



DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action
Environmental Indicator (EI) RCRIS code (CA725)

Current Human Exposures Under Control

Facility Name: Irving Tanning Company
Facility Address: Pleasant Street, Hartland, ME
Facility EPA ID #: MED 001065580

1. Has all available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been considered in this EI determination?

- X If yes - check here and continue with #2 below.
If no - re-evaluate existing data, or
if data are not available skip to #6 and enter "IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

RCRA RECORDS CENTER
FACILITY IRVING TANNING CO
I.D. NO. MED 001065580
FILE LOC. R-13
OTHER #106604

**Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)**

Page 2

2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be **“contaminated”**¹ above appropriately protective risk-based “levels” (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	<u>Yes</u>	<u>No</u>	<u>?</u>	<u>Rationale / Key Contaminants</u>
Groundwater	<u>X</u>	___	___	Plume area identified, contaminants listed below:_____
Air (indoors) ²	___	<u>X</u>	___	No structures located in the area of the Plume._____
Surface Soil (e.g., <2 ft)	___	<u>X</u>	___	Known surface contamination has been Remediated._____
Surface Water	___	<u>X</u>	___	Plume does not extend to surface water. _
Sediment	___	<u>X</u>	___	Plume does not extend to surface water. _
Subsurf. Soil (e.g., >2 ft)	<u>X</u>	___	___	Contaminants present in several locations._____
Air (outdoors)	___	<u>X</u>	___	Outdoor releases would be insignificant at this site._____

___ If no (for all media) - skip to #6, and enter “YE,” status code after providing or citing appropriate “levels,” and referencing sufficient supporting documentation demonstrating that these “levels” are not exceeded.

X If yes (for any media) - continue after identifying key contaminants in each “contaminated” medium, citing appropriate “levels” (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

___ If unknown (for any media) - skip to #6 and enter “IN” status code.

Rationale and Reference(s): _____

**Irving Tanning Company -Department Compliance Order,
signed September 16, 2005**

**Woodard & Curran Report, January 24, 2005
RE: Irving Tanning Annex, Hartland Maine
Supplemental Environmental Investigation**

Footnotes:

¹ “Contamination” and “contaminated” describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based “levels” (for the media, that identify risks within the acceptable risk range).

² Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

Rationale and Reference(s): (continued next page)

Rationale and Reference(s): (continued)

Contaminants of concern (present in both soil and groundwater):

Contaminant	GW Standard (ppb) MEG/MCL/PRG	Highest Concentration GW (ppb)	Soil Standard (ppm) EPA Reg III or MEDEP*	Highest Concentration Soil (ppm)
Ethylbenzene	70/700/-	4,110	1670*	732.8
Methyl isobutyl ketone	-/-/160	4090	-	-
Toluene	1400/1000/-	19,300	1600	122.2
1,2,4-Trimethylbenzene	-/70/12	11	3900	121.5
Xylenes	1400/10,000/-	6714	1600	2710.9
Diisobutyl ketone	-/-/-	7,010	-	3380(est)

Attachments:

- Figure 1.** Site locator map
- Figure 2.** Approximate site property lines (contains unrelated surficial soil data)
- Figure 3.** Approximate affected area (extends from Annex buildings into "area B" as shown in figure 2.)
- Table 1.** Shows locations and levels of contaminants of concern.

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)
Page 3

3. Are there **complete pathways** between “contamination” and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

Potential **Human Receptors** (Under Current Conditions)

“Contaminated” Media	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food ³
Groundwater	_N_	_N_	_N_	_N_			_N_
Air (indoors)	_--	_--	_--				
Soil (surface, e.g., <2 ft)	_--	_--	_--	_--	_--	_--	_--
Surface Water	_--	_--			_--	_--	_--
Sediment	_--	_--			_--	_--	_--
Soil (subsurface e.g., >2 ft)				_N_			_N_
Air (outdoors)	_--	_--	_--	_--	_--		

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors’ spaces for Media which are not “contaminated”) as identified in #2 above.
2. enter “yes” or “no” for potential “completeness” under each “Contaminated” Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential “Contaminated” Media - Human Receptor combinations (Pathways) do not have check spaces (“___”). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

- X If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter “YE” status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).
- If yes (pathways are complete for any “Contaminated” Media - Human Receptor combination) - continue after providing supporting explanation.
- If unknown (for any “Contaminated” Media - Human Receptor combination) - skip to #6 and enter “IN” status code

Rationale and Reference(s): **The contaminated media (groundwater and subsurface soils) lie primarily beneath portions of the facility which contain no buildings or structures and which is not utilized for any activities including agriculture at this time. The only exception is a relatively small area of contaminated media that lies no less than six feet below a portion of the facility's gravel driveway. Based on current use, there would be no completed pathway for human exposure.**

Footnotes:

³ Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)
Page 4

4 Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be **“significant”**⁴ (i.e., potentially “unacceptable” because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable “levels” (used to identify the “contamination”); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable “levels”) could result in greater than acceptable risks)?

N/A

_____ If no (exposures can not be reasonably expected to be significant (i.e., potentially “unacceptable”) for any complete exposure pathway) - skip to #6 and enter “YE” status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to “contamination” (identified in #3) are not expected to be “significant.”

N/A

_____ If yes (exposures could be reasonably expected to be “significant” (i.e., potentially “unacceptable”) for any complete exposure pathway) - continue after providing a description (of each potentially “unacceptable” exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to “contamination” (identified in #3) are not expected to be “significant.”

N/A

_____ If unknown (for any complete pathway) - skip to #6 and enter “IN” status code

Rationale and Reference(s): _____ N/A _____

Footnotes:

⁴ If there is any question on whether the identified exposures are “significant” (i.e., potentially “unacceptable”) consult a human health Risk Assessment specialist with appropriate education, training and experience.

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)
Page 5

5 Can the “significant” exposures (identified in #4) be shown to be within **acceptable** limits?

N/A

_____ If yes (all “significant” exposures have been shown to be within acceptable limits) - continue and enter “YE” after summarizing and referencing documentation justifying why all “significant” exposures to “contamination” are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

N/A

_____ If no (there are current exposures that can be reasonably expected to be “unacceptable”)- continue and enter “NO” status code after providing a description of each potentially “unacceptable” exposure.

N/A

_____ If unknown (for any potentially “unacceptable” exposure) - continue and enter “IN” status code

Rationale and Reference(s): _____ N/A _____

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)
Page 6

6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

XX YE - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the Irving Tanning Company Annex facility, EPA ID # MED001065580, located on Pleasant Street in Hartland, Maine under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

NO - "Current Human Exposures" are NOT "Under Control."

IN - More information is needed to make a determination.

Completed by (signature) Edward J. Vigneault Date 9/26/06
(print) Edward J. Vigneault
(title) Environmental Specialist III

Supervisor (signature) Stacy A. Ludner Date 9/26/06
(print) Stacy A. Ludner
(title) ES IV, Unit Manager
(EPA Region or State) State of Maine

Locations where References may be found:

Maine Department of Environmental Protection
BRWM File Room, 28 Tyson Drive
17 State House Station
Augusta, ME 04333-0017
Phone (file room) 207-287-7843

Contact telephone and e-mail numbers

(name) **Edward J. Vigneault**
(phone #) **207-287-7827**
(e-mail) **edward.j.vigneault@maine.gov**

FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.

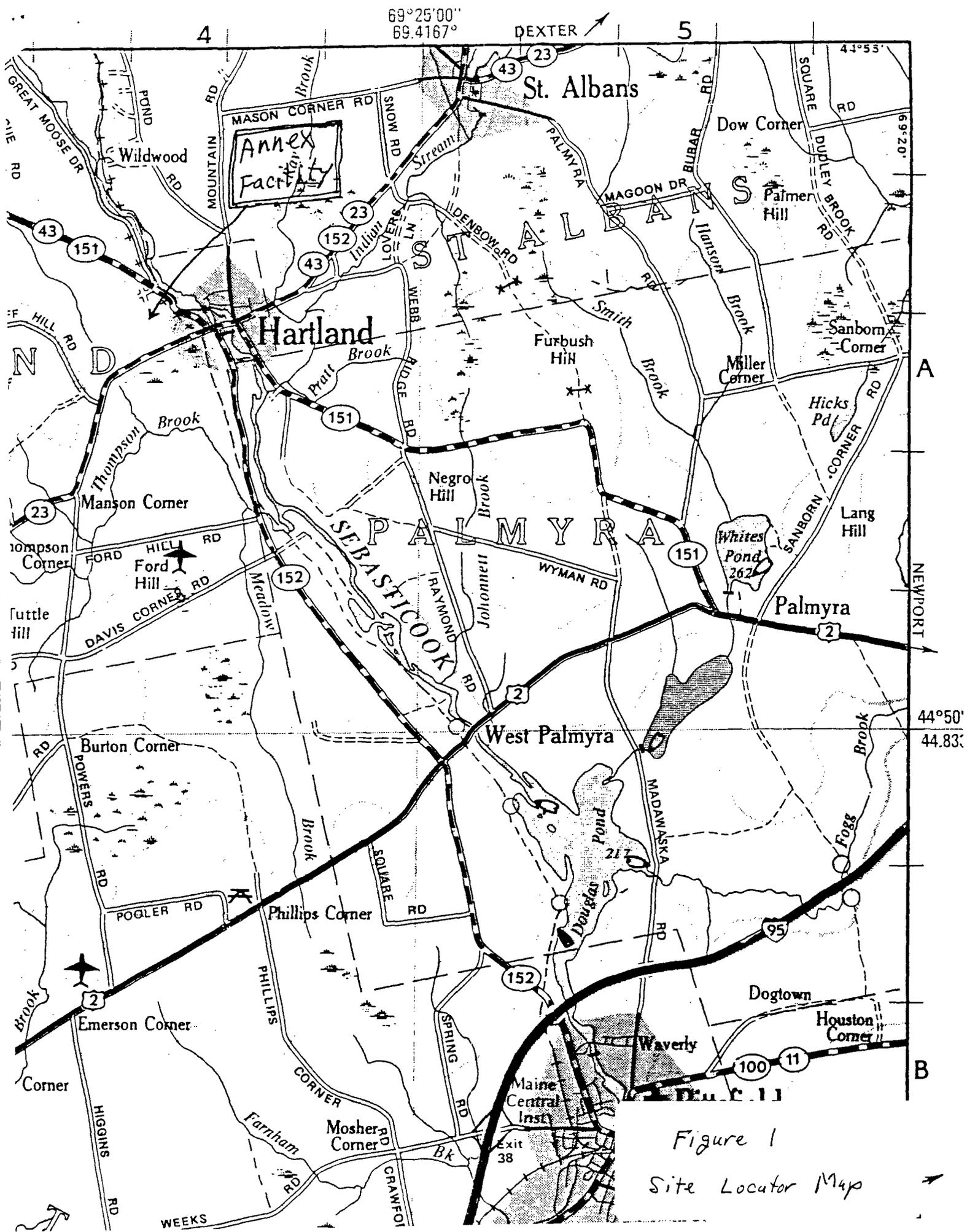
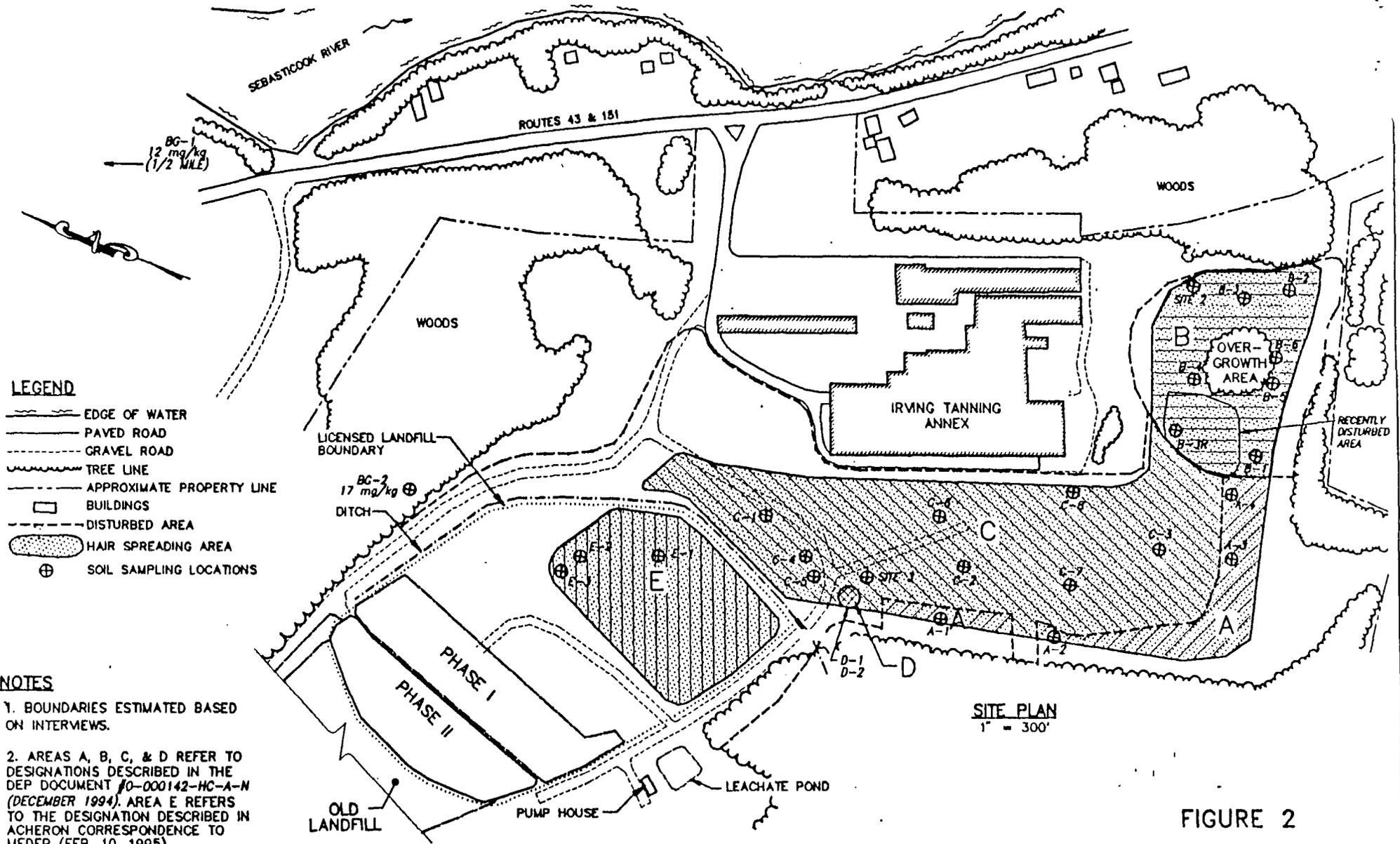


Figure 1
Site Locator Map



SITE PLAN
1" = 300'

FIGURE 2

- LEGEND**
- EDGE OF WATER
 - PAVED ROAD
 - - - GRAVEL ROAD
 - TREE LINE
 - - - APPROXIMATE PROPERTY LINE
 - BUILDINGS
 - - - DISTURBED AREA
 - ▨ HAIR SPREADING AREA
 - ⊕ SOIL SAMPLING LOCATIONS

- NOTES**
1. BOUNDARIES ESTIMATED BASED ON INTERVIEWS.
 2. AREAS A, B, C, & D REFER TO DESIGNATIONS DESCRIBED IN THE DEP DOCUMENT 10-000142-HC-A-N (DECEMBER 1994). AREA E REFERS TO THE DESIGNATION DESCRIBED IN ACHERON CORRESPONDENCE TO MEDEP (FEB. 10, 1995).
 3. SAMPLING LOCATIONS BASED ON RANDOMLY GENERATED COORDINATES ON AN ARBITRARY GRID OVERLAY.

SOIL SAMPLE CONCENTRATION

AREA A	mg/kg	AREA B	mg/kg	AREA C	mg/kg	AREA D	mg/kg	AREA E	mg/kg
A-1	25	B-1	18	C-1	20	D-1	26	E-1	23
A-2	17	B-2	22	C-2	15	D-2	48	E-2	23
A-3	42	B-3R	20	C-3	22			E-3	21
A-4	12	B-4	21	C-4	29				
		B-5	25	C-5	26				
		B-6	26	C-6	20				
				C-7	16				
				C-8	25				

IRVING TANNING HARTLAND, MAINE	
ANNEX FACILITY SOIL SAMPLING LOCATIONS	
ACHERON INC. Engineering, Environmental & Geologic Consultants Newport, Maine • Winthrop, Maine	
JOB NO. 2920	DWG NO. A-1312

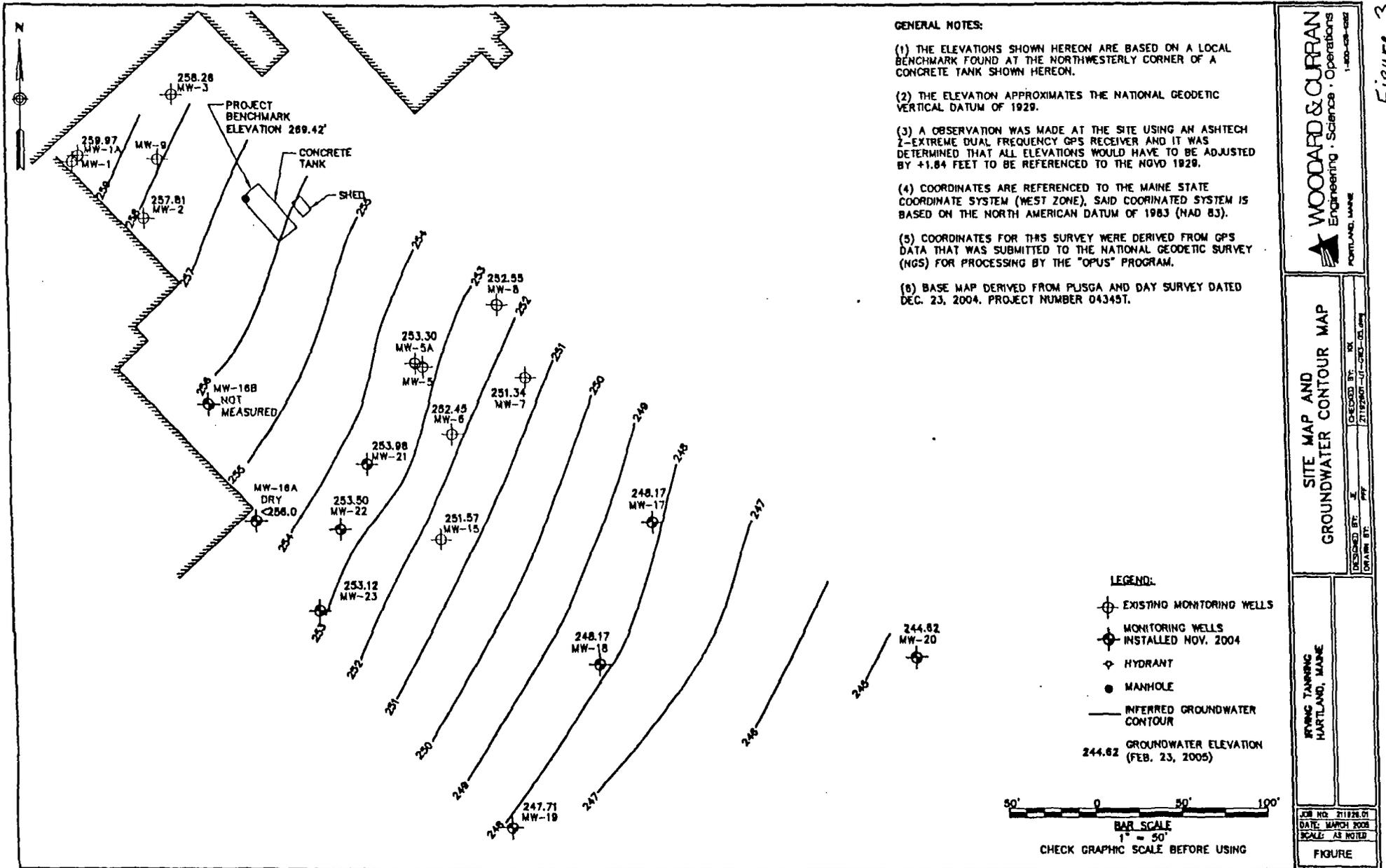


Figure 3

Figure 3

Table November 2004 Groundwater Results

Parameter	Units	Detection Limit	Standards			MW-15	MW-16B	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22	MW-23
			MEG	MCL	PRG									
Sample Date						11/22/99, 3/30/00, 6/24/04	11/30/2004	11/30/2004	11/30/2004	11/30/2004	11/30/2004	11/30/2004	11/30/2004	11/30/2004
VOCs														
Acetone	ug/L	25	700	--	--	ND	<5	<5	<5	<5	<5	<5	<5	<5
sec-butylbenzene	ug/L	5	--	--	240	ND	<5	<5	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane	ug/L	5	70	--	--	ND	<5	8	<5	<5	<5	<5	<5	<5
Cis-1,2-Dichloroethene	ug/L	5	70	70	--	ND	<5	38	<5	<5	<5	<5	<5	<5
Diethylether	ug/L	5	--	--	--		<5	<5	13	<5	<5	<5	<5	<5
Ethylbenzene	ug/L	5	70	700	--	2,780 - 4,110	<5	23	140	<5	<5	<5	<5	<5
Isopropylbenzene	ug/L	5	--	--	660	ND	<5	<5	<5	<5	<5	<5	<5	<5
Methyl ethyl ketone (MEK)	ug/L	25	1,440	--	--	ND	<5	<5	<5	<5	<5	<5	<5	<5
Methyl isobutyl ketone (MIBK)	ug/L	25	--	--	160	ND - 4,090	<5	580	<5	<5	<5	<5	<5	<5
Naphthalene	ug/L	5	14	--	--	ND	<5	<5	<5	<5	<5	<5	<5	<5
n-Propylbenzene	ug/L	5	--	--	240	ND	<5	<5	<5	<5	<5	<5	<5	<5
Tetrachloroethene	ug/L	5	7	5	--	ND	<5	<5	<5	<5	<5	<5	<5	<5
Toluene	ug/L	5	1,400	1,000	--	6,610 - 19,300	<5	220	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	ug/L	5	200	200	--	ND	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	ug/L	5	32	5	--	ND	<5	<5	<5	<5	<5	<5	<5	<5
1,2,4-Trimethylbenzene	ug/L	5	--	70	12	ND	<5	11	<5	<5	<5	<5	<5	<5
1,3,5-Trimethylbenzene	ug/L	5	--	--	12	ND	<5	<5	<5	<5	<5	<5	<5	<5
o-Xylene	ug/L	5	14,000	10,000	--	506 - 954	<5	<5	<5	<5	<5	<5	<5	<5
m,p-Xylene	ug/L	10	14,000	10,000	--	4,010 - 5,760	<10	23	12	<10	<10	<10	<10	<10
Diisobutyl ketone (DIBK)	ug/L	NA	--	--	--	1,420 - 7,010	ND	110	10	ND	ND	ND	ND	ND
Total VOCs						15,546 - 41,224	0	1013.0	175.0	0	0	0	0	0

Notes:

ND = Not Detected

NA = Not Applicable

Bold values indicate exceedances of regulatory criteria

< = Values detected below the Project Quantitation Limit (PQL)

Table #1.