PHASE II ENVIRONMENTAL SITE ASSESSMENT

For the property known as:

Property Adjacent to Detrex Chemical State Road Extension Ashtabula, Ohio 44004

PREPARED FOR:

Ashtabula City Port Authority P.O. Box 768 Ashtabula, Ohio 44005

> PREPARED BY: RP Consultants, Inc. 7664 Tyler Boulevard Mentor, Ohio 44060 (440) 946-5888

> > RP-3625

August 17, 2009

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A. INTRODUCTION

RP Consultants, Inc. was hired by Ashtabula City Port Authority for the purpose of performing a Phase II Environmental Site Assessment on the property located adjacent to Detrex Chemical, State Road Extension, Ashtabula, Ohio 44004. The property is currently used for railroad tracks and a gravel access drive, and is located along State road immediately north of Detrex Chemical (see site map).

The primary goal of this investigation was to quantify the levels of volatile organic compounds (VOCs) and polynuclear aromatic hydrocarbons (PNAs), if any, that may exist as a result of the past use of the adjacent property as a chemical company.

All conclusions and findings are based upon this site assessment conducted by RP Consultants, Inc. We can provide no assurance that information obtained from others is accurate or complete. Furthermore, any change in site conditions after the date of the Phase II work is beyond the scope of this assessment. Accordingly, RP Consultants, Inc. cannot make any guarantees concerning future conditions. The client should also be aware that this report is not a guarantee or certification that the entire site and adjacent properties are free of contamination or hazardous materials, but rather it is an opinion based upon a limited site investigation.

B. SITE HISTORY AND PROPOSED PROPERTY USE

The property appears to have been part of a rail siding servicing two manufacturing plants located to the northwest and southeast of the siding. A review of aerial photographs and a topographic map suggests that the railroad siding has been in place for at lease several decades.

Currently, there are plans to install underground utilities along the railroad siding.

C. SOIL SAMPLING

A total of two soil samples were collected from three soil borings advanced on the subject property (see Site Map). The two soil samples were submitted for analysis. The borings were advanced with a GeoprobeTM 6600 Hydraulic Press Rig, which allowed for continuous sampling of the soils. The borings were advanced to depths of 8 to 12 feet and were halted when the probe was refused in hard clay.

The soil in each boring was visually examined, and detailed soil logs were constructed (see attached figures).

Overall, the pattern of sample location is such that it allowed for some general conclusions to be made regarding the extent of contamination (if any) that could exist as a result of the past use of the adjacent property as a chemical company.

Samples from each boring were collected on July 14, 2009 by Nils Widing of RP Consultants, Inc. Samples were taken at one to four foot intervals.

A new latex glove was used to collect each sample. The sample was divided between a plastic zip lock bag and a laboratory quality glass jar with a screw-on Teflon lined lid.

All sample jars were stored in a cooler with ice, and all sample bags were placed indoors and allowed to warm to room temperature. After approximately fifteen minutes at room temperature, the headspace in each bag was screened for volatile organic compounds (VOCs) with a photoionization detector with a 10.6 eV electrodeless ultraviolet discharge lamp and a TeflonTM/stainless steel chamber. Results of the field screening are listed on the soil boring logs in this report.

Prior to screening any samples, the PID was calibrated using 100 ppm isobutylene-in-air standard.

Soil samples with the highest field screening from two of the borings were transported under chain of custody procedures to Summit Environmental Technologies, Inc., 3310 Win Street, Cuyahoga Falls, Ohio 44223. A total of two soil samples were analyzed for the following:

(VOCs Method 8260)

(PNAs Method 8270)

D. LOCAL GEOLOGY/SOILS/HYDROGEOLOGY

Materials encountered during the investigation included limestone, gravel, sand, brick, black and brown silty clay, and black, brown, and gray clay.

Groundwater was not encountered during the boring activities, as the subsurface appeared to be dominated by clayey soils with the exception of some gravel and limestone fill near the surface along the railroad siding.

A review of ODNR Water Well Log Reports indicated that the soils near the subject property are dominated by clay, sand, and shale.

A review of the ODNR Groundwater Resources Map of Ashtabula County indicated that the subject property lies in an area containing clay and sandy clay, less than 30 feet thick, overlying shale. Many wells are dry and this provides a poor area for developing domestic supplies. The information listed on the ODNR map correlated well with observations of soils in the field.

E. RESULTS OF ANALYSES

Results of the soil analyses are listed in the Analytical Results found at the end of this report. The samples were analyzed for VOCs and PNAs. Results were compared to State of Ohio Voluntary Action Program (VAP) generic direct contact

standards for industrial property. These levels are used as a guidepost, as they represent standards that need to be met when sites are undergoing voluntary corrective action.

SB1: This boring was advanced on the east side of State Road north of the railroad tracks (see site map for boring locations). Limestone and gravel were present from ground level to a depth of 2 feet. At 3 feet, black and brown silty clay was encountered. From 3 to 5 feet, brown clay was encountered. From 5 to 6 feet, brown and black clay were encountered. From 7 to 8 feet, wet black clay was encountered. A sample was secured at 7 feet and submitted for laboratory analysis. No staining or odors were encountered during boring activities. No VOCs or PNAs were detected in the sample.

SB2: This boring was advanced on the west side of State Road north of the railroad tracks. Gravel and sand were present from ground level to a depth of 1 foot. From 1 to 2 feet, brick, brown clay, and limestone were encountered. From 2 to 6 feet, brown clay was encountered. From 6 to 9 feet, grayish clay was encountered, including wet clay at 6 to 7 feet. From 9 to 11 feet, gray/brown clay was encountered. At 12 feet, brown clay was encountered. A sample was secured at 6 feet and submitted for laboratory analysis. No staining or odors were encountered during the advancement of boring. No VOCs or PNAs were detected in the sample.

SB3: This boring was advanced on the west side of State Road north of the railroad tracks approximately 50 feet west of SB2. Brown silty clay was present from ground level to a depth of 1 foot. From 1 to 9 feet, brown clay was encountered. From 9 to 10 feet, moist gray/brown clay was encountered. From 10 to 11 feet, brown clay was encountered. No staining or odors were encountered during the advancement of this boring. A sample was not submitted from this boring location.

F. CONCLUSIONS / TECHNICAL SUMMARY

Materials encountered during the investigation included

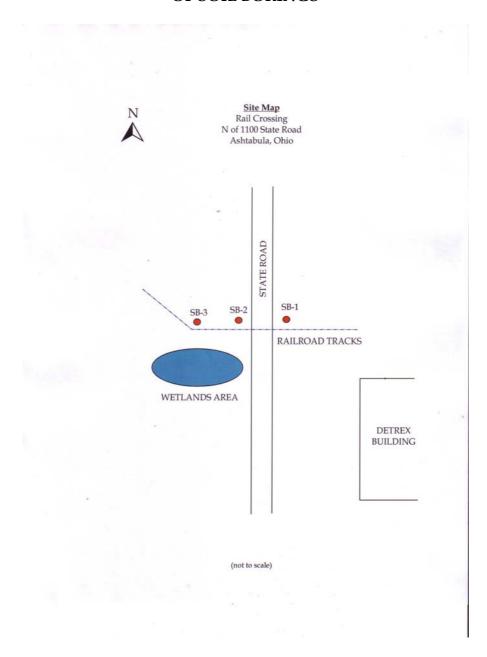
limestone, gravel, sand, brick, black and brown silty clay, and black, brown, and gray clay extending to depths of 8 to 12 feet.

- No groundwater was encountered in the borings, however, the clay at 7-8 feet in SB1 was wet. No staining or odorous soils were encountered during advancement of the borings.
- Soil samples were collected from various depths in all three soil borings. The samples were screened with a PID, and two samples (one from boring SB1 to the east of State Road and one from boring SB2 to the west of State Road) were analyzed for Volatile Organic Compounds (VOCs) and Polynuclear Aromatic Hydrocarbons (PNAs).
- No VOCS or PNAs were detected in either of the two borings.
- The lack of VOCs and PNAs in the borings, as well as the lack of odors and staining, suggests that the adjacent property does not appear to be affecting the subject property.
- Based upon the above information, RP Consultants, Inc.
 concludes that there is no evidence to suggest that past use
 of the adjacent property has led to contamination in soils
 on the subject property in levels that would constitute a
 reportable and/or actionable release.

Sincerely

Patrick Duncan Geologist

FIGURE 1: SITE MAP SHOWING SAMPLE LOCATIONS OF SOIL BORINGS



SOIL BORING/PID LOGS FOR SUBJECT PROPERTY

R	P	P Consultants, Inc.				BORING NUMBER PAGE	SB- 1 OF
LIE	NT Ashta	abula City Port Authori	ty			PROJECT NAME Property Adjacent to Detrex Corporation	
RO.	JECT NUM	MBER RP-3625				PROJECT LOCATION State Road Extension	
ATE	STARTE	D _7/14/09	co	MPLE	TED 7/14/09	GROUND ELEVATION HOLE SIZE	
RIL	LING CON	TRACTOR Summit				GROUND WATER LEVELS:	
RIL	LING MET	HOD Geoprobe				AT TIME OF DRILLING	
OGO	GED BY	Pat Duncan	СН	ECKE	BY Pat Duncan	AT END OF DRILLING	
OTE	S	V				AFTER DRILLING	
(E)	SAMPLE TYPE NUMBER	REMARKS	U.S.C.S.	GRAPHIC		MATERIAL DESCRIPTION	(moo) Cld
			GM		Limestone and	Gravel	
	∯ GB				2.0 Black and Brow	n Silty Clay	(
			CL		3.0		
	⊕ GB		СН		Brown Clay 4.0		
	₿ GB		СН		Brown Clay		- (
5	₿ GB	ä	СН		5.0 Brown and Blac	k Clay	-
	₿ GB		СН		Brown and Blac	k Clay	- (
33	∯ GB	Sample sent to the laboratory for analysis	СН			Lab Sample S1 7 Ft.	
		analysis		27777	0.0	Bottom of hole at 8.0 feet.	

PRO	STARTE		co	MPLE	FED _7/14/09	PROJECT NAME Property Adjacent to Detrex Corporation PROJECT LOCATION State Road Extension GROUND ELEVATION HOLE SIZE			
DRILI	ING MET	TRACTOR Summit HOD Geoprobe Pat Duncan		ECKE	DBY Pat Duncan	GROUND WATER LEVELS: AT TIME OF DRILLING AT END OF DRILLING AFTER DRILLING			
O DEPTH	SAMPLE TYPE NUMBER	REMARKS	U.S.C.S.	GRAPHIC		MATERIAL DESCRIPTION	PID (ppm)		
			GM	:00	Gravel Sand				
-	₿ GB		СН		Brick, Brown Cl	ay, Limestone	0		
	₫ GB		СН		2.0 Brown Clay		0		
1	∯ GB		СН		3.0 Brown Clay		0		
5	Ğ GB		СН		Brown Clay		0		
8	∯ GB	Sample sent to the laboratory for	СН			ab Sample S2 6 Ft.	0		
	₫ GB	analysis	СН		7.0 Greyish Clay		0		
	∯ GB		СН		8.0 Greyish Clay		0		
10	⊕ GB		СН		9.0 Gray/Brown Cla	у	0		
	₫ GB		СН		11.0 Brown Clay		0		
	₫ GB		-		12.0	Bottom of hole at 12.0 feet.	0		

IXI			ats, inc.		BER SB-3 PAGE 1 OF				
			ort Authority	PROJECT NAME Property Adjacent to Detrex Corporation					
ROJECT NU			COMPLETED 7/14/09	PROJECT LOCATION State Road Extension GROUND ELEVATION HOLE SIZE					
RILLING CO				GROUND WATER LEVELS:					
RILLING ME				AT TIME OF DRILLING					
OGGED BY	Pat D	uncan	CHECKED BY Pat Duncan	AT END OF DRILLING					
IOTES				AFTER DRILLING					
SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC		MATERIAL DESCRIPTION	(man) Old				
0	CL	////	Brown Silty Clay						
(5) GB			1.0 Brown Clay		0				
V 00	1		DIOWIT CIBY						
	СН								
-	OH								
			4.0						
₫ GB			Brown Clay						
5									
-	СН								
₿ GB			8.0						
[2] GB	СН		Brown Clay 9.0						
∯ GB	СН		Grey/ Brown Clay						
10 B GB		¥////	10.0						
G GB	CH		Mostly Brown Clay						
U ₁ GB		4444	LLOX.	Bottom of hole at 11.0 feet.	(

ODNR WATER WELL LOG INFORMATION



Water Well Log and Drilling Report

Ohio Department of Natural Resources Division of Water Phone: 614-265-6740 Fax: 614-265-6767

Well Log Number: 2021258

ORIGINAL OWNER AND LOCATION

Original Owner Name: DETREX CORPORATION Township: ASHTABULA

County: ASHTABULA Address: 1100 STATE ST

City: ASHTABULA

Location Number: Latitude: 41.894130

CONSTRUCTION DETAILS

Borehole Diameter: 1: 8 in. 2:

Casing Diameter: 1: 2 in.

2:

Casing Height Above Ground: 3 Date of Completion: 1/27/2009 Driller's Name: STOCK DRILLING

Screen Diameter: 2 in. Type: MACHINE SLOTTED Set Between: From: 37 ft. To: 27 ft.

Gravel Pack Material/Size: #5 SAND Method of Installation: Poured (gravity)

Grout Material/Size: Bentonite slurry Method of Installation: Pumped w/Tremie pipe Placed FROM: 25 ft. TO: 3 ft. WELL TEST DETAILS

Static Water Level: 0 ft.

Test Duration: Drawdown: COMMENTS: GROUNDWATER - NONE ENCOUNTERED

WELL LOG

State: OH Location Map Year:

Longitude: -80.772519

Borehole Depth: 1: 37 ft.

Casing Length: 1: 27 ft.

Aquifer Type: SHALE

Vol/Wt Used: 450 LBS.

Vol/Wt Used: 10 LBS

Placed: FROM: 37 ft. TO: 25 ft.

Total Depth: 37 ft.

Slot Size: 0.01 in.

Material: PVC

2:

2:

Formations TAN CLAYEY CLAY & SAND **GRAY SHALEY SHALE & CLAY** GRAY SHALEY SHALE

Section Number: Lot Number: Zip Code: 44004 Location Area:

Depth to Bedrock:

Casing Thickness: 1: 0.154 in.

Well Use: MONITOR

Screen Length: 10 ft.

Associated Reports

To From 22 36 37 22

WELL LOG AND D			Well Lo	g Number	
	Ohio Department of Natural Resources Division of Water, 2045 Morse Road, Columbus, Ohio 43229-6605				
Voice (614) 265-674	0 Fax (614) 2	65-6767	Page 1 of	1 for this r	record.
WELL LOCATION			RUCTION DETAILS		
County ASHTABULA Township ASHTABULA		od: AUGER CASING (Measured	from ground surface)		_
	, Darahala	Diameter 8		37	
DETREX CORPORATION	1 Casing Di	iameter 2	n. Length 27 ft.Thi	ckness 0.	
Owner/Builder	Borehole	Diameter	inches Depth_		
1100 STATE ST Address of Well Location	Casing Di	iameteri		ckness	
	Casing Heig	ht Above Ground_	3		
City ASHTABULA Zip Code +4 44004 Permit No. Section; and or Lot No.	Type (1 P	VC			
Use of Well MONITOR		hreaded			
Coordinates of Well (Use only one of the below coordinate systems)	Joints 2				
State Plane Coordinates	SCREEN				
N 🗆 Xft.	Diameter	2in. Slot Size	0.01 in. Screen Let	ngth10	
S 🗆 Yft.	·3F-	MACHINE SLOTTE	D Material	PVC	
Latitude, Longitude Coordinates	Set Between		ft. and	27	
Latitude: 41.89413 Longitude: -80.772519	GRAVEL PA	CK (Filter Pack)	Vol/Wt. Used 450 LBS.		
Elevation of Well in feet: 630 +/- 9 ft. Datum Plane: □ NAD27 ☒ NAD83 Elevation Source GPS	Material/ #5	SAND Poured	used 400 LBS.		
Source of Coordinates: GPS	Depth: Place	stallation Poured (37 ft. To:	25	
Well location written description:	GROUT	arion.			
DETW-MW1D (NESTED PAIR/DEEP WELL) LOCATED NEAR STATE RD	Material Ben	tonite slurry	Vol/Wt. Used 10 LBS		
ON SW PORTION OF PROPERTY 200-300 YDS NORTH OF RIVER.	Method of Ins	tallation Pumped	w/Tremie pipe		
	Depth: Place	d From:	25 ft. To:	3	
		DI	RILLING LOG*		_
Comments on water quality/quantity and well construction:	FORMATION		H(S) AT WHICH WATER IS	ENCOUNT	TERET
GROUNDWATER - NONE ENCOUNTERED	Color	Texture	Formation	From	То
	TAN	CLAYEY	CLAY AND SAND	0	2
	GRAY	SHALEY	SHALE AND CLAY	22	3
	GRAY	SHALEY	SHALE	36	3
WELL TEST *					
Pre-Pumping Static Level 0 ft. Date 1/27/2009	-				
Measured from					
Measured from Pumping test method	-				
Measured from Pumping test method Test Rategpm					
Measured from Pumping test method Fest Rate gpm Duration of Test hrs. Feet of Drawdown ft Sustainable Yield gpm	1				
Measured from Pumping test method Test Rategpm					
Measured from Pumping test method fest Rate gpm Duration of Test hrs. rest of Drawdown fit Sustainable Yield gpm (Attach a copy of the pumping test record, per section 1521.05, ORC)					
Measured from Pumping test method Fest Rate					
Measured from Duration of Test hrs. Feel flate gpm Duration of Test hrs. Feet of Drawdown ft. Sustainable Yield gpm (Aftach a copy of the pumping test record, per section 1521.05, ORC) sc Copy Attached? Yes No No Flowing Well? Yes No PUMP/PITLESS Type of pump Capacity gpm					
Measured from Pumping test method Fest Rate					
Measured from Pumping test method Test Rate					
Measured from Pumping test method Feet of Drawdown ft. Sustainable Yield gpm (Attach a copy of the pumping test record, per section 1521.05, ORC) s Copy Attached? Yes No Flowing Well? Yes No PUMP/PITLESS Type of pump					
Measured from Pumping test method Fest Rate					
Measured from Pumping test method Feet of Drawdown ft. Sustainable Yield gpm (Attach a copy of the pumping test record, per section 1521.05, ORC) s Copy Attached? Yes No Flowing Well? Yes No PUMP/PITLESS Type of pump					

ODNR WATER WELL LOG INFORMATION



Water Well Log and Drilling Report

Ohio Department of Natural Resources Division of Water
Phone: 614-265-6740 Fax: 614-265-6767

Well Log Number: 2021259

ORIGINAL OWNER AND LOCATION

Original Owner Name: DETREX CORPORATION County: ASHTABULA Township: ASHTABULA

Address: 1100 STATE ST City: ASHTABULA State: OH Location Number: Location Map Year: Latitude: 41.894150 Longitude: -80.77215

CONSTRUCTION DETAILS

GRAY SHALEY CLAY & SHALE

Borehole Depth: 1: 24 ft. Borehole Diameter: 1: 8 in.

2:

Casing Diameter: 1: 2 in.

2:

Casing Height Above Ground: 3
Date of Completion: 1/27/2009
Driller's Name: STOCK DRILLING

Slot Size: 0.01 in. Slot Size: 0.01 in. Screen Diameter: 2 in.

Type: MACHINE SLOTTED Material: PVC Set Between: From: 24 ft. To: 14 ft. Gravel Pack Material/Size: #5 SAND Vol/Wt Used: 450 LBS.

Method of Installation: Poured (gravity) Placed: FROM: 24 ft. TO: 12 ft. Grout Material/Size: Bentonite pellets/chunks Vol/Wt Used: 150 Method of Installation: Poured (gravity) Placed FROM: 12 ft. TO: 3 ft.

WELL TEST DETAILS Static Water Level: 0 ft. Test Rate: Test Duration: Drawdown: COMMENTS: GROUNDWATER - NONE ENCOUNTERED WELL LOG

Formations TAN CLAYEY CLAY & SAND

Section Number: Zip Code: 44004 Location Area:

Depth to Bedrock:

Casing Thickness: 1: 0.154 in.

Well Use: MONITOR Screen Length: 10 ft.

Associated Reports

To

0 22

22 24

	WELL LOG AND DRILLING REPORT Ohlo Department of Natural Resources				og Number	
Division of Water, 2045 Morse R	oad. Columbi	us. Ohio 4:	3229-6605		21259	
Voice (614) 265-674	0 Fax (614) 2	65-6767		Page 1 of	1_ for this r	ecord.
WELL LOCATION				TION DETAILS		
County ASHTABULA Township ASHTABULA	Drilling Metho BOREHOLE					
County ASHTABULA Township ASHTABULA			8		24	
DETREX CORPORATION	1 Casing Di		2 in Le		hickness 0.	154
Owner/Builder	/ Borehole	Diameter			nickness	104
1100 STATE ST			in. Le		hickness	_
Address of Well Location	Casing Heigh			3	increness	
City_ASHTABULA Zip Code +4 44004	/1 P					
Permit No Section; and or Lot No	Type 2					
Use of Well MONITOR	Joints 1 Th	readed				
Coordinates of Well (Use only one of the below coordinate systems)	12					
State Plane Coordinates	SCREEN		-	1 3	922	
N □ X		in. Slo				_
S Vtt. Latitude, Longitude Coordinates	.16-	MACHINE S	24	Material	PVC 14	_
Lastude: 41.89415 Longitude: -80.77215	Set Between			ft. and	14	_
Elevation of Well in feet: 631 +/- 8 ft	Material/ #5		26)	Vol/Wt. 450 LBS.		
Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source GPS	Size Method of Ins	tallation F	oured (gravit	v)		
Source of Coordinates: GPS	Depth: Place			ft. To:	12	- 7
Well location written description:	GROUT					
DETW-MW1S (2ND OF NESTED PAIR) LOCATED 5' FROM DETW-MW1D	Material Ben	tonite pelle	ts/chunks	Vol/Wt Used 150		
	Method of Ins	tallation	oured (gravit	y)		
	Depth: Placed			ft. To:	3	
Comments on water quality/quantity and well construction:				NG LOG*		
GROUNDWATER - NONE ENCOUNTERED	Color			AT WHICH WATER	-	
	TAN	CLAY		Formation CLAY AND SAND	From 0	To 2
	GRAY	SHALI				
	GRAT	SHALI	.1	CLAY AND SHALE	22	2
					and the second second	
						_
WELL TEST*						
Pre-Pumping Static Level 0 ft. Date						
Pre-Pumping Static Level 0 ft. Date						
Pre-Pumping Static Level 0 ft. Date						
Pre-Pumping Static Levet 0 ft. Date Measured from Pumping test method flest Rate gpm						
Pre-Pumping Static Level 0 ft. Date Measured from Pumping test method Test mate Feet of Drawdown Feet of Drawdown hrs. Feet of Drawdown ft. Sustainable Yield gpm						
Pre-Pumping Static Level 0 ft. Date Measured from Pumping lest method						
Pre-Pumping Static Level 0 ft. Date Measured from Pumping test method Test mate Feet of Drawdown Feet of Drawdown hrs. Feet of Drawdown ft. Sustainable Yield gpm						
Pre-Pumping Static Level 0 ft. Date Measured from Pumping lest method						
Pre-Pumping Static Levet 0 ft. Date Measured from Pumping test method Including test method <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td></t<>						
Pre-Pumping Static Level 0 ft. Date Measured from						
Pre-Pumping Static Levet 0 ft. Date Measured from Pumping test method Test Rate						
Pre-Pumping Static Levet 0 ft. Date Measured from Pumping test method Test Rate						
Pre-Pumping Static Level 0 ft. Date Measured from						
Pre-Pumping Static Levet 0 ft. Date Measured from						
Pre-Pumping Static Levet 0 ft. Date Measured from Pumping test method Test Rate						

ODNR WATER WELL LOG INFORMATION



Water Well Log and Drilling Report

Ohio Department of Natural Resources Division of Water Phone: 614-265-6740 Fax: 614-265-6767

Well Log Number: 2021265

ORIGINAL OWNER AND LOCATION

Original Owner Name: DETREX CORPORATION

County: ASHTABULA Township: ASHTABULA

Address: 1100 STATE ST

City: ASHTABUL
Location Number:
Latitude: 41.895240
CONSTRUCTION DETAILS
Borehole Diameter: 1: 8 in.
2:
2:
2:
Casing Length: 1: 25 ft.
2:
Aquifer Type: CLAY & Signath: 40 ft. State: *OH* Location Map Year: Longitude: -80.77222 City: ASHTABULA

Borehole Depth: 1: 43 ft.

Slot Size: 0.01 in.

Test Rate:

WELL LOG

Test Duration:

Vol/Wt Used: 100 LBS.

Z: 2:

Casing Height Above Ground: 3
Date of Completion: 2/3/2009
Driller's Name: STOCK DRILLING

Total Depth: 40 ft.

Screen Diameter: 2 in.

Screen Diameter: 2 in. Slot Size: 0.01 in.

Type: MACHINE SLOTTED Material: PVC

Set Between: From: 40 ft. To: 25 ft.

Gravel Pack Material/Size: #5 SAND Vol/Wt Used: 700 LBS.

Method of Installation: Poured (gravity)

Grout Material/Size: Bentonite slurry

Vol/Wt Used: 100 LBS. Grout Material/Size: Bentonite slurry

Method of Installation: Pumped w/Tremie pipe Placed FROM: 21 ft. TO: 3 ft. WELL TEST DETAILS

Static Water Level:

COMMENTS: NONE ENCOUNTERED

Formations

TAN CLAYEY CLAY & SAND GRAY CLAYEY CLAY & SHALE

Section Number: Lot Number: Zip Code: 44004 Location Area:

Depth to Bedrock:

Casing Thickness: 1: 0.154 in.

Well Use: MONITOR

Screen Length: 15 ft.

Associated Reports

0 25 25 43

WELL LOG AND D			v	Vell Log Number	
Division of Water, 2045 Morse Re	oad, Columbus	Ohio 43229-660	05	2021265	
Voice (614) 265-674	Fax (614) 265	5-6767		of 1 for this	record.
WELL LOCATION			RUCTION DETAILS	5	
	Drilling Method:		sontonina o najarno gamengo		_
County ASHTABULA Township ASHTABULA		ASING (Measured fr		40	
	Borehole Di			lepth43	
DETREX CORPORATION	Casing Dian	neter 2 in	Length 25	ft.Thickness 0.	
Owner/Builder	2 Borehole Di	ameter	inches D	epth	_
100 STATE ST	Casing Dian	neterin	. Length	ft.Thickness	_
Address of Well Location		Above Ground		3	
City ASHTABULA Zip Code +4 44004	Type 1: PVC				
Permit No Section; and or Lot No	12				
Use of Well MONITOR	Joints 1: Thre	eaded			
Coordinates of Well (Use only one of the below coordinate systems)	12				
State Plane Coordinates	SCREEN		1903	50	
N 🗆 X		in. Slot Size		en Length1	9
S 🗆 Ytt.	1) Po	ACHINE SLOTTED	Material	PVC	
Latitude, Longitude Coordinates	Set Between	40	ft. and	25	
Latitude: 41.89524 Longitude: -80.77222	GRAVEL PACE		Vol/Wt.	Agree 4	
Elevation of Well in feet: 644 +/- 9 ft.	Material/ #5 S	AND	Used 700	LBS.	
Datum Plane: NAD27 X NAD83 Elevation Source GPS	Method of Insta	llation Poured (g	gravity)		
Source of Coordinates: GPS	Depth: Placed		43 ft. To:	23	
Well location written description:	GROUT		Vol/Wt.		
DETW-MW3D LOCATED 200 YARDS SOUTH OF MAIN DETREX	Material Bento		Used 100	LBS,	
CORPORATION'S ENTRANCE DRIVEWAY ON WEST PORTION OF	Method of Insta	llation Pumped	w/Tremie pipe		
PROPERTY.	Depth: Placed	From:	21 ft. To:	3	
			ILLING LOG*		
Comments on water quality/quantity and well construction:	FORMATIONS	INCLUDE DEPTH	H(S) AT WHICH WA		
NONE ENCOUNTERED	Color	Texture	Formation	From	То
	TAN	CLAYEY	CLAY AND SA	ND 0	2
	GRAY	CLAYEY	CLAY AND SH	ALE 25	4
					1
					-
					-
WELL TEST *					-
Pre-Pumping Static Levelft. Date					
Measured from					-
Pumping test method					
Test Rate gpm Duration of Test hrs.					
Feet of Drawdowntt. Sustainable Yieldgpr	n	-2121201201201201201201	antilenningialess with	CONTRACTOR CONTRACTOR	
*(Attach a copy of the pumping test record, per section 1521.05, ORC)					
Is Copy Attached? ☐ Yes ☑ No Flowing Well? ☐ Yes ☒ No					1
					-
PUMP/PITLESS					1
Type of pump Capacity gpr					-
Pump set atft. Pitless Type					-
Pump installed by					-
Thereby certify the information given is accurate and correct to the best of my knowledge	1				-
Dellion Firm STOCK DRILLING				of section in the section in	
Drilling Firm STOCK DRILLING	1				
Address 17360 Railroad ST					
Address 17360 Railroad ST City, State, Zip JDA MI 48140					-
Address 17360 Railroad ST City, State, Zip JDA MI 48140 Signed RICHARD W STOCK JR. Date 3/3/2009	Aquifer Tupe /5	ormation producing t	he most water) CLAV	& SHALE	
Address 17360 Railroad ST City, State, Zip DA MI 48140	Aquifer Type (F		he most water) CLAY /3/2009 Total	& SHALE Depth of Well	40

ODNR WATER WELL LOG INFORMATION



Water Well Log and Drilling Report

Ohio Department of Natural Resources Division of Water Phone: 614-265-6740 Fax: 614-265-6767

Well Log Number: 2021266 ORIGINAL OWNER AND LOCATION

Original Owner Name: DETREX CORPORATION

County: ASHTABULA Township: ASHTABULA

Address: 1100 STATE ST City: ASHTABULA

State: OH Location Map Year: Longitude: -80.7722 Location Number: Latitude: 41.895280

CONSTRUCTION DETAILS

Borehole Diameter: 1: 8 in. Borehole Depth: 1: 20 ft. 2: 2: Casing Length: 1: 10 ft. Casing Diameter: 1: 2 in.

2: 2: Casing Height Above Ground: 3 Aquifer Type: CLAY & SAND
Date of Completion: 2/3/2009 Total Depth: 20 ft.

Driller's Name: STOCK PRILLING

Material: PVC

Test Rate:

Test Duration:

Vol/Wt Used: 450 lbs.

Placed: FROM: 20 ft. TO: 8 ft.

Placed FROM: 8 ft. TO: 3 ft.

Driller's Name: STOCK DRILLING Slot Size: 0.01 in. Screen Diameter: 2 in.

Type: MACHINE SLOTTED Set Between: From: 20 ft. To: 10 ft.

Gravel Pack Material/Size: #5 Sand Method of Installation: Poured (gravity) Grout Material/Size: Bentonite pellets/chunks Vol/Wt Used: 100 lbs. Method of Installation: Poured (gravity)

WELL TEST DETAILS Static Water Level: Drawdown:

COMMENTS: NONE ENCOUNTERED

WELL LOG

TAN CLAYEY CLAY & SAND

Section Number: Lot Number: Zip Code: 44004 Location Area:

Depth to Bedrock:

Casing Thickness: 1: 0.154 in. 2:

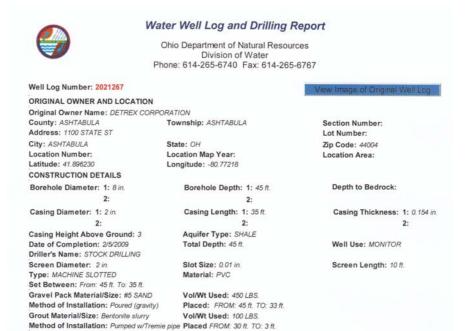
Well Use: MONITOR Screen Length: 10 ft.

Associated Reports

From

	DRILLING REPORT Well Log Number of Natural Resources 2021266
Division of Water, 2045 Morse R	oad, Columbus, Ohio 43229-6605
Voice (614) 265-674 WELL LOCATION	0 Fax (614) 265-6767
WELL LOCATION	Drilling Method: AUGER
County ASHTABULA Township ASHTABULA	BOREHOLE/CASING (Measured from ground surface)
tomally morning of	Borehole Diameter 8 inches Depth 20
DETREX CORPORATION	Casing Diameter 2 in. Length 10 ft.Thickness 0.154
Owner/Builder	(Possbale Diameter Inches Double
1100 STATE ST	2 Casing Diameter in. Length ft. Thickness in
Address of Well Location	Casing Height Ahove Ground 3
City_ASHTABULA Zip Code +444004	Type { PVC
Permit No Section; and or Lot No	12
Use of Well MONITOR	Joints 1 Threaded
Coordinates of Well (Use only one of the below coordinate systems)	12
State Plane Coordinates N X	Diameter 2 in Slot Size 0.01 in Screen Length 10
S Y ht.	
Latitude, Longitude Coordinates	
Latitude: 41.89528 Longitude: -80.7722	CRAVEL DACK (Char Dark)
Elevation of Well in feet: 655 +/- 10 h	Material #5 Sand Vol/Wt. Used 450 lbs.
Datum Plane: ☐ NAD27 ☒ NAD83 Elevation Source GPS	Method of Installation Poured (gravity)
Source of Coordinates: GPS	Depth: Placed From: 20 ft. To: 8
Well location written description:	GROUT
DETW-MW3S LOCATED 5' FROM DETW-MW3D	Material Bentonite pellets/chunks Used 100 lbs.
	Method of Installation Poured (gravity)
	Depth: Placed From: 8 ft. To: 3
	DRILLING LOG*
Comments on water quality/quantity and well construction:	FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED
NONE ENCOUNTERED	Color Texture Formation From To
	TAN CLAYEY CLAY AND SAND 0 2
WELL TEST *	
Pre-Pumping Static Level ft. Date	
Measured from	
Pumping test method	
Test Rate gpm Duration of Test hrs. Feet of Drawdown ft. Sustainable Yield gpm	
Test Rate gpm Duration of Test hrs. Feet of Drawdown ft. Sustainable Yield gpn "(Attach a copy of the pumping test record, per section 1521.05, ORC)	
Test Rate gpm Duration of Test hrs. Feet of Drawdown ft. Sustainable Yield gpn "(Attach a copy of the pumping test record, per section 1521.05, ORC)	
Test Rategpm Duration of Test hrs. Feet of Drawdownft. Sustainable Yeldegpm ('Attach a copy of the pumping test record, per section 1521.05, ORC) s Copy Attached? Yes Xe No	
Test Rate	
Test Rate	
Test Rate	
Test Rategpm Duration of Testhrs. Feet of Drawdownft. Sustainable Yieldgpn (Attach a copy of the pumping test record, per section 1521.05, ORC) s Copy Attached?	
Test RategpmDuration of Testhrs. Feet of Drawdownft. Sustainable Yieldgpn (Attach a copy of the pumping test record, per section 1521.05, ORC) s Copy Attached? Yes XNoFlowing Well? Yes XNo	
Test Rategpm Duration of Testhrs. Feet of Drawdownft. Sustainable Yeldegpm (Attach a copy of the pumping test record, per section 1521.05, ORC) is Copy Attached? Yes Xest Xest Xest Yes Xest Xest	
Test RategpmDuration of Testhrs. Feet of Drawdownft. Sustainable Yieldgpn (Attach a copy of the pumping test record, per section 1521.05, ORC) s Copy Attached? Yes XNoFlowing Well? Yes XNo	

ODNR WATER WELL LOG INFORMATION



Drawdown: **Test Duration:** COMMENTS: NONE ENCOUNTERED

WELL TEST DETAILS Static Water Level:

WELL LOG

Formations From To TAN CLAYEY CLAY & SAND 21 **GRAY CLAYEY CLAY & SHALE** 21 44 GRAY SHALEY SHALE 45

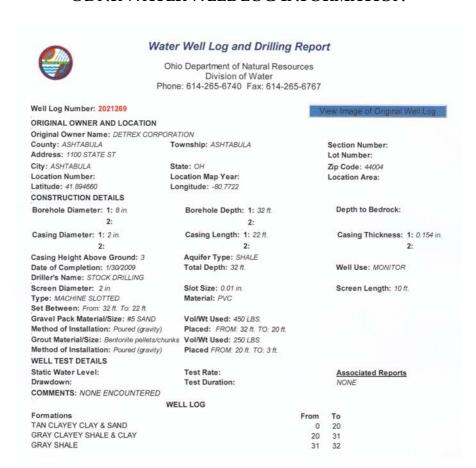
Test Rate:

Associated Reports

	RILLING REPORT	Well Log Number
DNR 7802.05e Ohio Department o	f Natural Resources oad, Columbus, Ohio 43229-6605	2021267
Voice (614) 265-674	0 Fax (614) 265-6767	Page 1 of 1 for this recor
WELL LOCATION	CONSTRUCTION	ON DETAILS
	Drilling Method: AUGER	
County ASHTABULA Township ASHTABULA	BOREHOLE/CASING (Measured from group	
	Borehole Diameter 8	nches Depth 45
DETREX CORPORATION	Casing Diameter 2 in Lengt	
Owner/Builder	2 Borehole Diameter	nches Depth
1100 STATE ST	Casing Diameterin. Lengt	hft.Thickness
Address of Well Location	Casing Height Above Ground	3
City ASHTABULA Zip Code +4 44004	Type (1 PVC	
Permit No Section; and or Lot No		
Jse of Well MONITOR	Joints 1 Threaded	
Coordinates of Well (Use only one of the below coordinate systems)	(2:	
State Plane Coordinates	SCREEN	
N	Diameter 2 in Slot Size 0.01	in. Screen Length10
S 🗆 Y tt.	Type MACHINE SLOTTED	Material PVC
Latitude, Longitude Coordinates	Set Between45	ft. and 35
Latitude: 41.89623 Longitude: -80.77218	GRAVEL PACK (Filter Pack)	Vol/Wt. Used 450 LBS.
Elevation of Well in feet: 635 +/- 16 ft.	Material/ #5 SAND	Used 450 LBS.
Datum Plane: NAD27 NAD83 Elevation Source GPS	Method of Installation Poured (gravity)	
Source of Coordinates: GPS	Depth: Placed From: 45	ft. To: 33
Well location written description:	GROUT	/ol/Wt.
DETW-MW4D LOCATED 200 YARDS NORTH OF DETREX CORPORATION'S MAIN ENTRANCE AT WEST SIDE OF PROPERTY/100	Material Bentonite slurry	Used 100 LBS.
YARDS S OF DETW-SB	Method of Installation Pumped w/Trem	
	Depth: Placed From:30	ft. To: 3
	DRILLING	31001
Comments on water quality/quantity and well construction:	FORMATIONS INCLUDE DEPTH(S) AT	
NONE ENCOUNTERED		
		ormation From To
	\$100 to \$100 persons and \$100 persons \$100 p	AY AND SAND 0
	Control Contro	AY AND SHALE 21
	GRAY SHALEY SH	ALE 44
		de la companya del companya del companya de la comp
WELL TEST *		
Pre-Pumping Static Levelft. Date		
Measured from		
Pumping test method		
Test Rategpm Duration of Testhrs.		
Feet of Drawdown ft. Sustainable Yieldgpn	n	
'(Attach a copy of the pumping test record, per section 1521.05, ORC)		
s Copy Attached? Yes No Flowing Well? Yes No	and the state of t	THE CONTRACT OF THE CONTRACT O
PUMP/PITLESS		
		CONTRACTOR OF THE PARTY OF THE
Type of pump		
Pump set atft. Pitless Type	**************************************	
Pump installed by		
I hereby certify the information given is accurate and correct to the best of my knowledge.		
Drilling Firm STOCK DRILLING		
Address 17360 Railroad ST		
Oity, State, Zip IDA MI 48140		
	Aquifer Type (Formation producing the most v	

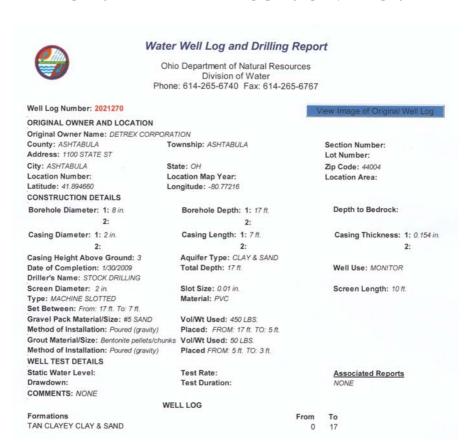
Wa	ter Well Log and Drilling R	eport
	Ohio Department of Natural Resource	ces
P	hone: 614-265-6740 Fax: 614-265-	6767
Well Log Number: 2021268		View Image of Original Well Log
ORIGINAL OWNER AND LOCATION		0-1-0-1
Original Owner Name: DETREX CORP	ORATION	
County: ASHTABULA Address: 1100 STATE ST	Township: ASHTABULA	Section Number: Lot Number:
City: ASHTABULA	State: OH	Zip Code: 44004
Location Number:	Location Map Year:	Location Area:
Latitude: 41.896260	Longitude: -80.77216	
CONSTRUCTION DETAILS		
Borehole Diameter: 1: 8 in.	Borehole Depth: 1: 23 ft.	Depth to Bedrock:
2:	2:	
Casing Diameter: 1: 2 in.	Casing Length: 1: 13 ft.	Casing Thickness: 1: 0.154 in
2:	2:	2:
Casing Height Above Ground: 3	Aquifer Type: CLAY & SAND	
Date of Completion: 2/9/2009 Driller's Name: STOCK DRILLING	Total Depth: 23 ft.	Well Use: MONITOR
Screen Diameter: 2 in.	Slot Size: 0.01 in.	Screen Length: 10 ft.
Type: MACHINE SLOTTED	Material: PVC	
Set Between: From: 23 ft. To: 13 ft.		
Gravel Pack Material/Size: #5 SAND	Vol/Wt Used: 450 LBS.	
Method of Installation: Poured (gravity)	Placed: FROM: 23 ft. TO: 11 ft.	
Grout Material/Size: Bentonite pellets/cl		
Method of Installation: Poured (gravity)	Placed FROM: 11 ft. TO: 3 ft.	
WELL TEST DETAILS		
Static Water Level:	Test Rate:	Associated Reports
Drawdown:	Test Duration:	NONE
COMMENTS: NONE ENCOUNTERED		
summar shake soons	WELL LOG	
Formations	F	rom To

WELL LOG AND D	
DNR 7802 05e Ohio Department of Division of Water, 2045 Morse R	of Natural Resources 2021268
Voice (614) 265-674	toad, Columbus, Ohio 43229-6605 40 Fax (614) 265-6767 Page 1 of 1 for this record.
WELL LOCATION	CONSTRUCTION DETAILS
County ASHTABULA Township ASHTABULA	Drilling Method: AIR ROTARY BOREHOLE/CASING (Measured from ground surface)
County ASHTABULA Township ASHTABULA	
DETREX CORPORATION	1 Borehole Diameter 8 inches Depth 23 Casing Diameter 2 in Length 13 ft Thickness 0.154
Owner/Builder	2 Borehole Diameter in Length 13 ft. Inickness 0.754
1100 STATE ST	Casing Diameter in. Length ft. Thickness in
Address of Well Location	Carley Unide About County 3
City_ASHTABULA Zip Code +4 44004	Type 1 PVC
Permit No Section; and or Lot No	Type {2
Use of Well_MONITOR	f1: Threaded
Coordinates of Well (Use only one of the below coordinate systems)	Joints (1. Threaded
State Plane Coordinates	SCREEN
N 🗆 X tt.	Diameter 2 in Slot Size 0.01 in Screen Length 10
S 🗆 Y tt.	Type MACHINE SLOTTED Material PVC
Latitude, Longitude Coordinates	Set Between 23 ft. and 13
Latitude: _41.89626 Longitude:80.77216	GRAVEL PACK (Filter Pack) Material #5 SAND Vol/Wt. Used 450 LBS.
Elevation of Well in feet: 632 +/- 16 ft.	Material/ #5 SAND Used 450 LBS.
Datum Plane: NAD27 NAD83 Elevation Source GPS	Method of Installation Poured (gravity) Death: Placed From: 23 ft To: 11
Source of Coordinates: GPS Well location written description:	Depth: 1 deca 1 form
DETW-MW4S IS LOCATED 5 FT FROM DETW-MW4D	GROUT Material Bentonite pellets/chunks Vol/Wt. Used 150 LBS.
DETW-MINAS IS COCATED OF T PROMIDE IN-MINAD	Method of Installation Poured (gravity)
	Depth: Placed From: 11 ft. To: 3
	Depair, Placed Plotit.
	DRILLING LOG*
Comments on water quality/quantity and well construction:	FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERED
NONE ENCOUNTERED	Color Texture Formation From To
	TAN CLAYEY CLAY AND SAND 0 2
WELL TEST *	
Pre-Pumping Static Level ft. Date	
Pre-Pumping Static Level ft. Date	
Pre-Pumping Static Levelft. Date Measured from Pumping test method	
Pre-Pumping Static Level ft. Date Measured from Pumping test method	
Pre-Pumping Static Level ft. Date Measured from Pumping test method Test Rate gpm Duration of Test hrs. Feet of Drawdown ft. Sustainable Yield gpm	
Pre-Pumping Static Level ft. Date Measured from Pumping test method	
Pre-Pumping Static Level ft. Date Measured from	
Pre-Pumping Static Level ft. Date Measured from	
Pre-Pumping Static Level ft. Date Measured from Pumping test method Test Rate gpm Duration of Test hrs. Feet of Drawdown ft. Sustainable Yield gpm "(Attach a copy of the pumping test record, per section 1521.05, ORC) ts Copy Attached? Yes No Flowing Well? Yes No PUMP/PITLESS Type of pump Capacity gpm	
Pre-Pumping Static Level ft. Date Measured from Pumping test method Test Rate gpm Duration of Test hrs. Feet of Drawdown ft. Sustainable Yield gpn* "(Aftach a copy of the pumping test record, per section 1521.05, ORC) is Copy Attached? Yes No Flowing Well? Yes No PUMP/PITLESS Type of pump gpm Pump set at ft. Pitless Type	
Pre-Pumping Static Level ft. Date Measured from Pumping test method Test flate gpm Duration of Test hrs. Feet of Drawdown ft. Sustainable Yield gpm (Attach a copy of the pumping test record, per section 1521.05, ORC) Is Copy Attached? Ves No Flowing Well? Ves No PUMP/PITLESS Type of pump Capacity gpm Pump set at ft. Pitless Type Pump installed by	
Pre-Pumping Static Level ft. Date Measured from Pumping test method Test Rate gpm Duration of Test hrs. Feet of Drawdown ft. Sustainable Yield gpn "(Attach a copy of the pumping test record, per section 1521.05, ORC) s Copy Attached? Yes No Plowing Well? Yes No Pump PITLESS Type of pump Capacity gpm Pump set at ft. Pitless Type Pump installed by Thereby centify the information given is accurate and correct to the best of my knowledge	
Pre-Pumping Static Level fft. Date Measured from Pumping test method Test Rate	
Pre-Pumping Static Level ft. Date Measured from Pumping test method Test flate gpm Duration of Test hrs. Feet of Drawdown ft. Sustainable Yield gpm (Attach a copy of the pumping test record, per section 1521.05, ORC) Is Copy Attached? Yes No Flowing Well? Yes No PUMP/PITLESS Type of pump Capacity gpm Pump set at hr. Pitfess Type Capacity gpm Thereby cently the information given is accurate and correct to the best of my knowledge Drilling Firm STOCK DRILLING Address 17360 Railroad ST	
Pre-Pumping Static Level fft. Date Measured from Pumping test method Test Rate	



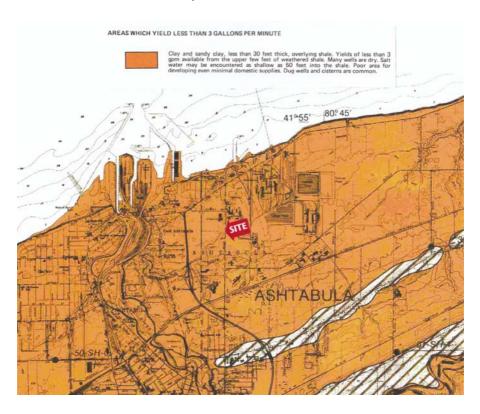
WELL LOG AND D	HILLING	REPO	RT	P	Log Number		
DNR 7802 05e Ohio Department of Division of Water, 2045 Morse R			9-6605	20	021269		
Voice (614) 265-674	0 Fax (614) 26	5-6767	0000	Page 1 o	f_1_for this	record	
WELL LOCATION			NSTRUCT	ION DETAILS			
	Drilling Method			CONTRACTOR OF THE PARTY OF THE			
County ASHTABULA Township ASHTABULA	BOREHOLE/C	STEED STORY					
DETECT CORPORATION	1 Borehole D				th32		
DETREX CORPORATION Owner/Builder		meter2			Thickness _0.		
1100 STATE ST		liameter		_inches Dept			
Address of Well Location	Casing Height	meter		gth ft.	Thickness		
Dity ASHTABULA Zip Code +4 44004	. PV		Id				
Permit No. Section: and or Lot No.	Type 2						
Jse of Well MONITOR	1 Thr	eaded					
Coordinates of Well (Use only one of the below coordinate systems)	Joints 2						
State Plane Coordinates	SCREEN						
N 🗆 X +/ ft.		in. Slot Si		in. Screen	Length 10)	
S 🗆 Y tt.	77-	ACHINE SLO		Material	PVC		
Latitude, Longitude Coordinates	Set Between _			ft. and	22		
Latitude: 41.89466 Longitude: -80.7722	GRAVEL PACI			Vol/Wt. 450 LDS			
Elevation of Well in feet: 632 +/- 9 It. Datum Plane: □ NAD27 X NAD83 Elevation Source GPS	Material/ #5 S	AND	end formula	Vol/Wt. 450 LBS).		
Source of Coordinates: GPS	Method of Insta	Mation Foo	32		20		
Well location written description:	Depth: Placed GROUT	From:	- Oz.	ft. To:	20		
DETW-MW2D IS LOCATED ON SW PORTION OF PROPERTY.	Material Bento	onite pellets/o	hunks	Vol.Wt. Used 250 LBS	S.		
APPROXIMATELY 100 YARDS NORTH OF DETW-MW1 D & S.	Method of Insta			_ 0000			
	Depth: Placed		20	ft. To:	3		
						- 03	
Comments on water quality/quantity and well construction:	DRILLING LOG* FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNTERE						
NONE ENCOUNTERED						-	
TOTAL ETTOOTT ETTEO	Color	Texture		Formation	From	То	
	TAN	CLAYEY		LAY AND SAND		2	
	GRAY	CLAYEY		HALE AND CLAY	101111111111111111111111111111111111111	3	
	GRAY		3	HALE	31	3	

WELL TEST *							
Pre-Pumping Static Levelft. Date							
Measured from							
Pumping test method							
Test Rate gpm Duration of Testhrs.							
Feet of Drawdownft. Sustainable Yieldgpm							
(Attach a copy of the pumping test record, per section 1521.05, ORC)							
s Copy Attached? Yes No Flowing Well? Yes No							
s Copy Attached?							
S Copy Attached?							
Copy Attached? Yes ⊠ No Flowing Well? Yes ⊠ No PUMP/PITLESS							
s Copy Attached?							
S Copy Attached? Yes No Flowing Well? Yes No PUMP/PITLESS Type of pump Capacity gpm Pump set at f. Pitless Type Unump installed by. Thereby certify the information given is accurate and correct to the best of my knowledge.							
s Copy Attached?							
s Copy Attached?							
s Copy Attached?							



	DRILLING REPORT Well Log Number of Natural Resources 2021270	
Division of Water, 2045 Morse R	oad, Columbus, Ohio 43229-6605	
Voice (614) 265-674	0 Fax (614) 265-6767 Page 1 of 1 for this r	ecord.
WELL LOCATION	CONSTRUCTION DETAILS	
	Drilling Method: AUGER	
County ASHTABULA Township ASHTABULA	BOREHOLE/CASING (Measured from ground surface)	
	Borehole Diameter 8 inches Depth 17	
DETREX CORPORATION Owner/Builder	Casing Diameter 2 in. Length 7 ft.Thickness 0.	
1100 STATE ST	2 Borehole Diameter inches Depth	_
Address of Well Location	Casing Diameterin. Lengthft.Thickness	_
City ASHTABULA Zip Code +4 44004	Casing Height Above Ground 3	_
Permit No Section; and or Lot No	Type {	
Use of Well MONITOR	71 Threaded	
Coordinates of Well (Use only one of the below coordinate systems)	Joints 2	
State Plane Coordinates	SCREEN	
N 🗆 X +/ ft.	Diameter 2 in Slot Size 0.01 in Screen Length 10	
S 🗆 Y tt.	Type MACHINE SLOTTED Material PVC	- 00
Latitude, Longitude Coordinates	Set Between 17 ft. and 7	
Latitude: 41.89466 Longitude: -80.77216	GRAVEL PACK (Filter Pack)	
Elevation of Well in feet: 622 +/- 7 ft.	Material #5 SAND Vol/Wt. Used 450 LBS.	
Datum Plane: NAD27 X NAD83 Elevation Source GPS	Method of Installation Poured (gravity)	
Source of Coordinates: GPS	Depth: Placed From: 17 ft. To: 5	_
Well location written description:	GROUT VolVII. 50 LBG	
DETW-MW2S (SECOND OF NESTED PAIR) LOCATED 5' FROM DETW-MW2D	Material Bentonite pellets/chunks Used 50 LBS.	
DE I TIMITED	Method of Installation Poured (gravity) Death Placed From 5 ft To: 3	
	Depth: Placed From:5ft. To:3	_
	DRILLING LOG*	
Comments on water quality/quantity and well construction:	FORMATIONS INCLUDE DEPTH(S) AT WHICH WATER IS ENCOUNT	EREC
3000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Color Texture Formation From	To
	TAN CLAYEY CLAY AND SAND 0	1
WELL TEST *		
Pre-Pumping Static Level ft. Date		
To a supering country to the last to the l		
Measured from		
Pumping test method		
Measured from Pumping test method		
Pumping test method		
Pumping test method		
Pumping test method gpm Duration of Test hrs. Feet Rate gpm Duration of Test hrs. Feet of Drawdown ft. Sustainable Yield gpn *(Attach a copy of the pumping test record, per section 1521.05, ORC) S Copy Attached? Yes No Flowing Well? Yes No		
Pumping test method gpm Duration of Test hrs. Test Rate gpm Duration of Test hrs. Feet of Drawdown ft. Sustainable Yield gpn *(Attach a copy of the pumping test record, per section 1521.05, ORC) S Copy Attached? Yes No FOMP/PITLESS PUMP/PITLESS		
Pumping test method		
Pumping test method Test Rate		
Pumping test method Test Rate		
Pumping test method fest RategpmDuration of Testhrs. Feet of Drawdownft. Sustainable Yieldgpn (Attach a copy of the pumping test record, per section 1521.05, ORC) s Copy Attached?		
Pumping test method Test Rate		
Pumping test method Test Rate		
Pumping test method		
Pumping test method		

GROUNDWATER RESOURCES MAP SHOWING SUBJECT PROPERTY



ANALYTICAL RESULTS / CHAIN OF CUSTODY

RP CONSCITANTS	Paris Name	5			П		Pag		_	Analyti	cal Pa	_	eters	and N	letho	ds
Chest Phone No. Chest Fax No. Chest Fax No. Chest Email Contact Person B Sample Identification	Project Address Report to POP Quote No. Check if Ohio V	AP samples /	Time	Grath	Composite	Matrix: S=Solid, L=Liquid, O=Oil SL-Sludge, A=Air, DW=Drinking Water	Preservative	Number of Containers	VOC 8245	PINA SANS						
1823625-27		POMIP	10:45	X		5		1	×	×						
11 1 -52		R	15:00	1		·		¥.	7	+						
Relinquished by: Date Time	Receive	d by:	Date	T	ime	No	tes/Comme	nts:			_					
Received in lab by: Date Time	Rush B	tequested;be approved by I	Day	13												



July 22, 2009

Client: RP Consultants Address: 7664 Tyler Blvd Mentor, OH 44060

VOC (8260B)

Parameter	Reporting Limit (mg/Kg)	Results (mg/Kg)
1.1,1,2-Tetrachloroethane	0.0050	BRL
1,1,1-Trichloroethane	0.0050	BRL
1.1,2,2-Tetrachloroethane	0.0050	BRL
1.1.2-Trichloroethane	0.0050	BRL
1.1-Dichloroethane	0.0050	BRL
1.1-Dichloroethene	0.0050	BRL
1.1-Dichloropropene	0.0050	BRL
1,2,3-Trichlorobenzene	0.0050	BRL
1.2,3-Trichloropropane	0.0050	BRL
1.2.4-Trichlorobenzene	0.0050	BRL
1.2.4-Trimethylbenzene	0.0050	BRL
1,2-Dibromo-3-chloropropane	0.010	BRL
1,2-Dibromoethane	0.0050	BRL
1,2-Dichlorobenzene	0.0050	BRL
1,2-Dichloroethane	0.0050	BRL
1.2-Dichloropropane	0.0050	BRL
1,3,5-Trimethylbenzene	0.0050	BRL
1.3-Dichlorobenzene	0.0050	BRL
1.3-Dichloropropane	0.0050	BRL
1.4-Dichlorobenzene	0.0050	BRL
2.2-Dichloropropane	0.0050	BRL
2-Chlorotoluene	0.010	BRI.



July 22, 2009

Client: RP Consultants Address: 7664 Tyler Blvd Mentor, OH 44060

VOC (8260B)

Parameter	Reporting Limit (mg/Kg)	Results (mg/Kg)
4-Chlorotoluene	0.0050	BRL
Benzene	0.0050	BRL
Bromobenzene	0.0050	BRL
Bromochloromethane	0.0050	BRL
Bromodichloromethane	0.0050	BRL
Bromoform	0.0050	BRL
Bromomethane	0.0050	BRL
Carbon Tetrachloride	0.0050	BRL
Chlorobenzene	0.0050	BRL
Chloroethane	0.010	BRL
Chloroform	0.0050	BRL
Chloromethane	0.010	BRL.
cis-1,2-Dichloroethene	0.0050	BRL
Dibromochloromethane	0.0050	BRL
Dibromomethane	0.0050	BRL
Dichlorodifluoromethane	0.010	BRL
Ethylbenzene	0.0050	BRL
Hexachlorobutadiene	0.0050	BRL
Isopropylbenzene	0.0050	BRL
m.p-Xylene	0.0050	BRL
Methylene Chloride	0.0050	BRL
n-Butylbenzene	0.0050	BRL

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July 22, 2009

Client: Address: RP Consultants 7664 Tyler Blvd Mentor, OH 44060

| Date Collected: 7/14/2009 |
| Date Received: 7/17/2009 |
| Project #: RP-3625 |
| Client ID #: RP-3625-S1 |
| Laboratory ID #: 0909089-01 |
| Analysis: VOC (8260B) |
| Method: 8260B |
| Matrix: Solid |
| Date of Analysis: 7/20/2009 |
| Analyst: MS

VOC (8260B)

Parameter	Reporting Limit (mg/Kg)	Results (mg/Kg)
n-Propylbenzene	0.0050	BRL
Naphthalene	0.0050	BRL
o-Xylene	0.0050	BRL
p-Isopropyltoluene	0.0050	BRL
sec-Butylbenzene	0.0050	BRI.
Styrene	0.0050	BRL
tert-Butylbenzene	0.0050	BRL
Tetrachloroethene	0.0050	BRL
Toluene	0.0050	BRL
trans-1,2-Dichloroethene	0.0050	BRL
Trichloroethene	0.0050	BRL
Trichlorofluoromethane	0.010	BRL
Vinyl Chloride	0.010	BRI.
Dibromofluoromethane (surr)		99.2
Toluene d(8)(surr)		101.7
4-Bromofluorobenzene(surr)		97.0



July 22, 2009

Client: Address: RP Consultants 7664 Tyler Blvd Mentor, OH 44060

Date Collected: 7/14/2009
Date Received: 7/17/2009
Project #: RP-3625
Client ID #: RP-3625-S1
Laboratory ID #: 0909089-01
Analysis: PNA (8270)
Method: 8270
Method: 8270
Matrix: Solid
Date of Analysis: 7/21/2009
Analyst: AE

PNA (8270)

<u>Parameter</u>	Reporting Limit (mg/kg)	Results (mg/kg)
Acenaphthylene	0.20	BRL
Acenaphthene	0.20	BRL
Anthracene	0.20	BRL
Benzo(a)anthracene	0.15	BRL
Benzo(a) pyrene	0.050	BRL
Benzo(b)fluoranthene	0.20	BRL
Benzo(ghi)perylene	0.20	BRL
Benzo(k)fluoranthene	0.20	BRL
Chrysene	0.20	BRI.
Dibenzo(a,h)anthracene	0.050	BRL
Fluorene	0.20	BRL
Fluoranthene	0.20	BRL
Indeno(1,2,3-cd)pyrene	0.15	BRL
Naphthalene	0.20	BRL
Phenanthrene	0.20	BRL
Pyrene	0.20	BRL
% 2-Fluorobiphenyl Rec.		79.1
% p-terphenyl-d14 Rec		95.9
% Nitrobenzene-d5 Rec.		77.4



July 22, 2009

Client: RP Consultants Address: 7664 Tyler Blvd

Mentor, OH 44060

Date Collected: 7/14/2009
Date Received: 7/17/2009
Project #: RP-3625
Client ID #: RP-3625-S2
Laboratory ID #: 0909089-02
Analysis: VOC (8260B)
Matrix: Solid
Date of Analysis: 7/20/2009
Analyst: MS

VOC (8260B)

Parameter	Reporting Limit (mg/Kg)	Results (mg/Kg)
1.1,1,2-Tetrachloroethane	0.0050	BRL
1,1,1-Trichloroethane	0.0050	BRL
1,1,2,2-Tetrachloroethane	0.0050	BRL
1,1,2-Trichloroethane	0.0050	BRL.
1.1-Dichloroethane	0.0050	BRL
1.1-Dichloroethene	0.0050	BRL
1.1-Dichloropropene	0.0050	BRL
1,2,3-Trichlorobenzene	0.0050	BRL
1,2,3-Trichloropropane	0.0050	BRL
1.2,4-Trichlorobenzene	0.0050	BRL
1,2,4-Trimethylbenzene	0.0050	BRL
1,2-Dibromo-3-chloropropane	0.010	BRL
1,2-Dibromoethane	0.0050	BRL
1.2-Dichlorobenzene	0.0050	BRL
1,2-Dichloroethane	0.0050	BRL
1,2-Dichloropropane	0.0050	BRL
1,3,5-Trimethylbenzene	0.0050	BRL
1,3-Dichlorobenzene	0.0050	BRL
1,3-Dichloropropane	0.0050	BRL
1,4-Dichlorobenzene	0.0050	BRL
2,2-Dichloropropane	0.0050	BRL
2-Chlorotoluene	0.010	BRI



July 22, 2009

Client: RP Consultants Address: 7664 Tyler Blvd Mentor, OH 44060

| Date Collected: 7/14/2009 |
| Date Received: 7/17/2009 |
| Project #: RP-3625 |
| Client ID #: RP-3625-S2 |
| Laboratory ID #: 0909089-02 |
| Analysis: VOC (8260B) |
| Method: 8260B |
| Matrix: Solid |
| Date of Analysis: 7/20/2009 |
| Analyst: MS

VOC (8260B)

<u>Parameter</u>	Reporting Limit (mg/Kg)	Results (mg/Kg)
4-Chlorotoluene	0.0050	BRL
Benzene	0.0050	BRL
Bromobenzene	0.0050	BRL
Bromochloromethane	0.0050	BRL
Bromodichloromethane	0.0050	BRL
Bromoform	0.0050	BRL
Bromomethane	0.0050	BRL
Carbon Tetrachloride	0.0050	BRL
Chlorobenzene	0.0050	BRL
Chloroethane	0.010	BRL
Chloroform	0.0050	BRL
Chloromethane	0.010	BRL.
cis-1,2-Dichloroethene	0.0050	BRL
Dibromochloromethane	0.0050	BRL
Dibromomethane	0.0050	BRL
Dichlorodifluoromethane	0.010	BRL
Ethylbenzene	0.0050	BRL
Hexachlorobutadiene	0.0050	BRL
Isopropylbenzene	0.0050	BRL
m,p-Xylene	0.0050	BRL
Methylene Chloride	0.0050	BRL
n-Butylbenzene	0.0050	BRL



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July 22, 2009

Client: RP Consultants Address: 7664 Tyler Blvd Mentor, OH 44060

Date Collected: 7/14/2009
Date Received: 7/17/2009
Project #: RP-3625
Client ID #: RP-3625-S2
Laboratory ID #: 0909089-02
Analysis: VOC (8260B)
Method: 8260B
Matrix: Solid
Date of Analysis: 7/20/2009
Analyst: MS

VOC (8260B)

Reporting Limit (mg/Kg)	Results (mg/Kg)
0.0050	BRL
0.0050	BRL.
0.0050	BRL
0.010	BRL
0.010	BRL
	102.6
	107.8
	99.5
	0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050



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July 22, 2009

Client: Address: RP Consultants 7664 Tyler Blvd Mentor, OH 44060

Date Collected: 7/14/2009
Date Received: 7/17/2009
Project #: RP-3625
Client ID #: RP-3625-S2

Analyst:

Laboratory ID #: 0909089-02

Analysis: PNA (8270) Method: 8270
Matrix: Solid
Date of Analysis: 7/21/2009 AE

PNA (8270)

Parameter	Reporting Limit (mg/kg)	Results (mg/kg)
Acenaphthylene	0.20	BRL
Acenaphthene	0.20	BRL
Anthracene	0.20	BRL
Benzo(a)anthracene	0.15	BRL
Benzo(a) pyrene	0.050	BRL
Benzo(b)fluoranthene	0.20	BRL
Benzo(ghi)perylene	0.20	BRL
Benzo(k)fluoranthene	0.20	BRL.
Chrysene	0.20	BRL.
Dibenzo(a,h)anthracene	0.050	BRL
Fluorene	0.20	BRL
Fluoranthene	0.20	BRL
Indeno(1,2,3-cd)pyrene	0.15	BRL
Naphthalene	0.20	BRL
Phenanthrene	0.20	BRL
Pyrene	0.20	BRL
% 2-Fluorobiphenyl Rec.		94.4
% p-terphenyl-d14 Rec		101.8
% Nitrobenzene-d5 Rec.		81.0

VAP STANDARDS

(Effective 10/21/02) Residential Single Comm / Ind Single Construction Sing					
Chemical	Chemical Soil (mg/kg)	Chemical Soil (mg/kg)	Chemical Soil (mg/kg)		
Volatile Organic Compounds	(
Acetone	7.300	100,000	100,000		
Benzene	9.8	100	310		
Carbon Disulfide	350	720	720		
Carbon Tetrachloride	1.7	16	63		
Chlorobenzene	150	690	690		
Chloroethane	8,800	100,000	92,000		
Chloroform	7.3	32	410		
Dibromochloromethane	130	1,300	1,300		
Dichlorodifluoromethane	120	850	850		
Dichloroethane, 1,1 -	580 10	2,300 49	2,300 560		
Dichloroethane, 1,2 - Dichloroethene, 1,1 -	1.6	7.5	87.0		
Dichloroethene, cis - 1,2	760	1,200	1,200		
Dichloroethene, trans - 1,2 -	1.500	2.500	2,500		
Dichloropropane, 1,2 -	6.4	60	210		
Dichloropropene, 1,3 -	13	95	19		
Dioxane, 1,4 -	980	19,000	54,000		
Ethyl Ether	15,000	580,000	1,000,000		
Ethylbenzene	230	230	230		
Formaldehyde	15,000	580,000	120,000		
Formic acid	150,000	1,000,000	1,000,000		
Hexane, n -	71	180	180		
sobutyl Alcohol	22,000	25,000	25,000		
Methanol	38,000	1,000,000	1,000,000		
Methyl Ethyl Ketone Methyl Isobutyl Ketone	6,700	71,600 7.400	80,000 16.000		
Methyl tert- Butyl Ether (MTBE)	5,300	7,400	7,200		
Methylene Chloride	250	1,300	2,300		
Styrene	1,700	1,700	1,700		
Fetrachloroethane , 1,1,1,2 -	95	490	2,800		
Tetrachloroethane, 1,1,2,2 -	11	55	580		
Tetrachloroethene	130	370	370		
Foluene	520	520	520		
Trichloroethane, 1,1,1 -	990	1,400	1,400		
Frichloroethane, 1,1,2 -	24	120	1,300		
Trichloroethene	80	380	800		
Trichlorofluoromethane	490	2,000	2,000		
Frichloropropane, 1,2,3 -	1.5	29	85		
/inyl Acetate	410 3.7	2,700 25	2,700		
/inyl Chloride	160	160	160		
(ylenes, Total Semi-Volatile Organic Compounds	1 100	100	100		
Acenaphthene	4.600	180,000	530,000		
Acetophenone	7,600	290,000	870,000		
Acrylonitrile	3.7	18	48		
Aniline	5.8	56	570		
Anthracene	23,000	880,000	1,000,000		
Benzidine	0.05	0.88	2.6		
Benzo(a)anthracene	11	63	810		
Benzo(a)pyrene	1.1	6.3	81		
Benzo(b)fluoranthene	11	63	810		
Benzo(k)fluoranthene	110	630	8,100		
Bis (2-ethylhexyl) Phthalate	230	230	230		
Butyl Benzyl Phthalate	220	220	220		
Carbazole	530 28	10,000	31,000 400		
Chlordane	1,100	6,700	41,000		
Dibenz(a,h)anthracene	1,100	6.7	41,000		
Dichlorobenzene, 1,2 -	150	370	370		
Dichlorobenzene, 1,3 -	68	240	240		
Dichlorobenzene, 1,4 -	95	470	5,300		
Dichlorobenzidine, 3,3 -	24	450	1,400		

VAP STANDARDS

Chemical	Residential Single Chemical Soil (mg/kg)	Comm / Ind Single Chemical Soil (mg/kg)	Construction Single Chemical Soil (mg/kg)
Dichlorodiphenyldichloroethane (DDD)	41	500	2,100
Dichlorodiphenyldichloroethene (DDE)	29	350	1,500
Dichlorodiphenyltrichloroethane (DDT)	29	350	360
Dichlorophenoxyacetic acid, 2,4 -	760	29,000	8,700
Diethyl Phthalate	640	640	640
Dimethylphenol, 2,4 -	1,500	59,000	180,000
Di-n-butyl Phthalate	100	100	100,000
	7.6	290	870
Dinitrobenzene, meta -			3,400
Dinitrobenzene, ortho -	31	1,200	
Dinitrotoluene, 2,4 -	150	5,800	1,700
Dinitrotoluene, 2,6 -	76	2,900	8,800
Endrin	23	870	260
Ethylene Glycol	120,000	120,000	120,000
Fluoranthene	2,300	33,000	170,000
Fluorene	3,100	120,000	340,000
Heptachlor	2.5	44	130
Heptachlor Epoxide	1	22	11
Hexachloro- 1,3 - Butadiene	15	580	170
Hexachlorobenzene	6.9	120	370
Hexachloroethane	77	2,900	8,600
	11	67	410
Indeno(1,2,3-c,d)pyrene		4,600	
Isophorone	4,600		4,600
Isopropylbenzene (Cumene)	860	860	860
Lindane	7.6	80	350
m-cresol	3,900	150,000	430,000
Methoxychlor	390	15,000	4,300
Methylnaphthalene, 1 -	120	120	120
Naphthalene	54	530	1,900
Nitrobenzene	23	370	1,700
Nitrosodiphenylamine, n -	2,200	41,000	120,000
o-cresol	390	15,000	4,300
Octyl Phthalate, di(n) -	1.500	10,000	10,000
	390	8,500	4,300
p-cresol	51	240	1,700
Pentachlorophenol			510,000
Phenol	46,000	1,000,000	
Polychlorinated Biphenyls (PCB)	1.1	16	25
Pyrene	1,700	25,000	130,000
Pyridine	77	2,900	8,600
Silvex (2,4,5 TP)	620	23,000	6,900
Toxaphene	10	180	540
Trichlorophenol, 2,4,5 -	7,700	290,000	860,000
Trichlorophenol, 2,4,6 -	1,000	18,000	54,000
Trimethylbenzene, 1,2,4	22	210	230
Trimethylbenzene, 1,3,5	19	180	200
Trinitrobenzene, 1,3,5 -	2,300	87,000	26,000
Inorganic Analytes	2,000	07,000	20,000
Aluminum	75,000	1,000,000	140,000
	31	1200	340
Antimony			210
Arsenic, Inorganic	6.8	80	
Barium and Compounds	5,400	200,000	45,000
Beryllium and Compounds	150	5,700	600
Cadmium	35	770	420
Chromium (III)	120,000	1,000,000	850,000
Chromium (VI)	230	8,900	2,000
Cobalt	1,400	40,000	660
Cyanide, Free	1,600	60,000	17,000
Fluorides, Soluble	4,700	180,000	51,000
Lead	400	1,800	1,600
	7.8	300	84
Mercury			5,000
Nickel (Soluble Salts)	1,500	57,000	
Selenium and Compounds	390	15,000	4,300
Silver	390	15,000	4,300
Thallium	6.2	240	680
Vanadium	700	27,000	7,700
Zinc and Compounds	23.000	900,000	260,000

VAP STANDARDS

3745-300-08

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gasoline, and the soils on the property are determined to have a vertical hydraulic conductivity (K_{ν}) of 10^{-3} cm/s then, in addition to meeting the industrial generic direct-contact soil standards for benzene, ethylbenzene, toluene, total xylenes and N-hexane, the total petroleum hydrocarbon concentration must not exceed one thousand mg/kg.]

Table I: "Total Petroleum Hydrocarbon Soil Saturation Concentration" (values are in mg/kg).

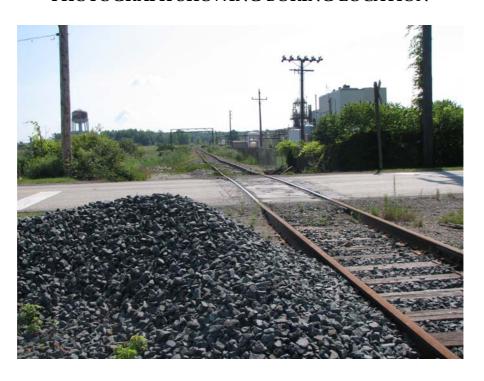
	Residual Saturation Concentrations for:	Residual Saturation Concentrations for:	Residual Saturation Concentrations for:
Petroleum Fraction	Sand and Gravel; Unknown Soil Type	Silty/Clayey Sand	Glacial Till and Silty Clay
	K _v : 10 ⁻³ - 10 ⁻⁴ cm/s	K _v : 10 ⁻⁴ - 10 ⁻⁵ cm/s	K _v : < 10 ⁻⁵ cm/s
Light (C ₄ -C ₁₂)	1,000	5,000	8,000
Middle (C ₇ -C ₁₆)	2,000	10,000	20,000
Heavy (C ₁₆ -C ₃₂)	5,000	20,000	40,000

Where: "Mg/kg" means milligrams per kilogram, " K_s " means vertical hydraulic conductivity of the unsaturated soil, "cm/s" means centimeters per second, and " C_s " means carbon chain length.

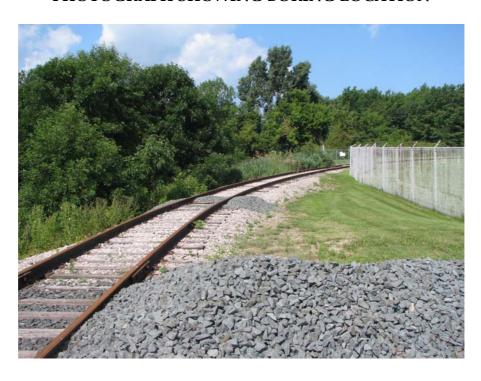
(b) Reporting limits for certified laboratories.

The volunteer must determine that the certified laboratory, which performs analyses that form the basis for the issuance of a further action letter, is capable of detecting the chemical(s) of concern on the property at or below the applicable generic direct-contact soil standards. The volunteer should contact the certified laboratory that is conducting analyses in support of the voluntary action to determine if the cleanup standards contained in paragraph (B)(3) of this rule are within the laboratory's reporting limits. In addition, the volunteer should be aware that even if the standards contained in paragraph (B)(3) of this rule are within the certified laboratory's reporting limits, the actual cleanup levels that must be met at a property may be lower if multiple chemicals of concern exist at the property. Properties with multiple chemicals of concern must perform a cumulative adjustment following the procedure contained in paragraph (B)(2)(b) of this rule. The volunteer must ensure that the cleanup levels after performing this cumulative adjustment, are not below the certified laboratory's reporting limits.

PHOTOGRAPH SHOWING BORING LOCATION



PHOTOGRAPH SHOWING BORING LOCATION



PHOTOGRAPH SHOWING BORING LOCATION

