TETRA TECH RIZZO

June 20, 2008

Electronic Mail Submission (NPDES.Generalpermits@epa.gov)
US Environmental Protection Agency
RGP-NOI Processing
Municipal Assistance Unit (CMU)
One Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

Re: Notice of Intent
NPDES Remediation General Permit
10 New Bond Street
Worcester, MA

Dear Sir or Madam:

On behalf of Liberty MA Portfolio Fee, LLC (Liberty), the owner of the above-referenced property and Lightship Engineering, the proposed Operator of the treatment system, Tetra Tech, Inc. d/b/a Tetra Tech Rizzo (TTR) has prepared this Notice of Intent (NOI) for coverage under the National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP), Massachusetts General Permit (MAG910000). This NOI was prepared in accordance with the general requirements of the NPDES RGP under Federal Register, Volume 70, No. 147 and related guidance documentation provided by the U.S. Environmental Protection Agency (EPA).

The signed and completed NOI forms are attached to this letter. The following sections provide additional information relevant to this NOI.

Site Information

The Site comprises a portion of the 10 New Bond Street property in Worcester, Massachusetts. Petroleum-related light non-aqueous phase liquid (LNAPL) was recently identified in a monitoring well located on the northeastern portion of the Site. This condition was reported under the Massachusetts Contingency Plan (MCP) to the Massachusetts Department of Environmental Protection (MassDEP) and Release Tracking Number (RTN) 2-16897 was subsequently assigned to the Disposal Site (Site). In addition, extensive subsurface assessment and response actions have been implemented at the 10 New Bond Street property in the past 10 to 15 years. These investigations have identified detectable concentrations of petroleum and metals (primarily lead), although no evidence of LNAPL was previously reported at the Site. A

One Grant Street
Framingham, MA 01701
Tel 508.903.2000 Fax 508.903.2001

Class A-3 Response Action Outcome (RAO) Statement was field for the entire 10 New Bond Street property on August 18, 1998 and was subsequently amended in 2004 and 2005. The Class A-3 RAO includes an Activity and Use Limitation (AUL).

A MCP Release Abatement Measure (RAM) Plan is being submitted to MassDEP to address the LNAPL condition (RTN 2-16897). The objective of the RAM is to remove the source of LNAPL through the excavation and off-site disposal of oil-saturated soils at the Site. Due to the observed groundwater table, excavation dewatering will be necessary to facilitate excavation and removal of oil-saturated soils below the groundwater table. A topographic map showing the approximate location of the Site is attached to this NOI as Figure 1.

Discharge Information

This NPDES RGP NOI is for discharges activities including: local dewatering locations (well points/sumps), excavation dewatering activities, and other remedial wastewaters that are expected to be generated during RAM activities during the summer of 2008. The recovered water is to be collected from temporary well points or sumps installed within the proposed RAM work area. These well points may be drilled or installed through the excavation. During excavation additional temporary well points and/or dewatering sumps will be utilized to maintain a dry and workable excavation. In addition, waters may be collected from sumps within vehicle/equipment washdown area(s) within the RAM work area. Water will be recovered using wrapped collection structures (well points or sumps) to minimize the amount of solids in the influent water. The discharges are expected to be intermittent, with maximum flows during initial dewatering and diminishing flows to maintain the dewatered state during excavation and conduct RAM activities. Since a release of oil and/or hazardous materials has previously been detected at the Site (RTN 2-16897), the recovered water will treated prior to discharge as described below. The maximum discharge flow rate and design flow rate for the system will be 50 gallons per minute (gpm) over a 24-hour period (up to 72,000 gallons per day) during initial dewatering with an estimated average flow rate of approximately 30 gpm to maintain dewatered conditions (43,200 gallons per day).

The treated water will be discharged to an on-site storm drainage system which discharges to Weasel Brook at an outfall proximate to the Site. The storm drainage system is owned by Liberty and is not a municipal separate storm sewer system (MS4). The approximate coordinates for the outfall are provided in the NOI. A drawing showing the approximate discharge point and outfall to Weasel Brook is attached to this NOI as Figure 2.

Receiving Surface Water Information

Effluent from the treatment system will be directed to Weasel Brook which is located on a portion of the Site. Weasel Brook is within the Blackstone river basin and is part of the Narragansett Bay drainage system. Proximate to the discharge Weasel Brook is a Class B water. The estimated seven-day, ten-year low flow (7Q10) of Weasel Brook at the location of the discharge was evaluated using the USGS on-line StreamStats stream flow assessment application. The value for the 7Q10 estimated using StreamStats is 0.00919 ft^3/s. A copy of the report generated by StreamStats is appended to this submittal.

Information regarding Total Maximum Daily Load (TMDL) applicable to Weasel Brook was evaluated via a review of the listings published in the on-line MassDEP database. There are no TMDLs reported to EPA by the state for Weasel Brook.

Contaminant Information

The contaminant information presented in this NOI is based on our evaluation of a sample collected from an on-site monitoring well representing the "untreated influent" subject to this NOI. Based on the analytical data, the following NPDES RGP-listed pollutants have been detected at concentrations above the NPDES RGP effluent limitations:

- TSS (540 mg/l)
- TPH (95.3 mg/l)
- BTEX (293 µg/l)
- cis-1,2-DCE (120 µg/l)
- vinyl chloride (20 µg/l)
- Total Phenols (460 µg/l)
- Total Group I PAHs (11 µg/l)
- Benzo(a)Anthracene (5.6 µg/l)
- Chrysene (5.4 µg/l)
- Total Group II PAHs (134.7 µg/l)
- Naphthalene (66 µg/l)
- PCBs (332 µg/l)
- Arsenic (164.5 µg/l)
- Cadmium (0.7 µg/l)
- Chromium III (20 µg/l)
- Copper (24.5 µg/l)
- Lead (227.8 µg/l)
- Zinc (356.3 µg/l)
- Iron (81 mg/l)

Elevated concentrations of TSS, PAHs, PCBs and metals are believed to be primarily due to the presence of silt within the groundwater sample since the sample was not filtered prior to analysis, per NPDES RGP requirements.

In addition to the NPDES RGP-listed pollutants, the following VOCs were detected in groundwater at the Site:

- Trans-1,2-DCE
- N-butylbenzene
- Sec-butylbenzene
- Isopropylbenzene
- P-isopropylbenzene
- N-propylbenzene
- 1,3,5-trimethylbenzene
- 1,2,4-trimethylbenzene
- 1-methylnaphthalene
- 2-methylnaphthalene

Treatment System Information

The recovered water will require treatment using available technologies such as settlement, filtration and adsorption in order to achieve discharge concentrations below the NPDES RGP effluent limitations and not impair the Class B water body. The proposed water treatment train for discharge to Weasel Brook will consist of a minimum of one 10,000 gallon fractionation (frac) tank to allow adequate retention time for solids to settle and separate (discrete particle settling). In addition, the discharge level of the frac tank will be set to act as an oil/water separator to collect LNAPL (if any). Additional frac tanks may be staged at the Site to provide temporary storage and/or settling of the water prior to treatment and discharge. If the residence time within the frac tanks is not sufficient to allow for adequate settlement, weirs or additional treatment including other filtration units (sand filters and/or cartridge filters) may be used to reduce suspended solids. Water pumped from the frac tank will be directed through a minimum of two bag filter units equipped with 10-micron bag filters connected in parallel (duplex bag filter unit). A contingency is requested for additional duplex filter units equipped with a smaller aperture size filters (1-micron to 5-micron) connected downstream from the 10-micron duplex bag filter unit(s) should further particulate removal be required.

In addition, a contingency is requested for the addition of flocculent to aid in the removal of TSS and metals, as necessary, to meet NPDES RGP limits. Should flocculent additions be necessary, a gel flocculent (Storm-Klear™ Liqui-Floc™ or equivalent) may be added in batches to water pumped from the frac tank(s) or the water may be passed through a permeable sock containing the gel flocculent. If a flocculent step is added to the treatment

train, the water will be passed through a duplex bag filter unit (aperture size 25-micron or smaller) after flocculation to remove flocculated matter. The proposed flocculent is chitosan-based, non-toxic and safe for use in aquatic environments. A Material Safety Data Sheet (MSDS) for this flocculent is provided with this NOI.

Following particulate removal, the water will be pumped through one appropriately-sized granular activated carbon (GAC) or combined organoclay/GAC blend filter unit for entrained oil removal and adsorption of organic contaminants. The water will then be pumped through a second GAC unit as a polishing step to remove additional organic compounds. The treatment system will have sample ports to collect water samples from the system influent, system midpoint and system effluent. A flow meter (totalizer and instantaneous flow meter) will also be installed at the effluent of the treatment system. A general groundwater treatment system diagram (Figure 3) is included as an attachment to this NOI.

Consultation with State/Federal Services

The listed Areas of Critical Environmental Concern in Massachusetts and the Endangered Species list provided in Appendix I and Appendix II of the NPDES RGP were reviewed to determine whether federally-listed endangered or threatened species or critical habitats are present at the Site or in the vicinity of the discharge. In addition, a review of the on-line database for the New England Field Office of the US Fish and Wildlife office was conducted to identify Endangered or Threatened Species, Essential Fish Habitat or other Critical Habitat proximate to the discharge. The results of this research were compared with the requirements identified in Appendix VII of the NPDES RGP. The results of this did not identify Federally-listed species or critical habitat areas located proximate to the proposed discharge. Considering the above findings and pursuant to Appendix VII of the NPDES RGP, this facility meets the permit eligibility criteria under "Criteria A" for coverage under the NPDES RGP since no Federally listed Endangered or Threatened Species, or Critical Habitat are located in proximity to the point where the proposed discharge reaches the receiving surface water body, and consultation with federal and/or state officials is not necessary at this time.

The listed National Historic Places (NHP) in proximity to the discharge were reviewed using the electronic data base provided by the U.S. National Parks Service (NPS) website. The results of this review did not identify listed historic properties proximate to the Site. Pursuant to Appendix VII of the NPDES RGP, this facility meets the permit eligibility criteria for coverage under the NPDES RGP, and consultation with federal and/or state officials is not necessary at this time.

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Request for Coverage Under NPDES RGP

In consideration of the nature of this discharge and the requirements of the NPDES RGP, it is our opinion that the subject discharge is eligible for coverage under the NPDES RGP. We herein request coverage under the NPDES RGP for the discharge of recovered water during RAM activities to the surface waters of Weasel Brook.

The attached NOI form provides the requisite information pertaining to this NOI and the appropriate signature of the facility Owner (Liberty) and Operator (Lightship Engineering). The Operator shall be responsible for any enforcement action taken or imposed by federal, state or local agencies.

Pending authorization from the EPA, discharge of treated water is scheduled to being on or about June 24, 2008 and may be conducted through July 30, 2008.

Questions or correspondence regarding the subject discharge should be directed through Mr. Joseph O'Brien who may be contacted at (508) 830-3344. Please contact the undersigned at (508) 903-2000 if you have any questions regarding this NOI.

Very truly yours,

Ian S. Cannan
Project Scientist

William C. Phelps
Project Manager

CC: MassDEP, Division of Watershed Management
MassDEP BWSC, CERO (to be included in next RAM filing)
City of Worcester

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B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit

1. General site information. Please provide the following information about the site:

a) Name of **facility/site:** 10 New Bond Street RAM			**Facility/site** address:	
Location of **facility/site:** longitude: -71.8019 latitude: 42.3059	Facility SIC code(s): N/A		Street: 10 New Bond Street	
b) Name of **facility/site owner:** Liberty MA Portfolio Fee, Inc.			Town: Worcester	
Email address of owner:			State: MA	Zip: 01604	County: Worcester
Telephone no.of facility/site **owner:** 617.423.7177					
Fax no. of facility/site **owner:** 617.451.0674			**Owner** is (check one): 1. Federal___ 2. State/Tribal___ 3. Private ✓ 4. other, if so, describe:		
Address of **owner** (if different from site):					
Street: 1 Liberty Square					
Town: Boston	State: MA	Zip: 02109	County: Suffolk		
c) Legal name of **operator:** Lightship Engineering	**Operator** telephone no: (508) 830-3344				
	Operator fax no.: (508) 830-3360		**Operator** email: jobrien@lightshipengineering.com		
Operator contact name and title: Joseph B. O'Brien, P.E., Principal					
Address of **operator** (if different from owner):	Street: 39 Industrial Park Road, Unit C				
Town: Plymouth	State: MA	Zip: 02360	County: Plymouth		

d) Check "yes" or "no" for the following:
1. Has a prior NPDES permit exclusion been granted for the discharge? Yes___ No ✓, if "yes," number:
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes___ No ✓, if "yes," date and tracking #:
3. Is the discharge a "new discharge"as defined by 40 CFR 122.2? Yes ✓ No___
4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes ✓ No___

e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes ✓ No ___ If "yes," please list: 1. site identification # assigned by the state of NH or MA: RTN 2-16897 2. permit or license # assigned: unclassified disposal site (Release Abatement Measure) 3. state agency contact information: name, location, and telephone number: MassDEP, BWSC, CERO, 627 Main Street, Worcester, MA (508) 792-7650	f) Is the site/facility covered by any other EPA permit, including: 1. multi-sector storm water general permit? Y___ N ✓, if Y, number: 2. phase I or II construction storm water general permit? Y___ N ✓, if Y, number: 3. individual NPDES permit? Y___ N ✓, if Y, number: 4. any other water quality related permit? Y ✓ N___, if Y, number: Wetlands Protection Act permitting under Worcester Conservation Commission

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

a) Describe the discharge activities for which the owner/applicant is seeking coverage:

discharge of recovered water generated during MCP RAM activities

b) Provide the following information about each discharge:	1) Number of discharge points:	2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft3/s)? Max. flow 0.111 Average flow 0.0668 Is maximum flow a **design value**? Y___ N ✓ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.
	1	average flow value estimated based on dewatering needs

3) Latitude and longitude of each discharge within 100 feet: pt.1:long. -71.8019 lat. 42.3059 ; pt.2: long._____ lat._____; pt.3: long._____ lat._____; pt.4:long._____ lat._____; pt.5: long._____ lat._____; pt.6:long._____ lat._____; pt.7: long._____ lat._____; pt.8:long._____ lat._____; etc.

4) If hydrostatic testing, total volume of the discharge (gals):	5) Is the discharge intermittent ✓ or seasonal _____? Is discharge ongoing Yes ____ No ✓ ?

c) Expected dates of discharge (mm/dd/yy): start 07/01/08 end 07/30/08

d) Please attach a line drawing or flow schematic showing water flow through the facility including:
1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s).

3. Contaminant information. In order to complete this section, the applicant will need to take a minimum of one sample of the untreated water and have it analyzed for **all** of the parameters listed in Appendix III. Historical data, (i.e., data taken no more than 2 years prior to the effective date of the permit) may be used if obtained pursuant to: i. Massachusetts' regulations 310 CMR 40.0000, the Massachusetts Contingency Plan ("Chapter 21E"); ii. New Hampshire's Title 50 RSA 485-A: Water Pollution and Waste Disposal or Title 50 RSA 485-C: Groundwater Protection Act; or iii. an EPA permit exclusion letter issued pursuant to 40 CFR 122.3, provided the data was analyzed with test methods that meet the requirements of this permit. Otherwise, a new sample shall be taken and analyzed.

a) Based on the analysis of the sample(s) of the untreated influent, the applicant must check the box of the sub-categories that the potential discharge falls within.

Gasoline Only	VOC Only	Primarily Metals	Urban Fill Sites	Contaminated Sumps	Mixed Contaminants	Aquifer Testing
Fuel Oils (and Other Oils) only	VOC with Other Contaminants	Petroleum with Other Contaminants ✓	Listed Contaminated Sites ✓	Contaminated Dredge Condensates	Hydrostatic Testing of Pipelines/Tanks	Well Development or Rehabilitation

b) Based on the analysis of the untreated influent, the applicant must indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids		✓	1	grab	2540D	25000	540000	1.47E+02		
2. Total Residual Chlorine	✓		1	grab	4500	20	0	0		
3. Total Petroleum Hydrocarbons		✓	1	grab	1664A	4400	95300	2.60E+01		
4. Cyanide	✓		1	grab	4500CN-CE	5	0	0		
5. Benzene	✓		1	grab	8260	5.0	0	0		
6. Toluene		✓	1	grab	8260	7.5	29	7.90E-03		
7. Ethylbenzene		✓	1	grab	8260	5.0	57	1.55E-02		
8. (m,p,o) Xylenes		✓	1	grab	8260	10	207	5.64E-02		
9. Total BTEX[4]		✓	1	grab	8260		293	7.98E-02		

[4]BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
10. Ethylene Dibromide [5] (1,2- Dibromo-methane)	✓		1	grab	504	0.020	0	0		
11. Methyl-tert-Butyl Ether (MtBE)	✓		1	grab	8260	10	0	0		
12. tert-Butyl Alcohol (TBA)			1	grab						
13. tert-Amyl Methyl Ether (TAME)			1	grab						
14. Naphthalene		✓	1	grab	8260	25	78	2.12E-02		
15. Carbon Tetra-chloride	✓		1	grab	8260	5.0	0	0		
16. 1,4 Dichlorobenzene	✓		1	grab	8260	25	0	0		
17. 1,2 Dichlorobenzene	✓		1	grab	8260	25	0	0		
18. 1,3 Dichlorobenzene	✓		1	grab	8260	25	0	0		
19. 1,1 Dichloroethane	✓		1	grab	8260	7.5	0	0		
20. 1,2 Dichloroethane	✓		1	grab	8260	5.0	0	0		
21. 1,1 Dichloroethylene	✓		1	grab	8260	5.0	0	0		
22. cis-1,2 Dichloro-ethylene		✓	1	grab	8260	5.0	120	3.27E-02		
23. Dichloromethane (Methylene Chloride)	✓		1	grab	8260	50	0	0		
24. Tetrachloroethylene	✓		1	grab	8260	5.0	0	0		

[5] EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily Value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane	✓		1	grab	8260	5.0	0	0		
26. 1,1,2 Trichloroethane	✓		1	grab	8260	7.5	0	0		
27. Trichloroethylene	✓		1	grab	8260	5.0	0	0		
28. Vinyl Chloride		✓	1	grab	8260	10	20	5.45E-03		
29. Acetone	✓		1	grab	8260	50	0	0		
30. 1,4 Dioxane			1	grab						
31. Total Phenols		✓	1	grab	420.1	150	460	1.25E-01		
32. Pentachlorophenol	✓		1	grab	8270C	540	0	0		
33. Total Phthalates [6] (Phthalate esthers)	✓		1	grab	8270C	270	0	0		
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	✓		1	grab	8270C	270	0	0		
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		✓	1	grab	8270C		11	3.00E-03		
a. Benzo(a) Anthracene		✓	1	grab	8270C	5.4	5.6	1.53E-03		
b. Benzo(a) Pyrene	✓		1	grab	8270C	5.4	0	0		
c. Benzo(b)Fluoranthene	✓		1	grab	8270C	5.4	0	0		
d. Benzo(k) Fluoranthene	✓		1	grab	8270C	5.4	0	0		
e. Chrysene		✓	1	grab	8270C	5.4	5.4	1.47E-03		

[6] The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
f. Dibenzo(a,h) anthracene	✓		1	grab	8270C	5.4	0	0		
g. Indeno(1,2,3-cd) Pyrene	✓		1	grab	8270C	5.4	0	0		
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		✓	1	grab	8270C		134.7	3.67E-02		
h. Acenaphthene		✓	1	grab	8270C	5.4	6.2	1.69E-03		
i. Acenaphthylene	✓		1	grab	8270C	5.4	0	0		
j. Anthracene	✓		1	grab	8270C	5.4	0	0		
k. Benzo(ghi) Perylene	✓		1	grab	8270C	5.4	0	0		
l. Fluoranthene		✓	1	grab	8270C	5.4	16	4.36E-03		
m. Fluorene		✓	1	grab	8270C	5.4	9.5	2.59E-03		
n. Naphthalene-		✓	1	grab	8270C	5.4	66	1.80E-02		
o. Phenanthrene		✓	1	grab	8270C	5.4	21	5.72E-03		
p. Pyrene		✓	1	grab	8270C	5.4	16	4.36E-03		
37. Total Polychlorinated Biphenyls (PCBs)		✓	1	grab	608	28.4	332	9.04E-02		
38. Antimony		✓	1	grab	6020	0.5	4.6	1.25E-03		
39. Arsenic		✓	1	grab	6020	0.5	164.5	4.48E-02		
40. Cadmium		✓	1	grab	6020	0.2	0.7	1.91E-04		
41. Chromium III		✓	1	grab	6020	0.5	20	5.45E-03		
42. Chromium VI	✓		1	grab	6020	10	0	0		

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
43. Copper		✓	1	grab	6020	0.5	24.5	6.67E-03		
44. Lead		✓	1	grab	6020	0.5	227.8	6.20E-02		
45. Mercury	✓		1	grab	245.1	0.2	0	0		
46. Nickel		✓	1	grab	6020	0.5	6.6	1.80E-03		
47. Selenium		✓	1	grab	6020	1	1	2.72E-04		
48. Silver	✓		1	grab	6020	0.5	0	0		
49. Zinc		✓	1	grab	6020	5.0	356.3	9.70E-02		
50. Iron		✓	1	grab	200.7	50	81000	2.21E+01		
Other (describe):		✓		See attached	8260					

c) For discharges where **metals** are believed present, please fill out the following:

Step 1: Do any of the metals in the influent have a **reasonable potential** to exceed the effluent limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y[✓] N[ ]	If yes, which metals? arsenic, cadmium, chromium III, copper, lead, zinc, and iron
Step 2: For any metals which have **reasonable potential** to exceed the **Appendix III** limits, calculate the **dilution factor (DF)** using the formula in Part I.A.3.c) (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metals: arsenic, cadmium, chromium III, copper, lead, zinc, and iron DF: 1.08	Look up the limit calculated at the corresponding dilution factor in **Appendix IV.** Do any of the metals in the **influent** have the potential to exceed the corresponding **effluent** limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y[✓] N[ ] If "Yes," list which metals: arsenic, cadmium, chromium III, copper, lead, zinc, and iron

4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:						
b) Identify each applicable treatment unit (check all that apply):	Frac. tank ✓	Air stripper	Oil/water separator ✓	Equalization tanks	Bag filter ✓	GAC filter ✓
	Chlorination	Dechlorination	Other (please describe): organoclay/GAC blend			
c) Proposed **average** and **maximum flow rates** (gallons per minute) for the discharge and the **design flow rate**(s) (gallons per minute) of the treatment system: Average flow rate of discharge 30 Maximum flow rate of treatment system 50 Design flow rate of treatment system 50						
d) A description of chemical additives being used or planned to be used (attach MSDS sheets): Storm-KlearTM Liqui-FlocTM or equivalent (for particulate removal)						

5. Receiving surface water(s). Please provide information about the receiving water(s), using separate sheets as necessary:

a) Identify the discharge pathway:	Direct_____	Within facility__	Storm drain ✓	River/brook ✓	Wetlands_____	Other (describe):
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters: discharge to on-site drop inlet to storm drain with subsequent discharge to brook						
c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water: 1. For multiple discharges, number the discharges sequentially. 2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.						
d) Provide the state water quality classification of the receiving water Class B,						
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 0.00919 cfs Please attach any calculation sheets used to support stream flow and dilution calculations.						
f) Is the receiving water a listed 303(d) water quality impaired or limited water? Yes____ No ✓ If yes, for which pollutant(s)? Is there a TMDL? Yes____ No ✓ If yes, for which pollutant(s)?						

6. Results of Consultation with Federal Services: Please provide the following information according to requirements of Part I.B.4 and Appendices II and VII.

a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes____ No ✓
Has any consultation with the federal services been completed ? Yes___ No ✓ or is consultation underway? Yes ____ No ✓
What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine 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?

b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge?
Yes_____ No ✓ Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes_____ No ✓

7. 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.

8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

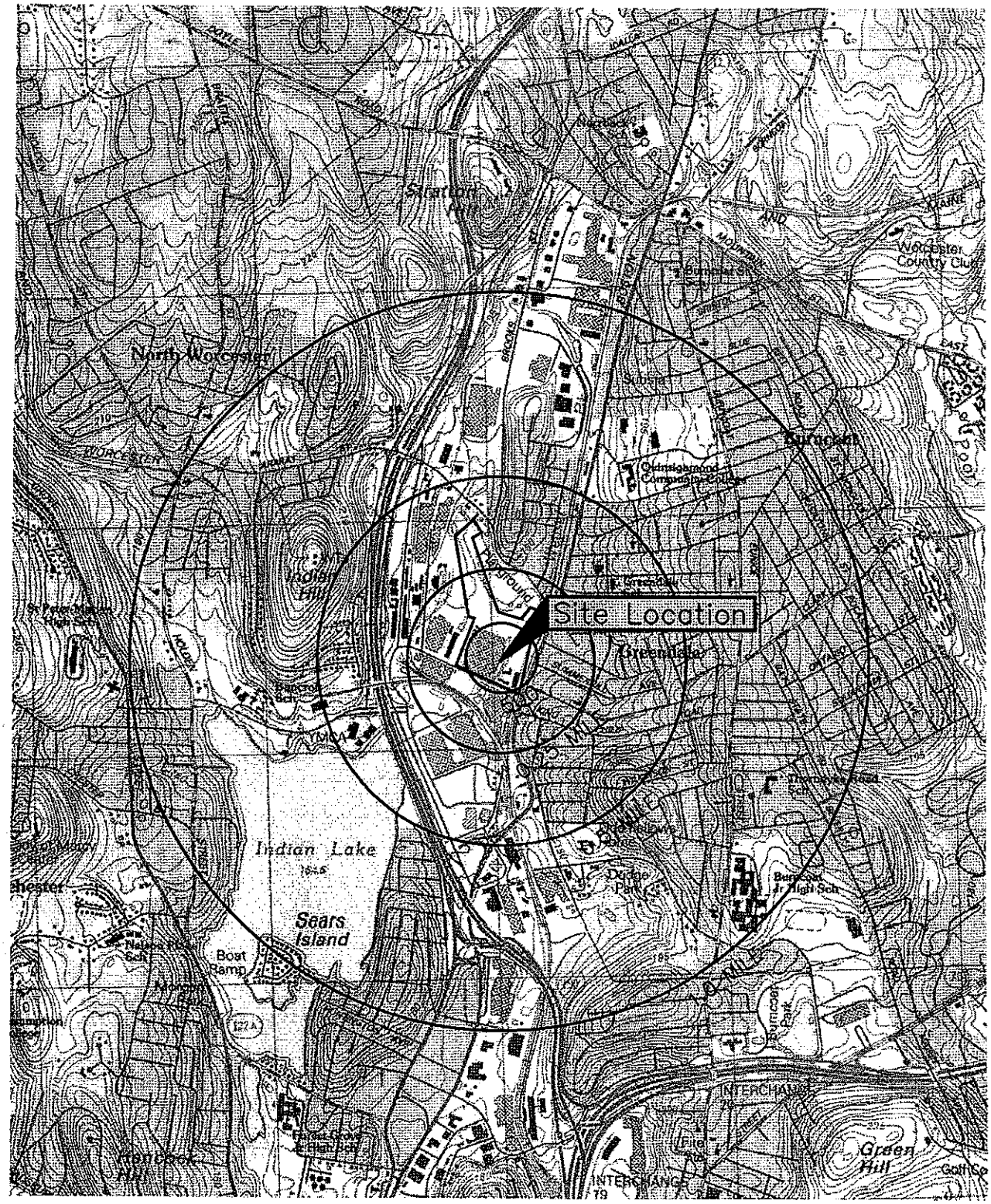
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage 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/Site Name: 10 New Bond Street RAM

Operator signature:

Title: PRINCIPAL – LICENSE # 13654

Date: 6/20/08



NOTE: DISTANCE RADII MEASURED FROM THE APPROXIMATE CENTER OF SITE PROPERTY.

Project No. 1273742015

10 New Bond Street
Worcester, Massachusetts

0 2,000 Feet

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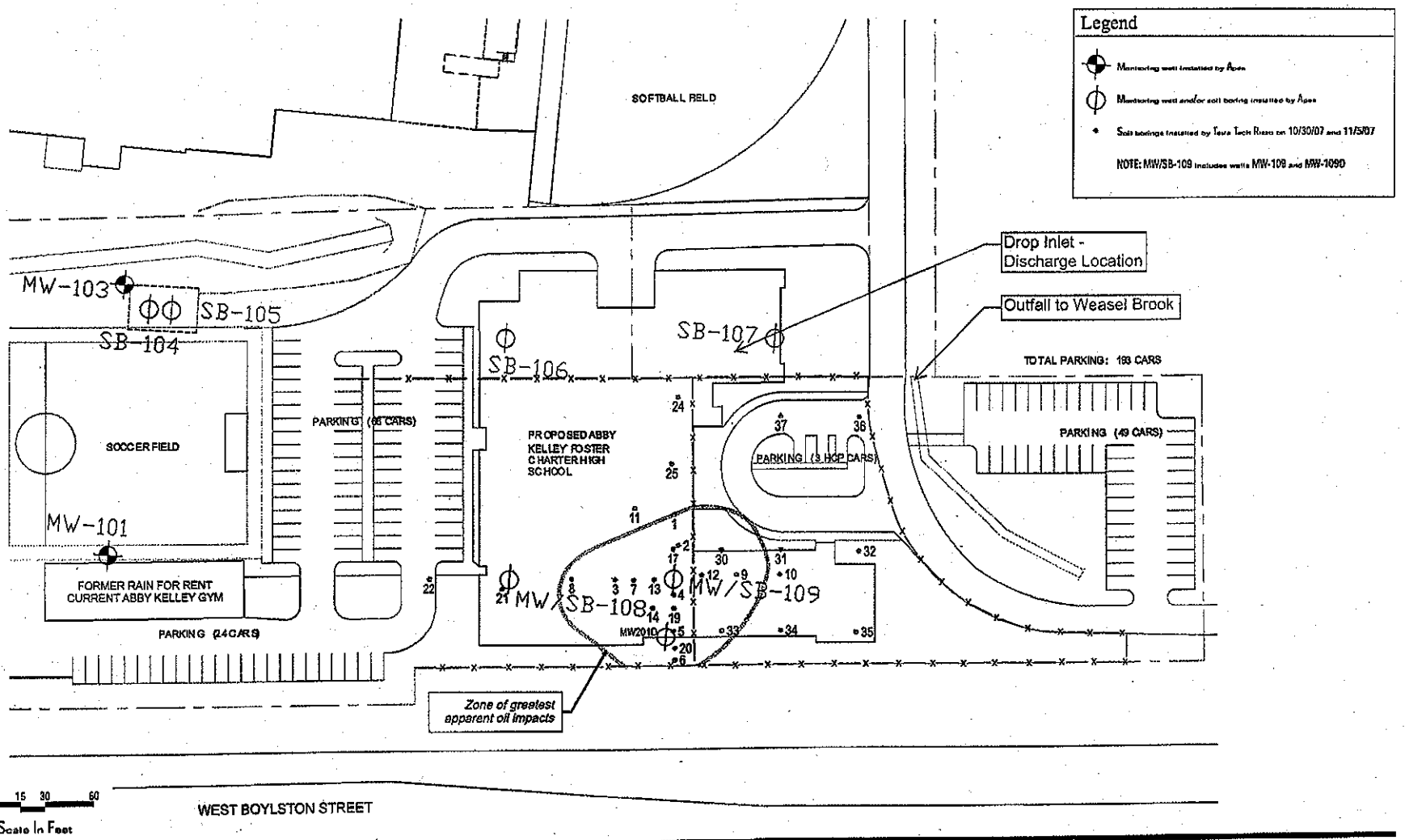
Information obtained from
USGS Map of Worcester North, Massachusetts
Quadrangle Dated 1983

Figure 1

Disposal Site Locus Map

J:\Project\3742\Env\Graphics\1273742G-ESL02-Worc.dwg 03/02/2005 11:06:37 AM EST



10 New Bond Street
Worcester, Massachusetts

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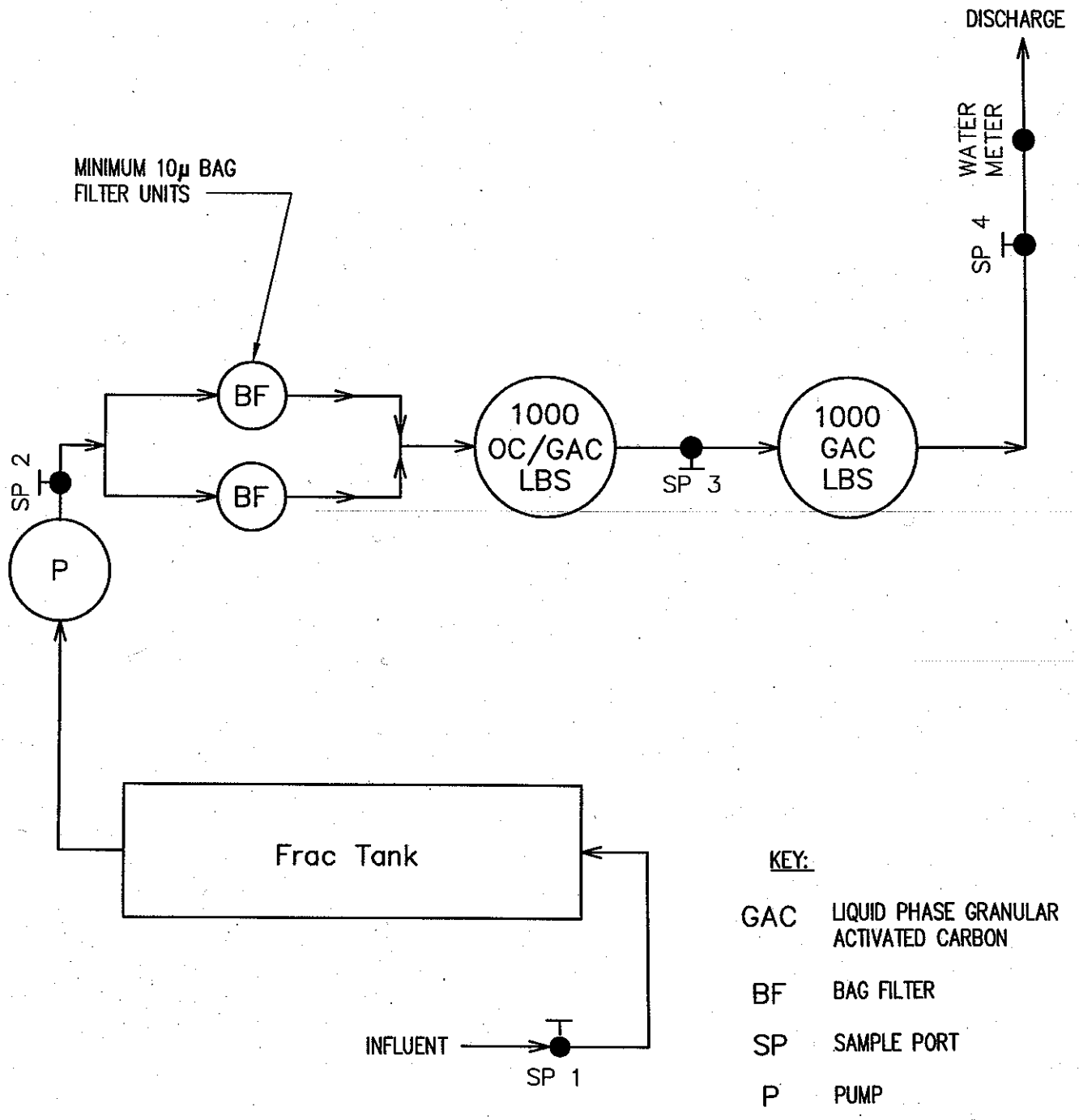
Site Plan and Discharge Locations

Figure 2



J:\Project\127-3512-08001\Graphic\Figure_3-GW TREATMENT DIAGRAM_2

0 NTS Feet

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Figure

Treatment System Diagram 3

Streamflow Statistics Report

Date: Fri Apr 11 2008 09:00:51
Site Location: Massachusetts
Drainage Area: 0.03 mi2
Latitude (NAD83): 42.3059 (42 18 21)
Longitude (NAD83): -71.8019 (-71 48 06)

Low Flow Basin Characteristics			
100% Statewide Low Flow (0.03 mi2)			
Parameter	**Value**	**Min**	**Max**
Drainage Area (square miles)	0.03 (below min value 1.61)	1.61	149
Mean Basin Slope from 250K DEM (percent)	2.3	0.32	24.6
Stratified Drift per Stream Length (square mile per mile)	3.5 (above max value 1.29)	0	1.29
Massachusetts Region (dimensionless)	0	0	1

Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.

Streamflow Statistics					
Statistic	**Flow (ft^3/s)**	**Prediction Error (percent)**	**Equivalent years of record**	**90-Percent Prediction Interval**	
				Minimum	**Maximum**
D50	0.0267				
D60	0.0225				
D70	0.0225				
D75	0.0201				
D80	0.0351				
D85	0.0266				
D90	0.0366				
D95	0.0177				
D98	0.0116				
D99	0.00768				
Low-Flow Statistics					
M7D2Y	0.0124				
AUGD50	0.0284				
M7D10Y	0.00919				

Dilution Factor (DF) = $(Q_d + Q_s)/Q_d$

Q_d = max flow rate - discharge = 50 gpm = 0.111 ft^3/sec

Q_s = 7Q10 flow = 0.00919 ft^3/sec (from Stream Stats Report)

$DF = (0.111 + 0.00919)/0.111$

$DF = 1.08$

TETRA TECH RIZZO

JOB 127-3512-08001

SHEET NO. 1 OF 1

CALCULATED BY ISC DATE 4-14-08

CHECKED BY _____ DATE _____

SCALE _____

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CALCULATED BY IWWB DATE 6-17-08
CHECKED BY ISC DATE 6-17-08
SCALE N/A

TSS $\Rightarrow 540{,}000\ mg/L \cdot \frac{1\ mg}{1000\ ug} \cdot \frac{0.0720\ MG}{1\ day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 147\ kg/day$

TPH $\Rightarrow 95{,}300\ mg/L \cdot \frac{1\ mg}{1000\ ug} \cdot \frac{0.0720\ MG}{1\ day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 26\ Kg/day$

Total BTEX $\Rightarrow 293\ ug/L \cdot \frac{1\ mg}{1000\ ug} \cdot \frac{0.0720\ MG}{1\ day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 7.98 \times 10^{-2}\ kg/day$

Toluene $\Rightarrow 29\ ug/L \cdot \frac{1\ mg}{1000\ ug} \cdot \frac{0.0720\ MG}{1\ day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 7.90 \times 10^{-3}\ kg/day$

Ethylbenzene $\Rightarrow 57\ ug/L \cdot \frac{1\ mg}{1000\ ug} \cdot \frac{0.0720\ MG}{1\ day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 1.55 \times 10^{-2}\ kg/day$

Xylene $\Rightarrow 207\ ug/L \cdot \frac{1\ mg}{1000\ ug} \cdot \frac{0.0720\ MG}{1\ day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 5.64 \times 10^{-2}\ kg/day$

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Naphthalene ⇒ $78\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{1\ day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 2.12 \times 10^{-2}\ kg/day$

cis-1,2 DCE ⇒ $120\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{1\ day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 3.27 \times 10^{-2}\ kg/day$

Vinyl Chloride ⇒ $20\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{1\ day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 5.45 \times 10^{-3}\ kg/day$

Total Phenols ⇒ $460\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{1\ day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 0.125\ kg/day$

Total Group I PAH's ⇒ $11\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{1\ day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 3.00 \times 10^{-3}\ kg/day$

Benzo Anthracene ⇒ $5.6\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{1\ day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 1.53 \times 10^{-3}\ kg/day$

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Chrysene ⇒ $5.4\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{1\ day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 1.47 \times 10^{-3}\ kg/day$

Total Group II PAH's ⇒ $134.7\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{1\ day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 3.67 \times 10^{-2}\ kg/day$

Acenaphthene ⇒ $6.2\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{1\ day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 1.69 \times 10^{-3}\ kg/day$

Fluoranthene ⇒ $16\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{1\ day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 4.36 \times 10^{-3}\ kg/day$

Fluorene ⇒ $9.5\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{1\ day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 2.59 \times 10^{-3}\ kg/day$

Naphthalene ⇒ $66\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{1\ day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 1.80 \times 10^{-2}\ kg/day$

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Phenanthrene $\Rightarrow$ $21\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 5.72 \times 10^{-3}\ kg/day$

Pyrene $\Rightarrow$ $16\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 4.36 \times 10^{-3}\ kg/day$

Total PCBs $\Rightarrow$ $332\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 9.04 \times 10^{-2}\ kg/day$

Antimony $\Rightarrow$ $4.6\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 1.25 \times 10^{-3}\ kg/day$

Arsenic $\Rightarrow$ $164.5\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 4.48 \times 10^{-2}\ kg/day$

Cadmium $\Rightarrow$ $0.7\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 1.91 \times 10^{-4}\ kg/day$

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Chromium III $\Rightarrow$ $20\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 5.45 \times 10^{-3}\ kg/day$

Copper $\Rightarrow$ $24.5\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 6.67 \times 10^{-3}\ kg/day$

Lead $\Rightarrow$ $227.8\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 6.20 \times 10^{-2}\ kg/day$

Nickel $\Rightarrow$ $6.6\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 1.80 \times 10^{-3}\ kg/day$

Selenium $\Rightarrow$ $1\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 2.72 \times 10^{-4}\ kg/day$

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Zinc $\Rightarrow$ $356.3\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 9.70 \times 10^{-2}\ kg/day$

Iron $\Rightarrow$ $81{,}000\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 22.1\ kg/day$

trans-1,2 DCE $\Rightarrow$ $8.8\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 2.40 \times 10^{-3}\ kg/day$

n-Butyl-Benzene $\Rightarrow$ $41\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 1.12 \times 10^{-2}\ kg/day$

sec-Butyl-benzene $\Rightarrow$ $18\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 4.90 \times 10^{-3}\ kg/day$

Isopropyl-benzene $\Rightarrow$ $17\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 4.63 \times 10^{-3}\ kg/day$

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p-Isopropyl-toluene $\Rightarrow 43\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 1.17 \times 10^{-2}\ kg/day$

n-propyl-benzene $\Rightarrow 28\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 7.63 \times 10^{-3}\ kg/day$

1,3,5-Trimethyl-benzene $\Rightarrow 270\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 7.35 \times 10^{-2}\ kg/day$

1,2,4-Trimethyl-benzene $\Rightarrow 530\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 1.44 \times 10^{-1}\ kg/day$

1-Methyl-naphthalene $\Rightarrow 17\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 4.63 \times 10^{-3}\ kg/day$

2-Methyl-naphthalene $\Rightarrow 16\ \mu g/L \cdot \frac{1\ mg}{1000\ \mu g} \cdot \frac{0.0720\ MG}{day} \cdot \frac{8.34\ lbs}{gal} \cdot \frac{1\ kg}{2.204623\ lbs}$

$= 4.36 \times 10^{-3}\ kg/day$