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ENVIRONMENTAL & GEOLOGICAL
CONSULTING

August 19, 2010

US Environmental Protection Agency
Shelley Puleo
Industrial NPDES Permits (CIP)
1 Congress Street, Suite 1100
Boston, MA 02114-2023

RE: Notice of Intent for Discharges for the Remediation General Permit at the
Lebanon Jiffy Mart, Lebanon, New Hampshire

Dear Ms. Puleo,

KAS, Inc. (KAS) is the environmental consulting firm working with Champlain Oil Company (COCO) at the Lebanon Jiffy Mart facility in Lebanon, New Hampshire during site construction activities. COCO would like to discharge from the excavation associated with the installation of new underground storage tanks (USTs) at the Site. KAS is submitting the enclosed Notice of Intent (NOI) form along with the supporting information.

In summary, groundwater that accumulates within the excavation area during the installation of the new USTs will be pumped from the excavation through a bag filter and into a 21,000-gallon frac tank. After the water has settled it will then be treated through two 55-gallon granulated activated carbon vessels prior to discharge into the catch basin (storm drain) located at the corner of Summer Street and Hanover Street. Once the water has entered the catch basin it will travel south down Hanover Street and then exit out shortly after into the Mascoma River. Prior to its ultimate outfall into the Mascoma River the water passes through a pre-treatment vortex chamber.

A copy of the NOI has also been mailed to the New Hampshire Department of Environmental Services (NHDES) and the Lebanon City Clerk's Office. COCO would like to begin discharge activities by 9/15/10. Please contact me if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Roberts", is written over the word "Sincerely,".

Jeremy Roberts
Manager, State Regulated Programs

Enclosure

cc: Mr. Bob Wagner, Champlain Oil Company
Mr. Jeffrey Andrews, NHDES
Lebanon City Clerk
KAS #404100373

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: <u>Jiffy Mart</u>		Facility/site address: _____	
Location of facility/site: <u>72°15'13.46"W</u> longitude: <u>42°38'46.93"N</u> latitude: <u>72°15'13.46"W</u>		Facility SIC code(s): <u>554101</u>	
b) Name of facility/site owner: <u>Champlain Oil Company</u>			
Email address of owner: <u>info@champlainoil.com</u>		Town: <u>Lebanon</u>	
Telephone no. of facility/site owner: <u>802-864-5380</u>		State: <u>NH</u>	Zip: <u>03756</u>
Fax no. of facility/site owner: <u>802-864-5335</u>		County: <u>Grafton</u>	
Address of owner (if different from site): _____			
Owner is (check one): 1. Federal _____ 2. State/Tribal _____			
3. Private <u>X</u> 4. other, if so, describe: _____			
Street: <u>45 San Remo Drive</u>			
Town: <u>South Berlington</u>		State: <u>VT</u>	Zip: <u>05403</u>
County: <u>Chittenden</u>			
c) Legal name of operator: <u>Champlain Oil Company</u>			
Operator telephone no: <u>802-864-5380</u>		Operator email: <u>info@champlainoil.com</u>	
Operator fax no.: <u>802-864-5335</u>			
Operator contact name and title: <u>Bob Wagner, Supervisor</u>			
Address of operator (if different from owner): _____			
Street: _____		State: _____	
Town: _____		Zip: _____	County: _____
d) Check "yes" or "no" for the following:			
1. Has a prior NPDES permit exclusion been granted for the discharge? Yes <u>No</u> <u>X</u> , if "yes," number: _____			
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes <u>No</u> <u>X</u> , if "yes," date and tracking #: _____			
3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Yes <u>X</u> No _____			
4. For sites in Massachusetts, is the discharge covered under the M/A Contingency Plan (MCP) and exempt from state permitting? Yes <u>No</u> No _____			

e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes <u>X</u> No <u> </u> If "yes," please list: 1. site identification # assigned by the state of NH or MA: <u>199910045</u> 2. permit or license # assigned: <u>010402</u> 3. state agency contact information: name, location, and telephone number: <u>NHDES, Concord, NH, 603-291-3644</u>	f) Is the site/facility covered by any other EPA permit, including: 1. multi-sector storm water general permit? Y <u> </u> N <u>X</u>, if Y, number: <u> </u> 2. phase I or II construction storm water general permit? Y <u> </u> N <u>X</u>, if Y, number: <u> </u> 3. individual NPDES permit? Y <u> </u> N <u>X</u>, if Y, number: <u> </u> 4. any other water quality related permit? Y <u> </u> N <u>X</u>, if Y, number: <u> </u>
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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: The owner/applicant will be replacing underground storage tanks at the facility - groundwater will need to be pumped from the excavation to facilitate the installation of the new tanks.

b) Provide the following information about each discharge:	1) Number of discharge points: <u>1</u>	2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft³/s)? Max. flow <u>0.0223</u> Average flow <u>0.0223</u> Is maximum flow a design value? Y <u>X</u> N <u> </u> For average flow, include the units and appropriate notation if this value is a design value or estimate if not available. <u>ft³/second = 10 gallons per minute</u>
3) Latitude and longitude of each discharge within 100 feet: pt.1: long <u>43°38'47"</u> lat <u>72°15'44"</u>; pt.2: long. <u> </u> lat. <u> </u>; pt.3: long. <u> </u> lat. <u> </u>; pt.4: long. <u> </u> lat. <u> </u>; pt.5: long. <u> </u> lat. <u> </u>; pt.6: long. <u> </u> lat. <u> </u>; pt.7: long. <u> </u> lat. <u> </u>; pt.8: long. <u> </u> lat. <u> </u>; etc.		
4) If hydrostatic testing, total volume of the discharge (gals):		5) Is the discharge intermittent <u>X</u> or seasonal <u> </u>? Is discharge ongoing Yes <u> </u> No <u>X</u> ? <u> </u>
c) Expected dates of discharge (mm/dd/yy): start <u>9/15/10</u> end <u>10/15/10</u>		
d) Please attach a line drawing or flow schematic showing water flow through the facility including: <u>Attached</u> 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 minimum)	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		X	1	Grab	SM 2510D	5 mg/L	2,676,000	146/day	Assumed Same -	
2. Total Residual Chlorine		X	1	Grab	4500 GIG	50 ug/L	170	0.009/day	Based on 1 Sample	
3. Total Petroleum Hydrocarbons	X									
4. Cyanide	X									
5. Benzene	X									
6. Toluene	X									
7. Ethylbenzene	X									
8. (m,p,o) Xylenes	X									
9. Total BTEX ⁴	X									

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

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	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)	X									
11. Methyl-tert-Butyl Ether (MtBE)	X									
12. tert-Butyl Alcohol (TBA)	X									
13. tert-Amyl Methyl Ether (TAME)	X									
14. Naphthalene	X									
15. Carbon Tetra-chloride	X									
16. 1,4 Dichlorobenzene	X									
17. 1,2 Dichlorobenzene	X									
18. 1,3 Dichlorobenzene	X									
19. 1,1 Dichloroethane	X									
20. 1,2 Dichloroethane	X									
21. 1,1 Dichloroethylene	X									
22. cis-1,2 Dichloro-ethylene	X									
23. Dichloromethane (Methylene Chloride)	X									
24. Tetrachloroethylene	X									

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

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	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	X									
26. 1,1,2 Trichloroethane	X									
27. Trichloroethylene	X									
28. Vinyl Chloride	X									
29. Acetone	X									
30. 1,4 Dioxane	X									
31. Total Phenols	X									
32. Pentachlorophenol	X									
33. Total Phthalates ⁶ (Phthalate esters)	X									
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	X									
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	X									
a. Benzo(a) Anthracene	X									
b. Benzo(a) Pyrene	X									
c. Benzo(b)Fluoranthene	X									
d. Benzo(k) Fluoranthene	X									
e. Chrysene	X									

⁶The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	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	X									
g. Indeno(1,2,3-cd)Pyrene	X									
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	X									
h. Acenaphthene	X									
i. Acenaphthylene	X									
j. Anthracene	X									
k. Benzo(ghi) Perylene	X									
l. Fluoranthene	X									
m. Fluorene	X									
n. Naphthalene-	X									
o. Phenanthrene	X									
p. Pyrene	X									
37. Total Polychlorinated Biphenyls (PCBs)	X									
38. Antimony	X									
39. Arsenic		X	1	Grab	SM19 313B	5 ug/L	12	0.00065	Assumed Same	
40. Cadmium	X									
41. Chromium III		X	1	Grab	200.7	10 ug/L	37	0.002	11	
42. Chromium VI	X									2

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	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) day	concentration (ug/l)	mass (kg)
43. Copper		X	1	Grab	SM18313B	5 ug/L	197	0.01	Assumed Same	
44. Lead		X	1	Grab	SM19313B	40 ug/L	24	0.001	"	
45. Mercury	X									
46. Nickel		X	1	Grab	200.7	10 ug/L	33	0.002	"	
47. Selenium	X									
48. Silver	X									
49. Zinc		X	1	Grab	200.7	10 ug/L	68	0.004	"	
50. Iron		X	1	Grab	200.7	10 ug/L	47,000	2.57	"	
Other (describe): Chloroform		X	1	Grab	8260B	2.0 ug/L	7.7	0.00042	"	

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

<i>Step 1:</i> 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 <u>X</u> N <u> </u>	If yes, which metals? <u>Arsenic, Chromium, Copper, Lead, Nickel, and Iron</u>
<i>Step 2:</i> 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: <u>Arsenic, Chromium, Copper, Lead, Nickel, and Iron</u> DF: <u>505</u>	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 <u>X</u> N <u> </u> If "Yes," list which metals: <u>Iron</u>

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: Water will be pumped into a frac. tank, treated through GAC tanks, then slowly discharged to storm drain

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):			

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 10 gpm Maximum flow rate of treatment system 10 gpm Design flow rate of treatment system 10 gpm

d) A description of chemical additives being used or planned to be used (attach MSDS sheets): None

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: Water will be discharged into the catch basin located at the end of Summer Street - will flow down Haver Street, through a pre-treatment vortex chamber and into the Mascota River.

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 discharges, 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 Community River.

e) Provide the reported or calculated seven day ten year low flow (7Q10) of the receiving water 20 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)? Aluminum
Is there a TMDL? Yes ☒ No ☐ If yes, for which pollutant(s)? Aluminum

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 <u>No</u> No <u>X</u> Has any consultation with the federal services been completed? Yes <u>No</u> No <u>X</u> or is consultation underway? Yes <u>No</u> No <u>X</u> 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? <u> </u> or written concurrence <u> </u> 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 <u>No</u> No <u>X</u> Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes <u>No</u> No <u>X</u>

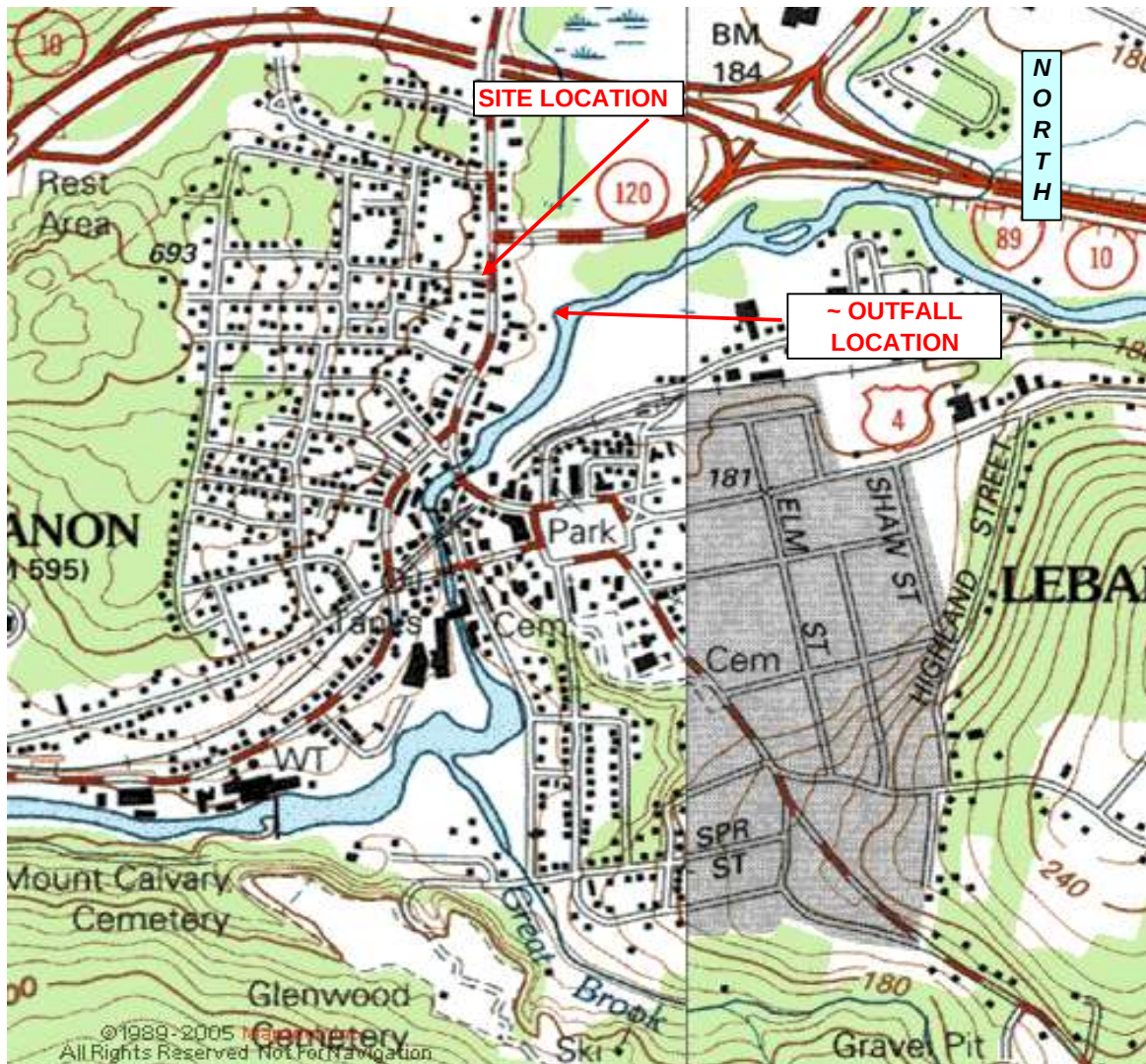
7. Supplemental information. :

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: <u>Jeffery Mart Cleburne</u>
Operator signature: <u>Bob Wagoner</u>
Title: <u>Superintendent</u>
Date: <u>7-29-10</u>



KAS Job Number: 404100373

Source: USGS Mapping 7.5' Lebanon, NH Quadrangle revised 1987

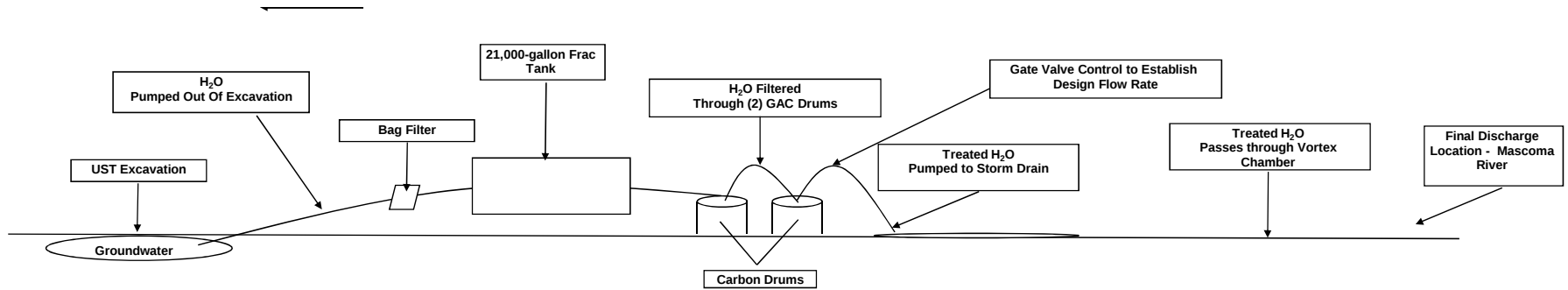


Jiffy Mart 96 Hanover St, Lebanon, NH

Site Location Map
USGS Mapping

Date: 08/17/10 Drawing No. 1 Scale: 1:24,000 By: JR

Treatment System Design
Lebanon Jiffy Mart



Calculation of Dilution Factor

$$DF = [(Q_d + Q_s)/Q_d] \times 0.9$$

DF = Dilution Factor

Q_d = Maximum flow rate of the discharge in cubic feet per second (cfs) (1.0 gpm = 0.00223 cfs)

Q_s = Receiving water 7Q10 flow, in cfs, where, the 7Q10 equals the annual minimum flow for 7 consecutive days with a recurrence interval of 10 years

0.9 = Allowance for reserving 10% of the assets in the receiving stream as per Chapter ENV-Ws 1700, Surface Water Quality Regulations

Calculation:

$$DF = [(0.0223 + 12.5)/0.0223] \times 0.9$$

$$DF = 505.384$$

Notes:

Q_d value based on maximum flow rate of 10 gpm

Q_s value based on estimate received from Mr. Jeff Andrews of the NHDES on 8/17/10



Laboratory Report

KAS, Inc. 100306
PO Box 787
Williston, VT 05495

Atten: Jeremy Roberts

PROJECT: 404100373 Hanover Street
WORK ORDER: **1007-10051**
DATE RECEIVED: July 29, 2010
DATE REPORTED: August 18, 2010
SAMPLER: Jeremy Roberts

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody located at the end of this report.

The column labeled Lab/Tech in the accompanying report denotes the laboratory facility where the testing was performed and the technician who conducted the assay. A "W" designates the Williston, VT lab under NELAC certification ELAP 11263; "R" designates the Lebanon, NH facility under certification NH 2037 and "N" the Plattsburgh, NY lab under certification ELAP 11892. "Sub" indicates the testing was performed by a subcontracted laboratory. The accreditation status of the subcontracted lab is referenced in the corresponding NELAC and Qual fields.

This NELAC column also denotes the accreditation status of each laboratory for each reported parameter. "A" indicates the referenced laboratory is NELAC accredited for the parameter reported. "N" indicates the laboratory is not accredited. "U" indicates that NELAC does not offer accreditation for that parameter in that specific matrix. Test results denoted with an "A" meet all National Environmental Laboratory Accreditation Program requirements except where denoted by pertinent data qualifiers. Test results are representative of the samples as they were received at the laboratory

Endyne, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose.

Reviewed by:

Harry B. Locker, Ph.D.
Laboratory Director

www.endynelabs.com



160 James Brown Dr., Williston, VT 05495
Ph 802-879-4333 Fax 802-879-7103

56 Etna Road, Lebanon, NH 03766
Ph 603-678-4891 Fax 603-678-4893



Laboratory Report

CLIENT: KAS, Inc.
PROJECT: 404100373 Hanover Street
REPORT DATE: 8/18/2010

WORK ORDER: 1007-10051
DATE RECEIVED: 07/29/2010

001	Site: GW-1			Date Sampled: 7/29/10		Time:10:50		
<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>		<u>Lab/Tech</u>	<u>NELAC</u>	<u>Qual.</u>
Cyanide, Total	< 0.01	mg/L	EPA 335.4	8/5/10		N CAL	A	
Solids, Total Suspended	2,676	mg/L	SM18 2540D	7/30/10	12:57	W KJS	A	
Antimony, Total	< 0.002	mg/L	SM19 3113B	8/4/10		W MMW	A	
Arsenic, Total	0.012	mg/L	SM19 3113B	8/6/10		W MMW	A	
Cadmium, Total	< 0.002	mg/L	EPA 200.7	8/4/10		W ATH	A	
Chromium, Hexavalent	< 5.0	mg/L	EPA 7196A	7/29/10		W MGT	N	AN1
Chromium, Total	0.037	mg/L	EPA 200.7	8/4/10		W ATH	A	
Copper, Total	0.197	mg/L	SM18 3113B	8/11/10		W MMW	A	
Iron, Total	47	mg/L	EPA 200.7	8/4/10		W ATH	A	
Lead, Total	0.024	mg/L	SM19 3113B	8/6/10		W MMW	A	
Mercury, Total	< 0.0002	mg/L	EPA 245.1	8/6/10		W CM	A	
Nickel, Total	0.033	mg/L	EPA 200.7	8/4/10		W ATH	A	
Selenium, Total	< 0.002	mg/L	SM19 3113B	8/4/10		W MMW	A	
Silver, Total	< 0.020	mg/L	EPA 200.7	8/4/10		W ATH	A	M-
Zinc, Total	0.068	mg/L	EPA 200.7	8/4/10		W ATH	A	
TPH as HEM-SGT	< 2.0	mg/L	EPA 1664A	8/17/10		W MDP	U	



ENDYNE Inc.

www.endynelabs.com

Laboratory Report

CLIENT: KAS, Inc.
PROJECT: 404100373 Hanover Street
REPORT DATE: 8/18/2010

WORK ORDER: 1007-10051
DATE RECEIVED: 07/29/2010

TEST METHOD: EPA 8151A

001 Site: GW-1					Sampled: 7/29/10	10:50	Test Date: 8/2/10	W MDP		
<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>Nelac</u>	<u>Qual</u>	<u>Parameter</u>		<u>Result</u>	<u>Unit</u>	<u>Nelac</u>	<u>Qual</u>
Sep Funnel Liq/Liq Extract	Completed		A		Dalapon		< 0.51	ug/L	N	
Dicamba	< 0.51	ug/L	A		2,4-D		< 0.51	ug/L	A	
Pentachlorophenol	< 0.51	ug/L	N		2,4,5-TP (Silvex)		< 0.51	ug/L	A	
2,4,5-T	< 0.51	ug/L	A		2,4-DB		< 0.51	ug/L	U	
Picloram	< 0.51	ug/L	U		Dinoseb		< 0.51	ug/L	N	
Surrogate-DCAA	79	%	A		Unidentified Peaks		4		U	

TEST METHOD: EPA 8270C

001 Site: GW-1					Sampled: 7/29/10 10:50	Test Date: 8/3/10	W MDP		
Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Extraction EPA 3510C	Completed		A		N-Nitrosodimethylamine	< 10.0	ug/L	A	
Pyridine	< 10.0	ug/L	A		Aniline	< 10.0	ug/L	N	
Bis(2-chloroethyl)ether	< 5.0	ug/L	A		1,2-Dichlorobenzene	< 2.0	ug/L	A	
1,3-Dichlorobenzene	< 2.0	ug/L	A		1,4-Dichlorobenzene	< 2.0	ug/L	A	
Benzyl alcohol	< 20.0	ug/L	N		Bis(2-chloroisopropyl)ether	< 10.0	ug/L	A	
N-Nitrosodi-n-propylamine	< 10.0	ug/L	A		Hexachloroethane	< 5.0	ug/L	A	
Nitrobenzene	< 5.0	ug/L	A		N-Nitrosopiperidine	< 10.0	ug/L	N	
Isophorone	< 2.0	ug/L	A		Bis(2-chloroethoxy)methane	< 5.0	ug/L	A	
1,2,4-Trichlorobenzene	< 2.0	ug/L	A		Naphthalene	< 1.0	ug/L	A	
4-Chloroaniline	< 5.0	ug/L	N		Hexachlorobutadiene	< 5.0	ug/L	A	
N-Nitrosodi-n-butylamine	< 5.0	ug/L	N		2-Methylnaphthalene	< 1.0	ug/L	N	
1-Methylnaphthalene	< 1.0	ug/L	U		Hexachlorocyclopentadiene	< 20.0	ug/L	A	
2-Chloronaphthalene	< 2.0	ug/L	A		1-Chloronaphthalene	< 2.0	ug/L	N	
2-Nitroaniline	< 20.0	ug/L	N		Dimethyl phthalate	< 5.0	ug/L	A	
2,6-Dinitrotoluene	< 5.0	ug/L	A		Acenaphthylene	< 1.0	ug/L	A	
3-Nitroaniline	< 5.0	ug/L	N		Acenaphthene	< 1.0	ug/L	A	
Dibenzofuran	< 2.0	ug/L	N		2,4-Dinitrotoluene	< 5.0	ug/L	A	
1-Naphthylamine	< 10.0	ug/L	N		2-Naphthylamine	< 10.0	ug/L	N	
Fluorene	< 1.0	ug/L	A		Diethyl phthalate	< 5.0	ug/L	A	
4-Chlorophenyl phenyl ether	< 2.0	ug/L	A		4-Nitroaniline	< 20.0	ug/L	N	
N-Nitrosodiphenylamine	< 5.0	ug/L	A		Azobenzene	< 5.0	ug/L	U	
4-Bromophenyl phenyl ether	< 2.0	ug/L	A		Hexachlorobenzene	< 5.0	ug/L	A	
Phenanthrene	< 1.0	ug/L	A		Anthracene	< 1.0	ug/L	A	
Carbazole	< 10.0	ug/L	N		Di-n-butylphthalate	< 5.0	ug/L	A	
Fluoranthene	< 1.0	ug/L	A		Benzidine	< 10.0	ug/L	A	
Pyrene	< 1.0	ug/L	A		Butyl benzyl phthalate	< 5.0	ug/L	A	
Benzo(a)anthracene	< 1.0	ug/L	A		Chrysene	< 1.0	ug/L	A	
3,3'-Dichlorobenzidine	< 5.0	ug/L	A		Bis(2-ethylhexyl)phthalate	< 5.0	ug/L	A	
Di-n-octylphthalate	< 5.0	ug/L	A		Benzo(b)fluoranthene	< 1.0	ug/L	A	
Benzo(k)fluoranthene	< 1.0	ug/L	A		Benzo(a)pyrene	< 1.0	ug/L	A	
Indeno(1,2,3-cd)pyrene	< 1.0	ug/L	A		Dibenzo(a,h)anthracene	< 1.0	ug/L	A	
Benzo(g,h,i)perylene	< 1.0	ug/L	A		Phenol	< 1.0	ug/L	A	
2-Chlorophenol	< 5.0	ug/L	A		2-Methylphenol (o-cresol)	< 5.0	ug/L	A	
3&4-Methylphenol (m&p-cresol)	< 5.0	ug/L	A		Cresols, Total	< 10.0	ug/L	A	
2-Nitrophenol	< 10.0	ug/L	A		2,4-Dimethylphenol	< 5.0	ug/L	A	
2,4-Dichlorophenol	< 5.0	ug/L	A		2,6-Dichlorophenol	< 5.0	ug/L	N	
4-Chloro-3-methylphenol	< 10.0	ug/L	A		2,4,5-Trichlorophenol	< 10.0	ug/L	A	
2,4,6-Trichlorophenol	< 10.0	ug/L	A		2,4-Dinitrophenol	< 20.0	ug/L	A	
4-Nitrophenol	< 10.0	ug/L	A		4,6-Dinitro-2-methylphenol	< 20.0	ug/L	A	
Pentachlorophenol	< 10.0	ug/L	A		B/N Surr.1 Nitrobenzene-d5	51	%	A	
B/N Surr.2 2-Fluorobiphenyl	62	%	A		B/N Surr.3 Terphenyl-d14	106	%	A	
Acid Surr.1 2-Fluorophenol	23	%	A		Acid Surr.2 Phenol-d8	19	%	A	
Acid Surr.3 Tribromophenol	82	%	A		Unidentified Peaks	0		U	

Laboratory Report

CLIENT: KAS, Inc.
PROJECT: 404100373 Hanover Street
REPORT DATE: 8/18/2010

WORK ORDER: 1007-10051
DATE RECEIVED: 07/29/2010

TEST METHOD: EPA 8082

001 Site: GW-1					Sampled: 7/29/10	10:50	Test Date: 7/30/10	W	MDP
Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Sep Funnel Liq/Liq Extract	Completed		A		Aroclor 1016	< 0.50	ug/L	A	
Aroclor 1221	< 0.50	ug/L	A		Aroclor 1232	< 0.50	ug/L	A	
Aroclor 1242	< 0.50	ug/L	A		Aroclor 1248	< 0.50	ug/L	A	
Aroclor 1254	< 0.50	ug/L	A		Aroclor 1260	< 0.50	ug/L	A	
Surrogate-DCB	53	%	A		Unidentified Peaks	0			U

TEST METHOD: EPA 8260B

001 Site: GW-1					Sampled: 7/29/10	10:50	Test Date: 8/10/10	W	KAW
Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Dichlorodifluoromethane	< 5.0	ug/L	A		Chloromethane	< 3.0	ug/L	A	
Vinyl chloride	< 2.0	ug/L	A		Bromomethane	< 5.0	ug/L	A	
Chloroethane	< 5.0	ug/L	A		Trichlorofluoromethane	< 2.0	ug/L	N	
Diethyl ether	< 5.0	ug/L	U		1,1-Dichloroethene	< 1.0	ug/L	A	
Acetone	< 20.0	ug/L	N		Carbon disulfide	< 5.0	ug/L	N	
Methylene chloride	< 2.0	ug/L	A		t-Butanol	< 20.0	ug/L	N	
Methyl-t-butyl ether (MTBE)	< 2.0	ug/L	A		trans-1,2-Dichloroethene	< 1.0	ug/L	A	
Di-isopropyl ether (DIPE)	< 2.0	ug/L	N		1,1-Dichloroethane	< 1.0	ug/L	A	
Ethyl-t-butyl ether (ETBE)	< 2.0	ug/L	N		2-Butanone	< 10.0	ug/L	A	
2,2-Dichloropropane	< 2.0	ug/L	N		cis-1,2-Dichloroethene	< 1.0	ug/L	N	
Bromochloromethane	< 2.0	ug/L	N		Chloroform	7.7	ug/L	A	
Tetrahydrofuran	< 10.0	ug/L	U		1,1,1-Trichloroethane	< 1.0	ug/L	A	
Carbon tetrachloride	< 1.0	ug/L	A		1,1-Dichloropropene	< 1.0	ug/L	N	
Benzene	< 1.0	ug/L	A		t-Amylmethyl ether (TAME)	< 2.0	ug/L	N	
1,2-Dichloroethane	< 1.0	ug/L	A		Trichloroethene	< 1.0	ug/L	A	
1,2-Dichloropropane	< 2.0	ug/L	A		Dibromomethane	< 2.0	ug/L	N	
Bromodichloromethane	< 0.5	ug/L	A		cis-1,3-Dichloropropene	< 1.0	ug/L	A	
4-Methyl-2-pentanone (MIBK)	< 10.0	ug/L	N		Toluene	< 1.0	ug/L	A	
trans-1,3-Dichloropropene	< 1.0	ug/L	A		1,1,2-Trichloroethane	< 1.0	ug/L	A	
Tetrachloroethene	< 1.0	ug/L	A		1,3-Dichloropropane	< 1.0	ug/L	N	
2-Hexanone	< 10.0	ug/L	N		Dibromochloromethane	< 2.0	ug/L	A	
1,2-Dibromoethane	< 1.0	ug/L	N		Chlorobenzene	< 1.0	ug/L	A	
Ethylbenzene	< 1.0	ug/L	A		1,1,1,2-Tetrachloroethane	< 2.0	ug/L	N	
Xylenes, Total	< 2.0	ug/L	A		Styrene	< 1.0	ug/L	N	
Bromoform	< 2.0	ug/L	A		Isopropylbenzene	< 1.0	ug/L	A	
1,1,2,2-Tetrachloroethane	< 2.0	ug/L	A		Bromobenzene	< 1.0	ug/L	U	
n-Propylbenzene	< 1.0	ug/L	A		1,2,3-Trichloropropane	< 2.0	ug/L	N	
2-Chlorotoluene	< 1.0	ug/L	N		1,3,5-Trimethylbenzene	< 1.0	ug/L	A	
4-Chlorotoluene	< 1.0	ug/L	N		t-Butylbenzene	< 1.0	ug/L	A	
1,2,4-Trimethylbenzene	< 1.0	ug/L	A		s-Butylbenzene	< 1.0	ug/L	A	
4-Isopropyltoluene	< 1.0	ug/L	A		1,3-Dichlorobenzene	< 1.0	ug/L	A	
1,4-Dichlorobenzene	< 1.0	ug/L	A		n-Butylbenzene	< 1.0	ug/L	A	
1,2-Dichlorobenzene	< 1.0	ug/L	A		1,2-Dibromo-3-Chloropropane	< 2.0	ug/L	N	
1,2,4-Trichlorobenzene	< 2.0	ug/L	A		1,3,5-Trichlorobenzene	< 2.0	ug/L	U	
Hexachlorobutadiene	< 0.5	ug/L	N		Naphthalene	< 2.0	ug/L	A	
1,2,3-Trichlorobenzene	< 2.0	ug/L	N		Surr. 1 (Dibromofluoromethane)	100	%	A	
Surr. 3 (4-Bromofluorobenzene)	95	%	A		Surr. 2 (Toluene d8)	100	%	A	
Unidentified Peaks	0		U						



ENDYNE Inc.

www.endynelabs.com

Laboratory Report

CLIENT: KAS, Inc.
PROJECT: 404100373 Hanover Street
REPORT DATE: 8/18/2010

WORK ORDER: **1007-10051**
DATE RECEIVED: 07/29/2010

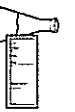
TEST METHOD: EPA 8260B

001	Site: GW-1					Sampled: 7/29/10	10:50	Test Date: 8/10/10	W MGT		
	<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>Nelac</u>	<u>Qual</u>	<u>Parameter</u>		<u>Result</u>	<u>Unit</u>	<u>Nelac</u>	<u>Qual</u>
	1,4-Dioxane	< 3.0	ug/L	U		1,2-Dibromoethane		< 0.05	ug/L	N	
	1,2-Dibromo-3-Chloropropane	< 0.20	ug/L	N		Surr. 1 (Dibromofluoromethane)		108	%	A	
	Surr. 3 (4-Bromofluorobenzene)	95	%	A		Surr. 2 (Toluene d8)		101	%	A	

Report Summary of Qualifiers and Notes

M - : The laboratory fortified matrix (LFM) analysis indicates a potential negative bias in the reported value.

AN1: Indicates detection limit was raised due to matrix interference causing a false positive. Note that the total chromium value was less than the hexavalent chromium detection limit of 0.05 mg/L.



CHAIN-OF-CUSTODY-RECORD

ENDYNE, INC.
160 James Brown Drive
Williston, Vermont 05495
(802) 879-4333

Special Reporting Instructions/PO#: #464420373

050093

Project Name: <u>Hamover Street</u>		Client/Contact Name: <u>KAS</u>		Sampler Name: <u>Jeremy Roberts</u>	
State of Origin: VT <u> </u> NY <u> </u> NH <u>X</u> Other <u> </u>		Phone #: <u>802-383-0456</u>		Phone #: <u>802-383-0456</u>	
Endyne WO # <u>1007-10051</u>		Mailing Address: <u>KAS</u>		Billing Address: <u>KAS</u>	

Sample Location	Matrix	G R A B	C M P	Date/Time Sampled	Sample Containers		Sample Preservation	Analysis Required	Field/Results/Remarks	Due Date
					No.	Type/Size				
<u>Giv-1</u>	<u>H₂O</u>	<u>X</u>		<u>1057</u>	<u>6</u>	<u>1 L Ase</u>		<u>8270, 851, 8082</u>		
				<u>1050</u>	<u>2</u>	<u>1/2 Ase</u>	<u>H₂SO₄</u>	<u>TPH-10644</u>		
				<u>1105</u>	<u>2</u>	<u>1/2 Ase</u>	<u>HCl</u>	<u>826013-SIM</u>		
				<u>1102</u>	<u>1</u>	<u>800P</u>	<u>NaOH</u>	<u>Cyanide</u>		
				<u>1053</u>	<u>1</u>	<u>1/2 Ase</u>		<u>TSS, Hex Cr</u>		
				<u>1100</u>	<u>1</u>	<u>1/2 Ase</u>		<u>31</u>		
				<u>1055</u>	<u>1</u>	<u>800P</u>		<u>Total Chlorine</u>		

Relinquished by: <u>[Signature]</u>	Date/Time: <u>7/29/10</u>	Received by: <u>[Signature]</u>	Date/Time: <u>7/29/10</u>
-------------------------------------	---------------------------	---------------------------------	---------------------------

1	pH	6	TKN	11	Total Solids	16	Sulfate	21	1664 TPH/FOG	26	8270 PAH Only
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	8015 GRO	27	8081 Pest
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	8015 DRO	28	8082 PCB
4	Nitrite N	9	BOD	14	Turbidity	19	VT PCF	24	8260B	29	PP13 Metals
5	Nitrate N	10	Alkalinity	15	Conductivity	20	VOC Halocarbons	25	8270 B/N or Acid	30	Total RCRA8
31	Metals (Total, Diss.) <u>Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Sn, Ti, U, V, Zn</u>										
32	TCLP (volatiles, semi-volatiles, metals, pesticides, herbicides)										
34	Corrosivity	35	Ignitability	36	Reactivity	37	Other				
38	Other										

LAB USE ONLY
Delivery: <u>OLUS</u>
Temp: <u>50°C</u>
Comment:



Jeremy Roberts
KAS, Inc.
PO Box 787
Williston, VT 05495

eastern analytical, inc.

professional laboratory services



Subject: Laboratory Report

Eastern Analytical, Inc. ID: 91385
Client Identification: Hanover Street | 404100373
Date Received: 7/30/2010

Dear Mr. Roberts:

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.eailabs.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

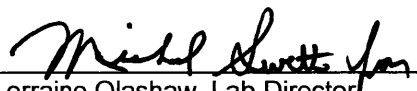
Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269) and Vermont (VT1012).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,


Lorraine Olashaw, Lab Director

8/6/10
Date

3
of pages (excluding cover letter)



SAMPLE CONDITIONS PAGE

Eastern Analytical, Inc. ID#: 91385

Client: KAS, Inc.

Client Designation: Hanover Street | 404100373

Temperature upon receipt (°C): 5

Received on ice or cold packs (Yes/No): Y

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
91385.01	GW-1	7/30/10	7/29/10	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitibility, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.

All results contained in this report relate only to the above listed samples.

References include:

- 1) EPA 600/4-79-020, 1983
- 2) Standard Methods for Examination of Water and Wastewater : Inorganics, 19th Edition, 1995; Microbiology, 20th Edition, 1998
- 3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- 4) Hach Water Analysis Handbook, 2nd edition, 1992



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 91385

Client: KAS, Inc.

Client Designation: Hanover Street | 404100373

Sample ID: GW-1

Lab Sample ID: 91385.01

Matrix: aqueous

Date Sampled: 7/29/10

Date Received: 7/30/10

Total Residual Chlorine 0.17

pH 6.7

Analytical Matrix	Units	Date of Analysis	Method	Analyst
AqTot	mg/L	7/30/10	4500CIG	NZ
AqTot	SU	7/30/10	4500H+B	CJJ

Total Residual Chlorine: The sample was collected in an unsuitable container with head space present. The sample was turbid which interfered with the determination of the chlorine residual analysis.

CHAIN-OF-CUSTODY RECORD

91385

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW) GRAB/*COMPOSITE	VOC		SVOC		ICLP METALS		INORGANICS		MICRO OTHER		NOTES METH VIAL #								
			524.2 524.2 BTEX 8260B 624 1, 4 DIOXANE	524.2 MTBE ONLY VTICS EDB DBCP	8021B BTEX 8015B GRO MEGRO MAYPH	8270C 625 ABN A BN PAH	TPH8100 LI L2	8015B DRO MEDRO MAEPH	PEST 608 PCB 608 PEST 8081A PCB 8082	OIL & GREASE 1664 TPH 1664	TCLP 1311 ABN METALS VOC PEST Herb	DISSOLVED METALS (LIST BELOW)		TOTAL METALS (LIST BELOW)	TS TSS TDS SPEC. CON.	Br Cl F SO ₄ NO ₂ NO ₃ NO ₂ /NO ₃	BOD CBOD T. ALK.	TKN NH ₃ T. PHOS.	pH T. RES. CHLORINE	COD PHENOLS TOC	TOTAL CYANIDE TOTAL SULFIDE
*GUL-1	7/29/10/1055	600 G																			
* RGP Limit Required																					

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER;
WW-WASTE WATER
PRESERVATIVE: H-HCL; N-HNO₃; S-H₂SO₄; Na-NaOH; M-MEON

PROJECT MANAGER: Jeremy Roberts

COMPANY: VAS, Inc.

ADDRESS: 368 Ave D, Po Box 287

CITY: Williston STATE: VT ZIP: 05495

PHONE: 802-383-0486 EXT.:

FAX: 802-383-0490

E-MAIL: jeremy@vas-consulting.com

SITE NAME: HANDOVER STREET

PROJECT #: 404100373

STATE: NH MA ME VT OTHER:

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR

GWP, OIL FUND, BROWNFIELD OR OTHER:

QUOTE #: PO #:

DATE NEEDED:

QA/QC REPORTING LEVEL: A OR B OR C

PRESUMPTIVE CERTAINTY: MA MCP OR NO FAX E-MAIL: PDF EQUIS:

SAMPLER(S): Jeremy Roberts

REMOVED BY: 7/29/10 1410

RECEIVED BY: 7/30/10 0906

REINQUISHED BY: 7/30/10 0906

RECEIVED BY:

REINQUISHED BY:

DATE: TIME: RECEIVED BY:

TEMP: 5 °C

ICE: YES NO

METALS: 8 RCRA 13 PP FE, MN PB, CU

OTHER METALS:

DISSOLVED METALS FIELD FILTERED? YES NO

NOTES: (E: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

SITE HISTORY:

SUSPECTED CONTAMINATION:

FIELD READINGS: