

Consulting
Engineers and
Scientists

July 30, 2015 Project 11649-6

Via E-mail: NPDES.Generalpermits.epa.gov

Environmental Protection Agency DGP NOI Processing 5 Post Office Square, Suite 100 Mail Code OEP06-4 Boston, MA 02109-3912

Dear Sir or Madam:

Re: Notice of Intent

NPDES Dewatering General Permit

Conley Terminal Dedicated Freight Corridor and

Buffer Open Space

South Boston, Massachusetts

On behalf of the Massachusetts Port Authority (Massport), GEI Consultants, Inc. has prepared this Notice of Intent (NOI) for coverage under the National Pollutant Discharge Elimination System (NPDES) Dewatering General Permit (DGP), Massachusetts General Permit (MAG070000). This NOI was prepared in accordance with the general requirements of the NPDES DGP under Federal Register Document Citation 80 FR 21716 dated April 20, 2015, and related guidance documentation provided by the U.S. Environmental Protection Agency (EPA). The completed NOI form is provided in Appendix A.

Site Information

This NOI has been prepared for the discharge of dewatering effluent that will be generated during construction of a bridge abutment for the Conley Terminal Dedicated Freight Corridor. The proposed bridge abutment is located on a portion of property owned by Massport at 776 Summer Street in South Boston, Massachusetts (the Property; Fig. 1). The Property is bounded by Summer Street to the west, the Reserved Channel to the north, the Exelon inlet to the east, and the remaining Exelon New Boston facility to the south (Figs. 1 and 2). The Property is currently vacant and used as a contractor parking area (Fig. 2).

Discharge and Receiving Surface Water Information

Dewatering will be necessary to keep the excavation for the bridge abutment dry to facilitate construction. The intent of the project is to treat and directly discharge effluent to the Exelon Inlet, which is part of the Reserved Channel.

We evaluated the proposed influent by collecting a groundwater sample from the Site. We collected the groundwater sample from monitoring well B1043(MW) on June 5, 2015 (Fig. 2).

The water sample was analyzed for the parameters required under the NPDES DGP. The laboratory data reports for these samples are provided in Appendix B.

The analytical results indicated the presence of chloride and hardness. Metals were not detected above laboratory reporting limits. The measured pH of the groundwater within the project site was approximately 7.4 standard units (s.u.).

During construction, the collected water will be treated to remove suspended solids and, if required by EPA, metals prior to discharge. Two proposed conceptual treatment systems are shown in the process flow diagram in Fig. 3. The two conceptual treatment systems have been proposed to accommodate potential construction constraints. Option 1 is preferred; however, if space is limited Option 2 will be used.

The treated water will be discharged directly to the Exelon Inlet. The discharge locations are identified in Fig. 2 as Proposed Discharge Points 1 and 2.

Consultation with Federal Services

We reviewed the online electronic data viewers and databases from the Massachusetts Geographical Information System (MassGIS) and the United States Department of the Interior Division of Fisheries and Wildlife. Based on this review, neither the Site nor the point where the proposed discharge reaches the receiving surface water body are Areas of Critical Environmental Concern (ACEC), Habitats of Rare Wetland Wildlife, Habitats of Rare Species or Estimated Habitats of Rare Wildlife, or listed as a National Historic Place. A copy of the MassGIS map and a letter from the United States Department of the Interior Division of Fisheries and Wildlife are in Appendix C. Based on this information, additional consultation with federal and/or state officials was deemed unnecessary.

Coverage Under NPDES DGP

It is our opinion that the proposed discharge is eligible for coverage under the NPDES DGP based on the requirements of the NPDES DGP and our evaluation of the available site-specific information. The current intent of project dewatering is to treat and discharge effluent to the Exelon Inlet which is part of the Reserved Channel. On behalf of Massport, we are requesting coverage under the NPDES DGP for the discharge of treated construction dewatering effluent to the surface waters of the Exelon Inlet and Reserved Channel.

The enclosed NOI form provides required information on the general site conditions, discharge, treatment system, receiving water, and consultation with federal services (Appendix A). For this project, Massport is the owner and has operational control over the construction plans and specifications, including the ability to make modifications to those plans and specifications. SPS New England, Inc. of Salisbury, Massachusetts, contracted by Massport, is the operator and will direct the personnel responsible for the implementation and day-to-day operations and activities that are necessary to ensure compliance with the NPDES DGP, including operation, inspection, monitoring, and reporting.

Discharge of treated water is scheduled to begin in August 2015.

The Reserved Channel is classified as an SB(CSO) waterbody, therefore, fee payment to the Commonwealth of Massachusetts is not required.

DGP NOI Processing

Please contact me at 781.721.4012 or <u>igladstone@geiconsultants.com</u> if you have any questions.

Very truly yours,

GEI CONSULTANTS, INC.

Ileen S. Gladstone, P.E., LSP, LEED AP

Vice President

MWS/HAB/CGJ/ISG:jam

Enclosures

c: Kevin McWeeney, Massport

Jerry Friedman, HDR Bill Czerepak, SPS

MassDEP Division of Watershed Management

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Tables

Table 1. Chemical Testing Results - Groundwater Conley DFC - Exelon 776 Summer Street South Boston, Massachusetts

			Sample Location: Sample Date:	B1043(MW 6/4/2015
Analyte	Method	Units	DGP Minimum Levels	
Total Metals		μg/L		
Antimony	6010C		10	<25.0
Arsenic	7010		3	<2.5 K-
Cadmium	6010C		10	<2.5
Chromium	6010C		15	<10.0
Hexavalent Chromium	7196A		NS	<10
Copper	6010C		15	<10.0
Iron	6010C		20	<500
Lead	6010C		20	<20.0
Mercury	7470A		NS	<0.200
Nickel	6010C		20	<25.0
Selenium	7010		5	<15.0 K-
Silver	6010C		10	<5.0
Zinc	6010C		15	<25.0
Chemistry				
Chloride	9250	μg/L	NS	14,800,000
Hardness	6010B	μg/L	NS	5,300,000
рH	9040	SU	NS	7.37

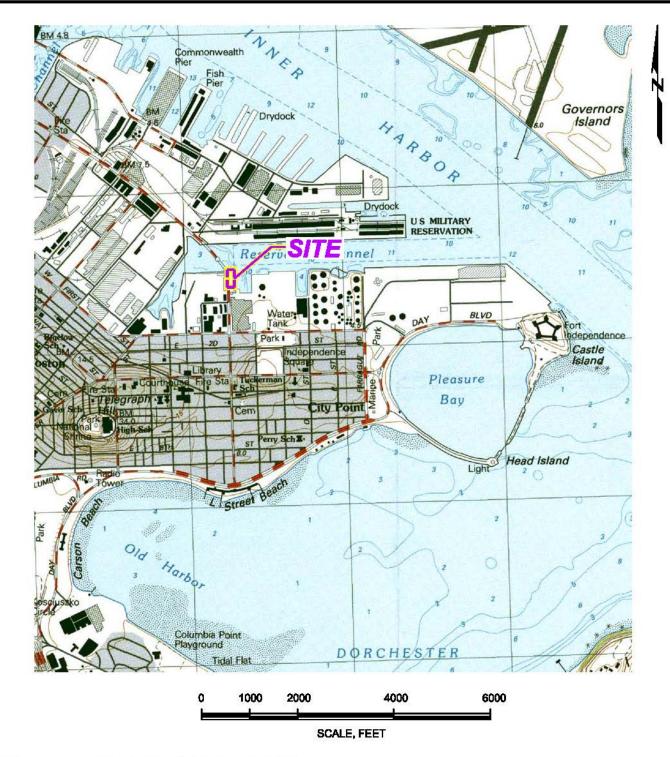
General Notes:

- 1. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
- 2. DGP = Dewatering General Permit.
- 3. NPDES = National Pollutant Discharge Elimination System.
- 4. DGP Minimum Levels for Groundwater Sources are cited from Appendix VIII of the NPDES Dewatering General Perm
- 5. NS = No DGP Minimum Level has been established for this analyte.
- 6. μ g/L = micrograms per liter.
- 7. SU = standard units.

Qualifying Notes:

K- The result has a low bias due to blank spike or laboratory control sample recovery below lower limits.

Figures



This Image provided by MassGIS is from U.S.G.S. Topographic 7.5 X 15 Minute Series Boston North, MA Quadrangle, 1985. Datum is National Geodetic Vertical Datum (NGVD). Contour Interval is 3 Meters.



DGP - Notice of Intent
Conley Terminal Dedicated Freight Corridor
South Boston, Massachusetts

Massachusetts Port Authority Boston, Massachusetts

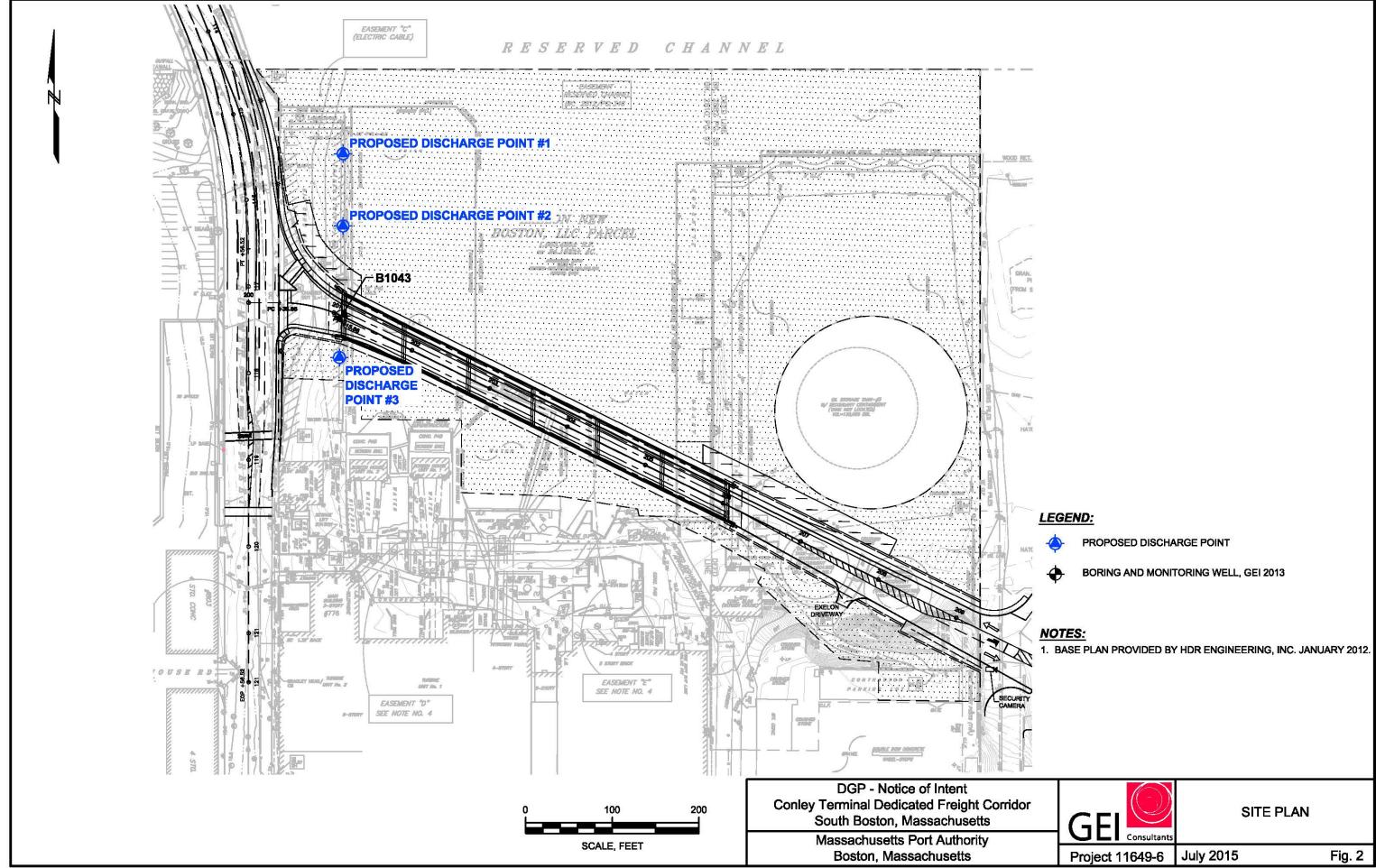


SITE LOCATION MAP

Project 11649-6

July 2015

Fig. 1



Conley Terminal Dedicated Freight Corridor South Boston, MA

Process Flow Diagram

Option #1



Option #2



Appendix A

Dewatering General Permit Notice of Intent

II. Suggested Notice of Intent (NOI) Format

1. General facility information. Please provide the following information about the facility.

a) Name of facility:	Mailing Address for the Facility:					
Conley Terminal Dedicated Freight Corridor	776 Summer St., South Boston, MA 02110					
b) Location Address of the Facility (if different from mailing address):	Facility Location	Type of Business: Highway& Street Construction with				
	longitude: 42.3403 latitude: 71.0353	Facility SIC codes: 1611				
c) Name of facility owner: Massachusetts Port Authority	Owner's email: KMcW	eeney@massport.com				
Owner's Tel #: (617) 568-5000	Owner's Fax #:					
Address of owner (if different from facility address)						
One Harborside Drive, Suite 200S, East Boston, MA 02128 Owner is (check one): 1. Federal 2. State						
98 Elm St. Salisbury, MA 01952	_					
d) Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water. Map attached?						
e) Check Yes or No for the following: 1. Has a prior NPDES permit been granted for the discharge? Yes No ✓ If Yes, Permit Number: 2. Is the discharge a "new discharger" as defined by 40 CFR Section 122.2? Yes ✓ No 3. Is the facility covered by an individual NPDES permit? Yes No ✓ If Yes, Permit Number 4. Is there a pending application on file with EPA for this discharge? Yes No ✓ If Yes, date of submittal:						

	harge information. Please provide information about the discharge, (attaching additional sheets as needed)
a)	Name of receiving water into which discharge will occur:
Sta	Name of receiving water into which discharge will occur: te Water Quality Classification: Treshwater: Marine Water:
b)	Describe the discharge activities for which the owner/applicant is seeking coverage: 1. Construction dewatering of groundwater intrusion and/or storm water accumulation. 2. Short-term or long-term dewatering of foundation sumps. 3. Other.
c)	Number of outfalls
For	r each outfall:
d)	Estimate the maximum daily and average monthly flow of the discharge (in gallons per day – GPD). Max Daily Flow GPD Average Monthly Flow GPD
e.)	What is the maximum and minimum monthly pH of the discharge (in s.u.)? Max pH Min pH
f.)	Identify the source of the discharge (i.e. potable water, surface water, or groundwater). If groundwater, the facility shall submit effluent test results, as required in Section 4.4.5 of the General Permit. Surface water & groundwater
g.)	What treatment does the wastewater receive prior to discharge? Settlement using a filter bag system or in a fractionation tank and filtering (10-micron filter bags)
h.)	Is the discharge continuous? Yes No If no, is the discharge periodic (P) (occurs regularly, i.e., monthly or seasonally, but is
	not continuous all year) or intermittent (I) (occurs sometimes but not regularly) or both (B)
	If (P), number of days or months per year of the discharge and the specific months of discharge;
	If (I), number of days/year there is a discharge
	Is the discharge temporary? Yes No If yes, approximate start date of dewatering approximate end date of dewatering
	If yes, approximate start date of dewatering approximate end date of dewatering
i.)	Latitude and longitude of each discharge within 100 feet (See http://www.epa.gov/tri/report/siting_tool): Outfall 1: long lat; Outfall 3: long lat
j.)	If the source of the discharge is potable water, please provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water and attach any calculation sheets used to support stream flow and dilution calculations cfs (See Appendix VII for equations and additional information)

MASSACHUSETTS FACILITIES: See Section 3.4 and Appendix 1 of the General Permit for more information on Areas of Critical Environmental Concern (ACEC):
k.) Does the discharge occur in an ACEC? Yes No ✓ If yes, provide the name of the ACEC:
3. Contaminant Information
a) Are any pH neutralization and/or dechlorination chemicals used in the discharge? If so, include the chemical name and manufacturer; maximum and average daily quantity used as well as the maximum and average daily expected concentrations (mg/l) in the discharge, and the vendor's reported aquatic toxicity (NOAEL and/or LC ₅₀ in percent for aquatic organism(s)). Not Applicable
b) Please report any known remediation activities or water-quality issues in the vicinity of the discharge. Not applicable
4. Determination of Endangered Species Act Eligibility: Provide documentation of ESA eligibility as required at Part 3.4 and Appendix IV. In addition, respond to the following questions.
 a) Which of the three eligibility criteria listed in Appendix IV, Criterion (A, B, or C) have you met? b) Please attach documentation with your NOI supporting your response. Please see Appendix IV for acceptable documentation
5. Documentation of National Historic Preservation Act requirements: Please respond to the following questions:
a) See Screening Process in Appendix III and respond to questions regarding your site and any historic properties listed or eligible for listing on the National Register of Historic Places. Question 1: Yes No; Question 2: No Yes
b) Have any State or Tribal historic preservation officers been consulted in this determination? Yes or No If yes, attach the results of the consultation(s).
c) Which of the three National Historic Preservation Act eligibility criterion listed in Appendix III, Criterion (A, B, or C) have you met? A
d) Is the project located on property of religious or cultural significance to an Indian Tribe? Yes or No _√_ If yes, provide that name of the Indian Tribe associated with the property
6. Supplemental Information: Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit
7. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22 (s ee below) including the following certification:

I certify under penalty of law that (1) no biocides or other chemical additives except for those used for pH adjustment and/or dechlorination are used in the dewatering system; (2) the discharge consists solely of dewatering and authorized pH adjustment and/or dechlorination chemicals; (3) the discharge does not come in contact with any raw materials, intermediate product, water product or finished product; (4) if the discharge of dewatering subsequently mixes with other permitted wastewater (i.e. stormwater) prior to discharging to the receiving water, any monitoring provided under this permit will be only for dewatering discharge; (5) where applicable, the facility has complied with the requirements of this permit specific to the Endangered Species Act and National Historic Preservation Act; and (6) this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility Name: Massachusetts Port Authority Dedicated Freight Coorridor

Operator signature:

Print Full Name and Title: WILLIAM CZENEPAIC

Date:

7/30/19

Federal regulations require this application to be signed as follows:

- 1. For a corporation, by a principal executive officer of at least the level of vice president;
- 2. For partnership or sole proprietorship, by a general partner or the proprietor, respectively, or,
- 3. For a municipality, State, Federal or other public facility, by either a principal executive officer or ranking elected official.

Dilution Factor Calculation

Approach

The discharge dilution factor was calculated in accordance with Appendix VII of the Dewatering General Permit (DGP) application.

Formula

$$DF = (Qd + Qs)/Qd$$

DF = **dilution factor**

Qd = flow of discharge into receiving water body

Qs = estimated flow of receiving water body

Assumptions

Qs = estimated flow of receiving water body

Qs = tidal flow

Flow per ebb or flood tide = approximately 11,000,000 cubic feet of water

Duration of tidal ebb or flood tide = approximately 6 hours

Qs = 510 cubic feet per second (cfs)

Qd = flow of discharge into receiving water body

Qd = 400 gallons per minute (gpm) = 0.9 cfs

Calculation

$$DF = (Qd + Qs)/Qd$$

$$DF = (0.9 + 510)/(0.9)$$

DF = 567

DF > 100

Appendix B

Laboratory Data Reports



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Jessica Englehart GEI Consultants, Inc. 400 Unicorn Park Drive Woburn, MA 01801

RE: Conley DFC - Exelon (11649-6)

ESS Laboratory Work Order Number: 1506134

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard

Laboratory Director

REVIEWED

By ESS Laboratory at 3:54 pm, Jun 11, 2015

Analytical Summary

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with NELAC Standards, A2LA and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.



The Microbiology Division of Thielsch Engineering, Inc.

ESS Laboratory Work Order: 1506134



CERTIFICATE OF ANALYSIS

Client Name: GEI Consultants, Inc. Client Project ID: Conley DFC - Exelon

SAMPLE RECEIPT

The following samples were received on June 04, 2015 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Question I: All samples for Metals were analyzed for a subset of the required MCP list per the client's request.

 Lab Number
 Sample Name
 Matrix
 Analysis

 1506134-01
 11649-B1043-MW
 Ground Water
 6010B, 6010C, 7010, 7196A, 7470A, 9040, 9250

185 Frances Avenue, Cranston, RI 02910-2211

Tel: 401-461-7181

Fax: 401-461-4486

http://www.ESSLaboratory.com



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GEI Consultants, Inc. Client Project ID: Conley DFC - Exelon

ESS Laboratory Work Order: 1506134

PROJECT NARRATIVE

Total Metals

1506134-01 Elevated Method Reporting Limits due to sample matrix (EL).

Iron, Lead, Selenium

CF50604-BSD1 Blank Spike recovery is below lower control limit (B-).

Arsenic (77% @ 80-120%), Selenium (77% @ 80-120%)

No other observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

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The Microbiology Division of Thielsch Engineering, Inc.

ESS Laboratory Work Order: 1506134



CERTIFICATE OF ANALYSIS

Client Name: GEI Consultants, Inc. Client Project ID: Conley DFC - Exelon

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint

6010C - ICP

6020A - ICP MS

7010 - Graphite Furnace

7196A - Hexavalent Chromium

7470A - Aqueous Mercury

7471B - Solid Mercury

8011 - EDB/DBCP/TCP

8015D - GRO/DRO

8081B - Pesticides

8082A - PCB

8100M - TPH

8151A - Herbicides

8260B - VOA

8270D - SVOA

8270D SIM - SVOA Low Level

9014 - Cyanide

9038 - Sulfate

9040C - Aqueous pH

9045D - Solid pH (Corrosivity)

9050A - Specific Conductance

9056A - Anions (IC)

9060A - TOC

9095B - Paint Filter

MADEP 04-1.1 - EPH / VPH

Prep Methods

3005A - Aqueous ICP Digestion

 $3020\mbox{\ensuremath{A}}$ - Aqueous Graphite Furnace / ICP MS Digestion

3050B - Solid ICP / Graphite Furnace / ICP MS Digestion

3060A - Solid Hexavalent Chromium Digestion

3510C - Separatory Funnel Extraction

3520C - Liquid / Liquid Extraction

3540C - Manual Soxhlet Extraction

3541 - Automated Soxhlet Extraction

3546 - Microwave Extraction

3580A - Waste Dilution

5030B - Aqueous Purge and Trap

5030C - Aqueous Purge and Trap

5035 - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.



The Microbiology Division of Thielsch Engineering, Inc.

ESS Laboratory Work Order: 1506134



CERTIFICATE OF ANALYSIS

Client Name: GEI Consultants, Inc. Client Project ID: Conley DFC - Exelon

MassDEP Analytical Protocol Certification Form

	N	MADEP RT1	N: .				_					
This	form	provides cer	rtifica	tion for the follow	ving	data set: 1506134-01						
Mat	rices:	(X) Ground	Wate	er/Surface Water		() Soil/Sediment	() Drinking Water	() Air	() Other:		
CA	M Pro	otocol (chec	k all	that apply below):							
()	8260 CAM		(X)	7470/7471 Hg CAM III B	() MassDEP VPH CAM IV A	() 8081 Pesticides CAM V B	(X)	7196 Hex Cr CAM VI B	()	MassDEP APH CAM IX A
()	8270 CAM	SVOC II B	(X)	7010 Metals CAM III C	() MassDEP EPH CAM IV B	() 8151 Herbicides CAM V C	()	8330 Explosives CAM VIII A	()	TO-15 VOC CAM IX B
(X)	6010 CAM	Metals III A	()	6020 Metals CAM III D	() 8082 PCB CAM V A	() 6860 Perchlorate CAM VIII B	()	9014 Total Cyanio CAM VI A	de/PA	С
				Affirmative resp	ons	es to questions A throi	igh I	F are required for P r	esumpti	ve Certainty'status	S	
A						sistent with those descr						$\operatorname{Yes}\left(X\right) \operatorname{No}\left(\ \ \right)$
В		the analytica	_	* /		d or laboratory, and pre- ted QC requirements sp		•		•		Yes (X) No ()
C		_				ytical response actions attandard non-conforman	_		M proto	ocol(s)		Yes (X) No ()
D	Does	the laborato	ry rep	oort comply with	all th	he reporting requirement or the Acquisition and R	ts sp	ecified in the CAM VI		ality		Yes (X) No ()
E	a. VP	Н, ЕРН, АР	H and	d TO-15 only: Wa	s ea	ch method conducted w	-	-		Refer		Yes () No ()
					-	ficant modifications). Somplete analyte list repo	orted	for each method?				Yes () No ()
F	Were	all applicabl	le CA	M protocol QC a	nd p	erformance standard no responses to Questions	n-co	nformances identified	and eval	uated		Yes (X) No ()
				Responses i	o Q	uestions G, H and I bel	ow a	re required for P resun	nptive C	ertainty'status		
G	<u>Data</u>	<u>User Note:</u> L	Data ti	hat achieve P resui	npti	M reporting limits speci we Certainty'status may r B10 CMR 40. 1056 (2)(k,	ot n	ecessarily meet the data			Yes	() No (X)*
Н						d in the CAM protocol						Yes () No (X)*
I		_		_		e list specified in the se						Yes () No (X)*
		•				n attached laboratory			nal ina	uirv of those respo	nsihl	o

for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: _____ Date: June 11, 2015
Printed Name: Laurel Stoddard Position: Laboratory Director

185 Frances Avenue, Cranston, RI 02910-2211

Tel: 401-461-7181

Fax: 401-461-4486

• Service

http://www.ESSLaboratory.com



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GEI Consultants, Inc. Client Project ID: Conley DFC - Exelon Client Sample ID: 11649-B1043-MW

Date Sampled: 06/04/15 12:12

Percent Solids: N/A

Extraction Method: 3005A

ESS Laboratory Work Order: 1506134 ESS Laboratory Sample ID: 1506134-01

Sample Matrix: Ground Water

Units: ug/L

Total Metals

Results (MRL)	MDL	Method	<u>Limit</u>	<u>DF</u>			<u>I/V</u>	<u>F/V</u>	Batch
ND (25.0)		6010C		1	KJK	06/08/15 23:48	50	25	CF50604
ND (2.5)		7010		1	KJK	06/10/15 9:05	50	25	CF50604
ND (2.5)		6010C		1	KJK	06/08/15 23:48	50	25	CF50604
ND (10.0)		6010C		1	KJK	06/08/15 23:48	50	25	CF50604
ND (10.0)		6010C		1	KJK	06/08/15 23:48	50	25	CF50604
5300000 (6620)		6010B		10	KJK	06/10/15 5:31	1	1	[CALC]
EL ND (500)		6010C		10	KJK	06/10/15 5:31	50	25	CF50604
EL ND (20.0)		6010C		2	KJK	06/10/15 5:36	50	25	CF50604
ND (0.200)		7470A		1	BJV	06/08/15 14:39	20	40	CF50812
ND (25.0)		6010C		1	KJK	06/08/15 23:48	50	25	CF50604
EL ND (15.0)		7010		3	KJK	06/10/15 18:09	50	25	CF50604
ND (5.0)		6010C		1	KJK	06/08/15 23:48	50	25	CF50604
ND (25.0)		6010C		1	KJK	06/08/15 23:48	50	25	CF50604
	ND (25.0) ND (2.5) ND (2.5) ND (10.0) ND (10.0) 5300000 (6620) EL ND (500) EL ND (20.0) ND (0.200) ND (25.0) EL ND (15.0) ND (5.0)	ND (25.0) ND (2.5) ND (2.5) ND (10.0) ND (10.0) 5300000 (6620) EL ND (500) EL ND (20.0) ND (0.200) ND (25.0) EL ND (15.0) ND (5.0)	ND (25.0) 6010C ND (2.5) 7010 ND (10.0) 6010C ND (10.0) 6010C 5300000 (6620) 6010B EL ND (500) 6010C ND (0.200) 7470A ND (25.0) 6010C EL ND (15.0) 7010 ND (5.0) 6010C	ND (25.0) 6010C ND (2.5) 7010 ND (2.5) 6010C ND (10.0) 6010C ND (10.0) 6010C 5300000 (6620) 6010B EL ND (500) 6010C EL ND (20.0) 6010C ND (0.200) 7470A ND (25.0) 6010C EL ND (15.0) 7010 ND (5.0) 6010C	ND (25.0) 6010C 1 ND (2.5) 7010 1 ND (2.5) 6010C 1 ND (10.0) 6010C 1 ND (10.0) 6010C 1 5300000 (6620) 6010B 10 EL ND (500) 6010C 10 EL ND (20.0) 6010C 2 ND (0.200) 7470A 1 ND (25.0) 6010C 1 EL ND (15.0) 7010 3 ND (5.0) 6010C 1	ND (25.0) 6010C 1 KJK ND (2.5) 7010 1 KJK ND (2.5) 6010C 1 KJK ND (10.0) 6010C 1 KJK ND (10.0) 6010C 1 KJK 5300000 (6620) 6010B 10 KJK EL ND (500) 6010C 10 KJK EL ND (20.0) 6010C 2 KJK ND (0.200) 7470A 1 BJV ND (25.0) 6010C 1 KJK EL ND (15.0) 7010 3 KJK ND (5.0) 6010C 1 KJK	ND (25.0) 6010C 1 KJK 06/08/15 23:48 ND (2.5) 7010 1 KJK 06/10/15 9:05 ND (2.5) 6010C 1 KJK 06/08/15 23:48 ND (10.0) 6010C 1 KJK 06/08/15 23:48 ND (10.0) 6010C 1 KJK 06/08/15 23:48 5300000 (6620) 6010B 10 KJK 06/10/15 5:31 EL ND (500) 6010C 10 KJK 06/10/15 5:36 ND (0.200) 7470A 1 BJV 06/08/15 14:39 ND (25.0) 6010C 1 KJK 06/08/15 23:48 EL ND (15.0) 7010 3 KJK 06/10/15 18:09 ND (5.0) 6010C 1 KJK 06/08/15 23:48	ND (25.0) 6010C 1 KJK 06/08/15 23:48 50 ND (2.5) 7010 1 KJK 06/10/15 9:05 50 ND (2.5) 6010C 1 KJK 06/08/15 23:48 50 ND (10.0) 6010C 1 KJK 06/08/15 23:48 50 ND (10.0) 6010C 1 KJK 06/08/15 23:48 50 5300000 (6620) 6010B 10 KJK 06/10/15 5:31 1 EL ND (500) 6010C 10 KJK 06/10/15 5:31 50 EL ND (20.0) 6010C 2 KJK 06/10/15 5:36 50 ND (0.200) 7470A 1 BJV 06/08/15 14:39 20 ND (25.0) 6010C 1 KJK 06/10/15 18:09 50 ND (5.0) 6010C 1 KJK 06/08/15 23:48 50	ND (25.0) 6010C 1 KJK 06/08/15 23:48 50 25 ND (2.5) 7010 1 KJK 06/10/15 9:05 50 25 ND (2.5) 6010C 1 KJK 06/08/15 23:48 50 25 ND (10.0) 6010C 1 KJK 06/08/15 23:48 50 25 ND (10.0) 6010C 1 KJK 06/08/15 23:48 50 25 5300000 6620) 6010B 10 KJK 06/10/15 5:31 1 1 EL ND (500) 6010C 10 KJK 06/10/15 5:31 50 25 ND (0.200) 6010C 2 KJK 06/10/15 5:36 50 25 ND (25.0) 6010C 1 KJK 06/08/15 23:48 50 25 EL ND (15.0) 7010 3 KJK 06/10/15 18:09 50 25 ND (5.0) <t< td=""></t<>



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GEI Consultants, Inc. Client Project ID: Conley DFC - Exelon Client Sample ID: 11649-B1043-MW

Date Sampled: 06/04/15 12:12

Percent Solids: N/A

ESS Laboratory Work Order: 1506134 ESS Laboratory Sample ID: 1506134-01

Sample Matrix: Ground Water

Classical Chemistry

Analyte Chloride	Results (MRL) 14800000 (600000)	MDL Method 9250	<u>Limit</u>	<u>DF</u> 200	Analys EEM	<u>Analyzed</u> 06/10/15 13:12	Units ug/L	Batch CF51035		
Hexavalent Chromium	ND (10)	7196A		1	MJV	06/05/15 7:33	ug/L	CF50501		
pН	7.37 (N/A)	9040		1	EEM	06/04/15 19:10	S.U.	CF50436		
pH Sample Temp	Aqueous pH measured	Aqueous pH measured in water at 13.4 °C. (N/A)								

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Page 7 of 14



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GEI Consultants, Inc. Client Project ID: Conley DFC - Exelon

ESS Laboratory Work Order: 1506134

Quality Control Data

				Spike	Source		%REC		RPD	
Analyte	Result	MRL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifier

Total Metals

ND	25.0	ug/L						
ND	2.5	ug/L						
ND	2.5	ug/L						
ND	0.100	mg/L						
ND	10.0	ug/L						
ND	10.0	ug/L						
ND	50.0	ug/L						
ND	10.0	ug/L						
ND	0.100	mg/L						
ND	25.0	ug/L						
ND	5.0	ug/L						
ND	5.0	ug/L						
ND	25.0	ug/L						
224	25.0	ug/L	250.0	90	80-120			
200	50.0		250.0	80	80-120			
			1250	98	80-120			
233				93				
2.44				97	80-120			
241	25.0	ug/L	250.0	96	80-120			
405	100		500.0	81	80-120			
123	5.0	ug/L	125.0	98	80-120			
223	25.0	ug/L	250.0	89	80-120			
212	25.0	ua/L	250.0	85	80-120	6	20	
								B-
								_
224	10.0		250.0	90	80-120	7	20	
			1250	91	80-120	7	20	
				91	80-120	6	20	
223				89		8		
								B-
115	5.0	ug/L	125.0	92	80-120	7	20	_
		<i>3</i> ,						
	ND N	ND 2.5 ND 0.100 ND 10.0 ND 10.0 ND 10.0 ND 10.0 ND 10.0 ND 10.0 ND 50.0 ND 10.0 ND 5.0 ND 5.0 ND 5.0 ND 5.0 ND 25.0 224 25.0 200 50.0 112 2.5 2.38 0.100 244 10.0 241 10.0 1220 50.0 233 10.0 244 0.100 241 25.0 405 100 123 5.0 223 25.0 212 25.0 212 25.0 212 25.0 212 25.0 212 25.0 214 10.0 215 10.0 224 10.0 219 10.0 228 0.100 223 25.0	ND 2.5 ug/L ND 0.100 mg/L ND 0.100 ug/L ND 10.0 ug/L ND 25.0 ug/L ND 5.0 ug/L ND 5.0 ug/L ND 5.0 ug/L ND 5.0 ug/L ND 25.0 ug/L ND 25.0 ug/L 224 25.0 ug/L 224 25.0 ug/L 225 ug/L 233 0.100 mg/L 244 10.0 ug/L 223 10.0 ug/L 224 25.0 ug/L 233 10.0 ug/L 244 0.100 mg/L 241 25.0 ug/L 223 25.0 ug/L 224 25.0 ug/L 225 ug/L 237 25.0 ug/L 248 0.100 mg/L 249 100 ug/L 240 100 ug/L 241 25.0 ug/L 255 10.0 ug/L 266 0.100 mg/L 276 0.100 mg/L 277 100 ug/L 278 0.100 mg/L 279 10.0 ug/L	ND 2.5 ug/L ND 2.5 ug/L ND 0.100 mg/L ND 10.0 ug/L ND 25.0 ug/L ND 5.0 ug/L ND 5.0 ug/L ND 5.0 ug/L ND 5.0 ug/L ND 25.0 ug/L 224 25.0 ug/L 250.0 224 25.0 ug/L 250.0 238 0.100 mg/L 250.0 244 10.0 ug/L 250.0 241 10.0 ug/L 250.0 2421 10.0 ug/L 250.0 244 0.100 mg/L 250.0 244 0.100 mg/L 250.0 244 0.100 mg/L 250.0 245 0.0 ug/L 250.0 246 0.100 mg/L 250.0 247 25.0 ug/L 250.0 248 0.100 mg/L 250.0 249 25.0 ug/L 250.0 240 0.100 mg/L 250.0 241 25.0 ug/L 250.0 250 ug/L 250.0 260 0.100 mg/L 250.0 270 0.1140 50.0 ug/L 250.0 280 0.100 ug/L 250.0 291 10.0 ug/L 250.0 292 125 0.0 ug/L 250.0 203 25.0 ug/L 250.0 204 1250 0.0 ug/L 250.0 205 10.0 ug/L 250.0 207 1250 0.0 ug/L 250.0 208 0.100 mg/L 250.0 209 1250 0.0 ug/L 250.0 209 1250 0.0 ug/L 250.0 209 1250 0.0 ug/L 250.0 200 0.00 ug/L 250.0	ND 2.5 ug/L ND 0.100 mg/L ND 10.0 ug/L ND 0.100 mg/L ND 0.100 mg/L ND 0.100 mg/L ND 25.0 ug/L ND 5.0 ug/L ND 5.0 ug/L ND 5.0 ug/L ND 25.0 ug/L ND 25.0 ug/L ND 25.0 ug/L 0 ug/L	ND 2.5 ug/L ND 2.5 ug/L ND 0.100 mg/L ND 10.0 ug/L ND 10.0 ug/L ND 50.0 ug/L ND 10.0 ug/L ND 10.0 ug/L ND 10.0 ug/L ND 10.0 ug/L ND 50.0 ug/L ND 5.0 ug/L 250.0 ug/L 224 25.0 ug/L 250.0 80 80 80-120 112 2.5 ug/L 125.0 98 80-120 112 2.5 ug/L 250.0 97 80-120 244 10.0 ug/L 250.0 97 80-120 245 1220 50.0 ug/L 1250 98 80-120 246 0.100 mg/L 250.0 97 80-120 247 10.0 ug/L 250.0 97 80-120 248 80-120 98 80-120 250 0 97 80-120 250 0 97 80-120 250 0 98 80-120 250 0 96 80-120 250 0 97 80-120 250 0 96 80-120 250 0 97 80-120 250 0 96 80-120 250 0 97 80-120 250 0 97 80-120 250 0 97 80-120 250 0 97 80-120 250 0 97 80-120 250 0 97 80-120 250 0 97 80-120 250 0 97 80-120 250 0 98 80-120 250 0 99 80-120 250 0 99 80-120 250 0 99 80-120 251 0.0 ug/L 250.0 99 80-120 252 10.0 ug/L 250.0 99 80-120 253 10.0 ug/L 250.0 99 80-120 254 10.0 ug/L 250.0 99 80-120 255 10.0 ug/L 250.0 99 80-120 256 0.100 mg/L 250.0 99 80-120 257 10.0 ug/L 250.0 99 80-120 258 0.100 mg/L 250.0 99 80-120 259 0.100 mg/L 250.0 99 80-120 250 0.100 mg/L 250.0 99 80-120 251 0.00 ug/L 250.0 99 80-120 252 0.000 mg/L 250.0 99 80-120 253 0.000 mg/L 250.0 99 80-120 254 0.000 mg/L 250.0 99 80-120 255 0.000 mg/L 250.0 99 80-120 256 0.1000 mg/L 250.0 99 80-120 257 0.000 mg/L 250.0 99 80-120 258 0.1000 mg/L 250.0 99 80-120 258 0.1000 mg/L 250.0 99 80-120	ND 2.5 ug/L ND 0.100 mg/L ND 10.0 ug/L ND 25.0 ug/L ND 5.0 ug/L ND 5.0 ug/L ND 5.0 ug/L ND 25.0 ug/L ND 25.0 ug/L ND 25.0 ug/L 1220 50.0 ug/L 125.0 89 80-120 244 10.0 ug/L 250.0 97 80-120 245 100 ug/L 250.0 97 80-120 246 0.100 mg/L 250.0 97 80-120 247 250.0 97 80-120 248 0.100 mg/L 250.0 97 80-120 249 0.100 ug/L 250.0 98 80-120 240 0.100 mg/L 250.0 96 80-120 241 25.0 ug/L 250.0 96 80-120 242 25.0 ug/L 250.0 96 80-120 243 25.0 ug/L 250.0 96 80-120 244 0.100 mg/L 250.0 96 80-120 255 10.0 ug/L 250.0 90 80-120 265 0.100 mg/L 250.0 90 80-120 275 1140 50.0 ug/L 250.0 90 80-120 5 225 10.0 ug/L 250.0 90 80-120 7 1140 50.0 ug/L 250.0 90 80-120 8 223 25.0 ug/L 250.0 90 80-120 7 224 10.0 ug/L 250.0 90 80-120 8	ND 2.5 ug/L ND 0.100 mg/L ND 10.0 ug/L ND 10.0 ug/L ND 10.0 ug/L ND 50.0 ug/L ND 0.100 mg/L ND 10.0 ug/L ND 50.0 ug/L ND 50.0 ug/L ND 50.0 ug/L ND 5.0 ug/L 250 ug/L 250 ug/L 250 ug/L 250 ug/L 260 50.0 ug/L 270 50.0 ug/L 280 0.100 mg/L 290 50.0 ug/L 290 6 200 50.0 ug/L 290 6 200 50.0 ug/L 290 6 200 6 2

Batch CF50812 - 245.1/7470A

Blank

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Quality

Dependability

Fax: 401-461-4486 ◆ Service http://www.ESSLaboratory.com



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CERTIFICATE OF ANALYSIS

Client Name: GEI Consultants, Inc. Client Project ID: Conley DFC - Exelon

ESS Laboratory Work Order: 1506134

Quality Control Data

				Spike	Source		%REC		RPD	
Analyte	Result	MRL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifier
			Total Met	als						
Batch CF50812 - 245.1/7470A										
Mercury	ND	0.200	ug/L							
LCS										
Mercury	6.13	0.200	ug/L	6.000		102	80-120			
LCS Dup										
Mercury	6.12	0.200	ug/L	6.000		102	80-120	0.3	20	
		Cl	assical Che	mistry						
Batch CF50501 - General Preparation										
Blank										
Hexavalent Chromium	ND	10	ug/L							
LCS										
Hexavalent Chromium	0.5		mg/L	0.4998		98	90-110			
LCS Dup										
Hexavalent Chromium	0.5		mg/L	0.4998		98	90-110	0.2	20	
Batch CF51035 - General Preparation										
Blank										
Chloride	ND	3000	ug/L							
LCS										
Chloride	29		mg/L	30.00		98	90-110			

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ESS Laboratory Work Order: 1506134

Notes and Definitions

	Notes and Definitions
Z16	Aqueous pH measured in water at 13.4 °C.
U	Analyte included in the analysis, but not detected
EL	Elevated Method Reporting Limits due to sample matrix (EL).
D	Diluted.
B-	Blank Spike recovery is below lower control limit (B-).
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.

Range result excludes concentrations of target analytes eluting in that range.

Range result excludes the concentration of the C9-C10 aromatic range.

Avg Results reported as a mathematical average.

NR No Recovery

[CALC] Calculated Analyte

SUB Subcontracted analysis; see attached report

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The Microbiology Division of Thielsch Engineering, Inc.

ESS Laboratory Work Order: 1506134



CERTIFICATE OF ANALYSIS

Client Name: GEI Consultants, Inc. Client Project ID: Conley DFC - Exelon

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)

A2LA Accredited: Testing Cert# 2864.01

http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179 http://www.health.ri.gov/find/labs/analytical/ESS.pdf

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750 http://www.ct.gov/dph/lib/dph/environmental health/environmental laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI0002 http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/documents/AllLabs.xls

Massachusetts Potable and Non Potable Water: M-RI002 http://public.dep.state.ma.us/Labcert/Labcert.aspx

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424 http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313 http://www.wadsworth.org/labcert/elap/comm.html

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006 http://datamine2.state.nj.us/DEP OPRA/OpraMain/pi main?mode=pi by site&sort order=PI NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752

http://www.depweb.state.pa.us/portal/server.pt/community/labs/13780/laboratory_accreditation_program/590095

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141 Lead Paint, Lead in Children's Metals Jewelry http://www.cpsc.gov/cgi-bin/labapplist.aspx

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Tel: 401-461-7181

Fax: 401-461-4486

◆ Service

http://www.ESSLaboratory.com

Sample and Cooler Receipt Checklist

Client: GEI Consultants Inc

Client Project ID:

Shipped/Delivered Via: ESS Courier

ESS Project ID: 15060134
Date Project Due: 6/11/15
Days For Project: 5 Day

Items to be checked upon receipt:

3. Were Custody Seals Intact?4. Is Radiation count < 100 CPM?	Yes	13. Holding times exceeded? No 14. Sufficient sample volumes? Yes
5. Is a cooler present?	Yes	
Cooler Temp: 3.5		16. Are ESS labels on correct containers? (Xes)No
Iced With: Ice		17. Were samples received intact?
6. Was COC included with samples?	Yes	ESS Sample IDs:
7. Was COC signed and dated by client?	Yes	Sub Lab:
8. Does the COC match the sample	Yes	Analysis:
9. Is COC complete and correct?	Yes	TAT:
18. Was there need to call project manag	ger to d	liscuss status? If yes, please explain.
Who was called?:		By whom?
Sample Number Properly Preser	ved C	Container Type # of Containers Preservative

Project Name: Conley DFC - Exelon Project Number: 11649-6 Project Number: 1164	Chain-o	f-Custody	Record	······································		Labora	tory:	ESS Project	Inform	ation		1	orator se only)	y Job	#	*	/50	6134
400 Unicorn Park Drive Woburn, MA 0-1891 PH: 781-721.4070 FX: 781-721.4070	Project Name: Conley DFC - Exelon							Project Information Project Location: Boston, MA							Page 1 of 1			
400 Unicorn Park Drive Woburn, MA 0-1801 PH: 781-721-4070 Sample Specific Englehant Send EDD to: labdata@geiconsultants.com Send EDD to: labdata@geiconsultants.com Send EDD to: labdata@geiconsultants.com Analysis If Yes, Are MCP Analytical Methods Required? Ves NO NA If Yes, Are MCP Analytical Methods Required? Ves NO NA Samples Specific Remark Ves NO NA Samples Specific Remark	GEI Consultants Project Number: 11649-6																	
PH: 781.721.4000 PH: 781.721.4000 Samples Field Filtered Wes Are Dranstyrick Methods Required? Wes Are Drinking Water Samples Submitted? Wes Are Drinking Water Samples Submitted? Wes Are Drinking Water Samples Submitted? Wes Are Drinking Water Samples Submitted? Wes Are Drinking Water Samples Submitted? Wes Are Drinking Water Samples Submitted? Wes Are Drinking Water Samples Submitted? Wes Are Drinking Water Samples Submitted? Wes Are Drinking Water Samples Submitted? Wes Are Drinking Water Samples Submitted? Wes Are Drinking Water Samples Submitted? Wes Are Drinking Water Samples Submitted? Wes Are Drinking Water Samples Submitted? Wes Are Drinking Water Samples Submitted? Wes Are Drinking Water Samples Submitted? Wes Are Drinking Water Samples Submitted? Wes Are Drinking Water Samples Submitted? Wes Are Drinking Water Samples Submitted? Wes Are McP Analyteis																Comple Handline		
MCP PRESUMPTIVE CERTAINTY REQUIRED: If Yes, Are Drinking Water Samples Submitted? YES NO NA Sampled Shipped With Loe YE	PH: 781.721.4000		Send EDD to: labdata@geiconsultants.com						HN03	૫°C	HNOS	4°C	<u> </u>				<u> </u>	Samples Field
If Yes, Are MCP Analytical Methods Required? West Are Drinking Water Samples Submitted? Yes No NA Get Sample Model of Septements of Septeme	MCP PRESUMPTIVE (YES) NO			NO				ပ် နှ	E I			Ana	ilysis			<u> </u>	1 ~	
Sample Number Gel Sample ID Date Time Matrix Bottles Initials Bottles B			thods Required?		YES	NO	NA		As, Cd , Ag, 7	Chrom					<u> </u>			
Sample Number Gel Sample ID Date Time Matrix Bottles Initials Bottles B		-						(Sb, / Ni, Se	alent									
Sample Number Gel Sample ID Date Time Matrix Bottles Initials Bottles B	If Yes, Have	You Met Minimum	Field QC Require			NO	(NA)		Vetals b, Hg,	Hexa	ess	g						YES) NO
MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible. McP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible. McP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible. McP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible. McP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible. McP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible. McP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible. McP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible. McP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible. McP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible. McP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible. McP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible. McP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible. McP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible. McP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible. McP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible. McP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible. McP Level Needed: GEI requires the most stringent Metho		GEI Samp	ole ID			Matrix		Sampler(s)	Cu, Pi	Total	Hardn	Chlori	돐					Sample Specific Remarks
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Relinquished by sampler: (signature) 1. June Date: Time: Received by (signature) 10-Day 7-Day 10-Day X 3-Day 3-Day X 3-Day Additional Requirements/Comments/Remarks: Refinquished by: (signature) Date: Time: Received by: (signature) Respired by: (signature) Date: Time: Respired by: (signature) Respired by: (signature) Date: Time: Respired by: (signature) Received by: (signature) Date: Time: Received by: (signature) Date: Date:	MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.													•				
2 Additional Requirements/Comments/Remarks: Refinquished by: (signature) Date: Time: Received by: (signature) Additional Requirements/Comments/Remarks: SEE ATTACHED TABLE FOR REQUIRED METHODS AND REPORTING LIMITS Metals list: Sb, As, Cd, Total Cr, Cu, Pb, Hg, Ni, Se, Ag, Zn, Fe Relinquished by: (signature)	Relinquished by sampler: (signature) Date : Time: Received by (y (signafure)			Normal X Other notify the						the la	aboratory to confirm				
Additional Requirements/Comments/Remarks: Refinquished by: (signature) Date: I Time: Residued by: (signature) SEE ATTACHED TABLE FOR REQUIRED METHODS AND REPORTING LIMITS Metals list: Sb, As, Cd, Total Cr, Cu, Pb, Hg, Ni, Se, Ag, Zn, Fe Relinquished by: (signature) Date: Time: Received by: (signature)	Relinquished by: (si	ignature A A			Received by	(signature)	luke	1020		5					_			
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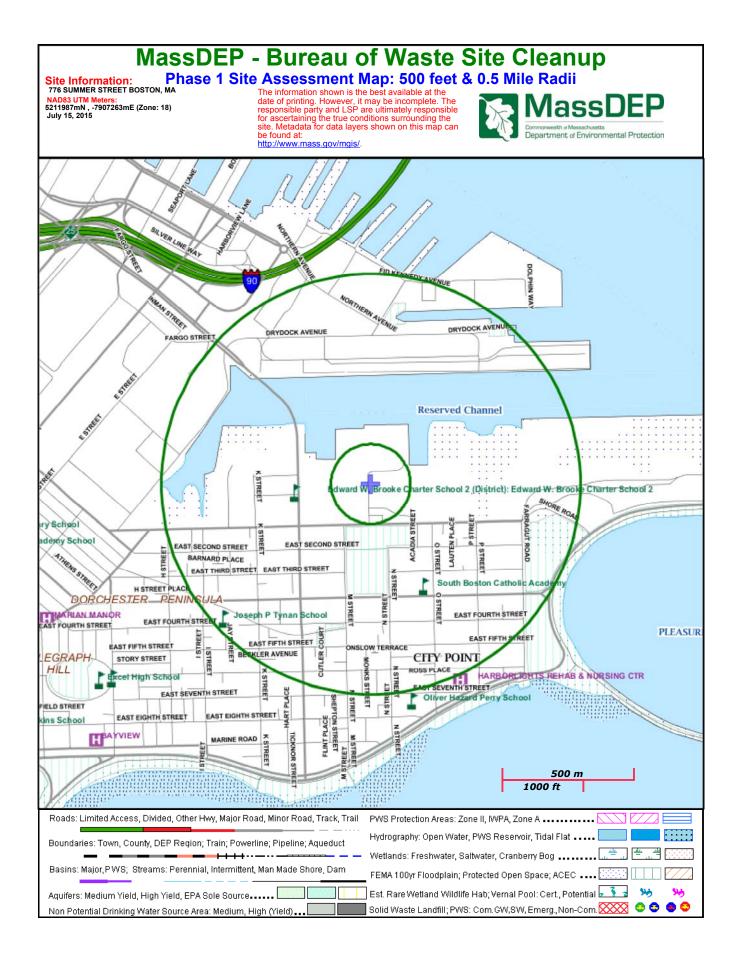
APPENDIX VIII TEST METHODS AND MINIMUM LEVELS¹ FOR GROUNDWATER SOURCES

	Minimum Levels (ug/l) and Test Methods										
Parameters	CAS Numbers	ICP/AES ² Methods 200.7,3010A/6010C	ICP/MS ³ ,200.8, 310A/6020A	GFAA ⁴ Method 200.9, 7010	Notes Digestion Methods No.						
1. Antimony	7440360	10 ug/L	0.5 ug/L	3 ug/l	200						
2. Arsenic	7440382	20 ug/l	1.0 ug/L	3 ug/l	206.5						
3. Cadmium	7440439	10 ug/l	0.2 ug/L	0.5 ug/l	200						
4. Chromium Total	7440473	15ug/1	1.0 ug/L	1 ug/l	200						
5. Chromium VI	18540299				·						
6. Copper	7440508	15 ug/l	0.5 ug/L	3 ug/l	200						
7. Lead	7439921	20 ug/l	0.2 ug/L	3 ug/l	200						
8. Mercury	7439976										
9. Nickel	7440020	20 ug/l	0.2 ug/L	5 ug/l	200						
10. Selenium	7782492	20 ug/l	2 ug/L	5 ug/l	200						
11. Silver	7740224	10 ug/l	0.2 ug/L	1 ug/l	200						
12. Zinc	7440666	15 ug/l	5 ug/L		200						
13. Iron	7439896	20 ug/L	50 ug/L		200						
14. Hardness					Approved Part 136 Methods ²						
15.Chloride	16887006				Approved Part 136 Methods ²						
16. pH					Approved Part 136 Methods ²						

- 1. Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence.
- 2. Inductively Couple Plasmas/ Atomic (optical) emissions Spectrometry
- 3. Inductively Couple Plasma/Mass Spectrometry
- 4. Graphite Furnace Atomic Absorption
- 5. Standard Method

Appendix C

MassGIS Map & United States Department of Fish & Wildlife Letter





United States Department of the Interior

FISH AND WILDLIFE SERVICE

New England Ecological Services Field Office 70 COMMERCIAL STREET, SUITE 300 CONCORD, NH 3301

PHONE: (603)223-2541 FAX: (603)223-0104 URL: www.fws.gov/newengland



July 16, 2015

Consultation Code: 05E1NE00-2015-SLI-0854

Event Code: 05E1NE00-2015-E-01239

Project Name: Conley Terminal Dedicated Freight Corridor

Subject: List of threatened and endangered species that may occur in your proposed project

location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan

(http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and

http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



Official Species List

Provided by:

New England Ecological Services Field Office 70 COMMERCIAL STREET, SUITE 300 CONCORD, NH 3301 (603) 223-2541

http://www.fws.gov/newengland

Consultation Code: 05E1NE00-2015-SLI-0854

Event Code: 05E1NE00-2015-E-01239

Project Type: TRANSPORTATION

Project Name: Conley Terminal Dedicated Freight Corridor

Project Description: The Massachusetts Port Authority is constructed a dedicated freight corridor, including a bridge, from Conley Terminal to Summer Street in Boston, Massachusetts. Specifically, the selected area will be dewatered for construction of a bridge abutment.

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.





United States Department of Interior Fish and Wildlife Service

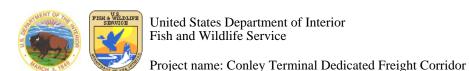
Project name: Conley Terminal Dedicated Freight Corridor

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-71.03555381298065 42.34164708121659, -71.03549480438232 42.340528922925024, -71.0351300239563 42.340524957789334, -71.03516757488251 42.341662941474866, -71.03555381298065 42.34164708121659)))

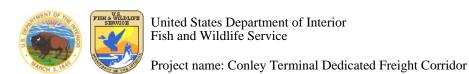
Project Counties: Suffolk, MA



Endangered Species Act Species List

There are a total of 1 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Birds	Status	Has Critical Habitat	Condition(s)
Red Knot (Calidris canutus rufa)	Threatened		



Critical habitats that lie within your project area

There are no critical habitats within your project area.