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SANBORN, HEAD & ASSOCIATES, INC.



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



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



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.

Paul M. Sanborn

President/Principal

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

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STANDARD FILES
Town: Bethlehem
Project: Consumat-
Senco - Stage I
Sorrespondence/Data/Permit

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.

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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.

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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.

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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

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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.

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R. Scott Shillaber, P.E. Principal

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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

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 Table 1

 Summary of Field Screening Results

	Screening Result	for Samples from
Test Pit	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:

 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.

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Appendix B Test Pit Logs

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SANBOI	RN, HEAD &	ASSOCIATES, IN	C. Project	No. 100	3				
125 North	125 North State Street, Concord, NH 03301Description:Consumat-Sanco L.F.Engineer:Dennis R. PorterLocation:Bethlehem, NH							D.: TF	?-1
Enginee	r: Dennis	R. Poner	Location:	Beth	hiehem, NH		Ground Ele	evation:	
Date	10/19	/03		Contracto	r: Consu	vation mat-Sa	Equipm	ent	
Weather:	: Partia	lly cloudy, 40° – 60°		Operator:	Skip D	ay			
Start Tim	ie: 0810			Make:	CAT	Mode	el:	EC 300	
Finish Ti	ime: 0835			Reach:	22 feet	Buck	et Capacity:	21/2 cubic	yards
Depth				<u> </u>			Excavation	Boulder	Note
(feet)	Groundwater		Soil Desci	iption			Effort	Count	No.
					ania Material Ta	naail	Modium	Qty.Class.	
1		0.5 Gray-brown,	tine SAND, some	Siit, intie Org				6-A	1
2	*-- -	Gray, fine little Bould	to medium SAND ers. TILL.), some Silt	, little Gravel,		-	*	2
3	+								+
	+								+
							D.165		+
5				<i>[</i> .	/ BOULDER			<u> </u>	
6									3
7	_		/				 -		
8		8' Bottom of	Test Pit at 8'					÷	4, 5
9	 	201001101							
10							ļ 		
11	 								
12								 	
13									
14									
15									
16									
Notes:	<u> </u>	<u> </u>	<u></u>				Test	Pit Plan	
1. Soil	samples were	screened for volatile	organic compoun	ids (VOCs)	using a Photo	1	1		
Vac	Microtip Model	MP-100 organic vap	or meter (OVM) v	with a 10.0	eV lamp		~	15' →	
calit	prated to an iso	butylene standard. Ty	pical detection li	mit is .5 pp	m. "ND"			4'	
2. ND	Indicates not detected.								
3, ND	ND OVM reading at 6'.							· L T	
4. Soil	4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'.]	North	
5. No g	5. No groundwater encountered.						······································		
	LEGEN	ID Count	PROI	PORTIONS U	SED	ļ	EXCAVA	TION EFFORT	Γ
Boi Size Rang	uider ge Classification	Count Letter Designation	Little	0-10 10-2	20%	1	с M	Easy Modera	te
6	5"-18"	A	Some	20-2	15%		D	Difficul	t
11 36" a	8"36" and larger	B C	And	35-3	00%	ļ			

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SANBOI 125 North Engineer	RN, HEAD & State Street, Con r: Dennis	ASSOCIATES, INC acord, NH 03301 R. Porter	Project Description	No. 1003 on: Cons Beth	sumat-Sanco L. Iehem, NH	.F.	Test Pit N Ground El	o.: TP evation:	-2
Date: Weather: Start Tin	10/19/ : Partial ne: 0840	93 Iy cłoudy, 40° – 60°		Contracto Operator: Make: Reach:	Excav r: Consu Skip D CAT 22 feet	v atio r mat-Sa ay Mode Buck	1 Equipm anco el:	EL 300	varde
Depth (feet)	Groundwater		Soil Descr	iption			Excavation Effort	Boulder Count Qty.Class.	Note No.
1							Medium	6-A	1
2		Gray, fine to trace Boulde	medium SAND, rs. TILL.	some Silt,	ittle Gravel,		 	┾╼╍╼┾╼╍╼╍ ┝╶╌╌ ╸ ┝╺╌╌╼╸	2
3		:							
4		3.5'	3.5'						
5		Gray, fine to	medium SAND,	some Silt,	race Gravel.			0	
6									3
7								<u> </u>	
8		8'	8'						4, 5
9		Bottom of Te	est Pit at 8'.						
10									
11							[* 	-
								+	
13							 	+	
14							r	+ -	
								+	• -
15								+ 	
Notes:	<u> </u>						L Test	Pit Plan	
1. Soil Vac caliti indio 2. ND 3. ND 4. Soil 5. No	 Soil samples were screened for volatile organic compo Vac Microtip Model MP-100 organic vapor meter (OVM calibrated to an isobutylene standard. Typical detection indicates not detected. ND OVM reading at 2'. ND OVM reading at 6'. Soil samples S-2 and S-6 obtained from depths of 2' a 5. No groundwater encountered. 				using a Photo eV lamp n. "ND"		↓ 	15' → ↓ 4' North	
Bon Size Rang 6 11 36" a	LEGEND PROPORTIONS U Boulder Count 6"-18" A 18"-36" B And 35-3				SED % 0% 5% 0%		EXCAVA E M D	TION EFFORT Easy Moderat Difficult	ie t

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SANBOI 125 North Enginee	RN, HEAD & State Street, Cor r: Dennis	ASSOCIATES, IN ncord, NH 03301 R. Porter	C. Project Descripti Location:	No. 100 on: Cor Bet	3 Isumat-Sanco L hlehem, NH	.F.	Test] Groui	Pit No nd Ele	o.: TF	»-3
Date:	10/19/ Partia	/93 Ily cloudy 40° - 60°	I	Contracto Operator:	er: Consu Skip D	vation mat-Sa	Equ inco	lipmo	ent	
Start Tin Finish T	ne: 0858 ime: 0915	,, oloudy, to oo		Make: Reach:	CAT 22 feet	Mode Buck	el: et Cap	pacity:	EL 300 2½ cubic	yards
Depth (feet)	Groundwater		Soil Desci	ription			Exca Ef	vation fort	Boulder Count Qty.Class.	Note No.
1	 	Gray, fine to	o coarse SAND,	some Silt, I	ittle Gravel.		Ea	asy 1	3-A	1
2	_	1.5	6.I					 	Ļ	2
3									0	
4	 									
5		Gray, fine to	Gray, fine to coarse SAND and 1"-3" thick Silt layers. Stratified.							
6		Stratified.								3
7										
8		8'	8'					•	Ļ	4, 5
9		Bottom of To	est Pit at 8'.							
10										
11										
12										
13										
14				·						
15										
16										
Notes:	<u></u>	<u></u>	<u></u>					Test	Pit Plan	
1. Soil Vac calit	samples were s Microtip Model	screened for volatile o MP-100 organic vapo butylene standard. Ty	organic compoun or meter (OVM) v pical detection li	ids (VOCs) with a 10.0 imit is 5 on	using a Photo eV lamp m "ND"			←	15' → ↓	
	indicates not detected.								4'	
3. ND	OVM reading at	C				-	<u>`</u>			
4. 301 5. No (groundwater en	<u> </u>		<u> </u>		۲ 	North	<u> </u>		
Bo Size Ran 6	LEGEN ulder ge Classification ("–18" 8"–36"	D Count Letter Designation A B	PROI Trace Little Some And	PORTIONS U 0-10 10-2 20-3 35-2	SED 0% 20% 35% 50%		E E M D	(CAVA	TION EFFOR Easy Modera Difficul	te t
36" (and larger	Ċ								

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SANBOI 125 North Engineer	RN, HEAD & 1 State Street, Con ar: Dennis	ASSOCIATES, IN acord, NH 03301 R. Porter	C. Project Description	No. 1003 on: Cons Beth	sumat-Sanco L lehem, NH	.F.	Test I Groui	Pit No nd Ele).: TF evation:	²-4
Date: Weather:	10/19/ : Partial	93 lly cloudy, 40° 60°		Contractor Operator: Make:	Excar Consu Skip D	vation mat-Sa ay Mode	n Equ inco	iipmo	ent	
Finish Ti	ime: 0930			Reach:	22 feet	Buck	et Cap	bacity:	21/2 cubic	yards
Depth (feet)	Groundwater		Soil Descr	ription			Exca Efi	vation fort	Boulder Count Qty.Class.	Note No.
1		Brown, fine to co-	arse SAND and (GRAVEL, tra	ce Silt, trace C	obbles.	Ea	asy	2-A	1
2	+									2
3									 - -	
<u></u>	**						<u></u>		<u> </u>	+
		E 1							┝ <u></u> ├	+
5	, 						<u>-</u>			
6	+	Gray, tine SAIND	and Silt					 	<u>-</u>	3
7		7'		, 				+ 	•	4, 5
8										
9	·									
10							 			
11										
12										
13		I								
14		1					L			
15										
16										
Notes:	<u>Lessenn</u> eursen ¹ :						<u></u>	Test	Pit Plan	<u></u>
1. Soil Vac calit	samples were s Microtip Model brated to an isob	creened for volatile of MP-100 organic vapo outylene standard. Ty	organic compoun or meter (OVM) v pical detection li	ids (VOCs) i with a 10.0 e mit is .5 ppr	using a Photo ≩V lamp n. "ND"			←	15' → ↓	
indic 2. ND	cates not detecte OVM reading at	ed. . 2'.						L.	l	
3. ND 4. Soil 5. No (ND OVM reading at 6'. Soil samples S-2 and S-6 obtained from depths of 2' and 6'. No groundwater encountered. 								North	
	LEGEN	D	PROF	PORTIONS US	SED		EX	(CAVA	TION EFFORT	-
Bou Size Rang	ulder ge Classification 6"–18"	Count Letter Designation	Little	0-10 10-2 20-3	% 0% 5%		E M D		Easy Moderat Difficul	le t
11 36" (8"-36" and larger	B C	And	35-5	0%					

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SANBOI 125 North Enginee	RN, HEAD & State Street, Con r: Dennis	ASSOCIATES, INC cord, NH 03301 R. Porter	C. Project Description	Project No.1003Description:Consumat-Sanco L.F.Test Pit No.:TP-5Location:Bethlehem, NHGround Elevation:					
Date: Weather: Start Tin Finish T	10/19/9 : Partial ne: 0935 ime: 0950	93 ly cloudy, 40° – 60°		Contractor Operator: Make: Reach:	Excav : Consur Skip D CAT 22 feet	w ation mat-Sa ay Mode Buck	Equipme inco el: et Capacity:	EL 300 2½ cubic	yards
Depth (feet)	Groundwater		Soil Descr	iption			Excavation Effort	Boulder Count Qty.Class.	Note No.
1		Dark gray, fi 1' trace Paper	ne to coarse SA , Plastic.	ND, some S	ilt, little Gravel,	,	Easy	0	1
2		Brown, fine t	to medium SANI	D, little				<u>2-A</u>	2
3		stratified Silt comprising le	layers 1"-2" thi ess than 25% of	ck sample.	BOULDER	\$	Difficult		
5	+	5'				-			
6		Dark black,	fine to coarse S	AND and GF	AVEL,	<u>_</u>		5-A	3
7		some Silt, lit	tle Cobbles.				.	.	4, 5
8		Bottom of Te	est Pit at 7						
99									
10									
11	 								
12									
13									 -
14									
15									
Notes: 1. Soil Vac calil india 2. ND 3. 7 pr	Ll samples were s Microtip Model brated to an isot cates not detecte OVM reading at om OVM reading	creened for volatile o MP-100 organic vapo outylene standard. Ty ed. 2'. at 6'7'.	organic compoun or meter (OVM) v pical detection li	ds (VOCs) a with a 10.0 e mit is .5 ppn	ising a Photo V lamp n. "ND"		Test	Pit Plan 15' → ↓ 4'	L
4. Soil 5. No	samples S-2 an groundwater end	d S-6 obtained from countered.	depths of 2' and	6'.			1	North	
Bo Size Ran (1) 36" a	LEGEN ulder ge Classification 5"-18" 8"-36" and larger	D Count Letter Designation A B C	PROF Trace Little Some And	PORTIONS US 0-10 10-20 20-3: 35-50	ED %)% }%		EXCAVA E M D	TION EFFORT Easy Moderat Difficult	e

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SANBOI 125 North Enginee	RN, HEAD & State Street, Cor r: Dennis	ASSOCIATES, IN acord, NH 03301 R. Porter	C. Project Description Location:	No. 1003 on: Cons Bethle	umat-Sanco L. ehem, NH	.F. (Test I Grour	Pit No nd Ele).: evation:	ГР-6
Date: Weather Start Tin Finish T	10/19/ : Partia ne: 0955 ime: <u>1010</u>	/93 Ily cloudy, 40° – 60°		Contractor: Operator: Make: Reach:	Excav Consul Skip D CAT 22 feet	mat-Sa mat-Sa ay Mode Bucke	nco el: et Cap	acity:	EL 300 2½ cub	ic yards
Depth (feet)	Groundwater		Soil Descr	iption			Excav Eff	ation ort	Boulder Count Qty.Clas	Note No. s.
1		Mottled gra	y-brown fine to m	edium SAND), some Silt,		Med	lium	4-A	1
2		2.2'	, trace Boulders.							2
2	· T	2.5' Dark black,	2.5' Dark black, fine to coarse SAND, some Silt, trace Gravel.						 	
<u> </u>										
4	·								┝╺╼╌╴╂┈╾╸	
5		Light gray,	fine SAND and S	ILT.						
6										3
7										
8		8'						,		4.5
		Bottom of T	est Pit at 8'.						- - -	
	+									
10										
11										
12										
13										
14							- -			
·										-+
15										-+
16							<u></u>			
Notes:		prograd for volatile	organia compour		sing a Photo			Test	Pit Plan	L ·
Vac	Microtip Model	MP-100 organic vap	or meter (OVM) v	vith a 10.0 e	V lamp			+	15' →	Ļ
calil	calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.									5'
2. 3 ppm OVM reading at 2'-3'.						ľ		· · ·	I	†
 4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'. 								N	North	
5. No groundwater encountered.						<u> </u>				
BOU RANGE CI	LDER SIZE	COUNT: Letter Designation	PROJ Trace	ORTIONS USI 0-10%	5U 6	E Easy				
	6"–18" 8"–36"	A B	Little Some	10-20 20-35	% %		M D		Mode Diffi	rate cult
36"	and larger	Ĉ	And	35-50	%					

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SANBOI 125 North Engineer	RN, HEAD & State Street, Con r: Dennis	ASSOCIATES, IN cord, NH 03301 R. Porter	C. Project Description	No. 1003 on: Cons Beth	sumat-Sanco L. lehem, NH	F. T	est P	it No. 1 Elev	: TF	2-7
Date: Weather:	10/19/	93 ly cloudy, 40° – 60°		Contractor Operator:	Excav r: Consul Skip D	v ation mat-San ay	Equi	ipme	nt	
Start Tin Finish Ti	ne: 1012 ime: 1020			Make: Reach:	CAT 22 feet	Model Bucke	: t Capa	city:	EL 300 2½ cubic	yards
Depth (feet)	Groundwater	Groundwater Soil Description						Excavation Effort		Note No.
1	.5' Mottled gray-brown, fine to medium SAND, some Silt, trace Paper and Plastic.						Mec	lium	3-A	1
2		Grav-brown	Cray brown fine SAND, some Silt little Gravel						1-A	2
		or	Gray-brown, line SAND, some Silt, little Gravel.						[]	•+
<u>_</u>										-+
4						••••			<u>-</u>	• +
5		Gray, fine S	AND, some Silt,	trace Grave	I, trace Cobble	S .			┝╌╌╾╸╉╼╼╼╵	-+
6										3
7										-+
8									 	-+
9		9'					, 	,	ļ	4, 5
10		Bottom of 1	est Pit at 9'.							
11										
12										
13										1
14										•
4.5										·+
15	÷									
16 Notor	<u>L</u>		<u></u> 83			d	 7] Fact I	L Pit Plan	<u></u>
1. Soil	samples were s	creened for volatile	organic compour	nds (VOCs) i	using a Photo		1			
Vac Vac	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"							<u> </u>		
indicates not detected. 2. 2.5 ppm OVM reading at 2'.								L]^	
 7 ppm OVM reading at 6'. Soil samples S-2 and S-6 obtained from depths of 2' and 6'. 					Ì		<u> </u>	איל (
5. No groundwater encountered.								N	orth 	
BOULDER SIZE COUNT: PROPORTIONS USED RANGE CLASSIFICATION Letter Designation Trace 0-10%					EXCAVATION EFFORT E Easy			r		
	6"-18" 18"-36"	A B	Little Some	10–2 20–3	0% 5%		M D		Modera Difficul	te t
36"	" and larger	с	And	35-5	0%					

1003\testpit7.drp

SANBOI 125 North Engineer	SANBORN, HEAD & ASSOCIATES, INC.Project No.1003125 North State Street, Concord, NH 03301Description:Consumat-SaEngineer:Dennis R. PorterLocation:Bethlehem, N							o.: TP-: evation:	8
Date: Weather: Start Tin Finish Ti	10/19/ : Partial ne: 1025 ime: 1050	93 Ily cloudy, 40° – 60°		Contractor Operator: Make: Reach:	Exca Consu Skip D CAT 22 feet	wation mat-Sar ay Mode Bucke	Equipm nco l: et Capacity	ent EL 300 : 2½ cubic y	ards
Depth (feet)	Groundwater		Soil Desc	ription			Excavatio Effort	n Boulder Count Qty.Class.	Note No.
1							Medium	10-A	1
		Gray-brown	GRAVEL and fir	ie to coarse	SAND,		P---	-+	2
		Some Coppi					 	-+	
3							}	╺┾╍╍╍┞╍╍╌╌	
4								╺╁╌╸╸┥┈┈╸╸	
5		5'						-+	
6								0	3
7		Gray, fine S	AND and SILT, t	race medium	i Sand.				
8							[
0		0'							л 5
		Bottom of To	est Pit at 9'.	 -	•			-+	<u> </u>
10								-+	h
11								-+	
12							 	-+ -	
13									
14									
15									
16							_	T	
Notes:	<u> </u>			<u></u>		_ _	Test	Pit Plan	<u> </u>
1. Soil	samples were s	screened for volatile o	organic compoun	ds (VOCs) u	sing a Photo		_←	15' →	
calit	prated to an isob	outylène standard. Ty	pical detection li	mit is .5 ppm	. "ND"				
2. ND	cates not detecte OVM reading at	ed. 2'.					L.	·	
3. 3 pp	om OVM reading	at 6'.	denths of 2' and	6'				γ ,	
5. No (groundwater end	countered.		<u> </u>		<u> </u>		North	
BANCEC	ULDER SIZE	COUNT:	PROF	ORTIONS US	ED %		EXCAVA	TION EFFORT	
	6"-18"	A	Little	10-20	- %		M	Moderate	
36"	and larger	В	Some And	20-35 35-50	%		L)	Dimount	

1003\testpit8.drp

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SANBOI 125 North	RN, HEAD & State Street, Con	ASSOCIATES, INC	Project Description	No. 1003 on: Consum	at-Sanco L.F.	Test	Pit No.	: TP-!	9
Enginee	r: Dennis	R. Porter	Location:	Bethlehe	em, NH	Grou	ind Elev	vation:	
Date: Weather: Start Tin Finish T	10/19/ : Partial ne: 1100 ime: 1115	93 ly cloudy, 40° – 60°		Contractor: Operator: Make: C Reach: 22	Excavat Consumat Skip Day AT M 2 feet Bt	i on Eq -Sanco odel: ucket Ca	uipme pacity:	nt EL 300 2½ cubic y	ards
Depth (feet)	Groundwater		Soil Desc	ription		Exc	cavation Effort	Boulder Count Qty.Class.	Note No.
1							Easy	3-A	1
2		Mottled, gra trace Plastic	y, fine to mediu c and Paper fron	m SAND, some n 0–1.5'.	Silt, little Grave	el, 			2
3	-							0	
4		Gray SiLT, s 4'	ome fine Sand,	trace medium S	and.				
5	·								
6		0	6						3
7		Gray-brown,	Gray-brown, fine to medium SAND, trace Silt, trace Gravel.						
8									
9						 			
10		10'	01 Dit at 10				ļ 		4, 5
11		Bottom of Te	stritatio.						
12									
13									
14									
15									
16	 			<u></u>					
Notes: 1. Soil	samples were s	creened for volatile o	rganic compoun	ds (VOCs) usin	g a Photo		Test I	Pit Plan	
vac calit indic	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.							5	
2. 1.5 j	ppm OVM reading			ـــــــــــــــــــــــــــــــــــــ	1 入↑				
 2 ppm Ovid reading at 0. 4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'. 5. No groundwater encountered. 							N	¥ orth	
BO RANGE C	DULDER SIZE	COUNT: Letter Designation	PROF Trace	PORTIONS USED 0-10%		E	XCAVAT	ION EFFORT Easy	
	6"-18" 18"-36"	A B	Little Some	10–20% 20–35%		M D		Moderate Difficult	
36"	' and larger	c	And	35-50%					

1003\testpit9.drp

SANBOI 125 North	RN, HEAD & State Street, Con	3 sumat-Sanco L	F.	Test P	it No.	.:	TP-	10			
Enginee	r: Dennis	R. Porter	Location:	Beth	lehem, NH	0	Groun	d Elev	vation:		
Date: Weather: Start Tim Finish Ti	10/19/ Partial 1e: 1120 ime: 1145	93 ly cloudy, 40° – 60°		Contractor Operator: Make: Reach:	Exca r: Consu Skip [CAT 22 feet	vation Imat-Sar Day Mode Bucke	Equi nco I: et Capa	ipme acity:	nt EL 30 21/2 c	00 ubic y	ards
Depth (feet)	Groundwater		Soil Desc	ription			Excav Efi	vation fort	Bou Cou Qty.C	lder unt Class.	Note No.
1							Éa	asy	4-	A	1
2		Gray-brown trace Plasti	, fine to coarse S c, Wire, and Root	SAND, some ts.	Silt, little Grav	/el,					2
3		3'							ļļ		
4	4								<u>_</u>)	
5									+		
6	Gray, fine to coarse SAND, trace Silt, trace Gravel.										3
7											
8											
9											
10		10' Bottom of T	est Pit at 10'.					+ 			4, 5
11											
12											
13						-					
14											
15											
16		<u> </u>				<u></u>					• • • • • • • <u>• • •</u>
INotes: 1. Soil Vac calit indic 2. 5 pp 3. 4 pp 4. Soil	samples were s Microtip Model prated to an isob cates not detected or OVM reading or OVM reading samples S-2, S	organic compoun or meter (OVM) v vpical detection li ned from depths	ids (VOCs) i with a 10.0 e mit is .5 ppr of 2', 6' and	using a Photo eV lamp n. "ND" 6'.		1		15' -	an → ↓ 5' ↑		
5. No (proundwater end	COUNT:	PROF	PORTIONS US	SED	<u> </u>	EXC	CAVAT	ION EFI	FORT	
BOULDER SIZE COUNT: PROFORMORY RANGE CLASSIFICATION Letter Designation Trace 0 6"-18" A Little 1 18"-36" B Some 2 36" and larger C And 3				0–10 10–2 20–3 35–5	% 0% 5% 0%		E M D		Ea Mo Di	sy oderate fficult	

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1003\testpt10.drp

SANBOI 125 North Enginee	RN, HEAD & State Street, Con r: Dennis	ASSOCIATES, IN loord, NH 03301 R. Porter	C. Project Description Location:	No. 1003 on: Cons Beth	umat-Sanco L ehem, NH	.F. (Test P	it No. d Elev	: vation:	FP-11
Date: Weather: Start Tin Finish Ti	10/19/ Partial ne: 1145 ime: 1245	93 ly cloudy, 40° – 60°		Contractor Operator: Make: Reach:	Excav Consu Skip D CAT 22 feet	wation mat-San ay Mode Bucke	Equi nco il: et Capa	ipme	nt EL 300 2½ cub	ic yards
Depth (feet)	Groundwater		Soil Desc	ription			Excav Eff	vation fort	Boulde Count Qty.Cla	r Note No.
1							Ea	lsy	5-A	1
2									ļ	2
3		Gray, fine	to medium SAND	, some Silt,	little Gravel.				0	
4										
5		5'								
6										3
7	Gray, fine to coarse SAND, 7 little Gravel, trace Silt.									
8						-	11			
9										
10		10'						•		4, 5
11		Bottom of T	est Pit at 10'.				[
12										
13							F			
14									• - ••	
15										
16										
Notes:	<u> </u>		<u> </u>	<u></u>			<u></u> Л	est I	Pit Plan	<u></u>
1. Soil	samples were s Microtin Model	creened for volatile MP-100 organic van	organic compoun	ds (VOCs) u with a 10.0 c	sing a Photo	ĺ		-	15' →	L
calit	prated to an isob	mit is .5 ppn	1. "ND"					4'		
2. 3 pp	om OVM reading					<u>ــــــــــــــــــــــــــــــــــــ</u>		<u>۲</u>		
 So ppm Oviv reading at 6. Soil samples S-2 and S-6 obtained from depths of 2' and S-6. 				6'.				N	∕¥ orth	
5. No groundwater encountered.				ORTIONS US		L		AVAT	ION FEFO	2T
RANGE C	LASSIFICATION	Letter Designation	Trace	0-10 10-20	6		E	/117 <i>/</i> 11	Easy	rate
6"-18" A Little 10-20% 18"-36" B Some 20-35% 36" and larger C And 35-50%				%		D		Diffic	uit	

1003\testpt11.drp

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SANBOI 125 North Engineer	RN, HEAD & State Street, Con r: Dennis	ASSOCIATES, IN loord, NH 03301 R. Porter	C. Project Description Location:	No. 1003 on: Consumat-Sanco Bethlehem, NH	L.F.	Test Pit No. Ground Elev	: TP- vation:	12
Date: Weather: Start Tim Finish Ti	10/19/ Partial ne: 1315 ime: 1330	93 iy cloudy, 40° – 60°		Exc Contractor: Cons Operator: Skip Make: CAT Reach: 22 feet	sumat-Sa Day Mode Buck	Equipmenno El: et Capacity:	nt EL 300 2½ cubic y	ards
Depth (feet)	Groundwater		Soil Desc	ription		Excavation Effort	Boulder Count Qty.Class.	Note No.
1								1
2				op of Ground.				
3								
4						Easy	5-A	
5							2-A	 _
6			.				2-A	2
7		Gray, fine to	o coarse SAND a	nd GRAVEL, little Silt.			0 L	 -
8								
9								
10						 		3
11								
12	- 	Bottom of Te	est Pit at 7'.					
13					. .			4, 5
14	- -				<u>``</u> .		Ļ	
15								
16					<u></u>			
Notes:		ereened for volatile of		de (1/QCe) unice e Photo	_	Test I	Pit Plan	
Vac Calib	Microtip Model orated to an isob cates not detected	MP-100 organic vapo outylene standard. Ty ed.	prical detection li	vith a 10.0 eV lamp mit is .5 ppm. "ND"		← ·	14' → ↓ 5'	
3. 4 pp	m OVM reading	at 6'.	denthe of 9 and	e'		. /	Γ Δ	
 Son samples 5-2 and 5-6 obtained from depths of 2 and 6. No groundwater encountered. 						N	o rth	
BO RANGE C	ULDER SIZE LASSIFICATION 6"-18" 18"-36" and larger	COUNT: Letter Designation A B C	PROF Trace Little Some And	ORTIONS USED 0-10% 10-20% 20-35% 35-50%		EXCAVATI E M D	ION EFFORT Easy Moderate Difficult	

1003\testpt12.drp

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SANBOI	RN, HEAD &	Associates, In	C. Project	No. 1003	3				· ·
125 North	State Street, Con	cord, NH 03301	Description	on: Con	sumat-Sanco L.	F.]]	Fest Pit No	.: TP-	13
Engineer	r: Dennis	R. Porter	Location:	Beth	lehem, NH		Ground Ele	vation:	
					Excav	ation	Equipme	nt	
Date:	10/19/	93 Nu alaustu 40° - 60°		Contracto	r: Consur Skip Dr	nat-Sar	100		
Start Tin	ре: 1345	iy cloudy, 40° – 60°		Make:	CAT	ay Model	1:	EL 300	
Finish Ti	ime: 1400			Reach:	22 feet	Bucke	et Capacity:	2½ cubic y	ards
Depth				L			Excavation	Boulder	Note
(feet)	Groundwater		Soil Desc	ription			Effort	Count Oty Class	No.
		Brown fine	to coarse SAND	and Gravel,	little Silt,		<u> </u>	Qty.class.	
1		1' trace Cobb	les.				Medium	4-A	1
2							Easy	0	2
3		Gray SILT,	some fine Sand.						1
							 	}	+
<u>4</u>							} <u></u>	+	
5									
6				-					3
							} -	+ <u>-</u>	
		Grav fine to	medium SAND.	trace Grave	I, trace Silt.			┟ ───┼──╼╼	
8								<u> </u>	L
9		9'					ļļ		4, 5
10		Bottom of T	est Pit at 9'.		~~~~~~				
									
11									
12									
13									
14									
15									
16									
Notes:	<u></u>			<u></u>			Test]	<u>L</u> Pit Plan	
1. Soil	samples were s	creened for volatile	organic compoun	ds (VOCs)	using a Photo		1		
Vac	Microtip Model	MP-100 organic vap	or meter (OVM) v	with a 10.0 e	V lamp	1	<u> </u>	15' → ↓	
indic	ates not detected	ed.	pical detection in	mit is .5 ppi	1. ND			5'	
2. 8.5	ppm OVM reading	ng at 2'.					, ,	↑	
4. Soii	samples S-2, S-	-6 and Grab-3 obtair	ned from depths of	of 2', 6' and	3-4'.		N) Iorth	
5. No g	groundwater enc	ountered.		<u> </u>				<u> </u>	
BO	ULDER SIZE	COUNT:	PROF	ORTIONS US	SED		EXCAVAT	TON EFFORT	
	6"-18"	A	Little	10-2	0%		м́	Moderate	
36"	18"-36" and larger	B C	Some And	203 355	5% 0%		D	Difficult	

1003\testpt13.drp

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SANBO 125 North	RN, HEAD &	ASSOCIATES, INC	sumat-Sanco L	.F. (Test Pit No).: T P-	14		
Enginee	r: Dennis	R. Porter	Location:	Beth	lehem, NH		Ground Ele	evation:	
Date: Weather	10/19/ : Partial	93 Ily cloudy, 40° – 60°		Contracto Operator:	Exca Consu Skip D	vation mat-Sa lay Mode	Equipm nco	ent	
Finish T	ne: 1410 ime: 1430			Reach:	22 feet	Buck	et Capacity:	EL 300 2½ cubic y	vards
Depth (feet)	Groundwater		Soil Desc	ription			Excavation Effort	n Boulder Count Qty.Class.	Note No.
1							Easy	3-A	1
2		Gray, fine to	coarse SAND, I	little Cobble	s, little Silt.			4-A	2
3									
4		4'						ŢŢ	[[
5								0	
6									3
7		Gray SILT, f	ine Sand, trace	Gravel.					
8									
9		9'						1	4, 5
 10		Bottom of Te	est Pit at 9'.		<u>&</u>				
 11								†	
12									
							 		
 - 14								+	
 15								·	
 16									
Notes	<u> </u>	<u></u>	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	<u></u>	<u>_</u>		Test	Pit Plan	<u>L</u>
1. Soil Vac cafil indi	samples were s Microtip Model brated to an isob cates not detected	screened for volatile o MP-100 organic vapo outylene standard. Ty ed.	erganic compoun or meter (OVM) v pical detection li	ds (VOCs) (with a 10.0 e mit is .5 ppr	using a Photo V lamp n. "ND"		←	16' → ↓ 4'	
2.6pp 3.4pp	pm OVM reading pm OVM reading) at 2'. 1 at 6'.					L		
4. Soil 5. No	samples S-2 an groundwater end	d S-6 obtained from countered.	depths of 2' and	6' <i>.</i>			1	¥ North	
BC RANGE C	DULDER SIZE CLASSIFICATION 6"-18"	COUNT: Letter Designation A	PROI Trace Little	PORTIONS US 0-10 10-2	ED % %		EXCAVA E M	TION EFFORT Easy Modcrate	<u></u>
36	6"-18" A Little 10-20% 18"-36" B Some 20-35% 36" and larger C And 35-50%						D	Difficult	

1003\testpt14.drp

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SANBOI 125 North Engineer	RN, HEAD & State Street, Con r: Dennis	ASSOCIATES, IN cord, NH 03301 R. Porter	No. 1003 on: Cons Beth	umat-Sanco L ehem, NH	F. 7	Fest Pit No Ground Ele	.: TP- vation:	15	
Date: Weather: Start Tim Finish Ti	10/19/ Partial ne: 1520 ime: 1540	93 ly cloudy, 40° – 60°		Contractor Operator: Make: Reach:	Exca Consu Skip D CAT 22 feet	vation mat-Sar Day Mode Bucke	Equipme nco l: et Capacity:	nt EL 300 2½ cubic y	ards
Depth (feet)	Groundwater		Soil Desc	ription			Excavation Effort	Boulder Count Qty.Class.	Note No.
1		Gray-brown 2' mediur	G n, fine to n SAND, some	round surfac	:e.				1
3			avel, some Slit.	•••••		*** * ******************	Easy	3-A	
5		Gray, fine t	o medium SAND,	little Silt.				<u>1-A</u>	2
7		· • • • •					┝ ┝		 -
8 9									3
10 11		Bottom of T	est Pit at 7'.			•••••	 	ļ	4, 5
12									
<u>13</u> 14						•			
15 16									
Notes: 1. Soil Vac calib indic 2. 2 pp 3. 2 pp 4. Soil 5. No g	samples were s Microtip Model prated to an isob cates not detected im OVM reading samples S-2 an groundwater enc	creened for volatile MP-100 organic vap putylene standard. Ty ed. at 2'. at 6'. d S-6 obtained from countered.	organic compoun or meter (OVM) v ypical detection in depths of 2' and	ds (VOCs) ι vith a 10.0 e mit is .5 ppn 6'.	ising a Photo V lamp n. "ND"		Test I ← 	Pit Plan 16' \rightarrow \downarrow 5' \uparrow orth	
BO RANGE C	ULDER SIZE LASSIFICATION 6"-18" 18"-36" and larger	COUNT: Letter Designation A B C	PROP Trace Little Some And	ORTIONS US 0-109 10-20 20-33 35-50	ED 6 1% 9% 		EXCAVAT E M D	ION EFFORT Easy Moderate Difficult	

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1003\testpt15.drp

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SANBO	RN, HEAD &	ASSOCIATES, INC	C. Project	No. 1003		_ _			
Enginee	i State Street, Con	cord, NH 03301	Description	on: Cons	umat-Sanco L.	F. 1	fest Pit No.	: TP-'	16
Eliginee			Location:	Beth				ation:	
Datas	40/40/	22		Contractor	Excav	ation	Equipme	nt	
Date:	10/19/: · Partiall	33 Ny cloudy 40° – 60°		Onerator:	: Consur Skin Da	nat-Sar av	100		
Start Tin	ne: 1500	y cioddy, 40 - 00		Make:	CAT	-, Model	[;	EL 300	
Finish T	ime: 1515			Reach:	22 feet	Bucke	t Capacity:	21/2 cubic y	ards
Depth							Excavation	Boulder	Note
(feet)	Groundwater		Soil Desc	ription			Effort	Count	No.
	<u> </u>							Qty.Class.	
1		Brown, fine	to medium SAN	D, some Silt,	little Paper,			I	1
_ _		Plastic, Wire	e Refuse.						
2	+!					:			
3		3'			• • • • • •		 	Ļ 	2
4		Brown-gray, trace Cobbli	fine to medium	SAND, little	Gravel, little Sil	it,		3-A	
- -		4.5'							-
5							 	2-A	
6								0	3
		Gray, fine to	medium SAND,	trace Silt, t	wo stratified			-	
	.7 4"-8"-thick layers of Silt, from 6'-10'.						┝╍╍╍┼╍╍╍┥		
8									
9								<u> </u>	
10		10'						Ļ	4, 5
11		Bottom of T	est Pit at 10'.						
'-'	+								
12	+ [
13									
14									
15									
16	+								
Ntotoo	<u>L</u>				<u>-</u> -		Toot I		
1 Soil	samples were s	creened for volatile o	roanic compour	ds (VOCs) i	ising a Photo		i est f		
Vac	Microtip Model	MP-100 organic vapo	or meter (OVM) v	vith a 10.0 e	V lamp		<i>← '</i>	15' → ↓	
calit	brated to an isob	utyléne standard. Ty	pical detection li	mit is .5 ppn	n. "ND"			5'	
2. 7 pr	om OVM reading	at 2'.					L]	
3.3 pr	om OVM reading	at 6'.		~			```	```	
 4. Soil samples S-2 and S-6 obtained from depths of 2' and 6'. 5. No groundwater encountered. 							No	orth	
BOULDER SIZE COUNT: PROPORTIO				ORTIONS US	ED		EXCAVAT	ION EFFORT	
RANGE C	LASSIFICATION	Letter Designation	Trace	0-109	6 19/2		Е M	Easy Moderate	
	18"-36"	B	Some	20-3	%		D	Difficult	
36'	18"-36" B Some 20-35% 36" and larger C And 35-50%								

1003\testpt16.drp

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SANBOI	RN, HEAD &	Associates, In	C. Project	No. 100:	3						
125 North	State Street, Con	cord, NH 03301	Descripti	on: Con	sumat-Sanco L	.F.	Test P	it No.	.:	TP-	17
Enginee	r: Dennis	R. Porter	Location:	Beth	lehem, NH		Groun	d Ele	vation	1:	
Data	40/40/	02		Contracto	Excar	vation	Equ	ipme	nt		
Weather:	: Partial	93 Iv cloudy, 40° – 60°		Operator:	Skip D	nat-sa av	nco				
Start Tin	ne: 1545	,, ,		Make:	CAT	Mode	:1:		EL 3	300	
Finish T	ime: 1600			Reach:	22 feet	Bucke	et Cap	acity:	21/2	cubic y	ards
Depth (feet)	Groundwater		Soil Desc	ription			Exca Ef	vation fort	Bou Co Qty.	ulder ount Class.	Note No.
1		Olive-gray, f 1' trace Plasti	ine to medium S c and Paper.	AND and Si	lt, little Gravel,		E	asy I		0	1
2									[[- -	2
							 -	<u>+</u>	<u> </u>	† -	
3		Gray, fine t	o coarse SAND,	trace Grave	l, trace Silt.			<u> </u>	<u> </u>	+ -	
4							-		 		
5							 	 	 	 +	
6							 	ļ	 		3
7		7'					L	ļ		Ļ	4, 5
8		Bottom of te	est pit at 7'.								
9											
10											
							 		+ 		
	+										
12							 				
13			·			•	<u> </u>				
14							ļ				
15											
16											
Notes:								Fest 1	Pit P	lan	
1. Soil Vac	samples were s Microtin Model	creened for volatile MP-100 organic van	organic compour	nds (VOCs) with a 10.0 r	using a Photo eV lamo			←	18'		
calit	brated to an isot	outylene standard. Ty	pical detection li	mit is .5 pp	n. "ND"					5'	
2. 2 pr	cates not detection of OVM reading	ed. 1 at 2'.						L			
3. 4 pp 4. Soil	om OVM reading samples S-2 an	j at 6'. id S-6 obtained from	depths of 2' and	6'.					7		
5. No (groundwater end	countered.						N	orth		
BO RANGE C	ULDER SIZE	COUNT: Letter Designation	PROI Trace	PORTIONS U	SED %		E EX	CAVAT	ION EI E	FORT asy	
	6"-18"	A	Little	10-2	0%		M		N	ioderate	
36'	and larger	в С	And	20-3	0%		L.		U	moult	

1003\testpt17.drp

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SANBO	RN, HEAD &	Associates, Inc	2. Project I	No. 1003	3						'
125 North Enginee	State Street, Con	R Porter	Descriptio	on: Con: Both	sumat-Sanco L	.F.	Test P	it No.	.:	TP-18	
Enginee	T. Dennis		Location:	Beth	IEREM, NH		Groun				
Date: Weather	10/20/ : Partial	93 ly cloudy, 40° – 60°		Contracto Operator:	Excar r: Consu Skip D	vation mat-Sa lay	nco	ipme	nt		
Start Tin Finish Ti	ne: 1405 me: 1420			Make: Reach:	CAT 22 feet	Mode Buck	el: et Cap	acity:	EL 300 2½ cul) bic yards	
Depth (feet)	Groundwater		Soil Desc	ription	-4		Exca Ef	vation fort	Bould Cour Otv.Cl	er No nt No	ote o.
1		Gray-brown,	fine to medium \$	SAND, som	e Silt, little Grav	vel.	Ea	asy	4-A	1	1
2		2'							4-A	2	2
3									2-A		
4									0		
5		Gray, fine to	, little Silt, tr	ace Gravel.				<u> </u>			
6					•			 	3	3	
7								+	 		
8		8' Bottom of te	et oit at 8'	******			+	Ļ	ļļ	4	<u>1, 5</u>
9		Doubin of le	st pit at o.							+	
10											aa aa
11							 				
12											
13											
14										+	
15							}				
16			<u></u>			<u></u>	<u> </u>	 T 4 1	D:4 DIa		
 Soil samples were screened for volatile organic comp Vac Microtip Model MP-100 organic vapor meter (OV calibrated to an isobutylene standard. Typical detection indicates not detected. 5 ppm OVM reading at 2'. 				ids (VOCs) with a 10.0 e mit is .5 ppr	using a Photo eV lamp n. "ND"				20' →	n ↓ 5'	
3. 13 (4. Soil 5. No	 3. 13 ppm OVM reading at 6'. 4. Soil samples S-2 and S-6 obtained from depths of 2' a 5. No groundwater encountered. 							N	orth	۰ 	
BC RANGE C	BOULDER SIZE COUNT: PI RANGE CLASSIFICATION Letter Designation Trace 6"-18" A Little 18"-36" B Some				SED % 0% 5% 0%		EX E M D	CAVAT	ION EFFC Easy Mod Diff	DRT / lerate icult	

1003\testpt18.drp

SANBOR	RN, HEAD &	Associates, In	c. Project	No. 1003	3		11 m		·
125 North Engineer	State Street, Con	cord, NH 03301 R. Porter	Description:	on: Con: Beth	sumat-Sanco L. Iehem NH	.F. 1	Fest Pit N Fround Fl	o.: TP- evation:	-19
<u> </u>		<u> </u>			Exca	vation	Equipm	ent	
Date:	10/20/	93		Contractor	r: Consu	mat-Sar	100		
Weather:	Partial	ly cloudy, 40° – 60°		Operator:	Skip D	ay Model	1.	EL 200	
Finish Ti	ime: 1050			Reach:	22 feet	Bucke	r. et Capacity	: 21/2 cubic ;	yards
Depth	1			L			Excavatio	n Boulder	Note
(feet)	Groundwater		Soil Desc	ription			Effort	Count Oty.Class.	No.
1							Easy	1-A	1
2		Gray-browr	fine to coarse S	AND, some	Gravel, trace (Cobbles	}	 6-A	2
3	+								†
4								-+	+ -
5							 +		
6		5.9'		•			 		
7						- - ·	 +	0	3
8		Gray-brown fine to coan	SILT, stratified v se Sand.	with 3-6" thic	ck layers of		*	-+	+
9		9'					<u> </u>		4.5
10	_	Bottom of T	est Pit at 9 '.					-+	+
								-+	
11								-+	+
12									
13							 	-+	+
14								-+	+
15								-+	
16					<u></u>				
Notes:							Test	Pit Plan	
1. Soil Vac	samples were s Microtip Model	MP-100 organic vap	organic compoun or meter (OVM) v	os (VOCs) i vith a 10.0 e	eV lamp			20' → ↓	
calit	prated to an isob	outylene standard. Ty	pical detection li	mit is .5 ppr	n. "ND"				1
2. 1.5n	n OVM reading a	at 2'.					L	_	
3. 5 pp 4. Soil	om OVM reading samples S-2 an) at 6'. d S-6 obtained from	depths of 2' and	6'.					
5. No g	5. No groundwater encountered.							North	
BO RANCE C	ULDER SIZE	COUNT:	PROF	ORTIONS US	SED %		EXCAVA	TION EFFORT	
	6"-18" A Little 10-20%						M	Moderate	•
36"	18"36" B Some 20-35% 36" and larger C And 35-50%						ע	Dimicult	

1003\testpt19.drp

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SANBOI 125 North Engineer	RN, HEAD & State Street, Con r: Dennis	ASSOCIATES, INC. cord, NH 03301 R. Porter	Project Description Location:	No. 1003 on: Cons Beth	sumat-Si	anco L.F. NH		Fest Pit Ground	No. Elev	: vation	TP-:	20
Date: Weather:	10/19/ Partial	93 ly cloudy, 40° – 60°		Contractor Operator: Make:	: CAT	Excavat Consumat Skip Day	ion -Sar	Equip nco 1.	ome	nt	200	
Finish Ti	ime: 1605			Reach:	22 fee	et Bi	icke	t Capac	ity:	2½ (cubic y	ards
Depth (feet)	Groundwater		Soil Desc	ription				Excavs Effo	ntion rt	Bou Co Qty.(ilder unt Class.	Note No.
1			G	 round Surfac	ce			Eas	y 	(0	1
2			· · · · · · · · ·									2
3		Gray fine SAND) and SILT, t	race Gravel.								
4												
5												
6						-						3
7												
8		8'						ļ			Ļ	4, 5
9		Bottom of Test	Pit at 8 '.									
10												
11												
12	· · · · · · · · · · · · · · · · · · ·											
13						·						
14											******	
15												
16												
Notes: 1. Soil	samples were s	creened for volatile orga	nic compoun	ds (VOCs) L	ising a f	Photo	<u> </u>	<u></u> T	est I	Pit Pl	<u>an</u>	
Vac calib indic	Microtip Model prated to an isob ates not detected	MP-100 organic vapor m outylene standard. Typica ed.	eter (OVM) v Il detection li	vith a 10.0 e mit is .5 ppn	V lamp n. "ND"			-	<u>←</u>	16	→ ¥ 	
2. 4 pp 3. 2 pp 4. Soil	m OVM reading m OVM reading samples S-2 an	at 2'. at 6'. d S-6 obtained from dep	ths of 2' and	6'.				L	N		↑	
5. No g	roundwater end	ountered.			<u>ED</u>							
BO RANGE C 36"	LASSIFICATION 6"-18" 18"-36" and larger	COUNT: Letter Designation A B C	PROF Trace Little Some And	0-109 0-109 10-20 20-35 35-50	ED %)%)% 			EXCA E M D	AVAT.	ION EF Ei M D	asy loderate ifficult	

1003\testpt20.drp

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SANBOR 125 North Engineer	N, HEAD & State Street, Con Dennis	No. 1003 on: Cons Beth	umat-Sanco L ehem, NH	.F. (Fest P Groun	it No. d Elev	: vation:	TP-2	21		
Date: Weather: Start Tim Finish Ti	10/20/ Partial ne: 0730 me: 0745	93 ly cloudy, 40° 60°		Contractor Operator: Make: Reach:	Exca Consu Skip D CAT 22 feet	wation mat-Sa ay Mode Bucke	Equ nco I: et Capa	ipme acity:	nt EL 30 2½ cu	0 Ibic y	ards
Depth (feet)	Groundwater		Soil Desc	ription			Exca Efi	vation fort	Bould Cour Qty.Cl	ler nt lass.	Note No.
1							Ea	isy 	2-A		1
2									2-A		2
3		Gray, fine t	o coarse Sand, s	ome Silt, litt	e Gravel.				0		
4											
5											
6		··································									3
7				[
8		8'						ţ	└ ─── ↓		4, 5
9		Bottom of T	est Pit at 8'.				1	×			
10											
11											
12											-
13									 		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
14											
15											
16											
Notes:	<u> </u>	<u></u>			<u></u>		<u></u>	Fest]	Pit Pla	. <u>n</u>	
1. Soil Vac	samples were s Microtip Model	creened for volatile MP-100 organic vap	organic compour or meter (OVM) v	ids (VOCs) เ with a 10.0 e	using a Photo V lamp			←	16'	↓↓	
calit indic	arated to an isot ates not detect	outylene standard. Ty ed.	pical detection li	mit is .5 ppr	n. "ND"	1				5'	
2. ND 3. ND	OVM reading at OVM reading at	2'. 6'.						L	\	_ ↑	
4. Soil 5. No d	samples S-2 an	d S-6 obtained from countered.	depths of 2' and	6'.				N	orth		
BO RANGE C	ULDER SIZE	COUNT: Letter Designation	PROI	PORTIONS US	ED %	İ	E EXC	CAVAT	ION EFF Eas	ORT y	
	6"–18" 18"–36"	A B	Little Some	10-2 20-3	0% 5%		M D		Mo	derate ficult	
36"	and larger	0%									

1003\testpt21.drp

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SANBOI 125 North Engineer	RN, HEAD & State Street, Con r: Dennis	ASSOCIATES, IN cord, NH 03301 R. Porter	No.1003ion:Consumat-Sanco L.F.Test Pit No.:TP-22a:Bethlehem, NHGround Elevation:						
Date: Weather: Start Tim Finish Ti	10/20/ Partial ne: 0855 ime: 0915	93 ly cloudy, 40° – 60°		Exca Contractor: Conse Operator: Skip Make: CAT Reach: 22 feet	Consumat-Sanco Skip Day T Model: EL 300 feet Bucket Capacity: 2½ cubic ya				
Depth (feet)	Groundwater		Soil Desc	ription		Excavatior Effort	Boulder Count Qty.Class.	Note No.	
1						Medium	5-A	1	
2					• .			2	
3		Gray Grave	l and fine to coa	rse Sand, little Cobbles, tr	ace Silt.				
4							·		
5				·			1-B	 -	
6							<u>1-B</u>	3	
7							2-A		
8							1-A		
9		9'				Ļ	<u> </u>	4, 5	
10		Bottom of 1	est Pit at 9.					 	
11							+		
12									
13									
14									
15									
16		<u></u>	<u></u>	~~==== <u>~</u> <u>_</u>					
Notes:		screened for volatile .		de A/ACe) using a Photo		Test	Pit Plan		
Vac	Microtip Model	MP-100 organic vap	or meter (OVM) v	with a 10.0 eV lamp		←	18' → ↓		
indic	cates not detect	ed.	Abical defection II	аштэ зэррпс мо			5'		
2. ND 3. 5 pp	ovm reading at om OVM reading	iz'. Lat 6'.				•	\uparrow		
 Soil samples S-2, S-6, and Grab S-4 obtained from depths of 2', 6', and 6'-7'. No groundwater encountered. 						1	North		
BO RANGE C	ULDER SIZE LASSIFICATION 6"-18"	COUNT: Letter Designation A	PROF Trace Little	PORTIONS USED 0-10% 10-20%		EXCAVA E M	TION EFFORT Easy Moderate		
36"	6"-18" A Little 10-20% 18"-36" B Some 20-35% 36" and larger C And 35-50%						D Difficult		

1003\testpt22.drp

SANBOR 125 North Engineer	RN, HEAD & State Street, Con r: Dennis	ASSOCIATES, IN cord, NH 03301 R. Porter	C. Project Description	Project No.1003Description:Consumat-Sanco L.F.Location:Bethlehem, NHGround Elevation:					23
Date: Weather: Start Tim	10/20/ Partial ne: 0920	93 ly cloudy, 40° – 60°		Contractor Operator: Make:	Excav Consur Skip Da	v ation nat-Sar ay Mode	Equipme nco l:	EL 300	
Finish Ti	ime: 0935			Reach:	22 feet	Bucke	et Capacity:	21/2 CUDIC y	ards
Depth (feet)	Groundwater		Soil Desc	ription		-	Excavation Effort	Boulder Count Qty.Class.	Note No.
1							Medium	10-A	1
2									2
3		Gray Grave	I and fine to coa	rse Sand, lit	le Cobbles, tra	ce Silt.			
4								.	
5								6-A	
6									3
7							[
8							•	·····	4, 5
9						'			
10		10'					[
 11		Bottom of T	est Pit at 10'.						
12									
13									
14									
15									
16									
Notes:	************	<u></u>					Test]	Pit Plan	
1. Soil Vac calit indic	samples were s Microtip Model prated to an isol cates not detected	screened for volatile MP-100 organic vap outylene standard. Ty ed.	organic compour or meter (OVM) v vpical detection li	nds (VOCs) n with a 10.0 e imit is .5 ppr	using a Photo IV lamp n. "ND"		~	18' → ↓ 5'	
2. 4 pp	om OVM reading	g at 2'.					L	↑	
3. 2 pp 4. Soil	samples S-2 ar	d S-6 obtained from	depths of 2' and	6'.			N	→ orth	
5. No (groundwater end	countered.				<u> </u>			
BO RANGE C	ULDER SIZE LASSIFICATION 6"	COUNT: Letter Designation	PRO Trace	PORTIONS US 0-10 10-2	SED % 0%		EXCAVAT E M	ION EFFORT Easy Moderate	
	18"-36"	B	Some	20-3	5%		D	Difficult	
36"	' and larger	С	And	35-5	0%				

1003\testpt23.drp

SANBOI 125 North Engineer	RN, HEAD & State Street, Con r: Dennis	.F. 1	Test Pit No.: TP-24 Ground Elevation:							
Date: Weather: Start Tim Finish Ti	10/20/ Partial ne: 1025 ime: 1045	93 ly cloudy, 40° – 60°		Contractor Operator: Make: Reach:	Excar Consu Skip D CAT 22 feet	vation mat-San ay Model Bucke	Equipme ico : t Capacity:	EL 300 2½ cubic y	ards	
Depth (feet)	Groundwater		Soil Desc.	ription			Excavation Effort	Bouider Count Qty.Class.	Note No.	
		4'_ Dark brown_fi	ne to medium SAN	ID_some_Silt,	trace Roots. Top	osoil.	Easy	1-A	1	
		1.5' Brown, fine	to medium SAN	D, some Silt	, trace Roots.		<u> </u>	<u>+</u> +	+ 	
2		Brown, fine	to medium SAN	D, trace Silt.	trace Cobbles	•	 	┼	2	
3		3.5'			╋ ╼╍╍	 				
4								↓		
5		Gray-brown little Cobble	, fine to coarse S s, trace Silt.	SAND and G	iravel,			5-A	 	
6		6'						5-A	3	
								0		
8		Gray, fine to	medium SAND	, trace Grave	el, trace Silt.					
9		9'							4, 5	
10		Bottom of T	est Pit at 9'.	eee					_	
						1		+		
'-' 12								+		
<u>.</u> 13						.		+	 -	
								†		
								+--		
18								<u>+</u>		
Notes							L Test	<u> </u>	<u> </u>	
1. Soil Vac calit	samples were s Microtip Model prated to an isot			19' → ↓						
india 2. ND 3. ND	cates not detecte OVM reading at OVM reading at	ed. 2'. 6'.					L	Ĭ↑		
4. Soil 5. No (samples S-2 ar groundwater end	nd S-6 obtained from countered.	depths of 2' and	6'.			N	lorth		
BO RANGE C	ULDER SIZE LASSIFICATION 6"-18"	COUNT: Letter Designation	PRO Trace	PORTIONS US 0-10' 10-2'	SED % 0%		EXCAVA E M	FION EFFORT Easy Moderate		
36'	6"-18" A Little 10-20% 18"-36" B Some 20-35% 36" and larger C And 35-50%						D Difficult			

1003\testpt24.drp

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SANBOI 125 North Engineer	RN, HEAD & State Street, Con r: Dennis	Associates, Inc. cord, NH 03301 R. Porter	No. 1003 on: Consumat-Sanco I Bethlehem, NH	nco L.F. Test Pit No.: TP-25 H Ground Elevation:				
Date: Weather: Start Tim Finish Ti	10/20/9 Partiall ne: 1115 ime: 1140	93 ly cloudy, 40° – 60°		Exca Contractor: Consi Operator: Skip I Make: CAT Reach: 22 feet	umat-Sa Day Mod Buck	n Equipme anco el: :et Capacity:	nt EL 300 2½ cubic y	ards
Depth (feet)	Groundwater		Soil Desc	ription		Excavation Effort	Boulder Count Qty.Class.	Note No.
1		Trace Plastic	and Paper.			Easy	0	1
2		Sheet of HDF	PE Plastic at 2'.					2
3								
4								
5		Gray-brown, trace Silt.	fine to coarse S	SAND, trace Gravel,				
6								3
7						P=== -+		
8								
9								4. 5
10		10'						
11		Bottom of Te	st Pit at 10'.					
12								
13								
14								
15								
16								
Notes:	<u> </u>		- <u></u>			 Test 1	Pit Plan	
1. Soil Vac calit indic 2. 3.5	samples were s Microtip Model I prated to an isob cates not detected ppm OVM readin	creened for volatile or MP-100 organic vapor outylène standard. Typ ed. ng at 2'.	ganic compoun meter (OVM) v ical detection li	ds (VOCs) using a Photo with a 10.0 eV lamp mit is .5 ppm. "ND"		<i>←</i>	19' → ↓ 5' ↑	
3. 3 pp 4. Soil 5. No 4	IM UVM reading samples S-2 an proundwater end	d S-6 obtained from d	epths of 2' and	6'.		N	orth	
BO RANGE C	ULDER SIZE LASSIFICATION 6"-18" 18"-36"	COUNT: Letter Designation A B	PROP Trace Little Some	PORTIONS USED 0-10% 10-20% 20-35% 35-50%		EXCAVAT E M D	ION EFFORT Easy Moderate Difficult	

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1003\testpt25.drp

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SANBOI 125 North Engineer	ANBORN, HEAD & ASSOCIATES, INC. 15 North State Street, Concord, NH 03301 ngineer: Dennis R. Porter Dennis							No. Elev	: TP-: vation:	26
Date: Weather: Start Tin Finish Ti	10/20/ Partial ne: 1425 ime: 1440	93 ly cloudy, 40° – 60° 		Contractor Operator: Make: Reach:	Exca Consu Skip D CAT 22 feet	wation mat-Sar ay Mode Bucke	Equip nco :1: et Capac	ome	nt EL 300 2½ cubic y	ards
Depth (feet)	Groundwater		Soil Desc	ription			Excava Effo	ition rt	Boulder Count Qty.Class.	Note No.
1							Eas	у	1-A	1
2									1-A	2
3									0	
4										
5		Brown, fine	to medium SANI	D, little Silt, t	race Gravel.					
6				·						3
7										
8										
9		9'					Ţ		Ļ	4, 5
10		Bottom of T	est Pit at 9'.							
11										
12										
13										
14										
15										
16										
Notes:						[Te	est I	Pit Plan	
1. Soil Vac calib indic	samples were s Microtip Model I prated to an isob cates not detecte	creened for volatile of MP-100 organic vapo outylene standard. Ty ed.	organic compoun or meter (OVM) v pical detection li	ds (VOCs) u vith a 10.0 e mit is .5 ppm	sing a Photo V lamp I. "ND"		F	<u>←</u>	18' → ↓ 5'	
2. 2 pp 3. 5 pp	m OVM reading	at 2'. at 6'.					Ľ	,	J↑	
4. Soil 5. No c	samples S-2 an	d S-6 obtained from ountered.	depths of 2' and	6'.				N	`N orth	
BO RANGE C	ULDER SIZE LASSIFICATION 6"-18"	COUNT: Letter Designation	PROF Trace Little	ORTIONS US 0-10% 10-20	ED % %		EXCA E M	VAT	ION EFFORT Easy Moderate	
36"	18"36" and larger	B C	Some	20-35 35-50	% %		D		Difficult	

1003\testpt26.drp

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SANBOI 125 North Enginee	RN, HEAD & State Street, Con r: Dennis	ASSOCIATES, IN cord, NH 03301 R. Porter	C. Project Description Location:	ject No. 1003 cription: Consumat-Sanco L.F. Test Pit No.: The tion: Bethlehem, NH Ground Elevation:					
Date: Weather: Start Tin Finish Ti	10/20/ Partial ne: 1005 ime: 1020	93 ly cloudy, 40° – 60°		Contractor Operator: Make: Reach:	Exca Consu Skip D CAT 22 feet	vation mat-Sa ay Mode Buck	Equipme nco I: et Capacity:	nt EL 300 2½ cubic y	vards
Depth (feet)	Groundwater		Soil Desc	ription			Excavation Effort	Boulder Count Qty.Class.	Note No.
1							Easy	2-A	1
2		Brown, fine Plastic, Par	to medium SAN ber.	D, trace Gra	vel, trace				2
3		3'						6-A	
4		Gray-brown Silt, trace C	, fine to coarse S obbles.	SAND and G	ravei, little			ļ	
5		Root layer (old ground surfa	<u>ce).</u>				2-A	
6									3
7	• 	Brown, fine	to medium SANI	D, trace Silt.			P+-+		
		7.5'					┠╼╼╼╍╁╌┅╼┅┤ ┥		4, 5
8		Bottom of 1	est Pit at 7.5.						
9								 	
10									
11									
12									
13									
14									
15									
16									
Notes:				<u> </u>			Test I	Pit Plan	
1. Soil Vac	samples were s Microtin Model	creened for volatile of MP-100 organic van	organic compoun	ds (VOCs) u vith a 10.0 e	ising a Photo V lamp		← ;	20' →	
calit	prated to an isob	outylene standard. Ty	pical detection li	mit is .5 ppn	n. "ND"	1		5'	
2. 8 pp	m OVM reading	at 2'.					L		
3. ND 4. Soil	OVM reading at samples S-2, S-	6'. -6 and Grab-5 obtain	ed from depths o	of 2', 6', and	6-7'.		N T.		
5. Slight perched water seepage observed at 4'-5'.						<u> </u>	N(urtfi 	
BO RANGE C	ULDER SIZE LASSIFICATION 6"-18"	PROP Trace	ORTIONS US 0–10%	ED %		EXCAVATI E M	ION EFFORT Easy Moderate		
~ /"	6"-18" A Little 10-20% 18"-36" B Some 20-35%						D	Difficult	
20.	and larger	C	And	30-50	/0				

1003\testpt27.drp

SANBOR 125 North Engineer	SANBORN, HEAD & ASSOCIATES, INC.Project No.1003125 North State Street, Concord, NH03301Description:ConsumateEngineer:Dennis R. PorterLocation:Bethlehere						Fest Pit Ground	No. Elev	: vation:	TP-2	28
Date: Weather: Start Tim Finish Ti	10/20/ Partial ie: 0940 me: 1000	93 ly cloudy, 40° – 60°		Contractor Operator: Make: Reach:	Excar Consur Skip D CAT 22 feet	v ation mat-Sar ay Mode Bucke	Equip nco l: et Capaci	mei ty:	EL 300 2½ cu) bic ya	ards
Depth (feet)	Groundwater		Soil Desc	ription			Excavat Effor	tion t	Bould Cour Qty.Cl	ler 1t ass.	Note No.
1		Gray, fine to	coarse SAND,	some Grave	l, some Silt,		Easy	/	3-A 		1
2		2.5'	c, Paper.								2
3		3' Dark brown	, fine to coarse S	AND and G	ravel, some Sil	lt,			·		
4		little Roots	old ground surfa	<u>ce).</u>					6-A		
5		_							[_		
6		Gray, fine to little Cobble	o coarse SAND a s.	IND GRAVE	., little Silt,						3
7											
8											
9		9' Battam of T	oot Dit at O'				ļ <u></u>		<u></u>		4, 5
10		Bottom of T									
11											
12											
13			•								
14							 -				
15											
16			<u>-</u> <u>-</u> <u>-</u> -				L			<u> </u>	
Notes: 1. Soil Vac calib indic 2. 2 pp 3. ND 4. Soil 5. No c	samples were s Microtip Model prated to an isot ates not detected m OVM reading OVM reading at samples S-2 ar groundwater end	organic compoun or meter (OVM) v pical detection li depths of 2' and	ds (VOCs) i with a 10.0 e mit is .5 ppr 6'.	using a Photo V lamp n. "ND"		Te	st H	Pit Pla $18' \rightarrow$ orth	n ↓ 5' ↑		
BOULDER SIZECOUNT:PROPORTIONS USEDRANGE CLASSIFICATIONLetter DesignationTrace0-10%6"-18"ALittle10-20%18"-36"BSome20-35%36" and largerCAnd35-50%					SED % 0% 5% 0%		EXCA E M D	VAT	ION EFF(Easy Mod Diff	ORT jerate icult	

1003\testpt28.drp

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SANBO 125 North	RN, HEAD &	ASSOCIATES, IN cord, NH 03301	C. Project Description	No. 1003 on: Cons	sumat-Sanco L	L.F. Test Pit No.: TP-29 Ground Elevation:			
Enginee			Location:	Beth	Exca	vation	Equina E	ievation:	<u> </u>
Date:	10/20/	93		Contractor	r: Consu	mat-Sa	nco		
Weather	: Partial	ly cloudy, 40° – 60°		Operator:	Skip D	ay			
Start Tin	ne: 0835			Make: Reach:	CAT 22 feet	Bucke	el: et Capacity	EL 300	ards
Depth							Execution	. Erz oubic j	Nota
(feet)	Groundwater		Soil Desc	ription			Effort	Count Qty.Class.	No.
1							M	10-A	1
2									2
3		Gray-brown some Cobb	fine to coarse S les trace Silt.	AND and G	RAVEL,		 -		†
<u>_</u>	+			 +		*			
 5	+	Gray fine to trace Silt	coarse SAND a	nd GRAVEL	, trace Cobble	5 5	<u>+</u>	2-A	+ -
									3
	+								†
 8							} - }		+ -
<u>`</u> 9		9'							4.5
10		Bottom of T	est Pit at 9'.						+
 11								••••	<u>+</u>
 12	·								†-
<u>13</u>									+-
									+-
									+
								-+	+
Notes	<u></u>		**************************************	<u></u>	<u></u>		L Test	t Pit Plan	<u> </u>
1. Soil	samples were s	creened for volatile	organic compoun	ids (VOCs) i	using a Photo			19' _↓↓	
vac calil	brated to an isot	MP-100 organic vap outylene standard. Τι	or meter (UVM) v pical detection li	mit is .5 ppr	n, "ND"				
indi	cates not detect	ed.	-					ɔ'	:
2. ND 3. ND	OVM reading at OVM reading at	2. 6'.						\sim	
 Soil samples S-2 and S-6 obtained from depths of 2's No groundwater encountered. 				6'.				North	
BOULDER SIZE COUNT: PROI				PROPORTIONS USED EXCAVATION E			ATION EFFORT		
RANGE C	CLASSIFICATION	Letter Designation	Trace	0-10	% 0%		E M	Easy	
	6"-18" A Little 10-20% 18"-36" B Some 20-35%						D	Difficult	
36'	18"-36" B Some 20-35% 36" and larger C And 35-50%						_		

1003\testpt29.drp

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SANBOR	RN, HEAD &	ASSOCIATES, IN	C. Project	No. 100	3 current Sense L	_	Fost Dit No.	. тр.	20
Engineer	r: Dennis	R. Porter	Location:	Beth	nlehem, NH	.г. I	Ground Elev	ation:	30
Date: Weather: Start Tim Finish Tiu	10/20/ Partial ne: 0818 me: 0830	93 Iy cloudy, 40° – 60°		Contracto Operator: Make: Reach:	Excav or: Consu Skip D CAT 22 feet	w ation mat-Sar ay Mode Bucke	Equipments and the second seco	EL 300 2½ cubic y	ards
Depth (feet)	Groundwater		Soil Desc	ription			Excavation Effort	Boulder Count Qty.Class.	Note No.
1							M 	4-A	1
2			Gray, fine t lit	o coarse S/ tle Gravel, I	AND, little Silt, trace Cobbles				2
3		Boulder							
					(Ве (oulder		 1_Δ	
6					Ì.	~ .,	+		3
7		and the second sec				<u> </u>			
8		8'						•	4, 5
9		Bottom of te	est pit at 8'.						
10									
11									
12									
13									
14									·
15									
16				<u></u>					
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. 18 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'. Nor							Pit Plan $18' \rightarrow \downarrow$ 5' \uparrow orth		
BO RANGE C 36"	ULDER SIZE LASSIFICATION 6"-18" 18"-36" ' and larger	COUNT: Letter Designation A B C	PRO Trace Little Some And	PORTIONS U 0-1(10-2 20-3 35-5	SED 0% 20% 35% 50%		EXCAVAT E M D	ION EFFORT Easy Moderate Difficult	

1003\testpt30.drp

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SANBOI	RN, HEAD &	ASSOCIATES, IN	C. Project	Project No. 1003 Description: Consumat-Sanco L.F.				it No			21
Engineer	r: Dennis	R. Porter	Location:	Beth	ehem, NH		Ground	d Elev	vation	:	
Date: Weather: Start Tin Finish Tiu	10/20/ Partial ne: 0755 me: 0815	93 ly cloudy, 40° – 60°		Contractor Operator: Make: Reach:	Exca Consu Skip D CAT 22 feet	vation mat-Sa ay Mode Bucke	Equi nco el: et Capa	ipme	nt EL 3 2½ c	00 subic y	ards
Depth (feet)	Groundwater		Soil Desc	ription	· · · · · ·	-	Excav Eff	vation fort	Bou Co Qty.(lder unt Class.	Note No.
1			G	round Surfac	жę		Ea	isy	3-	-A	1
2		Brown, fine medium SA	to ND, some						4-	A	2
3		Gravel, som	ne Silt, little Root	S					()	
4		_ 3.5					 				
5		Gray, fine to	o medium SAND, layers of S	, trace Silt; s ilt throughou	tratified 2-6' th t.	ick				- -	
6											3
7											
8		8'						/		,	4,.5
9		Bottom of te	est pit at 8'.								
10							 				
11									- -		
12							 				
13											
14							- -				
15											
16							<u> </u>				
Notes: 1. Soil Vac calit indic 2. ND 3. ND 4. Soil 5. No g	samples were s Microtip Model prated to an isob cates not detecte OVM reading at OVM reading at samples S-2 an groundwater end	creened for volatile of MP-100 organic vapo utylene standard. Ty ed. 2'. 6'. 6'. d S-6 obtained from countered.	organic compoun or meter (OVM) v pical detection li depths of 2' and	ds (VOCs) u vith a 10.0 e mit is .5 ppm 6'.	ising a Photo V lamp a. "ND"]	ſest I ↓← 	Pit Pl 18' -	an →↓ 5'	
BOULDER SIZE COUNT: PROPORTION RANGE CLASSIFICATION Letter Designation Trace 6"-18" A Little 18"-36" B Some 36" and larger C And					ED % % % %		EXC E M D	CAVAT	ION EF Ea M Di	FORT Isy oderate fficult	

1003\testpt31.drp

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SANBOI	RN, HEAD &	Associates, In	3			÷			
125 North Enginee	State Street, Con	cord, NH 03301 R Porter	Description	on: Con Roth	sumat-Sanco L	F.	Test Pit No.	.: TP-	32
				Бен]			Fauimme		
Date: Weather: Start Tin Finish Ti	10/20/ Partial ne: 1340 ime: 1400	93 ly cloudy, 40° – 60°		Contracto Operator: Make: Reach:	r: Consu Skip D CAT 22 feet	mat-Sar Day Mode Bucke	nco l: et Capacity:	EL 300 2½ cubic y	vards
Depth (fect)	Groundwater		Soil Desc	ription			Excavation Effort	Boulder Count Qty.Class.	Note No.
1							Easy	2-A	1
2		Brown-gray	, fine to coarse S	SAND and (Gravel, trace Si	lt.			2
3								* +	
4		4*			<u> </u>	*			
- 5		Gray, fine t	o coarse SAND,	trace Grave	I, trace Silt.			<u> </u>	† '
6				•				o	3
' 8							}	tt	
<u>-</u>		Q'					<u>}</u>	+ <u></u>	4 5
 10		Bottom of T	est Pit at 9'.				+		
									•
12									
14									
10									
Notes:	<u>L</u>					<u></u>	L Test]	L Pit Plan	<u></u>
1. Soil Vac calit indio	samples were s Microtip Model prated to an isob cates not detecte	creened for volatile MP-100 organic vap putylène standard. Ty ed.	ids (VOCs) with a 10.0 mit is .5 pp	using a Photo eV lamp m. "ND"		<u></u>	20' → ↓ 5'		
2. 2 pr 3. 2 pr 4. Soil 5. No (om OVM reading samples S-2 an groundwater end	depths of 2' and	6'.			N	↑ orth		
BO RANGE C	ULDER SIZE LASSIFICATION 6"-18" 18"-36"	COUNT: Letter Designation A B	PROF Trace Little Some	PORTIONS U 0-1(10-2 20-3	SED)% 20% 35%		EXCAVAT E M D	TON EFFORT Easy Moderate Difficult	
36'	and larger	С	50%	1					

1003\testpt32.drp

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SANBOI 125 North Engineer	RN, HEAD & State Street, Con r: Dennis	ASSOCIATES, IN cord, NH 03301 R. Porter	C. Project Descripti Location:	No. 1003 on: Cons Beth	sumat-Sanco L lehem, NH	.F. 7	Test P Groun	it No. d Elev	: vation:	TP-:	33
Date: Weather: Start Tim Finish Tin	10/20/ Partial ne: 1245 me: 1300	93 Iy cloudy, 40° 60°		Contractor Operator: Make: Reach:	Excav Consu Skip D CAT 22 feet	wation mat-San lay Mode Bucke	Equi nco el: et Capa	ipme acity:	nt EL 30 2½ ci)0 ubic y	ards
Depth (feet)	Groundwater		Soil Desc	ription			Excav Efi	vation fort	Boul Cou Qty.C	der int lass.	Note No.
1							[[E 1	1-4	Α.	1
2		Gray, fine to	o coarse SAND,	some Silt, li	ttle Gravel, trac	e.		[2
3			Cobbles.								
4											
5											
6											3
7											
8		8'					ļ	ļ 	ļ		4, 5
9		Bottom of te	est pit at 8'.				L				
10											
11											
12											
13							 				
14											
15											
16			· • • • • • •	·					L		
Notes: 1. Soil Vac caliti indic 2. 2 pr 3. 2 pr 4. Soil 5. No	samples were s Microtip Model prated to an isot cates not detect om OVM reading samples S-2 ar groundwater end	screened for volatile of MP-100 organic vap- butylene standard. Ty ed. g at 2'. g at 2'. g at 6'. nd S-6 obtained from countered.	organic compour or meter (OVM) v pical detection li depths of 2' and	ids (VOCs) i with a 10.0 e mit is .5 ppr 6'.	using a Photo V lamp n. "ND"]	Fest 〕 └← N	Pit Pla 20' – orth	an → ↓ 5' ↑	
BOULDER SIZECOUNT:PROPORTIONS USEDRANGE CLASSIFICATIONLetter DesignationTrace0-10%6"-18"ALittle10-20%18"-36"BSome20-35%36" and largerCAnd35-50%							EXC E M D	CAVAT	ION EFF Eas Mo Dif	FORT sy oderate fficuit	

1003\testpt33.drp

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SANBORN, HEAD & ASSOCIATES, INC. 1 125 North State Street, Concord, NH 03301				oject No. 1003 scription: Consumat-Sanco L.F.					Test Pit No.: TP-34				
Enginee	r: Dennis	R. Porter	Location:	Beth	lehem, NH	Ground Elevation:							
Date: Weather: Start Tin Finish Ti	10/20/ Partial ne: 1305 ime: 1315	93 ly cloudy, 40° – 60°		Contractor Operator: Make: Reach:	Exca Consu Skip D CAT 22 feet	vation mat-Sa bay Mode Bucke	Equij nco el: et Capac	pmei city:	nt EL 300 2½ cubic	yards			
Depth (feet)	Groundwater		Soil Desc	ription			Excava Effo	ation ort	Boulder Count Qty.Class.	Note No.			
1							Eas	sy	3-A	1			
2							[]		_	2			
3									1-A	+			
	 -		Gray-brown, fi	ne to coarse	SAND, some	Silt,	+·			+			
										+			
5							h+•			+			
										<u>-</u>			
										+			
8							+-			+			
9		9' Bottom of T	est Pit at 9'.				<u> </u>			4, 5			
10										+			
11													
12							 		*	+			
13							- -			_			
14													
15													
16													
Notes:	samples were s	creened for volatile		nds (VOCs) i	using a Photo		<u> </u>	est I	Pit Plan	<u>_</u>			
 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'. 					V lamp n. "ND"			< ·	18' → ↓ 5'				
3. 4 pp 4. Soil 5. No g	om OVM reading samples S-2, S groundwater end) at 6'. -6 and Grab S-1 obt countered	ained from depth	s of 2', 6', ai	nd 6'.			N	orth				
BO RANGE C	ULDER SIZE LASSIFICATION 6"-18"	COUNT: Letter Designation A	PROF Trace Little	PORTIONS US 0-10 10-20	ED %)%		EXCA E M	AVAT	ION EFFORT Easy Moderate				
36"	18"-36" and larger	B C	Some And	203: 355	5%)%		D		Difficult				

1003\testpt34.drp

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SANBORN, HEAD & ASSOCIATES, INC.Project No.1003125 North State Street, Concord, NH 03301Description:ConsuEngineer:Dennis R. PorterLocation:Bethle					umat-Sanco L. ehem, NH	.F. [Test Pit No Ground Ele	o.: TP-	35
Date: Weather: Start Tim Finish Ti	10/20/ Partia ne: 1320 ime: 1335		Contractor Operator: Make: Reach:	Excav Consur Skip D CAT 22 feet	w ation mat-Sar ay Mode Bucke	Equipme nco 1: et Capacity:	EL 300 2½ cubic y	vards	
Depth (feet)	Groundwater		Soil Desc	ription	Boulder Count Qty.Class.	Note No.			
1		0.5'_ Dark brown 1' material. TC	n, fine to medium	Sand_and_S	<u>ilt, little organi</u>	<u> </u>	Easy	1-A	1
2		Brown, fine	to medium SAN	D, some Silt	trace Gravel.		<u>+</u>	+	2
3								+	+ -
							 	+	<u>+</u>
		Crow brown	fina ta pageo 6		Sond		 	+ <u>×</u>	
5		little Gravel	, fine to coarse a	SAND, SUITE	Sanu,			╋╍╍┥	 -
6						·		+	3
7							<u> </u>	+	
8						-	+ -	+	4, 5
9								+	 _
10		10' Bottom of T	est Pit at 10'.					+	_
11								 	
12								+	
13							_	+	
14								_	
15									
16									
Notes:						Γ	Test	Pit Plan	
1. Soil Vac calit indic	samples were a Microtip Model prated to an isol cates not detect	screened for volatile MP-100 organic vap butylene standard. Ty ed.	organic compoun or meter (OVM) v vpical detection li	ids (VOCs) t with a 10.0 e mit is .5 ppn	using a Photo V lamp n. "ND"		<i>←</i>	19' → ↓ 5'	
2. 4 pp 3. 3.5	 4 ppm OVM reading at 2'. 3.5 ppm OVM reading at 6'. 							↑	
4. Soil 5. No 9	samples S-2 ar groundwater en	nd S-6 obtained from countered	depths of 2' and	6'.			N	lorth	
BO RANGE C	ULDER SIZE LASSIFICATION 6"-18"	COUNT: Letter Designation A	PROI Trace Little	PORTIONS US 0-10 10-20	ED %)%		EXCAVA E M	FION EFFORT Easy Moderate	
36'	18"-36" and larger	B C	Some And	20-3: 35-5	5%)%		D	Difficult	

1003\testpt35.drp

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SANBOI 125 North Enginee	RN, HEAD & State Street, Con r: Dennis	C. Project Description	No. 1003 ion: Consumat-Sanco L.F. Test Pit No.: TP-36 Bothlehem NH Ground Elevation:						36		
Date:	10/20/9 Rotici	Contracto	Excar Consu	vation mat-Sai	Equip	ome	nt	•			
Start Tin Finish Ti	ne: 1450 ime: 1510	y cloudy, 40 - 60		Make: Reach:	CAT · 22 feet	Model: EL 300 t Bucket Capacity: 21/2 cubic				00 ubic y	ards
Depth (feet)	Groundwater		Soil Desc	escription Escavation Bo Effort C Qty					Boul Cou Qty.C	lder unt Class.	Note No
1		1' Brown, fine	to coarse SAND	and GRAV	EL, little Silt,		Eas	ÿ	5-	A	1
2		trace Organ	nic Material.						2-	A	2
3									C)	
4		Gray, fine to	o medium SAND	, some Silt,	trace Gravel.						
5											
6											3
7		7'					ļ		1		4, 5
8		Bottom of T	est Pit at 7'.								
9							[
10											
11											
12											
13											
14							P-				
15											
16											
Notes:	<u>L</u>						<u></u> T	est 1	Pit Pl	<u></u> an	
1. Soil Vac calil	samples were s Microtip Model prated to an isob	creened for volatile MP-100 organic vap outviene standard. Ty	organic compour or meter (OVM) v vpical detection li	ids (VOCs) with a 10.0 (mit is .5 ppr	using a Photo eV lamp n. "ND"			<u>←</u>	18' -	→ ↓ - _	
india 2 3 pr	cates not detecte	ed. Lat 2'		· r F .			L			5 [']	
3. 3 pr	om OVM reading	at 6'.	denths of 2' and	6'				_	>	T	
5. No	groundwater end	countered		· v.				N	orth		
BC RANGE C	DULDER SIZE CLASSIFICATION 6"-18"	COUNT: Letter Designation A	PROI Trace Little	PORTIONS U: 0-10 10-2	SED % 0%		EXCA E M	AVAT	ION EF Ea M	FORT isy odcrate	
36'	18"-36" ' and larger	B C	Some And	20-3 35-5	5% 0%		D		Di	tficult	

1003\testpt36.drp

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SANBORN, HEAD & ASSOCIATES, INC.Project No.1003125 North State Street, Concord, NH03301Description:Consumat-SEngineer:Dennis R. PorterLocation:Bethlehem,					sumat-Sanco L lehem, NH	.F. (Test P Groun	lit No. d Elev	.: T vation:	P-37
Date:10/20/93E:Weather:Partially cloudy, 40° - 60°Operator:Contractor:						vation mat-Sa ay	Equ nco	ipme	nt	
Finish Ti	ne: 1515			Reach:	22 feet	Buck	et Cap	acity:	21/2 cubi	c yards
Depth (feet)	Groundwater		Soil Desc	Soil Description					Bouide Count Qty.Clas	Note No. s.
1		Gray-brown tra	, fine to coarse S ce Cobbles.	AND, some	Silt, some Gra	vel,		E	3-A	1
2		1.5			================		-{		0	2
3		Gray-browr	h, fine to medium	SAND, som	e Silt.					
4										
5										
6						•				3
7										
8		8'				م حنہ سے سے چپ سے خا		 	ļ	4, 5
9		Bottom of t	est pit at 8'.							
10									 	
11										
12										
13										
14							 			
15										
16										
Notes:	· · · · · · · · · · · · · · · · · · ·	· · · · ·						Fest]	Pit Plan	
1. Soil Vac	samples were a Microtip Model	screened for volatile MP-100 organic vap	organic compoun or meter (OVM) v	ids (VOCs) เ with a 10.0 e	using a Photo V lamp				18' →	
calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.									:	5*
2. 2 pp	om OVM reading	; at 2'. 						L	··· ,	•
4. Soil 5. No d	 Soil samples S-2 and S-6 obtained from depths of 2' and 6'. No groundwater encountered. 							N	orth	
BC	ULDER SIZE	COUNT:	PROF	PORTIONS US	ED	<u>.</u>	EX	CAVAT	ION EFFOR	т
RANGE C	LASSIFICATION 6"-18"	Letter Designation A	Trace Little	0—10 ⁴ 1029	%)%		E M		Easy Mode	atc
36"	18"-36" ' and larger	B C	Some And	20–3: 35–50	5%)%		D		Diffic	ılt

1003\testpt37.drp

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SANBOI	RN, HEAD &	Associates, Inc	Project	No. 1003	3			Ŧ		
Engineer: Dennis R. Porter Locat				on: Consumat-Sanco L.F. Test Pit No.: TP-38 : Bethlehem, NH Ground Elevation:						
Date: 10/20/93 Exca Contractor: Consu						vation mat-Sa	Equipr	nent		
Start Tin Finish Ti	ne: 1540 me: 1600	ny ciolody, 40° – 60		Make: Reach:	CAT · 22 feet	Mode Buck	l: et Capacit	Е у: 2	EL 300 2½ cubic yar	
Depth (feet)	Groundwater		Soil Description						Boulder Note Count No. Qty.Class.	
1							E		3-A	1
2		Gray, fine to	coarse SAND, strace Orga	some Silt, li nics.	ttle Gravel,		_			2
3		3' Root layer (o	old ground surfa	ce).					Ļ	
4									2-A	
5		Gray, fine to	coarse SAND,	some Silt, li	ttle Gravel.					
6									ļ	3
7		7'							0	
8		Gray, fine to	medium SAND,	, trace Silt.						
9										
10		10'				_	ļ		ļ	4, 5
11										
12			Bottom of	Test Pit at 1	1.5'.					
13										
14										
15										
16							L			
Notes:	<u></u>						Tes	t Pit	Plan	
 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 							÷	- 20'	→↓↓	
calibrated to an isobutylene standard. Typical detection limit is .5 ppm. "ND" indicates not detected.									5'	
 3 ppm OVM reading at 2'. 3 ppm OVM reading at 6'. 									↑	
4. Soil 5. No g	samples S-2 ar groundwater end	nd S-6 obtained from (countered.	depths of 2' and	6'.				Nort	th	
BO RANGE C	ULDER SIZE LASSIFICATION 6"-18"	COUNT: Letter Designation	PROF Trace Little	PORTIONS US 0-10 10-2	SED % 0%		EXCAV E M	ATION	N EFFORT Easy Moderate	
36"	18"36" ' and larger	B C	Some	20–3 35–5	5% 0%		D		Difficult	-

1003\testpt38.drp

Appendix C Analytical Laboratory Data 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 Soil	Comp S2A Soil	Comp S3 (Soil	Comp S3A Soil	TP-1 Soil	
Matrix:	10/22/03	10/22/93	10/22/93	10/22/93	10/22/93	10/22/93	10/22/93	
Date of Analysis:	10/22/93	10/22/00 ug/kg	<u>ца/ka</u>	μg/kg	μg/kg	μg/kg	μg/kg	EPA
Units:	μ <u>γ</u> /γg	NZ	NZ	ŇŽ	ŇŽ	NZ	NZ	Method
Analyst:	NZ							
Ot to see athene	< 100	< 100	< 100	< 100	< 100	< 100	< 100	8240
Chloromethane	< 100	< 100	< 100	< 100	< 100	< 100	< 100	8240
Bromometriane	< 100	< 100	< 100	< 100	< 100	< 100	< 100	8240
	< 100	< 100	< 100	< 100	< 100	< 100	< 100	8240
Chloroethane Mathulana Chlorida	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
Methylene Chionde	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
1,1-Dichloroethene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
1,1-Dichioroethane	< 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
Chlorotorm	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
1,2-Dichloroethane	< 10							
	< 10	~ 10	< 10	< 10	< 10	< 10	< 10	8240
1,1,1-Trichloroethane	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8240
Carbon Tetrachioride	< 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	8240
Trichloroethene	< 10	~ 10	< 10	< 10	< 10	< 10	< 10	8240
Dibromochloromethane	< 10	1 < 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	8240
2-Chloroethylvinylether	< 10) < 10	< 10	~ 10	< 10	< 10	< 10	8240
Bromoform	< 10) < 10		~ 10	< 10	< 10	< 10	8240
Tetrachloroethene	< 10) <10		, < 10 , < 10	< 10	< 10	< 10	8240
1,1,2,2-Tetrachloroethane	< 10) <10		,				
	. 500	- 500	~ 500	< 500	< 500	< 500	< 500	8240
Acetone	< 500) < 500		~ 100	< 100	< 100	< 100	8240
2-Butanone (MEK)	< 100			~ 100	< 100	< 100	< 100	8240
Vinyl Acetate	< 100	> < 100	> < 100	~ 100	< 100	< 100	< 100	8240
4-Methyl-2-Pentanone (MIBK)	< 100	J < 100	> < 100	~ 100	< 100	< 100	< 100	8240
2-Hexanone	< 100) <100				,		
		0 - 10	<u>ا ب ا</u>	ר <u>כ</u> ונ) < 10) < 10	< 10	8240
Benzene	< 10	0 < 10	, < N } ∠ 10	r < 10) < 10	> < 10	< 10	8240
Toluene	< 10	0 < 10	, ⊂ N N ∠ 1/	10	\sim) < 10	< 10	8240
Ethylbenzene	< 10		u ≤ 10 N → 10) < 10	< 10	8240
Total Xylenes	< 1	U < 10	ا ⊂ ان			~ 10	> < 10	8240
Chlorobenzene	< 1	U < 10	יו א ע	0 - 10		~ 10	< 10	8240
Styrene	< 1	0 < 10	U < 1	0 < 10				

LABORATORY REPORT

Eastern Analytical, Inc. ID#: 7104* SHA

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

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

Page 2 of 2

Sample ID: TP-10 TP-13 TP-22 TP-27 TP-34 Stockpile Matrix: 10/22/93 NZ MZ MAtrix Analyst: NZ NZ NZ NZ NZ MX MAtrix MAtrix MZ MAtrix MAtrix MAtrix NZ MAtrix MAtrix NZ MZ MAtrix MZ MZ MX MX <t< th=""><th>Haz</th><th>ardous</th><th>Subs</th><th>tance List</th><th>Volatile</th><th>Organic</th><th>Compound</th><th>is</th><th>Page 2 of 2</th></t<>	Haz	ardous	Subs	tance List	Volatile	Organic	Compound	is	Page 2 of 2	
Sample ID: TP-10 TP-13 TP-22 TP-27 TP-34 Slockple Matrix: Soil Analysi: NZ NZ NZ NZ NZ NZ NZ Matrix: NZ										
Sample ID. Soil Soil 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 NZ NZ MZ Analyst: NZ NZ NZ NZ NZ MZ MZ MZ MZ MZ MZ MEthod Chioromethane <100	o IDi	-	TP-10	TP-13	TP-22	TP-27	TP-34	Stockpile		
Matrix: 10/22/93	Sample ID:		Soil	Soil	Soil	Soil	Soil	Soil		
Date of Anarysis. mg/kg	Matrix:	10/3	22/93	10/22/93	10/22/93	10/22/93	10/22/93	10/22/93	ED 4	
Units: NZ NZ <th< td=""><td>Date of Analysis:</td><td>10/1</td><td>uo/ka</td><td>ua/ka</td><td>μg/kg</td><td>μg/kg</td><td>μg/kg</td><td>μg/kg</td><td>EPA</td></th<>	Date of Analysis:	10/1	uo/ka	ua/ka	μg/kg	μg/kg	μg/kg	μg/kg	EPA	
Analyst:			NZ	ŇŽ	NZ	NZ	NZ	NZ	Méthoa	
	Analyst:						. – •		0040	
$ \begin{array}{c} \text{Chindmatrix} & \text{Chindmatrix} $	Oblessmethene		< 100	< 100	< 100	< 100	< 100	< 100	0240	
Broinformation Clob Clo Clob Clob	Chioromethane		< 100	< 100	< 100	< 100	< 100	< 100	9240	
With Chloride < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100	View Chloride		< 100	< 100	< 100	< 100	~ 100	< 100	8240	
Chilotenarie < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 240 1.1-Dichloroethane < 10	Chloroothane		< 100	< 100	< 100	< 100	< 100	< 100	8240	
	Mothylono Chloride		< 10	< 10	< 10	< 10	< 10	< 10	8240	
	Carbon Disulfide		< 10	< 10	< 10	< 10	< 10	< 10	8240	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			< 10	< 10	< 10	< 10	< 10	< 10	8240	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1,1-Dichloroothana		< 10	< 10	< 10	< 10	< 10	< 10	8240	
Harls 1, 2-Dichloroethane <10	Trans 1.2 Dichloroethene		< 10	< 10	< 10	< 10	< 10	< 10	8240	
Cls-1,2-Dichloroethane < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 1	Cia 1.2 Dichloroethene		< 10	< 10	< 10	< 10	< 10	< 10	9240	
$\begin{array}{cccc} Choronn \\ 1,2-Dichloropethane \\ 1,2-Dichloropethane \\ 1,1-Trichloroethane \\ Carbon Tetrachloride \\ Carbon Tetrachloropethane \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 \\ < 10 $	Cls-1,2-Dichlordeniche		< 10	< 10	< 10	< 10	. < 10	< 10	8240	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			< 10	< 10	< 10	< 10	< 10	< 10	0240	
1,1,1-Trichloroethane < 10	1,2-Dichloroemane							. 10	8240	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	t 1 1 Trichloroethana		< 10	< 10	< 10	< 10	< 10	< 10	9240	
Calcolin Fermionic < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 <th 10<="" <="" t<="" td=""><td>Corbon Tetrachloride</td><td></td><td>< 10</td><td>< 10</td><td>< 10</td><td>< 10</td><td>< 10</td><td>< 10</td><td>8240</td></th>	<td>Corbon Tetrachloride</td> <td></td> <td>< 10</td> <td>< 10</td> <td>< 10</td> <td>< 10</td> <td>< 10</td> <td>< 10</td> <td>8240</td>	Corbon Tetrachloride		< 10	< 10	< 10	< 10	< 10	< 10	8240
Biolindulation < 10	Bromodichloromethane		< 10	< 10	< 10	< 10	< 10	< 10	9240	
1,2-Dichloropropene < 10	1.2 Dichloropropage		< 10	< 10	< 10	< 10	< 10	< 10	8240	
Trichlorophopene < 10	Trope 1.2-Dichloropropend	e	< 10	< 10	< 10	< 10	< 10	< 10	0240	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Trichloroethene	U	< 10	< 10	< 10	< 10	< 10	< 10	9240	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Dibromochloromethane		< 10	< 10	< 10	< 10	< 10	< 10	0240	
Cis-1,3-Dichloropropene <10	1 1 2 Trichloroethane		< 10	< 10	< 10	< 10	< 10	< 10	9240	
2-Chloroethylvinylether < 10	Cia-1 3-Dichloropropene		< 10	< 10	< 10	< 10	< 10	< 10	9240	
2-0110100000000000000000000000000000000	a Chloroethylyinylether		< 10	< 10	< 10	< 10	< 10	< 10	9240	
Binition Tetrachloroethene< 10< 10< 10< 10< 10< 10< 10< 210< 1082401,1,2,2-Tetrachloroethane< 10	2-Chloroennyrvinyrenier		< 10	. < 10	< 10	< 10	< 10	< 10	0240	
Tetrachloroethane< 10< 10< 10< 10< 10< 10< 10< 210< 210< 210< 210< 220Acetone< 500	Totrachloroethene		< 10	< 10	< 10	< 10	< 10	< 10) 0240	
Acetone < 500	1 1 2 2-Tetrachloroethan	A	< 10	< 10	< 10	< 10) < 10	< 10) 6240	
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Action of MEK) < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 100 < 240 4-Methyl-2-Pentanone < 100	Acetone		< 500	< 500	< 500	< 500) < 500	< 500	9 8240	
2-bitalistic (MER) < 100	2-Butanone (MEK)		< 100	< 100	< 100	< 100) < 100	< 100) 0240 B 8240	
4-Methyl-2-Pentanone (MIBK) < 100	Vinvi Acetate		< 100	< 100	< 100	< 100) < 100	< 100) 0240 5 8240	
2-Hexanone < 100	4-Methyl-2-Pentanone (N	IIBK)	< 100	< 100	< 100	< 100	> < 100	< 100	D 8240	
Benzene < 10	2-Hexanone		< 100	< 100	< 100	< 100) < 100	< 100	J 0240	
Benzene < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 210 < 210 < 240 Toluene < 10	2-110/01/01/0							- 11	n 8240	
Toluene < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 20 8240 Ethylbenzene < 10	Benzene		< 10	< 10	< 10	< 10) < 10	< 10	n 8240	
Ethylbenzene< 10< 10< 10< 10< 10< 10< 208240Total Xylenes< 10	Toluene	•	< 10	< 10	< 10	< 10	J < 10	< 11 - 11	n 8240	
Total Xylenes < 10 < 10 < 10 < 10 < 20 6240 Chlorobenzene < 10	Ethylbenzene		< 10	< 10	< 10	< 10	u < 10	< 1 . a.	n 8240	
Chlorobenzene < 10 < 10 < 10 < 10 < 20 6240 Styrene < 10	Total Xvienes		< 10	< 10	< 10	< 10	U < 10	2	0 9240	
Styrene <10 <10 <10 <10 <10 0240	Chlorobenzene		< 10	< 10	< 10	< 10	U < 10	< 1	0 8240	
JUVICINO -	Styrene		< 10	< 10	<mark>,</mark> < 10	< 10	u < 10	<u>د</u> ا	0 0210	