RCRA RECORDS CENTER
FACILITY CEE Associates
I.D. NO. CTD 044121697
FILE LOC. R-13
OTHER # 5590

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: InteliData (formerly CEE Associates)
Facility Address: 80 Pickett District Road, New Milford, Connecticut 06676
Facility EPA ID #: CTD044121697

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?

✓ 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).

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)?

	Yes	No	?	Rationale / Key Contaminants
Groundwater	✓			see below
Air (indoors)[2]	✓			see below
Surface Soil (<2 ft)	✓			see below
Surface Water		✓		see below
Sediment		✓		see below
Subsurf. Soil (e.g., >2 ft)	✓			see below
Air (outdoors)		✓		see below

____ 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.

✓ 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:

Background

The 80 Pickett District Rd. facility consists of an approximately 8-acre parcel on which a single-story building is located. The majority of the site is covered by the building and paved parking areas located on the northern and southern ends of the building. The property is located in an area classified as GB under the Connecticut Department of Environmental Protection (CT DEP). The nearest surface water body is the Housatonic River, which is located approximately 800 feet to the east of the site. The site was undeveloped prior to 1963, when the current site building was constructed. From 1964 until 1983, the property was owned and occupied by the Burndy Corporation, which had a metal plating operation and operated a RCRA-regulated surface impoundment as part of its wastewater treatment system. This unit and its associated sludge drying beds were closed by removal under a CT DEP-approved closure plan in the late 1980s. In 1983, the property was purchased by CEE Associates, LLC. A number of tenants occupied the property under their ownership. Diventco Corporation had an electroplating and dry film processing operation from 1983 until 1993. Colonial Data Services Corporation, a telephone equipment repair service, operated during the same time period. InteliData Technologies Corporation used the property for warehousing, assembly, and distribution of electronic communication products from 1996 until 1999. On January 6, 2000, the property was transferred from CEE Associates LLC to the Edelman Limited Partnership. CEE was the certifying party on the Form III filing that accompanied the transfer under the CT Property Transfer Act (ERM, 2002).

Surface Soil: Sample TR-4, collected just outside the fence surrounding the transformer in AOC-8, detected Arochlor 1254 at 1.3 mg/kg in excess of the Connecticut Department of Environmental Protection (CT DEP) Remediation Standard Regulation (RSR) Residential Direct Exposure Criteria (DEC) of 1 mg/kg, but below the CT RSR Industrial/Commercial DEC of 10 mg/kg (ERM, 2002).

Subsurface Soil: Post-excavation samples in AOC 4 show levels of tetrachloroethene of 3,300 µg/kg, above the CT RSR GB Pollutant Mobility Criteria (PMC) of 1,000 µg/kg and TPH of 29,000 mg/kg above GB PMC (2,500 mg/kg) and the residential DEC (500 mg/kg) and industrial/commercial DEC (2,500 mg/kg) at sample location PE-5 (ERM, 2002).

Groundwater: Trichloroethene was detected on 2/25/04 in bedrock wells BR-3 (98.8 µg/L) and BR-5 (71.9 µg/L) in excess of the CT DEP proposed RSR Residential and Industrial/Commercial Volatilization Criteria (VC) (27 and 67 µg/L, respectively) and CT RSR GA/GAA Groundwater Protection Criteria (GWPC) of 5 µg/L. Other constituents measured in bedrock groundwater in 2004 were below applicable criteria. In overburden, the following constituents were detected above criteria during 2004: 1,1 dichloroethane (136 µg/L at ERM-14, in excess of GA/GAA GWPC of 70 µg/L); 1,1-dichloroethene (18.9 µg/L at MW-3, 29 µg/L at ERM-6, 76.2 µg/L at ERM-11, 46.5 µg/L at ERM-13, in excess of GA/GAA GWPC of 7 µg/L and 381 µg/L at ERM-14, in excess of the CT RSR Surface Water Protection Criteria (SWPC) of 96 µg/L and the proposed residential VC of 190 µg/L); cis-1,2 dichloroethene (91 µg/L at ERM 13 and 157 µg/L at ERM-14, in excess of the GA/GAA GWPC of 70 µg/L); tetrachloroethene (11.8 µg/L in ERM-6 and 9.22 µg/L in INJ-4, in excess of the GA/GAA GWPC of 5 µg/L); 1,1,1- trichloroethane (244 µg/L in MW-3, 2,860 µg/L in ERM-6, 2,300 µg/L in ERM-11, 4,860 µg/L in ERM-13, and 346 µg/L in INJ-1 in excess of the GA/GAA GWPC of 200 µg/L and 8,840 µg/L in ERM-14 in excess of the residential VC of 6,500 µg/L); trichloroethene (25.4 µg/L at MW-3 in excess of the GA/GAA GWPC of 5 µg/L, 99.2 µg/L at ERM-6, 154 µg/L at ERM-11, 139 µg/L at ERM-13, 294 µg/L at ERM 14 in excess of the industrial/commercial VC of 67 µg/L). (ERM, 2004b)

Air (indoors): Indoor air has not been sampled in connection with this project. However, soil gas under the 80 Pickett District Rd. facility building exceeded the residential VC for 1,1-dichloroethene at SG-37 on 4/24/01 (ERM, 2002). Therefore, it is possible that indoor air concentrations in the building may exceed risk-based levels. As noted above, trichlorethene was detected in 2004 groundwater samples in excess of the proposed industrial/commercial VC at ERM-6, ERM-11, ERM-13, and ERM-14 (ERM, 2004b).

Surface Water: Surface water could be impacted by discharging groundwater, if the groundwater contained contaminants at elevated levels. However, groundwater data collected in 2004 from the downgradient section of the property show that concentrations of all contaminants are below the CT RSR Surface Water Protection Criteria (SWPC) (ERM, 2004b).

Sediment: Stormwater run-off from the 80 Pickett District Rd. facility property may have reached the Housatonic River via a drainage ditch which ran along Pickett District Road (Delta, 1993). Given the size of the Housatonic River in this section, this run-off would not reasonably be expected to have produced contaminant concentrations in sediment at levels that would result in significant human exposures. However, further investigation is recommended to ensure that any contaminants present in Housatonic River sediments, as a result of activities at the 80 Pickett District Rd. facility, are not present a levels that could pose a risk to ecological receptors. EPA recommends sampling of soils in the earthen ditch that ran from the former sludge drying beds to the former lagoon as an initial step to evaluate the potential for contaminants to have migrated to the Housatonic River.

Air (outdoors): Based on existing soil and groundwater data and current activities at the property, elevated contaminant levels in ambient air would not be expected.

[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.

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	no	yes	no	yes	no	no	no
Air (indoors)	no	yes	no				
Soil (surface, e.g., <2 ft)	no	yes	no	yes	yes	no	no
~~Surface Water~~	___	___			___	___	___
~~Sediment~~	___	___			___	___	___
Soil (subsurface e.g., >2 ft)		yes		yes			
~~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.

___ 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).

__x___ 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:

Groundwater:

Residents: An evaluation of groundwater use in the vicinity of the 80 Pickett District Rd. facility found that several homes located to the west and southwest of the facility were not connected to the public water system. It is suspected that these homes obtain water for household uses from private wells (ERM, 2004a). Based on groundwater elevation data collected from monitoring wells at the facility, overburden and bedrock groundwater generally appear to flow toward the east and southeast. Therefore, contaminated groundwater is not reasonably expected to be moving in the direction of the homes without public water connection. While existing site data provides sufficient basis for making this environmental indicator determination, additional data should be collected for confirmation. Therefore, EPA recommends that InteliData complete the following tasks and report resulting data to EPA as soon as possible and no later than six months following the date of this environmental indicator determination:

- Install a nested bedrock and overburden monitoring well on-site between suspected source areas of

contaminants in groundwater and the residential properties with suspected private well use; guage the water levels in these wells simultaneous to the other monitoring wells on-site to generate groundwater contour maps; analyze groundwater samples collected from these wells for site-related contaminants; and

- Using existing site data plus boring logs from the nested wells requested above, develop geologic cross sections for the site, showing overburden stratigraphy and the surface of weathered and competent bedrock.

Workers: Workers may contact contaminated groundwater while collecting samples.
Daycare: No daycare centers exist in the area of the groundwater contaminant plume.
Construction Workers: Construction workers may contact contaminated groundwater during construction activities performed below the water table.
Trespasser: There do not appear to be any pathways by which trespassers would likely contact contaminants in groundwater.
Recreation: According to most recent groundwater sample data reported to EPA (collected in February 2004), contaminants in wells on the eastern edge of the property, closest to the Housatonic River, were below CT RSR SWPC (ERM, 2004b). Therefore, groundwater is unlikely to discharge to the Housatonic River at concentrations that would pose a concern for recreational uses of the river.
Food: Groundwater in the area of the plume is not used for livestock or irrigation.

Air (indoors):
Residents: Contaminated groundwater from the 80 Pickett District Rd. facility is not reasonably expected to be migrating toward residential properties. Therefore, it is not likely that air inside residential structures is impacted as a result of site contaminants.
Workers: Volatile organic compounds (VOCs) have been detected in groundwater and soil gas in the vicinity of the 80 Pickett District Rd. facility building. Therefore, it is possible that VOCs are migrating into air inside the facility building. Workers in the building on the property downgradient of the 80 Pickett District Rd. facility would not reasonably be expected to be exposed to indoor air contaminants from the 80 Pickett District Rd. facility. On the eastern side of the facility property, where the groundwater plume exits the property, 2004 groundwater sample results reported a trichloroethene concentration of 154 µg/L in well ERM-11. This concentration exceeds the proposed industrial/commercial VC of 67 µg/L. However, the building on the downgradient property is located to the south of the plume limits. Therefore, vapors from the groundwater plume originating at the 80 Pickett District Rd. facility would not reasonably be expected to enter indoor air in the building on the downgradient property (ERM, 2004b).
Daycare: No daycare centers exist in areas of soil or groundwater contamination at or from the 80 Pickett District Rd. facility.

Soil (surface):
Residents: Contaminated soil from the 80 Pickett District Rd. facility is not reasonably expected to be present on residential properties.
Workers: Workers could contact contaminated surface soil at the 80 Pickett District Rd. facility.
Daycare: No daycare centers exist at or near areas of contaminated soil at the 80 Pickett District Rd. facility.
Construction: Construction workers could contact contaminated surface soil at the 80 Pickett District Rd. facility.
Trespasser: Trespassers could contact contaminated surface soil at the 80 Pickett District Rd. facility
Recreation: No recreational activities would be expected in areas of contaminated surface soil at the 80 Pickett District Rd. facility.
Food: No food is grown or raised in areas of contaminated surface soil at the 80 Pickett District Rd. facility.

Soil (subsurface):
Workers: Workers could contact contaminants in subsurface soil in the course of collecting environmental samples.
Construction: Construction workers could contact contaminants in subsurface soil during any construction activities that involve excavation.

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

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)?

__x__ 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."

_____ 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."

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

Rationale and Reference(s):

Groundwater:
Workers and Construction Workers: A September 14, 2004 memorandum from ERM notified the current owner of the 80 Pickett District Rd. facility that any work involving contact with potentially groundwater on the facility property should be performed only by trained personnel utilizing appropriate personal protective equipment (ERM, 2004c). Therefore, exposures of workers and construction workers to contaminated groundwater are not reasonably expected to be significant.

Indoor Air:
Workers: For purposes of making environmental indicator determinations, EPA and the Occupational Safety and Health Administration (OSHA) have agreed that OSHA will generally take the lead role in addressing occupational exposures (EPA, 2002). EPA requests that, within 60 days of the date of this environmental indicator determination, InteliData provide written notice to the current owner of the 80 Pickett District Rd. facility that VOCs from subsurface contamination may be entering indoor air in the facility building and that InteliData provide a copy of this notice to EPA. EPA expects that the facility owner will maintain a safe work place in compliance with OSHA standards and that, therefore, any worker exposures to contaminants entering indoor air in the facility building from the subsurface are not reasonably expected to be significant.

Surface Soil:
Workers, Construction Workers, and Trespassers: As explained in the response to Question 2 of this checklist, only results of only one surface soil sample reported contaminants (Arochlor 1254) at concentrations just above the CT DEP RSR residential DEC, but below the industrial/commercial DEC. Due to the concentration and the apparent limited extent of this contamination, contaminant exposures to workers, construction workers, and trespassers are not reasonably expected to be significant.

Subsurface Soil:

Workers and Construction Workers: A September 14, 2004 memorandum from ERM notified the current 80 Pickett District Rd. facility owner that any construction activities (building modifications, etc.) which result in the removal of any floor slabs which could potentially result in contact with soils beneath the building that may have residual contamination be conducted only by personnel utilizing appropriate personal protective equipment and who have the requisite training to work with such material (ERM, 2004c). Therefore, exposures of workers and construction workers to contaminants in groundwater at the facility are not reasonably expected to be significant.

[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.

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

_____ 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).

_____ 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.

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

Rationale and Reference(s):

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):

X 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 Former InteliData facility, EPA ID # CTD044121697, located at 80 Pickett District Rd, New Milford, CT 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) Stephanie Carr Date September 16, 2004
(print) Stephanie Carr
(title) RCRA Facility Manager

Supervisor (signature) Matthew R. Hoagland Date 9/20/04
(print) Matthew R. Hoagland
(title) Section Chief
(EPA Region or State) EPA Region I

Locations where References may be found EPA Region I, 1 Congress St. Boston, MA

Delta Environmental Services, Inc. (1993), Phase I Environmental Site Assessment, January 8, 1993

Environmental Resources Management (1998a), Phase II Environmental Assessment, September 24, 1998

Environmental Resources Management (1998b), Addendum to Phase II Environmental Site Assessment, Dec. 30 1998

Environmental Resources Management (2002), Summary Report and Phase III Work Plan, June 2002

Environmental Resources Management (2004a), Sensitive Receptor Survey, March 5, 2004

Environmental Resources Management (2004b), Position Paper re: Potential Off-Site Exposures (tables and figures attached) June 30, 2004

Environmental Resources Management (2004c), Notice of Environmental Conditions, September 14, 2004

Environmental Protection Agency (2002) Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils

State of Connecticut Regulation of Department of Environmental Protection concerning Remediation Standard

State of Connecticut Department of Environmental Protection (2003) Proposed Revisions Connecticut's Remediation Standard Regulations Volatilization Criteria, March 2003

Contact telephone and e-mail numbers
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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. DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

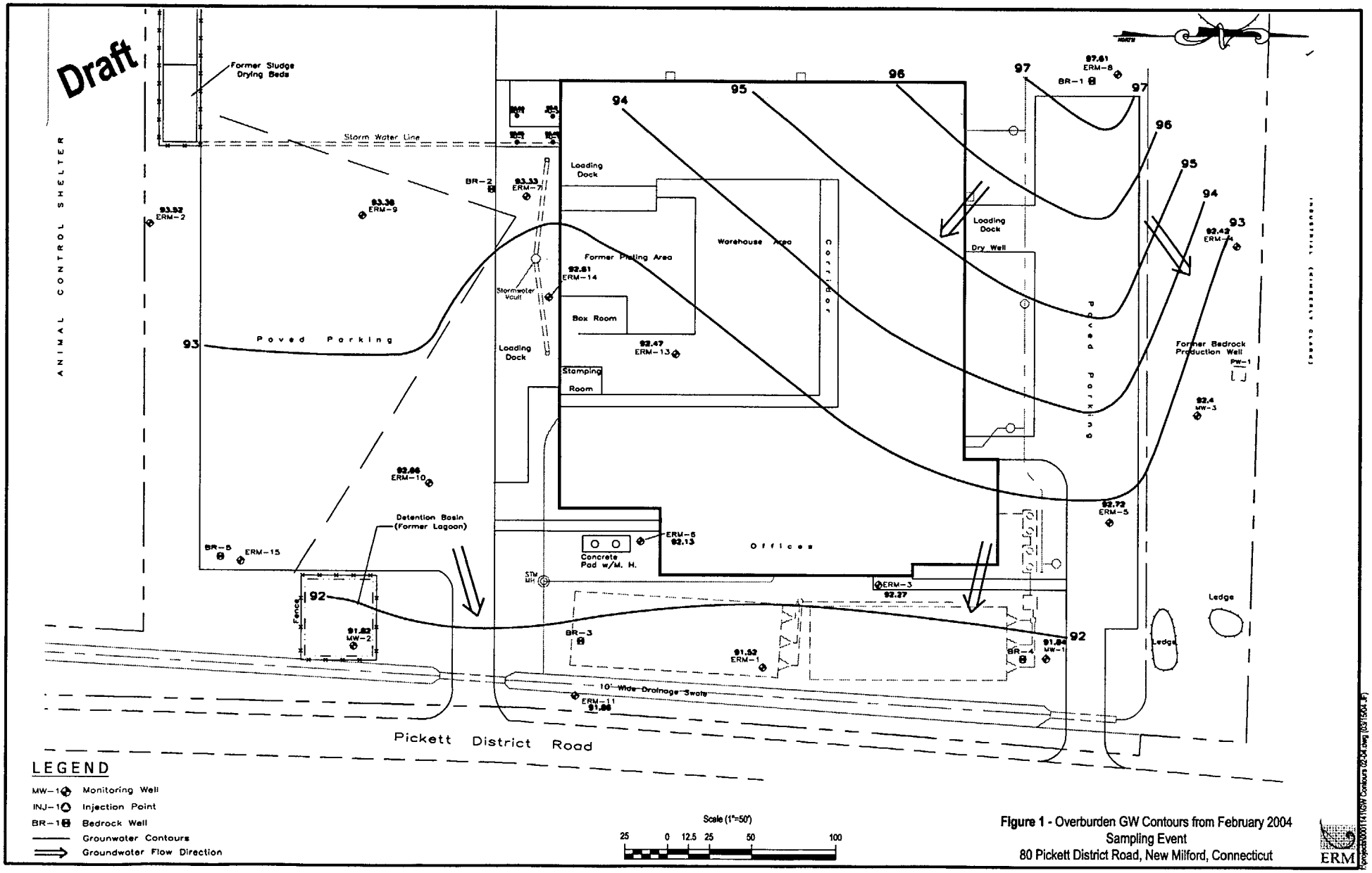

Figure 1 - Overburden GW Contours from February 2004 Sampling Event
80 Pickett District Road, New Milford, Connecticut

ERM

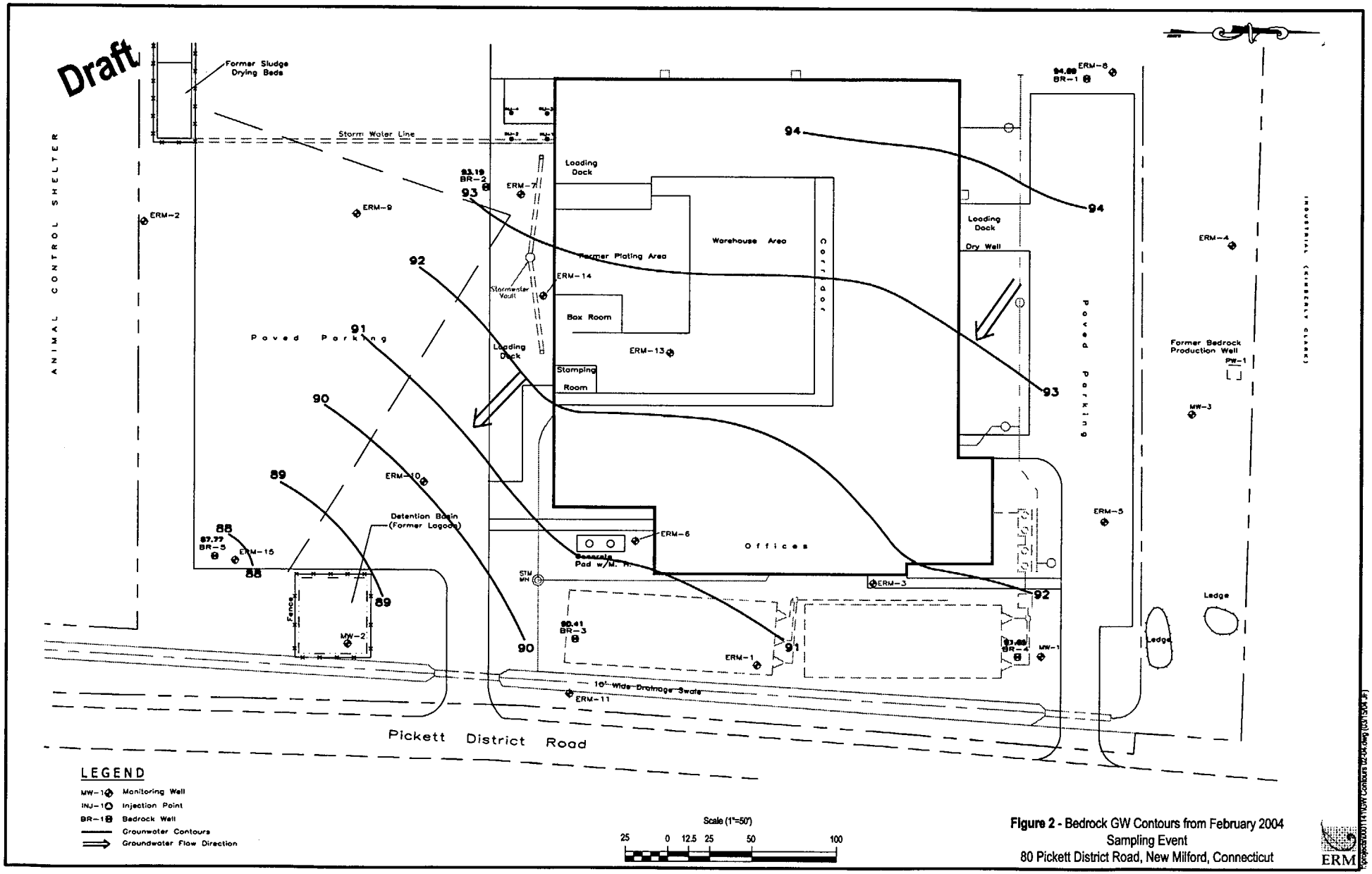

Figure 2 - Bedrock GW Contours from February 2004 Sampling Event
80 Pickett District Road, New Milford, Connecticut

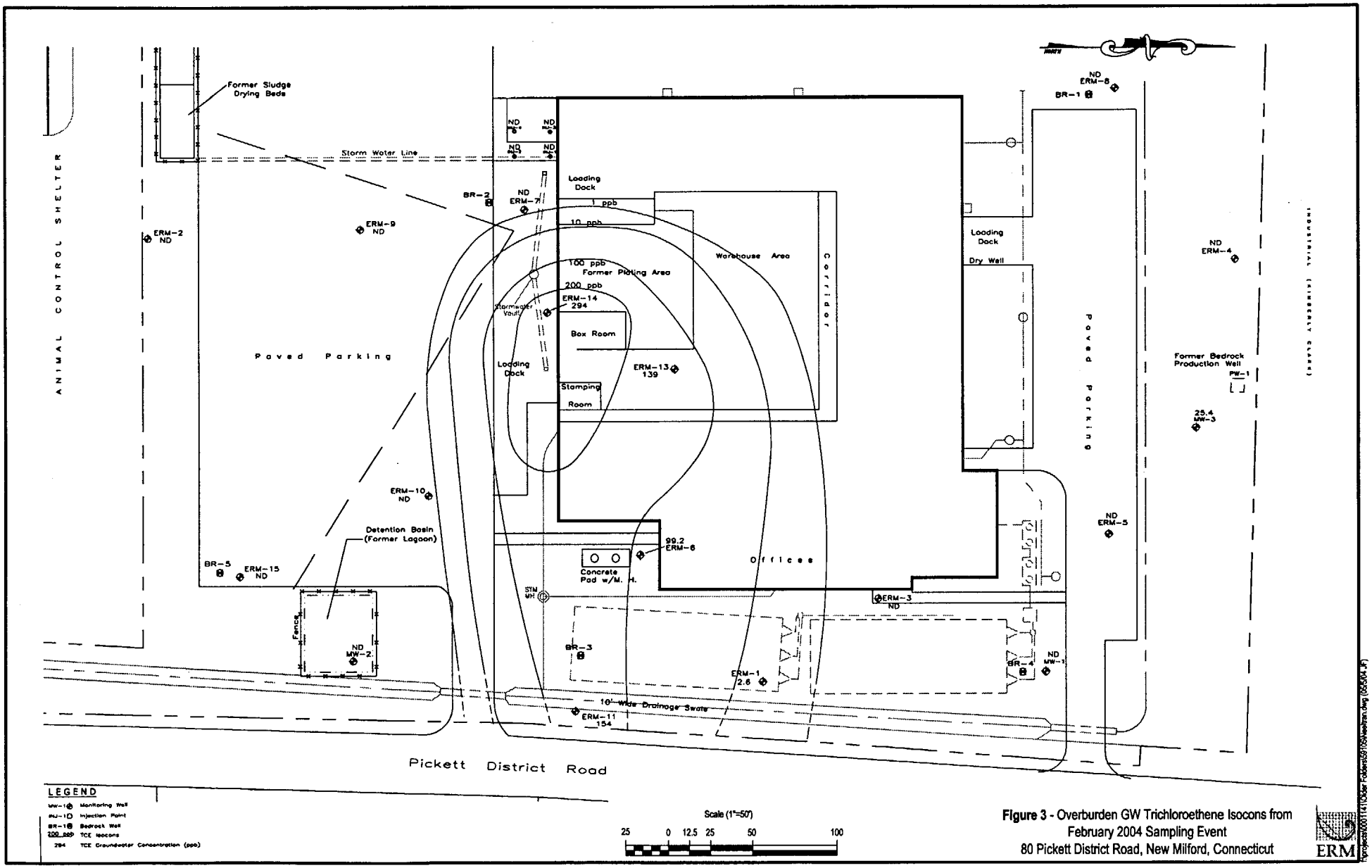

Figure 3 - Overburden GW Trichloroethene Isocons from February 2004 Sampling Event
80 Pickett District Road, New Milford, Connecticut