ecs WHERE BUSINESS AND THE ENVIRONMENT CONVERGE

588 Silver Street, Agawam, MA 01001 tel 413.789.3530 fax 413.789.2776 www.ecsconsult.com

Via: email – GeneralPermit.Dewatering@epa.gov

U.S. Environmental Protection Agency.
Dewatering GP Processing
Municipal Assistance Unit (CMU).
1 Congress Street, Suite 1100
Boston, MA 02114-2023

October 16, 2008
Project No. 01-207243
Document No. 36519

RE: Construction Dewatering Permit Application
Harris Energy & Realty Corp. / National Decon L.L.C.
22 Water Street.
Holyoke, Massachusetts
MassDEP RTN: 1-16995
EPA Docket No. 08-308-037

Dear Sir/Madam:

Environmental Compliance Services, Inc. (ECS) is submitting, on behalf of National Decon Contractors, LLC (NDC), the attached application to conduct construction dewatering with discharge of treated water to the Connecticut River in Holyoke, Massachusetts. The dewatering is proposed to occur in conjunction with building demolition and associated cleanup of a petroleum release that has impacted the tail race of a hydroelectric generating facility. ECS is submitting this application under the construction dewatering portion of the general permit as a result of consultation with Mr. Roger Jenson of the EPA Region I office. NDC wishes to proceed with cleanup of the affected structures as soon as possible so that electric power generating capacity can be restored to Holyoke Gas and Electric and environmental impacts can be mitigated prior to Winter.

If you have any questions or require additional information, please do not hesitate to contact the undersigned at 413-789-3530.

Sincerely,
ENVIRONMENTAL COMPLIANCE SERVICES, INC.

for Richard Starodoj
Environmental Analyst

Daniel W. Felten, P.E., LSP, LEP
Principal/Director of Remediation Services

RAS/DWF/kab
Attachments

cc: Melanie Morash, EPA
Roger Jenson, EPA
Jonathon Gross, NDC
Mark Roberts, Esq.

II. Suggested Notice of Intent (NOI) Form

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

a) Name of facility:

Harris Energy & Realty Corp

Mailing Address for the Facility:
20 Water Street, Holyoke, MA, 01040

b) Location Address of the Facility (if different from mailing address):
22 Water Street, Holyoke, MA, 01040

Facility Location

longitude: 72d 35' 34.98"
latitude: 42d 12' 22.40"

Type of Business:
Hydro Generator/Vacant Building (Former Paper Mill)

Facility SIC codes:
4911 Hydro Electric Generation - NAICS 221111

c) Name of facility owner: Harris Energy & Realty Corp **Owner's email:** _____

Owner's Tel #: 561-585-1247 **Owner's Fax #:** _____

Address of owner (if different from facility address)
c/o Mr. Robert Belsky, 2000 South Ocean Blvd., Palm Beach, Florida, 33480

Owner is (check one): 1. Federal____ 2. State _____ 3.Tribal_____ 4. Private ✔ 4. Other _____(Describe)

Legal name of Operator, if not owner: National Decon, L.L.C.

Operator Contact Name: Johnathan Gross

Operator Tel Number: (914) 523-3766 **Fax Number:** (914) 560-2221

Operator's email: jmgross@optonline.net

Operator Address (if different from owner)

105 W. Birmingham Place, Broken Arrow, Oklahoma, 74011

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 discharge" as defined by 40 CFR Section 122.22? 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:**

2. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed)

a) **Name of receiving water into which discharge will occur:** Connecticut River
State Water Quality Classification: Class B - Warm Water Fishery **Freshwater:** X **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** 1

For each outfall:

d) **Estimate the maximum daily and average monthly flow of the discharge (in gallons per day – GPD). Max Daily Flow** 288,000 **GPD**
Average Monthly Flow 144,000 **GPD**

e) **What is the maximum and minimum monthly pH of the discharge (in s.u.)? Max pH** 8.3 **Min pH** 6.5

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.**

g) **What treatment does the wastewater receive prior to discharge?**

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 10/19/08 **approximate end date of dewatering** 12/31/08

i) **Latitude and longitude of each discharge within 100 feet (See** http://www.epa.gov/tri/report/siting_tool**): Outfall 1: long.** NA **lat.** _____;
Outfall 2: long. NA **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** NA **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)).**

b) **Please report any known remediation activities or water-quality issues in the vicinity of the discharge.**

4. Determination of Endangered Species Act Eligibility: Provide documentation of ESA eligibility as required at Part 3.4 and Appendices III and IV. In addition, respond to the following questions.

a) **Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes ✔ No____**
b) **Has any consultation with the federal services been completed ? Yes___ No ✔**
c) **Is consultation underway? Yes ✔ No____**
d) **What were the results of the consultation with the U.S. Fish and Wildlife Service and/or NOAA Fisheries Service (check one): a "no jeopardy" opinion _____or written concurrence____ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat.**
e) **Which of the five eligibility criteria listed in Appendix 2, Section B (A,B,C,D,or E) have you met?** Anticipate "B"
f) **Please attach a copy of the most current federal listing of endangered and threatened species, found at USF&W website.**

5. Documentation of National Historic Preservation Act requirements: Please respond to the following questions:

a) **Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility site or in proximity to the discharge? Yes ✔ No ____**
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 requirements listed in Appendix 3, Section C (1,2 o3) have you met?** 2

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 (see 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: Harris Energy & Realty Corp.

Operator signature: Johnathan Gross (National Decon L.L.C.)

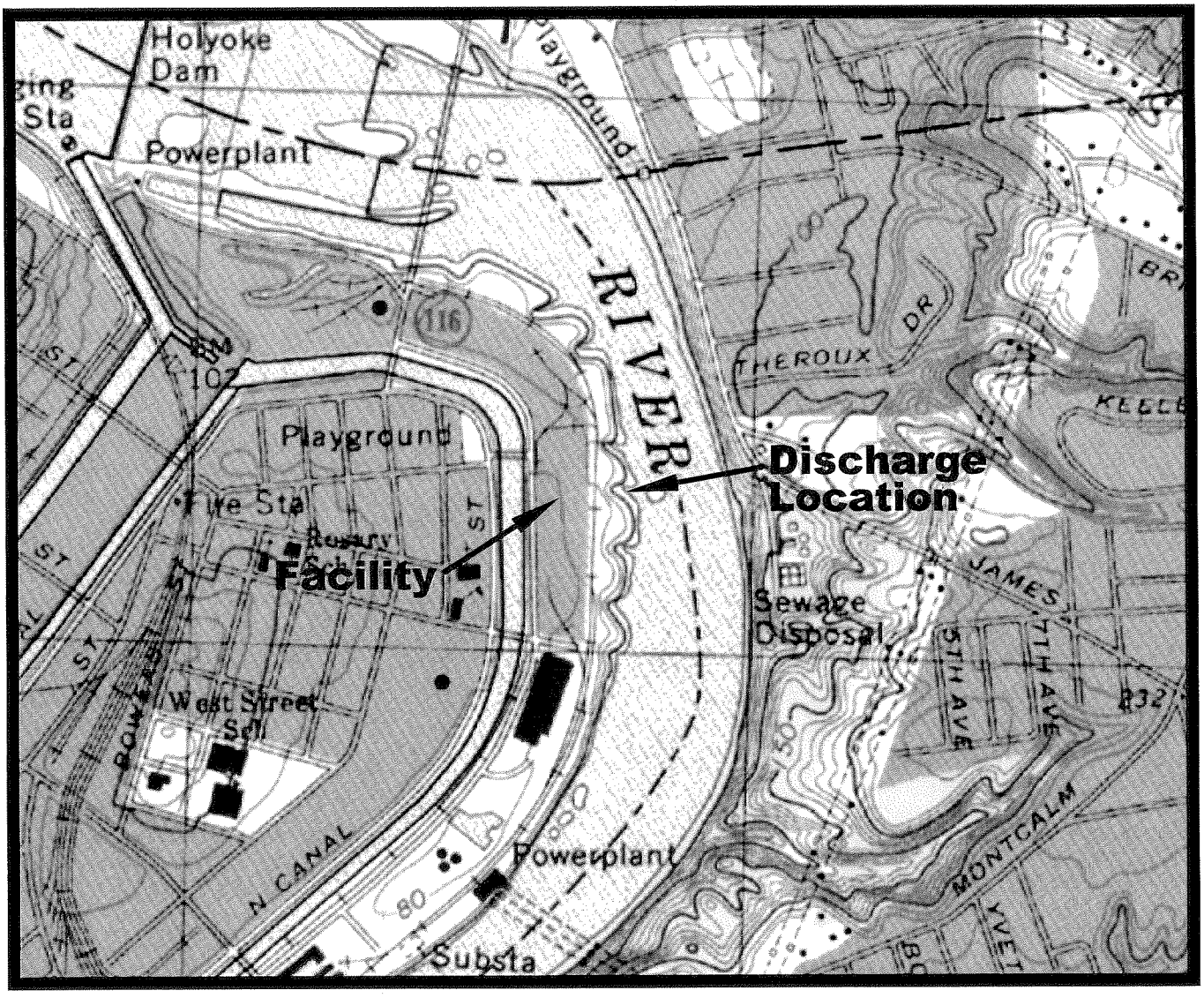
Title: Vice President

Date: October 14, 2008

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.

Agawam, Wakefield, Worcester MA * Branford CT * Bow NH
Brattleboro, Waterbury VT * Tampa, Jacksonville, Gainseville FL
Charlotte NC * Columbus OH



Scale 1" = 1,000'

0 1,000 2,000 3,000 4,000

Base Map: U.S. Geological Survey; Quadrangle Location: Springfield North, MA

Map Edited: 1972 Photorevised: 1979 Photoinspected: None

North

Harris Energy & Realty Corp.

22 Water Street
Holyoke, Massachusetts
207243-LOCUS.DWG

Site Locus

Job No: 207243 Figure - 1

Notes:
All locations are approximate.
Air photo circa April 2005, MassGIS

ecs
566 Silver Street * Agawam, MA 01001
Phone: 1-800-780-3539 Fax: 413-789-3539
ecsconsult.com

PROJECT:
Harris Energy & Realty Corp.
22 Water Street
Holyoke, Massachusetts

TITLE:
Site Plan

CLIENT:
Natioanl Decon, LLC

GRAPHIC SCALE: 120 60 0 60 120

COMPUTER CADFILE : Water-street-mill.dwg

DRAWN BY:	DESIGNED BY:	CHECKED BY:	APPROVED BY:
RAS	RAS		
SCALE:	**DATE:**	**JOB NO.:**	**FIGURE NO.:**
1"=120'	10/10/08	207243	2

Supplemental Information:

Section 2 (a):
Water will be discharged to the Connecticut River (same location as normal uncontrolled discharge of hydro facility).
The Connecticut River at this location is designated "Class B" warm, freshwater, fishery at this location. (Data from NPDES Permit MA0101630' Holyoke Water Pollution Control Facility, located approximately 1 mile downstream of the Site).

Section 2 (b) 3
The applicant seeks to discharge surface water infiltrating from the head-works and tailrace outlet gate of an existing hydro electric generating facility operated by the Holyoke Gas and Electric Company. The generator is operated under FERC permit number 2771. The proposed water discharge will be derived from operations involving the removal of residual petroleum impact to the tailrace walls to allow deconstruction of the remaining buildings on Site and future operations of the turbine generator. Filing under the construction dewatering portion of the general permit is a result of consultation with Mr. Roger Jenson (617-918-1621) of the EPA Boston office. During this consultation the applicant was informed that filing under construction dewatering would be appropriate rather than filing under the remediation portion of the general permit.

Section 2 (c):
There is one proposed outfall, located immediately east of the flood control wall raceway outlet gates and Flood Control Pump Station #4. This is the normal location of the raceway discharge.

Section 2 (d):

Maximum daily flow is estimated to be 288,000 Gallons Per Day (GPD). This presumes a maximum flow rate of 200 Gallons Per Minute (GPM) during the initial stages of the tailrace dewatering.

Average monthly flow is estimated to be 144,000 GPD based on a flow rate of 100 GPM resulting from seepage from both the upper headworks gate from the canal and tailrace gate from the river.

Section 2 (e):

pH measured in the field from a water sample obtained from the tail race was 8.03 at a temperature of 11.3 degrees Celsius (52 degrees Fahrenheit). The permitted range is 6.5 to 8.3 so the requested limits are those.

Section 2 (f):
The source of the water is intrusion of river water from the headworks located at the canal and from the river gates at the tailrace exit. Neither end of the system is completely watertight.

Section 2 (g):

It is proposed to pump water from the tailrace to a frac tank where any free phase oil will separate out. Water impacted by dissolved phase petroleum hydrocarbons will be pumped from the frac tank, passed through bag filters to remove suspended solids in the water stream, then processed through two parallel sets of two 500-pound canisters of granular activated carbon arranged in series. After treatment, the water would pass through a flow totalizer and then be discharged to the Connecticut river on the river side of the flood control wall, the normal discharge point of water passing through the hydroelectric generating system.

Section 2 (h):

It is expected that the flow will be continuous to provide a continuously depressed water level in the tail race structure.

Section 2 (i):

There are no other known permitted discharges within 100 feet of the tailrace outfall.

Section 2 (j):

The discharge is not potable water.

Section 2 (k):

Based on available information contained in Section 3.4 and Appendix 1 of the general permit, the discharge does not occur in an area of critical environmental concern. (ACEC).

Section 3 (a):

No pH adjustment is anticipated for the discharge.

Section 3 (b):

Remediation associated with this project and permit.

Section 4 (a):

The short nose sturgeon is a listed endangered species for this portion of the river.

Section 4 (b):

Contact was made with Mr. Pat Scida of NOAA Fisheries Service (978-281-9203). He stated that EPA not the applicant would need to send letter concerning a request for no jeopardy or "written concurrence". Contact was also made with Mr. Anthony Tur (603-223-2541) of US Fish and Wildlife who replied in an email to refer to http://www.fws.gov/northeast/newenglandfieldoffice/EndangeredSpec-Consultation.htm and to send a request via USPS, include a map and project description if more information was needed.

Section 4 (c):
Continued contact with US Fish and Wildlife will be conducted to clarify that this is not a federal project which is seemingly what the above website guidance refers to. Ultimately in the opinion of the applicant there is no negative impact to cleaning up the presence of oil that would otherwise impact the environment. The water being discharged is water from the same river source.

Section 4 (d):
No determination has been received from either US. Fish and Wildlife or NOAA Fisheries Service as noted above.

Section 4 (e):
Please note that the application form list Appendix 2. Based on a review of the application the applicant believes this should refer to Appendix 3. No determination has yet been made by either agency, however given the specifics of the project the applicant firmly believes that a Criterion "B" finding will be the end result of any determination.

Section 4 (f):
A copy of the endangered species list from the New England field office is attached.

Section 5 (a):
The Holyoke Canal system is listed on the National Register of Historic Places.

Section 5 (c):
Based on the work involved, there will be no adverse affect to the Holyoke Canal System.

Section 6:

Analytical results of a water sample retrieved from the turbine room tailrace area attached. Due to the nature of the #6 oil present, there is expected to be little if any dissolved phase impact to the water in the tailrace. This is supported by the results of the analytical sampling.

U. S. Fish & Wildlife Service
New England Field Office
Conserving New England's Natural Resources

Endangered Species
Partners for Fish & Wildlife
Environmental Contaminants
Federal Activities
Where Are We
Home
Staff Directory
Contact Us

Endangered Species


Banding bald eagle chicks, USFWS photo


Small Whorled Pogonia, USFWS photo

New England Listed Species

The following federally-listed species are protected in New England. This list includes links to species information on our National Fish and Wildlife Service website including current Federal Register documents, HCPs, Recovery Plans, Life History accounts.

Candidate species and species recently delisted are identified below, including links for additional information regarding their status.

Vertebrates

Mammals-
Eastern Cougar -Puma (=Felis) concolor couguar
Gray Wolf -Canis lupus
Indiana Bat - Myotis sodalis
Canada Lynx - Lynx canadensis

Birds-
Atlantic Coast Piping Plover - Charadrius melodus
Birds of North America Species Account Piping Plover
Atlantic Coast piping plover website Piping Plover
Roseate Tern – Sterna dougallii dougallii
Birds of North America Species Account Roseate Tern

Reptiles
Bog Turtle - Clemmys muhlenbergii
Northern Redbelly Cooter (=Plymouth redbelly turtle) Pseudemys rubriventris

bangsii
Northern Redbelly Cooter 5-year Review; May 2007

Invertebrates

Insects-
American Burying Beetle - Nicrophorus americanus
Karner Blue Butterfly - Lycaeides melissa samuelis
Karner Blue Butterfly Fact sheet
Northeastern Beach Tiger Beetle - Cicindela dorsalis dorsalis
Puritan Tiger Beetle - Cicindela puritana
Draft Puritan Tiger Beetle; 5-year Review

Mussels-

Dwarf Wedgemussel - Alasmidonta heterodon
Dwarf Wedgemussel 5-Year Status Review 2007

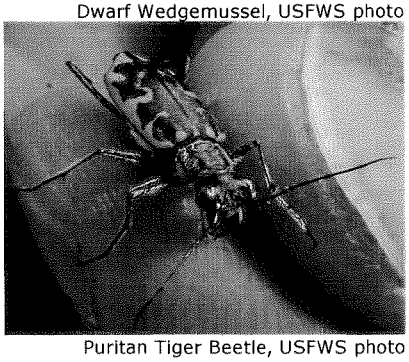
Plants

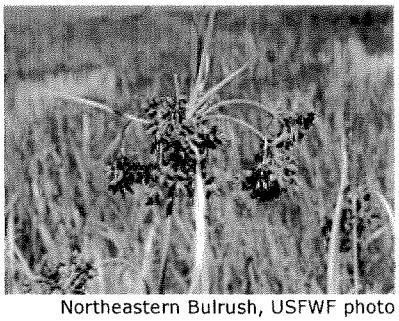
Jesup's Milkvetch - Astragalus robbinsii var. jesupi
Northeastern Bulrush - Scirpus ancistrochaetus
Sandplain Gerardia - Agalinis acuta
Small Whorled Pogonia - Isotria medeoloides
Seabeach Amaranth - Amaranthus pumilus
American Chaffseed - Schwalbea americana
Eastern Prairie Fringed Orchid - Platanthera leucophaea
Furbish's Lousewort - Pedicularis furbishiae

Delisted Species
Bald Eagle - Haliaeetus leucocephalus
Bald Eagle Guidance

Candidate Species


Dwarf Wedgemussel, USFWS photo


Puritan Tiger Beetle, USFWS photo


Northeastern Bulrush, USFWF photo

The Service has recently completed a status assessment for the following species and determined that federally listing is "warranted, but precluded", i.e. the status of the species indicates that it should be listed but the listing is superceded by higher listing actions.

While there is currently no obligation for Federal Agencies to consult with us regarding these species, coordination is encouraged to avoid project delays that may occur as a result of the species becoming federally-listed during the planning or construction phases of a given project. In addition, the Service is interested in promoting conservation actions that may result in benefits to these species that will prevent the need to list it. Information regarding our candidate conservation program may help you decide if you would like to become involved.


New England cottontail, J. Litivitis

New England Cottontail- Sylvilagus transitionalis

Red Knot- Calidris canutus rufa
Birds of North America Species Account Red Knot
Red Knot Fact Sheet

Last Update: Thursday, July 17, 2008

Report Date:
14-Oct-08 14:24

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

Environmental Compliance Services
588 Silver Street
Agawam, MA 01001
Attn: Dan Felten

Project: 22 Water St. - Holyoke, MA
Project 207243

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SA85794-01	TRB-RM-GT-13-RA-10	Surface Water	09-Oct-08 12:45	09-Oct-08 16:22

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.
Spectrum Analytical holds certification in the State of Massachusetts for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of Massachusetts does not offer certification for all analytes.
Please note that this report contains 4 pages of analytical data plus Chain of Custody document(s).
This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87600/E87936
Maine # MA138
New Hampshire # 2538
New Jersey # MA011/MA012
New York # 11393/11840
Pennsylvania # 68-04426/68-02924
Rhode Island # 98
USDA # S-51435
Vermont # VT-11393

Authorized by:

Hanibal C. Tayeh, Ph.D.
President/Laboratory Director

Technical Reviewer's Initial:

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, FL-E87936 and NJ-MA012).

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
TRB-RM-GT-13-RA-10 SA85794-01	207243	Surface Water	09-Oct-08 12:45	09-Oct-08

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
Extractable Petroleum Hydrocarbons											
TPH 8100 by GC											
Prepared by method SW846 3510C											
8006-61-9	Gasoline	BRL		mg/l	0.2	1	+SW846 8100Mod.	10-Oct-08	14-Oct-08	8100806	
68476-30-2	Fuel Oil #2	BRL		mg/l	0.2	1	"	"	"	"	
68476-31-3	Fuel Oil #4	BRL		mg/l	0.2	1	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL		mg/l	0.2	1	"	"	"	"	
M09800000	Motor Oil	BRL		mg/l	0.2	1	"	"	"	"	
8032-32-4	Ligroin	BRL		mg/l	0.2	1	"	"	"	"	
J00100000	Aviation Fuel	BRL		mg/l	0.2	1	"	"	"	"	
	Hydraulic Oil	BRL		mg/l	0.2	1	"	"	"	"	
	Dielectric Fluid	BRL		mg/l	0.2	1	"	"	"	"	
	Unidentified	BRL		mg/l	0.2	1	"	"	"	"	
	Other Oil	BRL		mg/l	0.2	1	"	"	"	"	
	Total Petroleum Hydrocarbons	BRL		mg/l	0.2	1	"	"	"	"	
Surrogate recoveries:											
3386-33-2	*1-Chlorooctadecane*	*67*		*40-140 %*			"	"	"	"	

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 8100806 - SW846 3510C										
Blank (8100806-BLK1)										
Prepared: 10-Oct-08 Analyzed: 14-Oct-08										
Gasoline	BRL		mg/l	0.2						
Fuel Oil #2	BRL		mg/l	0.2						
Fuel Oil #4	BRL		mg/l	0.2						
Fuel Oil #6	BRL		mg/l	0.2						
Motor Oil	BRL		mg/l	0.2						
Ligroin	BRL		mg/l	0.2						
Aviation Fuel	BRL		mg/l	0.2						
Hydraulic Oil	BRL		mg/l	0.2						
Dielectric Fluid	BRL		mg/l	0.2						
Unidentified	BRL		mg/l	0.2						
Other Oil	BRL		mg/l	0.2						
Total Petroleum Hydrocarbons	BRL		mg/l	0.2						
Surrogate: 1-Chlorooctadecane	*0.0414*		mg/l		*0.0500*		*83*	*40-140*		
LCS (8100806-BS1)										
Prepared: 10-Oct-08 Analyzed: 14-Oct-08										
Fuel Oil #2	11.9		mg/l	0.1	12.0		99	40-140		
Surrogate: 1-Chlorooctadecane	*0.0558*		mg/l		*0.0500*		*112*	*40-140*		

Notes and Definitions

BRL	Below Reporting Limit - Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

A plus sign (+) in the Method Reference column indicates the method is not accredited by NELAC.

Interpretation of Total Petroleum Hydrocarbon Report

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from analyses of various petroleum products. Possible match categories are as follows:

Gasoline - includes regular, unleaded, premium, etc.
Fuel Oil #2 - includes home heating oil, #2 fuel oil, and diesel
Fuel Oil #4 - includes #4 fuel oil
Fuel Oil #6 - includes #6 fuel oil and bunker "C" oil
Motor Oil - includes virgin and waste automobile oil
Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha
Aviation Fuel - includes kerosene, Jet A and JP-4
Other Oil - includes lubricating and cutting oil, and silicon oil

At times, the unidentified petroleum product is quantified using a calibration that most closely approximates the distribution of compounds in the sample. When this occurs, the result is qualified as *TPH (Calculated as).

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Validated by:
Hanibal C. Tayeh, Ph.D.

SA85794 Ck

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

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Special Handling:
☐ Standard TAT - 7 to 10 business days
☑ Rush TAT - Date Needed: 10/14/08 [illegible]
* All TATs subject to laboratory approval. Min. 24-hour notification needed for rushes.
* Samples disposed of after 60 days unless otherwise instructed.

Report To: ECS
Invoice To: ECS
Project No.: 207243
Site Name: 22 Water St
Location: Holyoke State: MA
Project Mgr.: D. Feltrow
P.O. No.:
RQN: 0002
Sampler(s): R. Stirodoj

1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH_3OH 8=$NaHSO_4$ 9= Cold 10=

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air
X1= X2= X3=

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	TPH 8100 m	QA Reporting Notes
SA85794-01	TRB-RM-GT-13-RA-10	10/9/08	12:45	G	SW	2,9		1			X	

QA Reporting Notes: (check if needed)
☑ Provide MA DEP MCP CAM Report
☐ Provide CT DEP RCP Report

QA/QC Reporting Level
☑ Standard ☐ No QC
☐ Other

State specific reporting standards: Surface Water

☐ Fax results when available to (____)
☑ E-mail to RStirodoj@ecsconsult.com
EDD Format

Condition upon receipt: ☑ Iced ☐ Ambient °C 12.5

Relinquished by:	Received by:	Date:	Time:
[signature]	[signature]	10/09/08	1622