The predominant soil type encountered in the test pits was glacial till consisting of a mixture of sand with as much as 35 percent silt, 10 to 20 percent gravel, and boulders. Subsurface soils observed in the excavation area are consistent with soils encountered in test borings and excavations elsewhere on the site.

As shown in Table 1, results of field screening for VOCs with the OVM indicated observed readings ranging from non-detect to 13 ppm. Low, generally consistent VOC readings were observed in the test pit excavations throughout much of the excavation area. Though not suitable for quantitation, OVM screening is a useful field technique serving as a relative indicator of the presence of VOCs.

The laboratory analytical results for VOCs are presented in Appendix C. The quantitative analyses for VOCs did not detect VOCs in any of the composite or discrete samples obtained from the test pits. Xylenes were detected at a concentration of 20 micrograms per kilogram (ug/kg) in the composite sample obtained from the soil stockpile. No other VOCs were detected in that sample. As indicated above, the soil stockpile was hauled and placed in the lined landfill for use as daily cover shortly after completion of our field work.

Data Evaluation

Based on field observations and quantitative analytical data, it does not appear that residual VOC contamination is present in the soils in the excavation area. In consideration of our findings, we do not believe that further excavation to remove additional soils is necessary. Accordingly, SHA recommends that the site be stabilized by grading to contain runoff within the excavation area, and by seeding to limit erosion. Recommended grading in the unlined landfill and extension area is shown on Sheet 2. This grading is intended to smooth grades remaining following excavation, in a manner which contains runoff within the disturbed area while limiting the need for additional cuts and fills.

Prior to regrading, we recommend that any remaining surficial debris be excavated and placed in the landfill. Large boulders should be removed from the area and stockpiled outside the unlined landfill and extension area, as part of the regrading effort. Since runoff is currently, and will be, contained within the disturbed area, and since it is too late in the fall to effectively germinate and grow a vegetative cover crop, we recommend that seeding and other erosion control measures be implemented in the spring of 1994. At that time the area should be fine-graded and seeded with a seed mix such as NHDOT Slope Mix Type 44 to stabilize the site. Sediment that collects in the infiltration area should be removed as required to maintain basin performance.

We recommend that water quality conditions at the site continue to be monitored in a manner consistent with the ongoing water quality monitoring program at the landfill. The 100-series monitoring wells are located downgradient of the excavation area, and should provide representative water quality data. Though near-term monitoring data may be influenced by excavation activities, we anticipate a gradual improvement in water quality conditions will occur, since waste materials have been relocated

to the double-lined landfill.

We believe the measures recommended above will adequately stabilize the former unlined landfill and extension area until development of Stage II takes place. Should you have any questions, please do not hesitate to call.

Very truly yours,
SANBORN, HEAD & ASSOCIATES, INC.

R. Scott Shillaber, P.E.
Principal

Paul M. Sanborn
President/Principal

RSS/PMS:ljm
Attachments: Table 1
Figures 1 and 2
Appendix A: Limitations
Appendix B: Test Pit Logs
Appendix C: Analytical Laboratory Data

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Tables

Table 1
Summary of Field Screening Results

Test Pit	Screening Result for Samples from	
	2 feet	6 feet
TP-1	ND	ND
TP-2	ND	ND
TP-3	ND	ND
TP-4	ND	ND
TP-5	ND	7
TP-6	3	3
TP-7	2.5	7
TP-8	ND	3
TP-9	1.5	2
TP-10	5	4
TP-11	3	6
TP-12	2.5	4
TP-13	8.5	5
TP-14	6	4
TP-15	2	2
TP-16	7	3
TP-17	2	4
TP-18	5	13
TP-19	1.5	5
TP-20	4	2
TP-21	ND	ND
TP-22	ND	5
TP-23	4	2
TP-24	ND	ND
TP-25	3.5	3
TP-26	2	5
TP-27	8	ND
TP-28	2	ND
TP-29	ND	ND
TP-30	ND	ND
TP-31	ND	ND
TP-32	2	2
TP-33	2	2
TP-34	4	4
TP-35	4	3–5
TP-36	3	3
TP-37	2	3
TP-38	3	3

Notes:

1. Field screening was performed using headspace techniques with a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Results represent parts per million of VOCs in soil gas. The organic vapor meter is a health and safety instrument for field screening for the presence of VOCs. Screening results provide a qualitative indication of the presence of VOCs and do not provide quantitative data for specific compounds.

2. "ND" indicates VOCs were not detected.

Appendix A

Limitations

LIMITATIONS

1. The conclusions and recommendations described in this report are based in part upon the data obtained from a limited number of soil samples from widely spaced subsurface explorations. The nature and extent of variations between these explorations may not become evident until further investigation. If variations or other latent conditions then appear evident, it may be necessary to re-evaluate the recommendations of this report.

2. Chemical analyses have been performed for specific parameters during the course of this study, as detailed in the text. Additional constituents not searched for during the current study may be present in soil and groundwater at the site. Where chemical analyses have been conducted by an outside laboratory, SHA has relied upon the data provided, and has not conducted an independent evaluation of the reliability of these data.

3. The conclusions and recommendations contained in this report are based in part upon various types of chemical data and are contingent upon their validity. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, these data should be reviewed by SHA and the conclusions and recommendations presented herein modified accordingly.

4. This report has been prepared for the exclusive use of Consumat-Sanco, Inc. for specific application to the contamination assessment of the former unlined landfill and extension area at the Consumat-Sanco Landfill in Bethlehem, New Hampshire in accordance with generally accepted hydrogeologic practices. No other warranty, express or implied, is made.

Appendix B

Test Pit Logs

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-1 Ground Elevation:

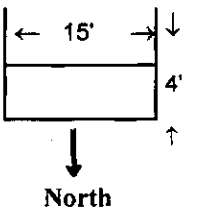
Date: 10/19/93 Weather: Partially cloudy, 40° – 60° Start Time: 0810 Finish Time: 0835	**Excavation Equipment** Contractor: Consumat-Sanco Operator: Skip Day Make: CAT Model: EC 300 Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1		0.5' Gray-brown, fine SAND, some Silt, little Organic Material. Topsoil.	Medium	6-A	1
2		Gray, fine to medium SAND, some Silt, little Gravel, little Boulders. TILL.			2
3					
4					
5		BOULDER	Difficult		
6					3
7					
8		8' Bottom of Test Pit at 8'			4, 5
9					
10					
11					
12					
13					
14					
15					
16					

Notes:

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. ND OVM reading at 2'.
3. ND OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



LEGEND	
Boulder Size Range Classification	**Count Letter Designation**
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC.	**Project No.** 1003	
125 North State Street, Concord, NH 03301	Description: Consumat-Sanco L.F.	Test Pit No.: TP-2
Engineer: Dennis R. Porter	Location: Bethlehem, NH	Ground Elevation:

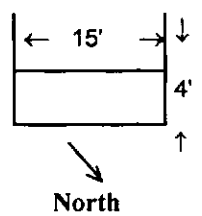
Date: 10/19/93
Weather: Partially cloudy, 40° – 60°
Start Time: 0840
Finish Time: 0855

Excavation Equipment
Contractor: Consumat-Sanco
Operator: Skip Day
Make: CAT Model: EL 300
Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1			Medium	6-A	
2		Gray, fine to medium SAND, some Silt, little Gravel, trace Boulders. TILL.			1
3					2
4		3.5'			
5		Gray, fine to medium SAND, some Silt, trace Gravel.		0	
6					3
7					
8		8'			4, 5
9		Bottom of Test Pit at 8'.			
10					
11					
12					
13					
14					
15					
16					

Notes:
1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. ND OVM reading at 2'.
3. ND OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



LEGEND		PROPORTIONS USED		EXCAVATION EFFORT	
Boulder Size Range Classification	Count Letter Designation	Trace	0–10%	E	Easy
6"–18"	A	Little	10–20%	M	Moderate
18"–36"	B	Some	20–35%	D	Difficult
36" and larger	C	And	35–50%		

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-3 Ground Elevation:

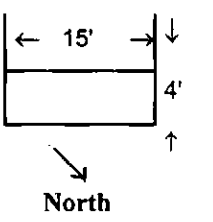
Date: 10/19/93
Weather: Partially cloudy, 40° – 60°
Start Time: 0858
Finish Time: 0915

Excavation Equipment
Contractor: Consumat-Sanco
Operator: Skip Day
Make: CAT Model: EL 300
Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1		Gray, fine to coarse SAND, some Silt, little Gravel.	Easy	3-A	1
		1.5'			
2					2
3				0	
4					
5		Gray, fine to coarse SAND and 1"–3" thick Silt layers. Stratified.			
6					3
7					
8		8'			4, 5
9		Bottom of Test Pit at 8'.			
10					
11					
12					
13					
14					
15					
16					

Notes:
1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. ND OVM reading at 2'.
3. ND OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



LEGEND	
Boulder Size Range Classification	**Count Letter Designation**
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

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TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-4 Ground Elevation:

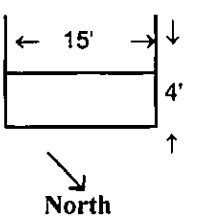
Date: 10/19/93 Weather: Partially cloudy, 40° – 60° Start Time: 0918 Finish Time: 0930	**Excavation Equipment** Contractor: Consumat-Sanco Operator: Skip Day Make: CAT Model: EL 300 Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1		Brown, fine to coarse SAND and GRAVEL, trace Silt, trace Cobbles.	Easy	2-A	1
2					2
3					
4					
5		5'			
6		Gray, fine SAND and Silt		0	3
7		7'			4, 5
8					
9					
10					
11					
12					
13					
14					
15					
16					

Notes:

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. ND OVM reading at 2'.
3. ND OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



LEGEND	
Boulder Size Range Classification	Count Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

1003\testpit4.drp

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-5 Ground Elevation:

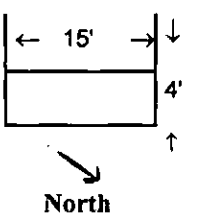
Date: 10/19/93
Weather: Partially cloudy, 40° – 60°
Start Time: 0935
Finish Time: 0950

Excavation Equipment
Contractor: Consumat-Sanco
Operator: Skip Day
Make: CAT Model: EL 300
Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1		1' Dark gray, fine to coarse SAND, some Silt, little Gravel, trace Paper, Plastic.	Easy	0	1
2				2-A	2
3		Brown, fine to medium SAND, little stratified Silt layers 1"–2" thick comprising less than 25% of sample.	Difficult		
4		BOULDERS			
5		5'		▾	
6		Dark black, fine to coarse SAND and GRAVEL, some Silt, little Cobbles.		5-A	3
7		7'	▾	▾	4, 5
8		Bottom of Test Pit at 7'			
9					
10					
11					
12					
13					
14					
15					
16					

Notes:
1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. ND OVM reading at 2'.
3. 7 ppm OVM reading at 6'–7'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



LEGEND

Boulder Size Range Classification	Count Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED

Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT

E	Easy
M	Moderate
D	Difficult

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-6 Ground Elevation:

Date: 10/19/93
Weather: Partially cloudy, 40° – 60°
Start Time: 0955
Finish Time: 1010

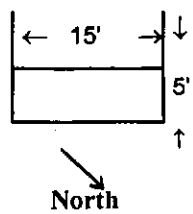
Excavation Equipment
Contractor: Consumat-Sanco
Operator: Skip Day
Make: CAT Model: EL 300
Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1		Mottled gray-brown fine to medium SAND, some Silt, little Gravel, trace Boulders.	Medium	4-A	1
2		2.2'			2
3		2.5' Dark black, fine to coarse SAND, some Silt, trace Gravel.		0	
4					
5		Light gray, fine SAND and SILT.			
6					3
7					
8		8'			4, 5
9		Bottom of Test Pit at 8'.			
10					
11					
12					
13					
14					
15					
16					

Notes:

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 3 ppm OVM reading at 2'–3'.
3. 3 ppm OVM reading at 6'–7'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-7 Ground Elevation:

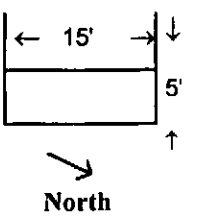
Date: 10/19/93
Weather: Partially cloudy, 40° – 60°
Start Time: 1012
Finish Time: 1020

Excavation Equipment
Contractor: Consumat-Sanco
Operator: Skip Day
Make: CAT Model: EL 300
Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1		.5' Mottled gray-brown, fine to medium SAND, some Silt, trace Paper and Plastic.	Medium	3-A	1
2		Gray-brown, fine SAND, some Silt, little Gravel.		1-A	2
3		3'			
4				0	
5		Gray, fine SAND, some Silt, trace Gravel, trace Cobbles.			
6					3
7					
8					
9		9'			4, 5
10		Bottom of Test Pit at 9'.			
11					
12					
13					
14					
15					
16					

Notes:
1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 2.5 ppm OVM reading at 2'.
3. 7 ppm OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-8 Ground Elevation:

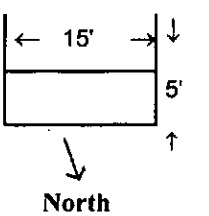
Date: 10/19/93 Weather: Partially cloudy, 40° – 60° Start Time: 1025 Finish Time: 1050	**Excavation Equipment** Contractor: Consumat-Sanco Operator: Skip Day Make: CAT Model: EL 300 Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1			Medium	10-A	1
2		Gray-brown GRAVEL and fine to coarse SAND, some Cobbles, trace Silt.			2
3					
4					
5		5'			
6				0	3
7		Gray, fine SAND and SILT, trace medium Sand.			
8					
9		9'			4, 5
10		Bottom of Test Pit at 9'.			
11					
12					
13					
14					
15					
16					

Notes:

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. ND OVM reading at 2'.
3. 3 ppm OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-9 Ground Elevation:

Date: 10/19/93
Weather: Partially cloudy, 40° – 60°
Start Time: 1100
Finish Time: 1115

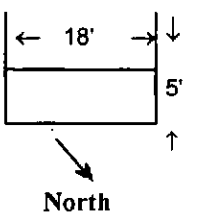
Excavation Equipment
Contractor: Consumat-Sanco
Operator: Skip Day
Make: CAT Model: EL 300
Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1			Easy	3-A	1
2		Mottled, gray, fine to medium SAND, some Silt, little Gravel, trace Plastic and Paper from 0–1.5'.		↓	2
3		2.8'		0	
4		Gray SILT, some fine Sand, trace medium Sand. 4'			
5					
6					3
7		Gray-brown, fine to medium SAND, trace Silt, trace Gravel.			
8					
9					
10		10'	↓	↓	4, 5
11		Bottom of Test Pit at 10'.			
12					
13					
14					
15					
16					

Notes:

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 1.5 ppm OVM reading at 2'.
3. 2 ppm OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-10 Ground Elevation:

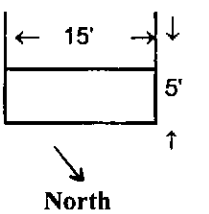
Date: 10/19/93
Weather: Partially cloudy, 40° – 60°
Start Time: 1120
Finish Time: 1145

Excavation Equipment
Contractor: Consumat-Sanco
Operator: Skip Day
Make: CAT Model: EL 300
Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1			Easy	4-A	1
2		Gray-brown, fine to coarse SAND, some Silt, little Gravel, trace Plastic, Wire, and Roots.			2
3		3'			
4				0	
5					
6					3
7		Gray, fine to coarse SAND, trace Silt, trace Gravel.			
8					
9					
10		10'			4, 5
11		Bottom of Test Pit at 10'.			
12					
13					
14					
15					
16					

Notes:
1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 5 ppm OVM reading at 2'.
3. 4 ppm OVM reading at 6'.
4. Soil samples S-2, S-6, and Grab-2 obtained from depths of 2', 6' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-11 Ground Elevation:

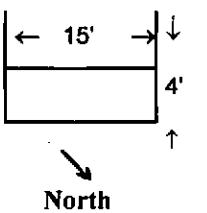
Date: 10/19/93 Weather: Partially cloudy, 40° – 60° Start Time: 1145 Finish Time: 1245	**Excavation Equipment** Contractor: Consumat-Sanco Operator: Skip Day Make: CAT Model: EL 300 Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1			Easy	5-A	1
2					2
3		Gray, fine to medium SAND, some Silt, little Gravel.		0	
4					
5		5'			
6					3
7		Gray, fine to coarse SAND, little Gravel, trace Silt.			
8					
9					
10		10'			4, 5
11		Bottom of Test Pit at 10'.			
12					
13					
14					
15					
16					

Notes:

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 3 ppm OVM reading at 2'.
3. 6 ppm OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-12 Ground Elevation:

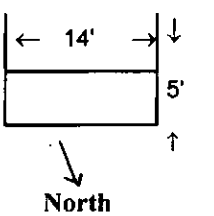
Date: 10/19/93
Weather: Partially cloudy, 40° – 60°
Start Time: 1315
Finish Time: 1330

Excavation Equipment
Contractor: Consumat-Sanco
Operator: Skip Day
Make: CAT Model: EL 300
Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1		Top of Ground.			1
2					
3					
4			Easy	5-A	
5				2-A	
6				2-A	2
7		Gray, fine to coarse SAND and GRAVEL, little Silt. 7'		0	
8					
9					
10					3
11					
12		Bottom of Test Pit at 7'.			
13					4, 5
14					
15					
16					

Notes:
1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 2.5 ppm OVM reading at 2'.
3. 4 ppm OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

1003\testpt12.drp

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-13 Ground Elevation:

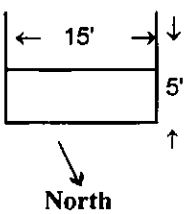
Date: 10/19/93 Weather: Partially cloudy, 40° – 60° Start Time: 1345 Finish Time: 1400	**Excavation Equipment** Contractor: Consumat-Sanco Operator: Skip Day Make: CAT Model: EL 300 Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1		1' Brown fine to coarse SAND and Gravel, little Silt, trace Cobbles.	Medium	4-A	1
2			Easy	0	2
3		Gray SILT, some fine Sand.			
4					
5					
6					3
7		7'			
8		Gray fine to medium SAND, trace Gravel, trace Silt.			
9		9'			4, 5
10		Bottom of Test Pit at 9'.			
11					
12					
13					
14					
15					
16					

Notes:

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 8.5 ppm OVM reading at 2'.
3. 5 ppm OVM reading at 6'.
4. Soil samples S-2, S-6 and Grab-3 obtained from depths of 2', 6' and 3-4'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-14 Ground Elevation:

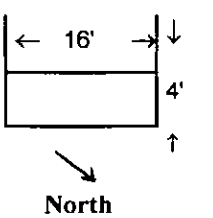
Date: 10/19/93 Weather: Partially cloudy, 40° – 60° Start Time: 1410 Finish Time: 1430	**Excavation Equipment** Contractor: Consumat-Sanco Operator: Skip Day Make: CAT Model: EL 300 Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1			Easy	3-A	1
2		Gray, fine to coarse SAND, little Cobbles, little Silt.		4-A	2
3					
4		4'			
5				0	
6					3
7		Gray SILT, fine Sand, trace Gravel.			
8					
9		9'			4, 5
10		Bottom of Test Pit at 9'.			
11					
12					
13					
14					
15					
16					

Notes:

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 6 ppm OVM reading at 2'.
3. 4 ppm OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-15 Ground Elevation:

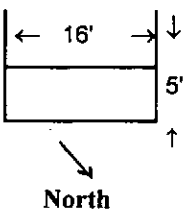
Date: 10/19/93 Weather: Partially cloudy, 40° – 60° Start Time: 1520 Finish Time: 1540	**Excavation Equipment** Contractor: Consumat-Sanco Operator: Skip Day Make: CAT Model: EL 300 Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1		Ground surface.			1
2		Gray-brown, fine to medium SAND, some Gravel, some Silt.			
3		2'			
4			Easy	3-A	
5		Gray, fine to medium SAND, little Silt.		1-A	2
6					
7					
8					
9					3
10		Bottom of Test Pit at 7'.			4, 5
11					
12					
13					
14					
15					
16					

Notes:

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 2 ppm OVM reading at 2'.
3. 2 ppm OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

1003\testpt15.drp

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-16 Ground Elevation:

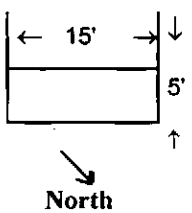
Date: 10/19/93
Weather: Partially cloudy, 40° – 60°
Start Time: 1500
Finish Time: 1515

Excavation Equipment
Contractor: Consumat-Sanco
Operator: Skip Day
Make: CAT Model: EL 300
Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1		Brown, fine to medium SAND, some Silt, little Paper, Plastic, Wire Refuse.	Easy	0	1
2					
3		3'			2
4		Brown-gray, fine to medium SAND, little Gravel, little Silt, trace Cobbles.		3-A	
5		4.5'		2-A	
6				0	3
7		Gray, fine to medium SAND, trace Silt, two stratified 4"–8"-thick layers of Silt, from 6'–10'.			
8					
9					
10		10'			4, 5
11		Bottom of Test Pit at 10'.			
12					
13					
14					
15					
16					

Notes:
1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 7 ppm OVM reading at 2'.
3. 3 ppm OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-17 Ground Elevation:

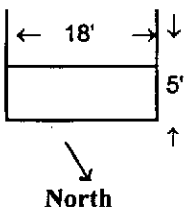
Date: 10/19/93 Weather: Partially cloudy, 40° – 60° Start Time: 1545 Finish Time: 1600	**Excavation Equipment** Contractor: Consumat-Sanco Operator: Skip Day Make: CAT Model: EL 300 Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1		Olive-gray, fine to medium SAND and Silt, little Gravel,	Easy	0	
		1' trace Plastic and Paper.			1
2					2
3					
4		Gray, fine to coarse SAND, trace Gravel, trace Silt.			
5					
6					3
7		7'			4, 5
		Bottom of test pit at 7'.			
8					
9					
10					
11					
12					
13					
14					
15					
16					

Notes:

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 2 ppm OVM reading at 2'.
3. 4 ppm OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

1003\testpt17.drp

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-18 Ground Elevation:

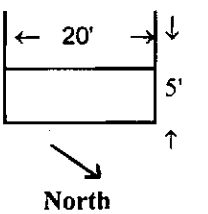
Date: 10/20/93 Weather: Partially cloudy, 40° – 60° Start Time: 1405 Finish Time: 1420	**Excavation Equipment** Contractor: Consumat-Sanco Operator: Skip Day Make: CAT Model: EL 300 Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1		Gray-brown, fine to medium SAND, some Silt, little Gravel.	Easy	4-A	1
2		2'		4-A	2
3				2-A	
4				0	
5		Gray, fine to medium SAND, little Silt, trace Gravel.			
6					3
7					
8		8'			4, 5
9		Bottom of test pit at 8'.			
10					
11					
12					
13					
14					
15					
16					

Notes:

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 5 ppm OVM reading at 2'.
3. 13 ppm OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-19 Ground Elevation:

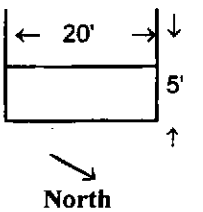
Date: 10/20/93
Weather: Partially cloudy, 40° – 60°
Start Time: 1050
Finish Time: 1110

Excavation Equipment
Contractor: Consumat-Sanco
Operator: Skip Day
Make: CAT Model: EL 300
Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1			Easy	1-A	1
2		Gray-brown fine to coarse SAND, some Gravel, trace Cobbles		6-A	2
3					
4					
5					
6		5.9'			
7				0	3
8		Gray-brown SILT, stratified with 3-6" thick layers of fine to coarse Sand.			
9		9'			4, 5
10		Bottom of Test Pit at 9 '.			
11					
12					
13					
14					
15					
16					

Notes:
1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 1.5m OVM reading at 2'.
3. 5 ppm OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

1003\testpt19.drp

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-20 Ground Elevation:

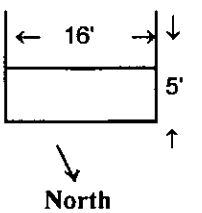
Date: 10/19/93 Weather: Partially cloudy, 40° – 60° Start Time: 1605 Finish Time: 1620	**Excavation Equipment** Contractor: Consumat-Sanco Operator: Skip Day Make: CAT Model: EL 300 Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1		Ground Surface	Easy	0	1
2					2
3		Gray fine SAND and SILT, trace Gravel.			
4					
5					
6					3
7					
8		8'			4, 5
9		Bottom of Test Pit at 8 '.			
10					
11					
12					
13					
14					
15					
16					

Notes:

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 4 ppm OVM reading at 2'.
3. 2 ppm OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

1003\testpt20.drp

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-21 Ground Elevation:

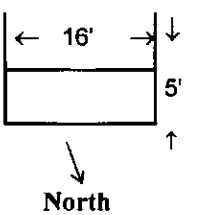
Date: 10/20/93 Weather: Partially cloudy, 40° – 60° Start Time: 0730 Finish Time: 0745	**Excavation Equipment** Contractor: Consumat-Sanco Operator: Skip Day Make: CAT Model: EL 300 Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1			Easy	2-A	1
2				2-A	2
3		Gray, fine to coarse Sand, some Silt, little Gravel.		0	
4					
5					
6					3
7					
8		8'			4, 5
9		Bottom of Test Pit at 8'.			
10					
11					
12					
13					
14					
15					
16					

Notes:

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylène standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. ND OVM reading at 2'.
3. ND OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-22 Ground Elevation:

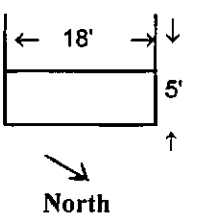
Date: 10/20/93 Weather: Partially cloudy, 40° – 60° Start Time: 0855 Finish Time: 0915	**Excavation Equipment** Contractor: Consumat-Sanco Operator: Skip Day Make: CAT Model: EL 300 Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1		Gray Gravel and fine to coarse Sand, little Cobbles, trace Silt.	Medium	5-A	1
2					2
3					
4					
5				1-B	
6				1-B	3
7				2-A	
8				1-A	
9		9'			4, 5
10		Bottom of Test Pit at 9'.			
11					
12					
13					
14					
15					
16					

Notes:

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. ND OVM reading at 2'.
3. 5 ppm OVM reading at 6'.
4. Soil samples S-2, S-6, and Grab S-4 obtained from depths of 2', 6', and 6'–7'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

1003\testpt22.drp

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-23 Ground Elevation:

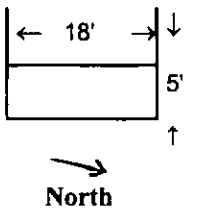
Date: 10/20/93
Weather: Partially cloudy, 40° – 60°
Start Time: 0920
Finish Time: 0935

Excavation Equipment
Contractor: Consumat-Sanco
Operator: Skip Day
Make: CAT Model: EL 300
Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1		Gray Gravel and fine to coarse Sand, little Cobbles, trace Silt.	Medium	10-A	1
2					2
3					
4				▾	
5				6-A	
6					3
7					
8			▾	▾	4, 5
9					
10		10' Bottom of Test Pit at 10'.			
11					
12					
13					
14					
15					
16					

Notes:
1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 4 ppm OVM reading at 2'.
3. 2 ppm OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

1003\testpt23.drp

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-24 Ground Elevation:

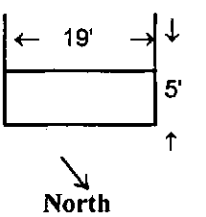
Date: 10/20/93
Weather: Partially cloudy, 40° – 60°
Start Time: 1025
Finish Time: 1045

Excavation Equipment
Contractor: Consumat-Sanco
Operator: Skip Day
Make: CAT Model: EL 300
Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1		0-4' Dark brown, fine to medium SAND, some Silt, trace Roots. Topsoil.	Easy	1-A	1
2		1.5' Brown, fine to medium SAND, some Silt, trace Roots.			2
3		Brown, fine to medium SAND, trace Silt, trace Cobbles.			
4		3.5'			
5		Gray-brown, fine to coarse SAND and Gravel, little Cobbles, trace Silt.		5-A	
6		6'		5-A	3
7		Gray, fine to medium SAND, trace Gravel, trace Silt.		0	
8					
9		9'			4, 5
10		Bottom of Test Pit at 9'.			
11					
12					
13					
14					
15					
16					

Notes:
1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. ND OVM reading at 2'.
3. ND OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-25 Ground Elevation:

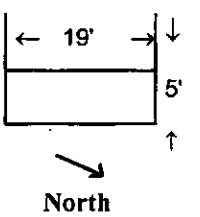
Date: 10/20/93
Weather: Partially cloudy, 40° – 60°
Start Time: 1115
Finish Time: 1140

Excavation Equipment
Contractor: Consumat-Sanco
Operator: Skip Day
Make: CAT Model: EL 300
Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1		Trace Plastic and Paper.	Easy	0	1
2		Sheet of HDPE Plastic at 2'.			2
3					
4					
5		Gray-brown, fine to coarse SAND, trace Gravel, trace Silt.			
6					3
7					
8					
9					4, 5
10		10' Bottom of Test Pit at 10'.			
11					
12					
13					
14					
15					
16					

Notes:
1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 3.5 ppm OVM reading at 2'.
3. 3 ppm OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-26 Ground Elevation:

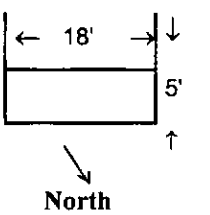
Date: 10/20/93
Weather: Partially cloudy, 40° – 60°
Start Time: 1425
Finish Time: 1440

Excavation Equipment
Contractor: Consumat-Sanco
Operator: Skip Day
Make: CAT Model: EL 300
Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1			Easy	1-A	1
2				1-A	2
3				0	
4					
5		Brown, fine to medium SAND, little Silt, trace Gravel.			
6					3
7					
8					
9		9'			4, 5
10		Bottom of Test Pit at 9'.			
11					
12					
13					
14					
15					
16					

Notes:
1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 2 ppm OVM reading at 2'.
3. 5 ppm OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

1003\testpt26.drp

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-27 Ground Elevation:

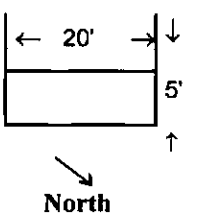
Date: 10/20/93 Weather: Partially cloudy, 40° – 60° Start Time: 1005 Finish Time: 1020	**Excavation Equipment** Contractor: Consumat-Sanco Operator: Skip Day Make: CAT Model: EL 300 Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1			Easy	2-A	1
2		Brown, fine to medium SAND, trace Gravel, trace Plastic, Paper.			2
3		3'		6-A	
4		Gray-brown, fine to coarse SAND and Gravel, little Silt, trace Cobbles.			
5		Root layer (old ground surface). 5'		2-A	
6					3
7		Brown, fine to medium SAND, trace Silt.			
8		7.5' Bottom of Test Pit at 7.5'.			4, 5
9					
10					
11					
12					
13					
14					
15					
16					

Notes:

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 8 ppm OVM reading at 2'.
3. ND OVM reading at 6'.
4. Soil samples S-2, S-6 and Grab-5 obtained from depths of 2', 6', and 6–7'.
5. Slight perched water seepage observed at 4'–5'.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-28 Ground Elevation:

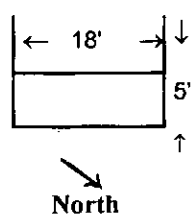
Date: 10/20/93
Weather: Partially cloudy, 40° – 60°
Start Time: 0940
Finish Time: 1000

Excavation Equipment
Contractor: Consumat-Sanco
Operator: Skip Day
Make: CAT Model: EL 300
Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1		Gray, fine to coarse SAND, some Gravel, some Silt, trace Plastic, Paper.	Easy	3-A	1
2					2
3		2.5' 3' Dark brown, fine to coarse SAND and Gravel, some Silt, little Roots (old ground surface).			
4				6-A	
5					
6		Gray, fine to coarse SAND and GRAVEL, little Silt, little Cobbles.			3
7					
8					
9		9'			4, 5
10		Bottom of Test Pit at 9'.			
11					
12					
13					
14					
15					
16					

Notes:
1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 2 ppm OVM reading at 2'.
3. ND OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-29 Ground Elevation:

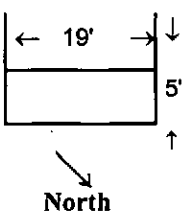
Date: 10/20/93
Weather: Partially cloudy, 40° – 60°
Start Time: 0835
Finish Time: 0850

Excavation Equipment
Contractor: Consumat-Sanco
Operator: Skip Day
Make: CAT Model: EL 300
Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1			M	10-A	1
2					2
3		Gray-brown fine to coarse SAND and GRAVEL, some Cobbles, trace Silt.			
4		4'			
5		Gray fine to coarse SAND and GRAVEL, trace Cobbles trace Silt.		2-A	
6					3
7					
8					
9		9'			4, 5
10		Bottom of Test Pit at 9'.			
11					
12					
13					
14					
15					
16					

Notes:
1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. ND OVM reading at 2'.
3. ND OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

1003\testpt29.drp

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-30 Ground Elevation:

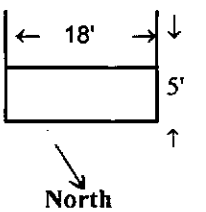
Date: 10/20/93 Weather: Partially cloudy, 40° – 60° Start Time: 0818 Finish Time: 0830	**Excavation Equipment** Contractor: Consumat-Sanco Operator: Skip Day Make: CAT Model: EL 300 Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1			M	4-A	1
2		Gray, fine to coarse SAND, little Silt, little Gravel, trace Cobbles			2
3		Boulder			
4		Boulder			
5				1-A	
6					3
7					
8		8'			4, 5
9		Bottom of test pit at 8'.			
10					
11					
12					
13					
14					
15					
16					

Notes:

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. ND OVM reading at 2'.
3. ND OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-31 Ground Elevation:

Date: 10/20/93
Weather: Partially cloudy, 40° – 60°
Start Time: 0755
Finish Time: 0815

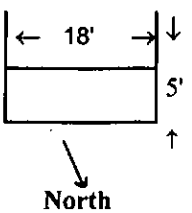
Excavation Equipment
Contractor: Consumat-Sanco
Operator: Skip Day
Make: CAT Model: EL 300
Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1		Ground Surface	Easy	3-A	1
2		Brown, fine to medium SAND, some Gravel, some Silt, little Roots.		4-A	2
3				0	
4		3.5			
5		Gray, fine to medium SAND, trace Silt; stratified 2-6' thick layers of Silt throughout.			
6					3
7					
8		8'			4,.5
9		Bottom of test pit at 8'.			
10					
11					
12					
13					
14					
15					
16					

Notes:

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. ND OVM reading at 2'.
3. ND OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

1003\testpt31.drp

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-32 Ground Elevation:

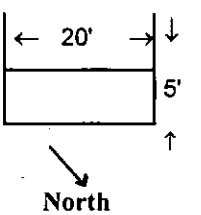
Date: 10/20/93 Weather: Partially cloudy, 40° – 60° Start Time: 1340 Finish Time: 1400	**Excavation Equipment** Contractor: Consumat-Sanco Operator: Skip Day Make: CAT Model: EL 300 Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1			Easy	2-A	
2		Brown-gray, fine to coarse SAND and Gravel, trace Silt.			1
3					2
4					
		4'			
5		Gray, fine to coarse SAND, trace Gravel, trace Silt.			
6				0	3
7					
8					
9					4, 5
		9'			
10		Bottom of Test Pit at 9'.			
11					
12					
13					
14					
15					
16					

Notes:

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylène standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 2 ppm OVM reading at 2'.
3. 2 ppm OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

1003\testpt32.drp

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-33 Ground Elevation:

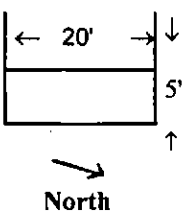
Date: 10/20/93 Weather: Partially cloudy, 40° – 60° Start Time: 1245 Finish Time: 1300	**Excavation Equipment** Contractor: Consumat-Sanco Operator: Skip Day Make: CAT Model: EL 300 Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1			E	1-A	1
2		Gray, fine to coarse SAND, some Silt, little Gravel, trace Cobbles.			2
3					
4					
5					
6					3
7					
8		8'			4, 5
9		Bottom of test pit at 8'.			
10					
11					
12					
13					
14					
15					
16					

Notes:

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 2 ppm OVM reading at 2'.
3. 2 ppm OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

1003\testpt33.drp

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC.	Project No. 1003	
125 North State Street, Concord, NH 03301	Description: Consumat-Sanco L.F.	Test Pit No.: TP-34
Engineer: Dennis R. Porter	Location: Bethlehem, NH	Ground Elevation:

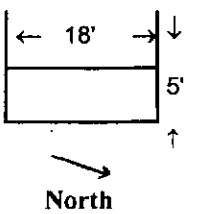
Date:	10/20/93	**Excavation Equipment**	
Weather:	Partially cloudy, 40° – 60°	Contractor:	Consumat-Sanco
Start Time:	1305	Operator:	Skip Day
Finish Time:	1315	Make: CAT	Model: EL 300
		Reach: 22 feet	Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1			Easy	3-A	1
2					2
3				1-A	
4		Gray-brown, fine to coarse SAND, some Silt, little Gravel, trace Cobbles.			
5					
6					3
7					
8					
9		9'			4, 5
10		Bottom of Test Pit at 9'.			
11					
12					
13					
14					
15					
16					

Notes:

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 4 ppm OVM reading at 2'.
3. 4 ppm OVM reading at 6'.
4. Soil samples S-2, S-6 and Grab S-1 obtained from depths of 2', 6', and 6'.
5. No groundwater encountered

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

1003\testpt34.drp

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-35 Ground Elevation:

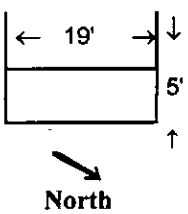
Date: 10/20/93
Weather: Partially cloudy, 40° – 60°
Start Time: 1320
Finish Time: 1335

Excavation Equipment
Contractor: Consumat-Sanco
Operator: Skip Day
Make: CAT Model: EL 300
Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1		0.5' Dark brown, fine to medium Sand and Silt, little organic material. TOPSOIL.	Easy	1-A	1
1'		Brown, fine to medium SAND, some Silt, trace Gravel. SUBSOIL.			
2					2
3					
4				0	
5		Gray-brown, fine to coarse SAND, some Sand, little Gravel.			
6					3
7					
8					4, 5
9					
10		10'			
		Bottom of Test Pit at 10'.			
11					
12					
13					
14					
15					
16					

Notes:
1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 4 ppm OVM reading at 2'.
3. 3.5 ppm OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

1003\testpt35.drp

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-36 Ground Elevation:

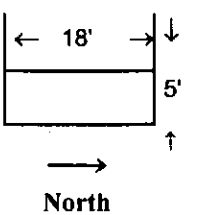
Date: 10/20/93
Weather: Partially cloudy, 40° – 60°
Start Time: 1450
Finish Time: 1510

Excavation Equipment
Contractor: Consumat-Sanco
Operator: Skip Day
Make: CAT Model: EL 300
Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1		1' Brown, fine to coarse SAND and GRAVEL, little Silt, trace Organic Material.	Easy	5-A	1
2				2-A	2
3				0	
4		Gray, fine to medium SAND, some Silt, trace Gravel.			
5					
6					3
7		7'			4, 5
8		Bottom of Test Pit at 7'.			
9					
10					
11					
12					
13					
14					
15					
16					

Notes:
1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 3 ppm OVM reading at 2'.
3. 3 ppm OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-37 Ground Elevation:

Date: 10/20/93
Weather: Partially cloudy, 40° – 60°
Start Time: 1515
Finish Time: 1535

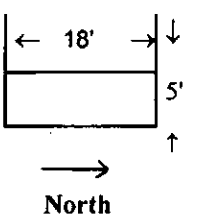
Excavation Equipment
Contractor: Consumat-Sanco
Operator: Skip Day
Make: CAT Model: EL 300
Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1		Gray-brown, fine to coarse SAND, some Silt, some Gravel, trace Cobbles.	E	3-A	1
		1.5'			
2		Gray-brown, fine to medium SAND, some Silt.		0	2
3					
4					
5					
6					3
7					
8		8'			4, 5
		Bottom of test pit at 8'.			
9					
10					
11					
12					
13					
14					
15					
16					

Notes:

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 2 ppm OVM reading at 2'.
3. 3 ppm OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

TEST PIT FIELD LOG

SANBORN, HEAD & ASSOCIATES, INC. 125 North State Street, Concord, NH 03301 Engineer: Dennis R. Porter	**Project No.** 1003 Description: Consumat-Sanco L.F. Location: Bethlehem, NH	Test Pit No.: TP-38 Ground Elevation:

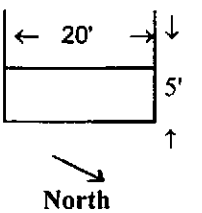
Date: 10/20/93 Weather: Partially cloudy, 40° – 60° Start Time: 1540 Finish Time: 1600	**Excavation Equipment** Contractor: Consumat-Sanco Operator: Skip Day Make: CAT Model: EL 300 Reach: 22 feet Bucket Capacity: 2½ cubic yards

Depth (feet)	Groundwater	Soil Description	Excavation Effort	Boulder Count Qty.Class.	Note No.
1			E	3-A	
2		Gray, fine to coarse SAND, some Silt, little Gravel, trace Organics.			1
3		3' Root layer (old ground surface).			2
4				2-A	
5		Gray, fine to coarse SAND, some Silt, little Gravel.			
6					3
7		7'		0	
8		Gray, fine to medium SAND, trace Silt.			
9					
10		10'			4, 5
11					
12		Bottom of Test Pit at 11.5'.			
13					
14					
15					
16					

Notes:

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photo Vac Microtip Model MP-100 organic vapor meter (OVM) with a 10.0 eV lamp calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.
2. 3 ppm OVM reading at 2'.
3. 3 ppm OVM reading at 6'.
4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.
5. No groundwater encountered.

Test Pit Plan



BOULDER SIZE RANGE CLASSIFICATION	COUNT: Letter Designation
6"–18"	A
18"–36"	B
36" and larger	C

PROPORTIONS USED	
Trace	0–10%
Little	10–20%
Some	20–35%
And	35–50%

EXCAVATION EFFORT	
E	Easy
M	Moderate
D	Difficult

Appendix C

Analytical Laboratory Data

NOV 04 1993

Eastern Analytical, Inc. 130 Hall St., Concord, NH 03301 (603) 228-0525

October 30, 1993

Dennis Porter
Sanborn, Head & Associates, Inc.
125 North State Street
Concord, NH 03301

Subject: Laboratory Report

Eastern Analytical, Inc. ID #:	7104* SHA
Client Identification:	1003/Consumat Sanco L.F.
Sample Quantity/Type:	13 soil
Date Received:	21 October, 1993

Dear Mr. Porter:

Enclosed, please find the laboratory report for the above identified project. All analyses were subjected to rigorous quality control measures to assure data accuracy.

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 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.

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

Sincerely,

William Brunkhorst
Lab Director

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 7104* SHA

Client: Sanborn, Head & Associates, Inc.
Client Designation: **1003/Consumat Sanco L.F.**

Sample Qty/Type: 13 soil
Date Received: October 21, 1993

Hazardous Substance List Volatile Organic Compounds

Sample ID:	Comp S1	Comp S1A	Comp S2	Comp S2A	Comp S3	Comp S3A	TP-1	
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	Soil	
Date of Analysis:	10/22/93	10/22/93	10/22/93	10/22/93	10/22/93	10/22/93	10/22/93	
Units:	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	EPA
Analyst:	NZ	NZ	NZ	NZ	NZ	NZ	NZ	Method
Chloromethane	< 100	< 100	< 100	< 100	< 100	< 100	< 100	8240
Bromomethane	< 100	< 100	< 100	< 100	< 100	< 100	< 100	8240
Vinyl Chloride	< 100	< 100	< 100	< 100	< 100	< 100	< 100	8240
Chloroethane	< 100	< 100	< 100	< 100	< 100	< 100	< 100	8240
Methylene Chloride	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
Carbon Disulfide	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
1,1-Dichloroethene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
1,1-Dichloroethane	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
Trans-1,2-Dichloroethene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
Cis-1,2-Dichloroethene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
Chloroform	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
1,2-Dichloroethane	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
1,1,1-Trichloroethane	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
Carbon Tetrachloride	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
Bromodichloromethane	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
1,2-Dichloropropane	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
Trans-1,3-Dichloropropene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
Trichloroethene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
Dibromochloromethane	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
1,1,2-Trichloroethane	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
Cis-1,3-Dichloropropene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
2-Chloroethylvinylether	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
Bromoform	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
Tetrachloroethene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
1,1,2,2-Tetrachloroethane	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
Acetone	< 500	< 500	< 500	< 500	< 500	< 500	< 500	8240
2-Butanone (MEK)	< 100	< 100	< 100	< 100	< 100	< 100	< 100	8240
Vinyl Acetate	< 100	< 100	< 100	< 100	< 100	< 100	< 100	8240
4-Methyl-2-Pentanone (MIBK)	< 100	< 100	< 100	< 100	< 100	< 100	< 100	8240
2-Hexanone	< 100	< 100	< 100	< 100	< 100	< 100	< 100	8240
Benzene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
Toluene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
Ethylbenzene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
Total Xylenes	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
Chlorobenzene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
Styrene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240

Approved By: Timothy Schaper, Organics Supervisor Timothy D. Schaper NZ

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 7104* SHA

Client: Sanborn, Head & Associates, Inc.
Client Designation: **1003/Consumat Sanco L.F.**

Sample Qty/Type: 13 soil
Date Received: October 21, 1993

Hazardous Substance List Volatile Organic Compounds

Sample ID:	TP-10	TP-13	TP-22	TP-27	TP-34	Stockpile	
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	
Date of Analysis:	10/22/93	10/22/93	10/22/93	10/22/93	10/22/93	10/22/93	
Units:	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	EPA
Analyst:	NZ	NZ	NZ	NZ	NZ	NZ	Method
Chloromethane	< 100	< 100	< 100	< 100	< 100	< 100	8240
Bromomethane	< 100	< 100	< 100	< 100	< 100	< 100	8240
Vinyl Chloride	< 100	< 100	< 100	< 100	< 100	< 100	8240
Chloroethane	< 100	< 100	< 100	< 100	< 100	< 100	8240
Methylene Chloride	< 10	< 10	< 10	< 10	< 10	< 10	8240
Carbon Disulfide	< 10	< 10	< 10	< 10	< 10	< 10	8240
1,1-Dichloroethene	< 10	< 10	< 10	< 10	< 10	< 10	8240
1,1-Dichloroethane	< 10	< 10	< 10	< 10	< 10	< 10	8240
Trans-1,2-Dichloroethene	< 10	< 10	< 10	< 10	< 10	< 10	8240
Cis-1,2-Dichloroethene	< 10	< 10	< 10	< 10	< 10	< 10	8240
Chloroform	< 10	< 10	< 10	< 10	< 10	< 10	8240
1,2-Dichloroethane	< 10	< 10	< 10	< 10	< 10	< 10	8240
1,1,1-Trichloroethane	< 10	< 10	< 10	< 10	< 10	< 10	8240
Carbon Tetrachloride	< 10	< 10	< 10	< 10	< 10	< 10	8240
Bromodichloromethane	< 10	< 10	< 10	< 10	< 10	< 10	8240
1,2-Dichloropropane	< 10	< 10	< 10	< 10	< 10	< 10	8240
Trans-1,3-Dichloropropene	< 10	< 10	< 10	< 10	< 10	< 10	8240
Trichloroethene	< 10	< 10	< 10	< 10	< 10	< 10	8240
Dibromochloromethane	< 10	< 10	< 10	< 10	< 10	< 10	8240
1,1,2-Trichloroethane	< 10	< 10	< 10	< 10	< 10	< 10	8240
Cis-1,3-Dichloropropene	< 10	< 10	< 10	< 10	< 10	< 10	8240
2-Chloroethylvinylether	< 10	< 10	< 10	< 10	< 10	< 10	8240
Bromoform	< 10	< 10	< 10	< 10	< 10	< 10	8240
Tetrachloroethene	< 10	< 10	< 10	< 10	< 10	< 10	8240
1,1,2,2-Tetrachloroethane	< 10	< 10	< 10	< 10	< 10	< 10	8240
Acetone	< 500	< 500	< 500	< 500	< 500	< 500	8240
2-Butanone (MEK)	< 100	< 100	< 100	< 100	< 100	< 100	8240
Vinyl Acetate	< 100	< 100	< 100	< 100	< 100	< 100	8240
4-Methyl-2-Pentanone (MIBK)	< 100	< 100	< 100	< 100	< 100	< 100	8240
2-Hexanone	< 100	< 100	< 100	< 100	< 100	< 100	8240
Benzene	< 10	< 10	< 10	< 10	< 10	< 10	8240
Toluene	< 10	< 10	< 10	< 10	< 10	< 10	8240
Ethylbenzene	< 10	< 10	< 10	< 10	< 10	< 10	8240
Total Xylenes	< 10	< 10	< 10	< 10	< 10	**20**	8240
Chlorobenzene	< 10	< 10	< 10	< 10	< 10	< 10	8240
Styrene	< 10	< 10	< 10	< 10	< 10	< 10	8240

Approved By: Timothy Schaper, Organics Supervisor Timothy D. Schaper KZ