May 7, 2021

MEMORANDUM

INFORMAL DISCUSSION #I
MEETING OF 05-13-21

To: Conservation Commission/Inland Wetlands and Watercourses Agency

From: Tom Mocko, Environmental Planner

Re: Proposed 8-lot Subdivision at 1040 Main Street (across from Southgate Drive) – 8 frontage lots and some 650 feet of new public road (with a permanent cul-de-sac) on 9.3 acres – Residence AA Zone and Groundwater Protection (overlay) Zone 1 – Alter & Pearson, LLC – Davison Environmental, Soil and Wetland Scientist and Wildlife Biologist – Wolff Engineering, C.E. – Carrier Construction, Inc., landowner/applicant

LOCATION: Please refer to the location map on the cover of the site plans or following this memorandum.

PROPOSAL: To subdivide a vacant, 9.3 acre parcel (that previously was in agricultural use and excavated for sand and gravel) into 8 frontage building lots and construct a 650-foot long Town road from Main Street. Extensive excavation and mass regrading of the site are proposed in order to facilitate road construction and to re-shape the topographic irregularities that resulted from the past mining operations. The subdivision will be served by sanitary sewers, public MDC water supply, electricity, cable and, perhaps, natural gas. A conservation easement is proposed to protect the site's wetlands and vernal pool. Stormwater management plans are progressing to satisfy the Engineering Department's requirements for detention (mitigation of peak discharges of runoff) and water quality mitigation.

REVIEW: Within your packet are:

- A set of site plans;
- A good descriptive written narrative of the proposal prepared by the applicant's Attorney Meghan Hope;
- A Wetlands/Watercourses Delineation report from Davison Environmental;
- A Vernal Pool Survey Findings and Recommended Protection Measures report from Davison Environmental; and
- A series of aerial photographs of the subject site over time (1934, 1951-52, 1970, 1986, 1990, 1995 & 2004) that indicate the land use and vegetative cover for each year of the photos.

Following this memorandum are:

- A GIS map that identifies the subject site and the nearby Town open space parcel and existing conservation, drainage and sanitary sewer easements;
- Selected excerpts from the Draft Drainage Calculations submitted by the project engineering firm Wolff Engineering; and
- Selected excerpts from GEI Consultants' investigation into residual pesticides in the site's soils from a soil sampling and testing exercise.

The topography is varied over the site with very steep escarpments occurring at the western side (where a north-to-south oriented esker or esker-like geologic formation exists close to Main Street) and within the site's eastern portion (where past excavation/mining activity occurred). Moderate and gentle slopes occur elsewhere on the site. The majority of the site drains easterly toward the site's natural and manmade (by excavation and interception of the water table) wetlands system, that then drains to a small brook (tributary of Holland Brook) that flows to the north once the collected drainage exits the site; ultimately, crossing Main Street and Red Hill Drive before its confluence with Holland Brook. The site's topography necessitates the amount of excavation and mass regrading shown on the plans in order to construct a Town road into the site and construct the eight new frontage building lots. All of this equates to the need for fail-safe soil erosion and sediment control planning for the project.

Refer to the Existing Conditions plan (sheet 3 of 17) with the plan set to see the number of large, specimen trees on the site. Most of the site's trees will be lost due to the proposed excavation and regrading. The main area where trees can be saved occurs within the extreme southern portion of the site.

Available soils mapping indicates the site consists mainly of the well-to-excessively drained Manchester gravelly sandy loam and the well-drained Haven and Enfield soils; both soils are terrace soils believed to be underlain by coarse grained stratified drift deposits. The naturally occurring wetlands are mapped as Scarboro muck, and then there are the manmade (via excavation) wetlands. Please peruse the two reports from the Davison for more details concerning the site's wetlands and vernal pool; the vernal pool report includes proposed mitigation measures of providing an undisturbed buffer to the pool, establishing a "play pen" approach (using silt fence) to seasonally protect the wood frogs, using Cape Cod curbs along the road, and not using one-inch or less mesh plastic netting for erosion control blankets (that may capture and trap wood frogs). Note that a deteriorated culvert connecting the site's wetlands exists and that it needs to be replaced; its replacement facilitates a future walking path from the subdivision to the open space to the east.

The soil erosion and sediment control plans (plan components, narratives, notes and details) are off to a good start given the proposed land disturbances. The proposed phasing and sequencing is equally as important as the proposed control measures. In discussions with the project engineer (Ron Wolff) to date, staff has suggested improvements to the provided control plans, namely:

- Indicating that wood chip berms are an alternative sediment barrier to use since a large volume of chips will be generated from the tree clearing, and that such berms are likely more effective than using silt fence; and
- Also indicating that "filter socks" are an alternative and have their advantages in certain situations as use as a sediment barrier.

Further staff review recommends that:

- More sediment barriers be indicated on the plan (e.g. at the toe of disturbed slopes); and
- The recommended seed mixes be expanded to provide alternative seed mixes and avoid using a single-species approach.

Staff recommends an expansion of the proposed conservation easement area in order to protect the steep slopes that immediately surround the wetlands and to provide a long term vegetated filter strip (of a minimum of 25 feet beyond the wetlands limits.

Other aspects to consider at the upcoming meeting are:

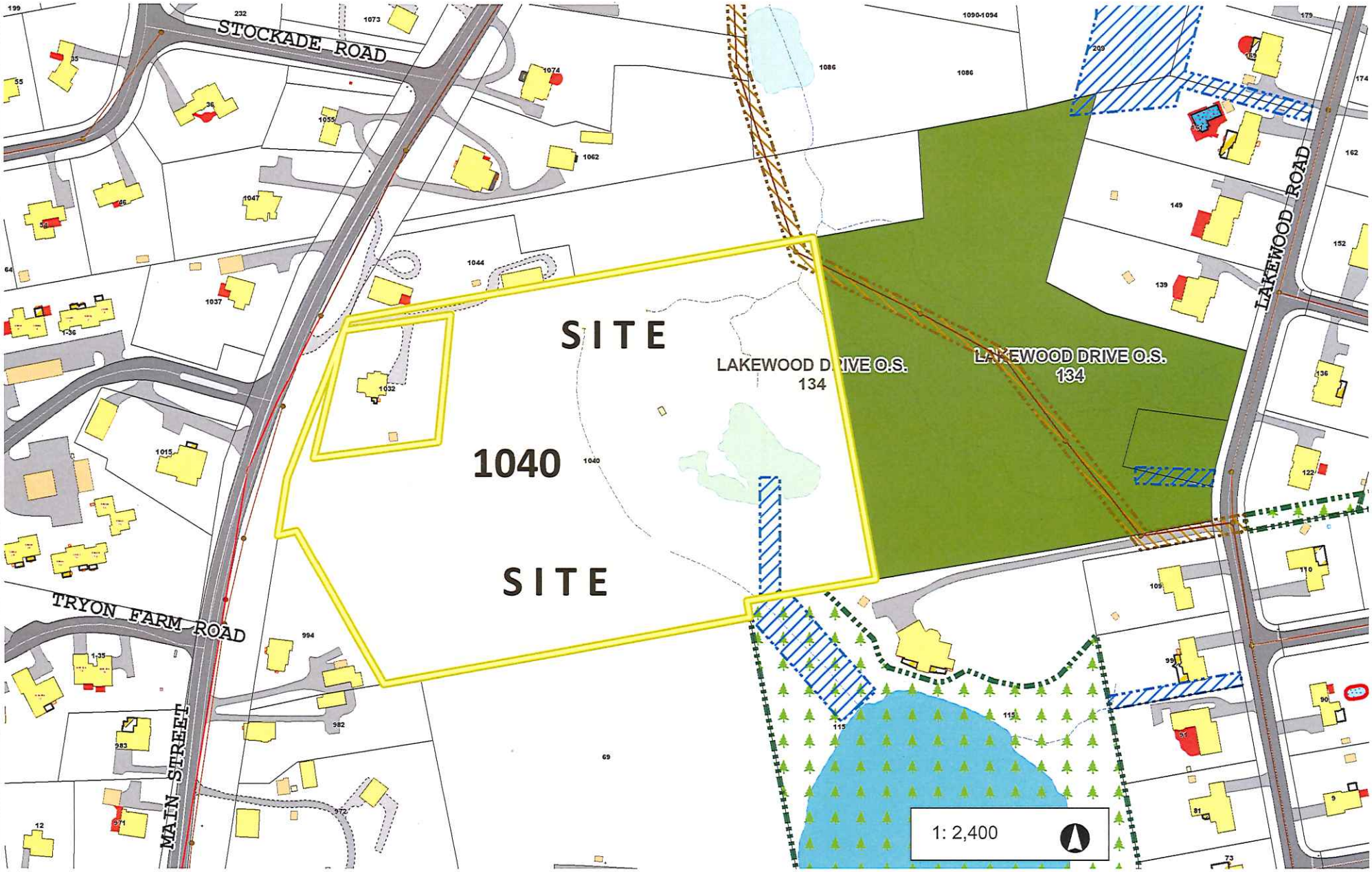
a. Are the proposed cuts and fills balanced at the site? What is the volume of surplus soil material that will be trucked away?
b. Is there an esker or other significant geologic feature on the site that needs to be duly identified on the plans (pursuant to subdivision regulations requirements)?
c. Does the Commission/Agency see a benefit in scheduling an on-site meeting to further explore the site's topography and discuss matters?

The centerline of the proposed road, the corners of houses and the limits of the proposed stormwater treatment basin were staked and labelled on the land. Also, one can orient themselves on the land where the numbered wetlands flags are found using the site plans.

TM:gfm

Site in relation to existing, nearby open space & easements (conservation & drainage)

Town of Glastonbury



400 0 200 400 Feet

NAD_1983_StatePlane_Connecticut_FIPS_0600_Feet

© Town of Glastonbury G I S

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

"Proposed 8 Lot Subdivision"

1040 Main Street
Glastonbury, Connecticut

Excerpts from **Draft Drainage Calculations**

Prepared For

Carrier Construction, Inc.
P.O. Box 1842
Bristol, CT 06010-1842

Submitted To:

The Town of Glastonbury

Prepared By:

Civil Engineers
Cornerstone Professional Park, Suite C101
39 Sherman Hill Road
Woodbury, CT 06798
Tel.: 203.263.7447
Fax: 203.263.0060
Email: ron@wolffengineering.com
www.wolffengineering.com

Date: April 15, 2021

TABLE OF CONTENTS

1.0 PROJECT DESCRIPTION

This project consists of the subdivision of an existing 9.3 acre parcel currently known as #1040 Main Street into 8 Lots. The subject parcel is located on the east side of Main Street, across from Southgate Drive. The proposed development is located in the Residence AA and Groundwater Protection Zone 1 zoning districts.

2.0 EXISTING CONDITIONS

The existing parcel is primarily wooded. There is a steep upward slope that begins approximately 20 feet east of Main Street and extends to a north/south ridge. The property then gradually slopes down to the northeast corner of the property. There are two wetland areas on the property, as well as a vernal pool that is located in the southeast corner of the property.

3.0 PROPOSED CONDITIONS

It is proposed to develop the parcel into 8 residential building lots. The proposed road is 650 feet long and 22 feet wide, and will have curbing along each gutter. The proposed roadway drainage system consists of Type "C" catch basins and a sediment structure connected with reinforced concrete pipe, with 15" diameter minimum pipe size. Runoff from the proposed roadway, building lots, and driveways will be directed to the proposed stormwater/water quality basin. Roof leader drains are proposed to be directed into underground stormwater infiltration chambers. The stormwater basin was designed to provide a zero increase in runoff for the 2, 10, 25, and 100-year storm events assuming zero infiltration into the basin floor (conservative). An underdrain is proposed to drain the basin following storm events. The following table summarizes the pre and post development flows for the watershed that is being routed through the stormwater management area:

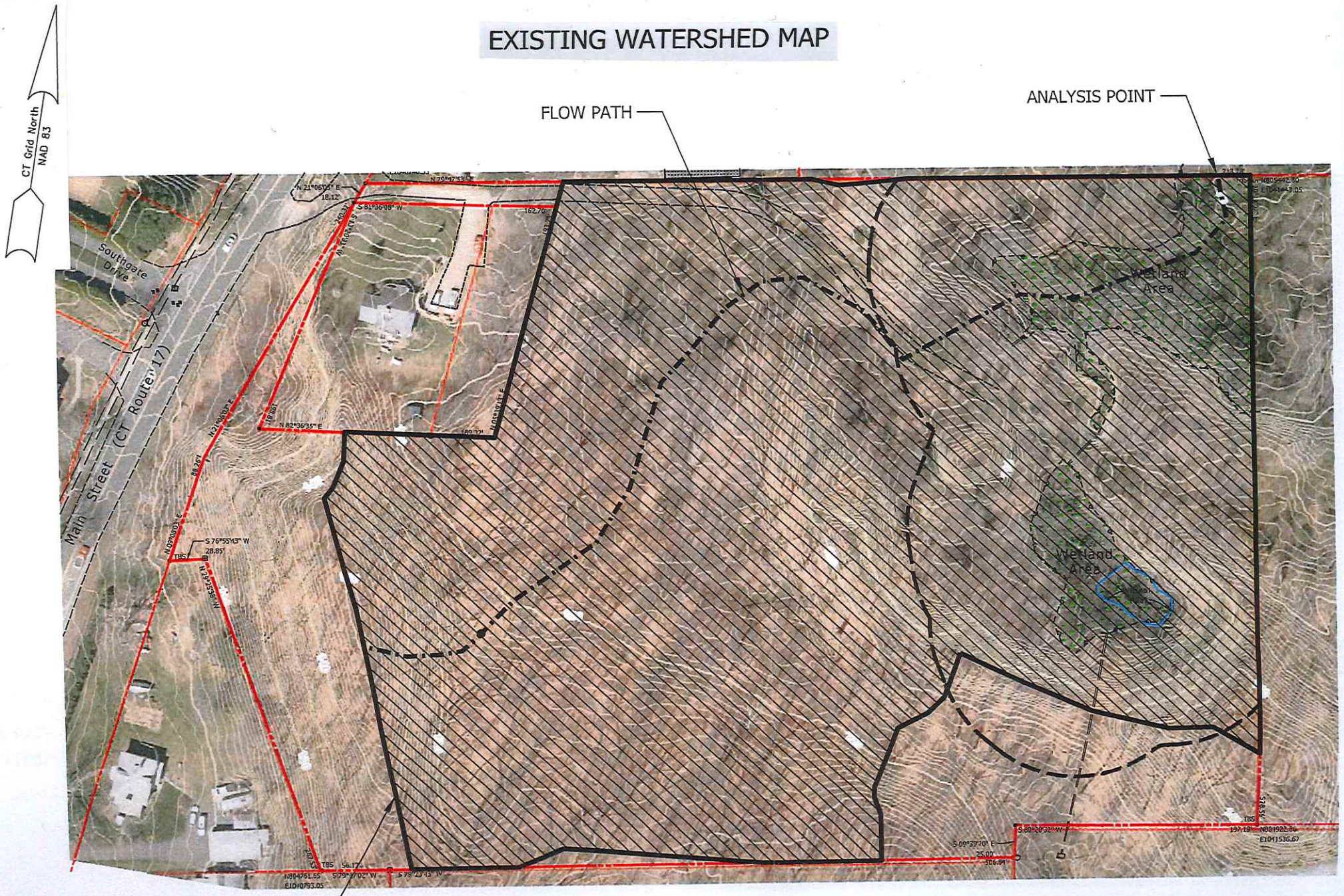
DRAINAGE SUMMARY				
CONDITION	FLOW (CFS)			
	2 Year	10 Year	25 Year	100 Year
Existing Conditions at Analysis Point	0.02	0.88	2.62	7.06
Discharge From Stormwater Management Area	0.00	0.45	1.32	5.06
Proposed Flow at Analysis Point	0.01	0.56	1.64	6.02
Change in Flow at Analysis Point	-0.01	-0.32	-0.98	-1.04

All of the proposed flows and design calculations for the proposed drainage system and stormwater basins are attached to this document.

4.0 METHODS

The SCS method was used to determine the peak discharge rates contributing to the stormwater management area. Soil types were obtained from NRCS soil mapping. Groundwater Recharge Volume calculations were performed in accordance with the 2004 Connecticut Stormwater Quality Manual Hydrologic Soil Group Approach.

EXISTING WATERSHED MAP



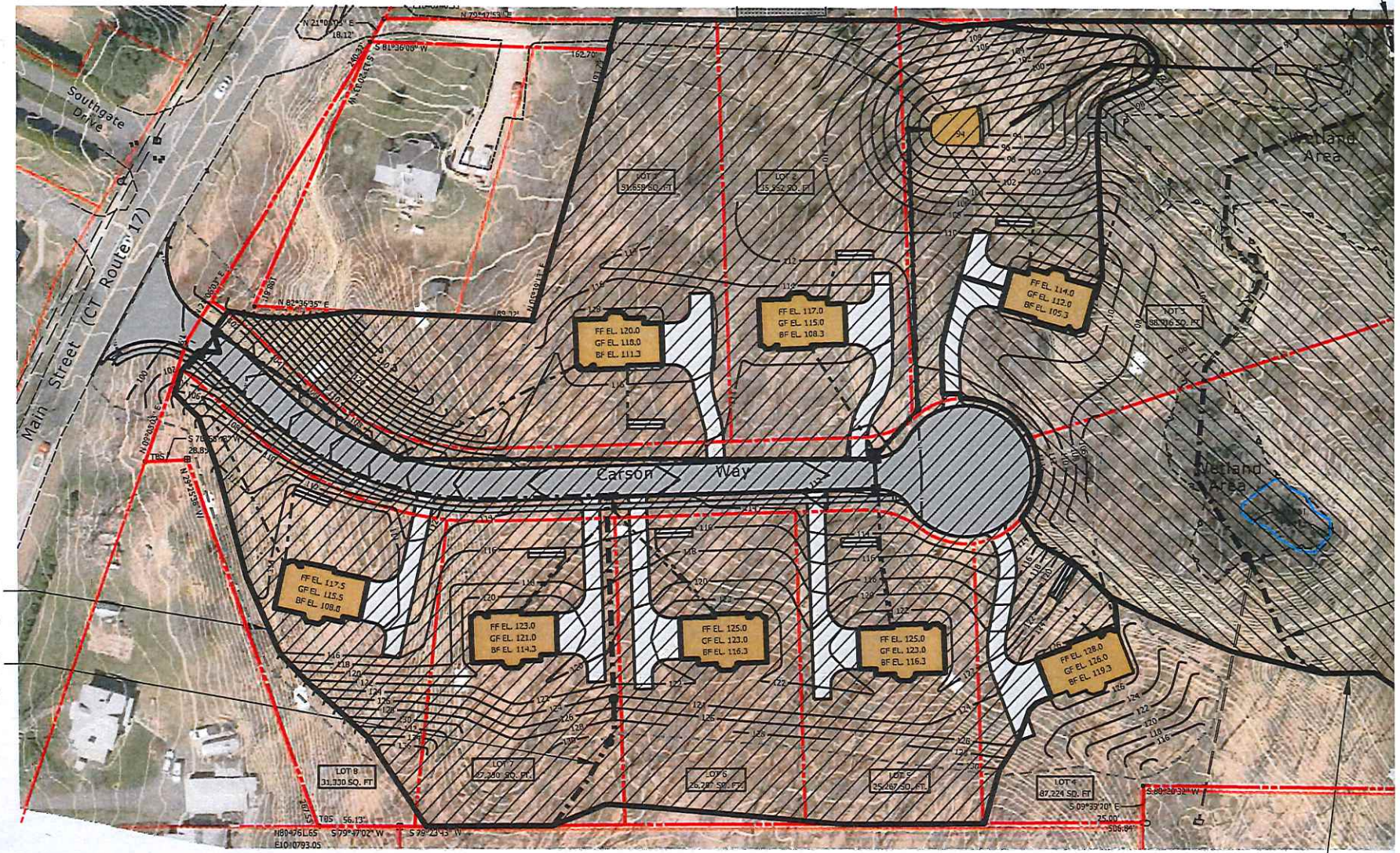
PLAN

SCALE: 1"=100'

PROPOSED WATERSHED MAP

CT Grid North
NAD 83

ANALYSIS POINT



WATERSHED BOUNDARY FOR STORMWATER POND

FLOW PATH (STORMWATER POND)

WATERSHED BOUNDARY FOR STORMWATER POND BYPASS AREA

PLAN

SCALE: 1"=100'

GEI Consultants

Consulting
Engineers and
Scientists

April 15, 2021

Gino Carrier
Carrier Construction
161 Birch Street, Suite B
Southington, CT 06489

Re: Pesticide Sampling
1040 Main Street
South Glastonbury, CT

Dear Mr. Carrier:

GEI Consultants, Inc. (GEI) provided collection and analysis services of surficial soils primarily within the central portions of the property located at 1040 Main Street, South Glastonbury, CT (the Site). Based on historical aerial photos, the Site may have historically been utilized for agricultural purposes. Based on the potential of past agricultural usage GEI was retained to collect surficial soil samples for the analysis of lead, arsenic, and organochloride pesticides.

On April 5, 2021, a GEI environmental scientist collected a total of 6 surficial soil samples utilizing hand tools at the Site. The surficial soil samples were collected from a depth interval of 0-12" at each of the selected locations.

The collected soil samples were submitted to Phoenix Environmental laboratories of Manchester, CT for the analysis of total arsenic and total lead. In addition, two of the soil samples were also analyzed for organochlorine pesticides via EPA Method 8081.

- Analytical results from the soil samples submitted for analysis did not detect the presence of any organochlorine pesticides. In addition, the analytical results of the lead and arsenic are not consistent with a profile for soil that is polluted as a result of the application of pesticides. A copy of laboratory analytical results is attached.

- Based on the analytical results, the soil represented by the collected samples would be classified as clean fill in accordance with Section 22a-209-1 of the Regulations of Connecticut State Agencies (RCSA).

Sincerely,

GEI CONSULTANTS, INC.

Charles D. Brink, LEP
Senior Environmental Professional
cbrink@geiconsultant.com

Mark A. Franson, P.E., LEP
Senior Environmental Engineer
mfranson@geiconsultants.com

Enclosure: Laboratory Analytical Results

PHOENIX
Environmental Laboratories, Inc.

Thursday, April 08, 2021

Attn: Mr. Charles Brink
GEI Consultants
455 Winding Brook Drive
Suite 201
Glastonbury, CT 06033

Project ID: CARRIER BUILDERS
SDG ID: GCH92361
Sample ID#s: CH92361 - CH92366

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

April 08, 2021

FOR: Attn: Mr. Charles Brink
GEI Consultants
455 Winding Brook Drive
Suite 201
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	PB	04/05/21	13:50
Location Code:	GEI	Received by:	LB	04/05/21	16:52
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2101248				

Laboratory Data

SDG ID: GCH92361
Phoenix ID: CH92361

Project ID: CARRIER BUILDERS
Client ID: SS-01

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Arsenic	3.63	0.84	mg/Kg	1	04/06/21	EK	SW6010D
Lead	88.5	0.42	mg/Kg	1	04/06/21	EK	SW6010D
Percent Solid	74		%		04/05/21	AN	SW846-%Solid
Soil Extraction for Pesticide	Completed				04/05/21	L/A	SW3545A
Total Metals Digest	Completed				04/05/21	C/AG/BF	SW3050B
Pesticides							
4,4' -DDD	ND	8.8	ug/Kg	2	04/06/21	CG	SW8081B
4,4' -DDE	ND	8.8	ug/Kg	2	04/06/21	CG	SW8081B
4,4' -DDT	ND	8.8	ug/Kg	2	04/06/21	CG	SW8081B
a-BHC	ND	8.8	ug/Kg	2	04/06/21	CG	SW8081B
Alachlor	ND	8.8	ug/Kg	2	04/06/21	CG	SW8081B
Aldrin	ND	4.4	ug/Kg	2	04/06/21	CG	SW8081B
b-BHC	ND	8.8	ug/Kg	2	04/06/21	CG	SW8081B
Chlordane	ND	44	ug/Kg	2	04/06/21	CG	SW8081B
d-BHC	ND	8.8	ug/Kg	2	04/06/21	CG	SW8081B
Dieldrin	ND	4.4	ug/Kg	2	04/06/21	CG	SW8081B
Endosulfan I	ND	8.8	ug/Kg	2	04/06/21	CG	SW8081B
Endosulfan II	ND	8.8	ug/Kg	2	04/06/21	CG	SW8081B
Endosulfan sulfate	ND	8.8	ug/Kg	2	04/06/21	CG	SW8081B
Endrin	ND	8.8	ug/Kg	2	04/06/21	CG	SW8081B
Endrin aldehyde	ND	8.8	ug/Kg	2	04/06/21	CG	SW8081B
Endrin ketone	ND	8.8	ug/Kg	2	04/06/21	CG	SW8081B
g-BHC	ND	1.8	ug/Kg	2	04/06/21	CG	SW8081B
Heptachlor	ND	8.8	ug/Kg	2	04/06/21	CG	SW8081B
Heptachlor epoxide	ND	8.8	ug/Kg	2	04/06/21	CG	SW8081B
Methoxychlor	ND	44	ug/Kg	2	04/06/21	CG	SW8081B
Toxaphene	ND	180	ug/Kg	2	04/06/21	CG	SW8081B

Ver 1

Project ID: CARRIER BUILDERS
Client ID: SS-01

Phoenix I.D.: CH92361

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% DCBP	70		%	2	04/06/21	CG	30 - 150 %
% DCBP (Confirmation)	53		%	2	04/06/21	CG	30 - 150 %
% TCMX	70		%	2	04/06/21	CG	30 - 150 %
% TCMX (Confirmation)	63		%	2	04/06/21	CG	30 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director
April 08, 2021
Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

April 08, 2021

FOR: Attn: Mr. Charles Brink
GEI Consultants
455 Winding Brook Drive
Suite 201
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	PB	04/05/21	14:40
Location Code:	GEI	Received by:	LB	04/05/21	16:52
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2101248				

Laboratory Data

SDG ID: GCH92361
Phoenix ID: CH92362

Project ID: CARRIER BUILDERS
Client ID: SS-02

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Arsenic	1.41	0.74	mg/Kg	1	04/06/21	EK	SW6010D
Lead	89.0	0.37	mg/Kg	1	04/06/21	EK	SW6010D
Percent Solid	87		%		04/05/21	AN	SW846-%Solid
Total Metals Digest	Completed				04/05/21	C/AG/BF	SW3050B

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director
April 08, 2021
Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

April 08, 2021

FOR: Attn: Mr. Charles Brink
GEI Consultants
455 Winding Brook Drive
Suite 201
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	PB	04/05/21	14:45
Location Code:	GEI	Received by:	LB	04/05/21	16:52
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2101248				

Laboratory Data

SDG ID: GCH92361
Phoenix ID: CH92363

Project ID: CARRIER BUILDERS
Client ID: SS-03

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Arsenic	2.84	0.82	mg/Kg	1	04/06/21	EK	SW6010D
Lead	30.4	0.41	mg/Kg	1	04/06/21	EK	SW6010D
Percent Solid	79		%		04/05/21	AN	SW846-%Solid
Total Metals Digest	Completed				04/05/21	C/AG/BF	SW3050B

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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April 08, 2021
Reviewed and Released by: Rashmi Makol, Project Manager

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Analysis Report

April 08, 2021

FOR: Attn: Mr. Charles Brink
GEI Consultants
455 Winding Brook Drive
Suite 201
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	PB	04/05/21	14:55
Location Code:	GEI	Received by:	LB	04/05/21	16:52
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2101248				

Laboratory Data

SDG ID: GCH92361
Phoenix ID: CH92364

Project ID: CARRIER BUILDERS
Client ID: SS-04

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Arsenic	3.36	0.84	mg/Kg	1	04/06/21	EK	SW6010D
Lead	22.5	0.42	mg/Kg	1	04/06/21	EK	SW6010D
Percent Solid	78		%		04/05/21	AN	SW846-%Solid
Soil Extraction for Pesticide	Completed				04/05/21	L/E	SW3545A
Total Metals Digest	Completed				04/05/21	C/AG/BF	SW3050B
Pesticides							
4,4' -DDD	ND	8.4	ug/Kg	2	04/06/21	CG	SW8081B
4,4' -DDE	ND	8.4	ug/Kg	2	04/06/21	CG	SW8081B
4,4' -DDT	ND	8.4	ug/Kg	2	04/06/21	CG	SW8081B
a-BHC	ND	8.4	ug/Kg	2	04/06/21	CG	SW8081B
Alachlor	ND	8.4	ug/Kg	2	04/06/21	CG	SW8081B
Aldrin	ND	4.2	ug/Kg	2	04/06/21	CG	SW8081B
b-BHC	ND	8.4	ug/Kg	2	04/06/21	CG	SW8081B
Chlordane	ND	42	ug/Kg	2	04/06/21	CG	SW8081B
d-BHC	ND	8.4	ug/Kg	2	04/06/21	CG	SW8081B
Dieldrin	ND	4.2	ug/Kg	2	04/06/21	CG	SW8081B
Endosulfan I	ND	8.4	ug/Kg	2	04/06/21	CG	SW8081B
Endosulfan II	ND	8.4	ug/Kg	2	04/06/21	CG	SW8081B
Endosulfan sulfate	ND	8.4	ug/Kg	2	04/06/21	CG	SW8081B
Endrin	ND	8.4	ug/Kg	2	04/06/21	CG	SW8081B
Endrin aldehyde	ND	8.4	ug/Kg	2	04/06/21	CG	SW8081B
Endrin ketone	ND	8.4	ug/Kg	2	04/06/21	CG	SW8081B
g-BHC	ND	1.7	ug/Kg	2	04/06/21	CG	SW8081B
Heptachlor	ND	8.4	ug/Kg	2	04/06/21	CG	SW8081B
Heptachlor epoxide	ND	8.4	ug/Kg	2	04/06/21	CG	SW8081B
Methoxychlor	ND	42	ug/Kg	2	04/06/21	CG	SW8081B
Toxaphene	ND	170	ug/Kg	2	04/06/21	CG	SW8081B

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

April 08, 2021

FOR: Attn: Mr. Charles Brink
GEI Consultants
455 Winding Brook Drive
Suite 201
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	PB	04/05/21	15:02
Location Code:	GEI	Received by:	LB	04/05/21	16:52
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2101248				

Laboratory Data

SDG ID: GCH92361
Phoenix ID: CH92365

Project ID: CARRIER BUILDERS
Client ID: SS-05

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Arsenic	3.21	0.78	mg/Kg	1	04/06/21	EK	SW6010D
Lead	45.5	0.39	mg/Kg	1	04/06/21	EK	SW6010D
Percent Solid	80		%		04/05/21	AN	SW846-%Solid
Total Metals Digest	Completed				04/05/21	C/AG/BF	SW3050B

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director
April 08, 2021
Reviewed and Released by: Rashmi Makol, Project Manager

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FOR: Attn: Mr. Charles Brink
GEI Consultants
455 Winding Brook Drive
Suite 201
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	PB	04/05/21	15:15
Location Code:	GEI	Received by:	LB	04/05/21	16:52
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2101248				

Laboratory Data

SDG ID: GCH92361
Phoenix ID: CH92366

Project ID: CARRIER BUILDERS
Client ID: SS-06

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Arsenic	2.35	0.78	mg/Kg	1	04/06/21	EK	SW6010D
Lead	24.6	0.39	mg/Kg	1	04/06/21	EK	SW6010D
Percent Solid	81		%		04/05/21	AN	SW846-%Solid
Total Metals Digest	Completed				04/05/21	C/AG/BF	SW3050B

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
April 08, 2021
Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
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QA/QC Report

April 08, 2021

QA/QC Data

SDG I.D.: GCH92361

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 569684 (ug/Kg), QC Sample No: CH91907 2X (CH92361, CH92364)											
Pesticides - Soil											
4,4' -DDD	ND	1.7	88	75	16.0	89	82	8.2	40 - 140	30	
4,4' -DDE	ND	1.7	87	70	21.7	90	84	6.9	40 - 140	30	
4,4' -DDT	ND	1.7	73	63	14.7	81	80	1.2	40 - 140	30	
a-BHC	ND	1.0	80	69	14.8	79	78	1.3	40 - 140	30	
Alachlor	ND	3.3	NA	NA	NC	NA	NA	NC	40 - 140	30	
Aldrin	ND	1.0	90	76	16.9	87	86	1.2	40 - 140	30	
b-BHC	ND	1.0	82	68	18.7	79	75	5.2	40 - 140	30	
Chlordane	ND	33	94	79	17.3	95	89	6.5	40 - 140	30	
d-BHC	ND	3.3	85	70	19.4	87	83	4.7	40 - 140	30	
Dieldrin	ND	1.0	92	76	19.0	90	84	6.9	40 - 140	30	
Endosulfan I	ND	3.3	91	64	34.8	88	84	4.7	40 - 140	30	r
Endosulfan II	ND	3.3	90	75	18.2	89	82	8.2	40 - 140	30	
Endosulfan sulfate	ND	3.3	83	79	4.9	84	81	3.6	40 - 140	30	
Endrin	ND	3.3	68	58	15.9	69	65	6.0	40 - 140	30	
Endrin aldehyde	ND	3.3	60	49	20.2	65	71	8.8	40 - 140	30	
Endrin ketone	ND	3.3	77	63	20.0	74	67	9.9	40 - 140	30	
g-BHC	ND	1.0	90	75	18.2	85	82	3.6	40 - 140	30	
Heptachlor	ND	3.3	86	73	16.4	85	84	1.2	40 - 140	30	
Heptachlor epoxide	ND	3.3	78	63	21.3	76	74	2.7	40 - 140	30	
Methoxychlor	ND	3.3	73	68	7.1	76	71	6.8	40 - 140	30	
Toxaphene	ND	130	NA	NA	NC	NA	NA	NC	40 - 140	30	
% DCBP	63	%	72	58	21.5	68	63	7.6	30 - 150	30	
% DCBP (Confirmation)	61	%	73	61	17.9	74	71	4.1	30 - 150	30	
% TCMX	61	%	70	59	17.1	65	70	7.4	30 - 150	30	
% TCMX (Confirmation)	64	%	75	62	19.0	69	75	8.3	30 - 150	30	

r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
April 08, 2021