

S.W. COLE

ENGINEERING, INC.
GEOTECHNICAL CONSULTANTS

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Gray Plaza, P. O. Box 378, Gray, ME 04039 TEL (207) 657-2866 FAX (207) 657-2840
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33 Londonderry Rd., #6, Londonderry, NH 03053 TEL (603) 437-9600 FAX (603) 437-9656

98-100.2

August 17, 1998

Champion International Corporation
Attn: Thomas B. Ross
One Champion Plaza
Stamford, Connecticut 06921

Subject: Environmental Services Report
Northern Lands Sale
Vermont

Dear Tom:

In accordance with our Proposal, dated July 9, 1998, we have completed our additional environmental services related to the 1988 diesel fuel oil spill in Lemington, Vermont. This report is subject to the limitations attached in Appendix A. Site maps are attached as Appendix B.

The site of the former spill was visited on July 14, 1998 with Brendan Prusik, Champion International Corporation Forester. The site is located approximately 4 miles east of Route 105. Access to the site was gained via all-terrain vehicles, as the logging roads to the site are impassable by truck. The spill site is located approximately 20 feet from Fisher Brook, which is a small, shallow stream in this location. The area in which the spill occurred is located at the top of a bank approximately 6 feet above and 20 feet away from the Brook.

No physical evidence of petroleum contamination in the Brook, such as a sheen or petroleum odor in the water, was observed.

A patch of stressed vegetation approximately 20 feet in diameter was observed and assumed to be the site of the spill. No soil staining or petroleum odor in the ambient air was observed around the area of stressed vegetation. Initially, eight soil samples were collected from the area of the stressed vegetation. The samples were collected from within the top six inches of soil with a stainless steel spoon. Each approximately 250-gram sample was immediately placed in a one-quart zip-type freezer bag. The samples were vigorously agitated for approximately one minute and allowed to sit for the same

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amount of time. The headspace in each sample bag was then analyzed with a MicroTIP Model MP-100 photoionization detector with a 10.6 electron Volt lamp. The PID was calibrated to 100 ppm using 100 ppm isobutylene gas.

Seven of the samples did not register a response on the PID. A reading of 61.8 ppm was observed in the sample collected from the western side of the area of stressed vegetation (the side of the area closest to the Brook). A second sample (S1) was collected from this location and submitted to Katahdin Analytical Laboratories for analysis for Total Petroleum Hydrocarbons (TPH) by EPA Method 418.1. TPH concentrations were reported at 1700 milligrams per kilogram (mg/kg) for this sample. Subsequent to testing the soil from the area of stressed vegetation, a PID sample was collected approximately 8 feet down the bank to the stream. This sample registered 16.9 ppm on the PID. A second soil sample (for TPH analysis) (S2) was collected approximately 10 feet from the Brook. TPH concentrations were reported at 1900 mg/kg for this sample. A subsequent PID sample collected adjacent to the Brook registered a response of 0.0 ppm.

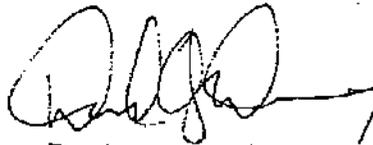
If you should have any questions regarding this report, please feel free to contact us.

Very truly yours,

S.W. COLE ENGINEERING, INC.



Gary J. Creaser
Geologist



David J. Dunning
Environmental Scientist / Project Manager

APPENDIX A Limitations

This environmental services report has been prepared for the exclusive use of Champlon International Corporation for specific application to the proposed Northern Lands Sale in Vermont and New Hampshire. We have endeavored to prepare this report in accordance with generally accepted practices. No other warranty, expressed or implied, is made.

The scope of our services has been limited to the items specifically discussed in the text of this report. Recommendations contained in this report are based substantially upon information provided by others regarding the site and on our findings. Should any additional data or information become available, it should be reviewed by S. W. COLE ENGINEERING, INC. and the conclusions and recommendations presented in this report should be modified as appropriate.

This report cannot reflect undetected variations which may occur nor can it reflect variations of subsurface conditions (groundwater quality or elevation) over time. S. W. COLE ENGINEERING, INC. has made no attempt to verify the compliance of the past or present owners and/or occupants of the property with local, state, or federal laws and regulations.

It must be noted that our findings do not represent scientific certainties and are based on professional judgement. S. W. COLE ENGINEERING, INC. does not represent that the subject site contains no hazardous substances or other latent conditions beyond that detected or observed by S. W. COLE ENGINEERING, INC.

APPENDIX B
SITE MAPS

FISHER BROOK



● PID 10
0.0 ppm

● S2
TPH:1900 mg/kg

● PID 9
16.9 ppm

APPROXIMATE CREST OF BANK

● PID 3
0.0 ppm

● PID 4
0.0 ppm

● PID 2 / S2
61.8 ppm
TPH:1700 mg/kg

● PID 5
0.0 ppm

GRASS COVERED AREA

● PID 1
0.0 ppm

● PID 7
0.0 ppm

● PID 6
0.0 ppm

APPROXIMATE EXTENT OF STRESSED VEGETATION

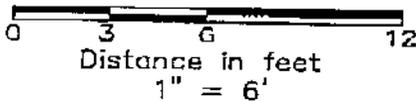
TO LOGGING TRAIL
(~200 ft.)



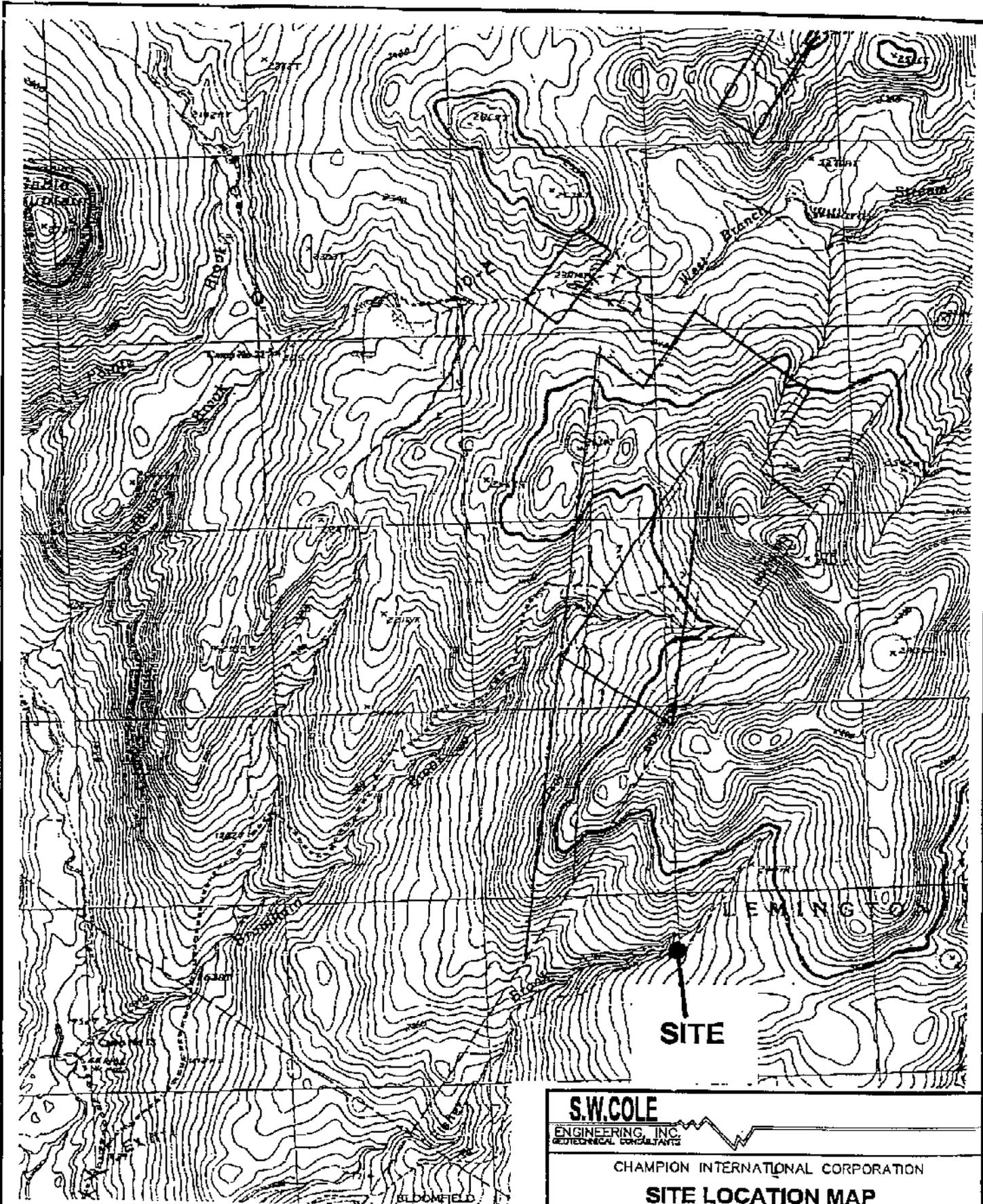
● PID 8
0.0 ppm

NOTE: ALL BORING LOCATIONS ARE APPROXIMATE AND ARE BASED ON PACED MEASUREMENTS

● PID 6 : SOIL BORING LOCATION AND PID/LAB RESULT
0.0 ppm



S.W. COLE	
ENGINEERING, INC. GEOTECHNICAL CONSULTANTS	
CHAMPION INTERNATIONAL CORPORATION	
SAMPLE LOCATION SKETCH	
1988 DIESEL FUEL SPILL LOCATION LEMINGTON, VERMONT	
JOB NO. 98-100.2 E	SCALE: 1" = 6'
DATE: AUGUST 17, 1998	SHEET: 83



NOTE: APPROXIMATE SITE LOCATION
FROM U.S.G.S. 7.5 MINUTE QUAD (AVERILL, VT)



S.W. COLE
ENGINEERING, INC.
GEOTECHNICAL CONSULTANTS

CHAMPION INTERNATIONAL CORPORATION

SITE LOCATION MAP

1988 DIESEL FUEL SPILL LOCATION
LEMINGTON, VERMONT

JOB NO. 98-100.2 E
DATE: AUGUST 17, 1998

SCALE: N1S
SHEET: B1



August 5, 1998

Mr. Gary Creaser
S.W. Cole Engineering, Inc.
Six Liberty Drive
Bangor, ME 04401

RE: Katahdin Lab Number: WO-2063
Project ID: 98-100.2
Project Manager: Ms. Kelly Perkins
Sample Receipt Date: July 17, 1998

Dear Mr. Creaser:

Please find enclosed the following information:

- * Report of Analysis
- * Confirmation
- * Chain of Custody

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact the project manager listed above. This cover letter is an integral part of the ROA.

We appreciate your continued use of our laboratory and look forward to working with you in the future. The following signature indicates technical review and acceptance of the data.

Sincerely,

KATAHDIN ANALYTICAL SERVICES

May S. Morice
Authorized Signature

8.5.98
Date



CLIENT: GARY CREASER
 S.W. Cole Engineering, Inc.
 Six Liberty Drive
 Bangor, ME 04401

Lab Number : WO-2063-1
 Report Date: 08/05/98
 PO No. : 98-100.2

REPORT OF ANALYTICAL RESULTS

Page 1 of 11

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED				
SI	Solid	G.CREASER	07/14/98	07/17/98			
PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED BY	NOTES
Solids-Total Residue (TS)	74.	wt %	1.0	0.10	CLP/CIP SOW	07/21/98 JF	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values
 (1) Sample Preparation on 07/20/98 by JF

08/05/98

LJO/ejnkq (dlw) /msm



CLIENT: GARY CREASER
 S.W. Cole Engineering, Inc.
 Six Liberty Drive
 Bangor, ME 04401

Lab Number : WO-2063-1
 Report Date: 08/05/98
 PO No. : 98-100.2

REPORT OF ANALYTICAL RESULTS

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SAMPLE DESCRIPTION	MATRIX	SAMPLED BY		SAMPLED DATE RECEIVED			
S1	Solid	G. CREASER		07/14/98	07/17/98		
PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED BY	NOTES
Total Petroleum Hydrocarbons (TPH)	1700.	mg/kgdrywt	10		25 E418.1	07/30/98 KRT	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
 (1) Sample Preparation on 07/28/98 by KRT

08/05/98

LJO/ejnejn/kp(dw)

000003



CLIENT: GARY CREASER
S.W. Cole Engineering, Inc.
Six Liberty Drive
Bangor, ME 04401

Lab Number : WO-2063-2
Report Date: 08/05/98
PO No. : 98-100.2

REPORT OF ANALYTICAL RESULTS

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SAMPLE DESCRIPTION	MATRIX	SAMPLED BY		SAMPLED DATE RECEIVED			
S2	Solid	G.CREASER		07/14/98	07/17/98		
PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED BY	NOTES
Solids-Total Residue (TS)	52.	wt %	1.0	0.10	CLP/CIP SOW	07/21/98 JF	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 07/20/98 by JF

08/05/98

LJO/ejnkp(dw)/msm



CLIENT: GARY CREASER
 S.W. Cole Engineering, Inc.
 Six Liberty Drive
 Bangor, ME 04401

Lab Number : WO-2063-2
 Report Date: 08/05/98
 PO No. : 98-100.2

REPORT OF ANALYTICAL RESULTS

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SAMPLE DESCRIPTION	MATRIX	SAMPLED BY		SAMPLED DATE RECEIVED			
SZ	Solid	G. CREASER		07/14/98	07/17/98		
PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED BY	NOTES
Total Petroleum Hydrocarbons (TPH)	1900.	mg/kgdrywt	10	25	E418.1	07/30/98 KRT	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with 'c' values.
 (1) Sample Preparation on 07/28/98 by KRT

08/05/98

LJO/ejnejn/kp(dw)

0000005

KATAHDIN ANALYTICAL SERVICES, INC.
SAMPLE RECEIPT CONDITION REPORT
 Tel. (207) 874-2400
 Fax (207) 775-4029

LAB (WORK ORDER) # W02063
 PAGE: 1 OF 1
 COOLER: 1 OF 1
 COC# _____
 SDG# _____
 DATE / TIME RECEIVED: 7-17-98 1405
 DELIVERED BY: Corporate
 RECEIVED BY: RGN
 LIMS ENTRY BY: KAS
 LIMS REVIEW BY / PM: KAP

CLIENT: SW Cole

PROJECT: 98-100.2

	YES	NO	EXCEPTIONS	COMMENTS	RESOLUTION
1. CUSTODY SEALS PRESENT / INTACT?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
2. CHAIN OF CUSTODY PRESENT IN THIS COOLER?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
3. CHAIN OF CUSTODY SIGNED BY CLIENT?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4. CHAIN OF CUSTODY MATCHES SAMPLES?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
5. TEMPERATURE BLANKS PRESENT?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
6. SAMPLES RECEIVED AT 4°C +/- 2? ICE / ICE PACKS PRESENT (Y) or N?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	TEMP BLANK TEMP (°C) = <u>14.7</u>	Analyze samples per client request
7. VOLATILES FREE OF HEADSPACE?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COOLER TEMP (°C) = <u>NA</u>	(RECORD COOLER TEMP ONLY IF TEMP BLANK IS NOT PRESENT)
8. TRIP BLANK PRESENT IN THIS COOLER	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
9. PROPER SAMPLE CONTAINERS AND VOLUME?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
10. SAMPLES WITHIN HOLD TIME UPON RECEIPT?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
11. SAMPLES PROPERLY PRESERVED ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
12. CORRECTIVE ACTION REPORT FILED?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A		
13. ANALYTICAL PROGRAMS (CIRCLE ONE)	<input checked="" type="checkbox"/> COMMERCIAL <input type="checkbox"/> CLP <input type="checkbox"/> HAZWRAP <input type="checkbox"/> NFESC <input type="checkbox"/> ACOE <input type="checkbox"/> AFCEE OTHER (STATE OF ORIGIN): <u>VT</u>				

LOG - IN NOTES⁽¹⁾:

8/10/98

⁽¹⁾ Use this space (and additional sheets if necessary) to document samples that are received broken or compromised, C-O-C discrepancies, radlaton checks, residual chlorine check, results of pH check if required. If samples required pH adjustment, record volume and type of preservative added.

08/12/98 10:38 207 848 2403 SW Cole/Banor 014

