

JRG

7LTF50  
9/98

September 10, 1998

**Terracon**

500 Southwest 7th Street-Suite M  
P.O. Box 4921  
Des Moines, Iowa 50306  
(515) 244-3184 Fax (515) 244-5249

Mr. Bobby Baker  
Polk County  
5895 NE 14th Street  
Des Moines, IA 50313

**CON 12-15**  
**Doc #12296**

RE: Petroleum Contamination/Institutional Control  
Hubbell Realty Property  
519/521 SW 7<sup>th</sup> Street  
Des Moines, IA 50309  
LUST No. 7LTF50  
Terracon Project No. 45945048

Dear Mr. Baker:

Petroleum contamination from an underground storage tank has been encountered at the referenced site. Because the contamination is above the allowable levels for drinking water, we are attempting to obtain an institutional control that would prohibit the installation of drinking or non-drinking water wells within the impacted area.

Polk County has an ordinance, which prohibits non-public water supply systems from being installed where a public water supply system is reasonably accessible (49.3(11) of Chapter IV of the Polk County Board of Health Rules and Regulations). We would like you to provide a statement indicating that you would not issue permits for "drinking or non-drinking water wells", as defined in 567 IAC 135.2, within the area shown on the attached diagrams.

The letter from you must include the following:

1. confirmation that you have jurisdiction over the area of concern;
2. determination that a public water supply is "readily available", within the meaning of your ordinance, in the area of concern;
3. a statement indicating that you "would not" or "would not likely" permit a "drinking or non-drinking water well", as defined in 567 IAC 135.2, within the area of concern, due to the presence of public water; and
4. an indication that you will make a reasonable effort to notify the IDNR UST section of any permit applications, approvals or denials within the proposed area of concern.

A model letter, drafted by the IDNR, has been included for your reference.

**Institutional Control**  
**Hubbell Realty Property**  
**519/521 SW 7<sup>th</sup> Street, Des Moines**  
**September 10, 1998**

Terracon

The following items have been provided for your review:

1. the necessary soil plume and groundwater receptor ID plume maps showing the extent of the actual plume and simulated plume (area of concern);
2. the definition of drinking and non-drinking water wells from 567 IAC 135.2; and
3. a diagram showing the location of the public water delivery system in relation to the area of concern.

If you have any questions concerning this letter or the information requested, please contact me at (515) 244-3184.

Sincerely,  
TERRACON



Eva S. Schmitz, E.I.T.  
Certified Groundwater Professional

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Enclosures

Copies to: Addressee  
Underground Storage Tank Section, Iowa Department of Natural Resources  
Mr. Michael Hayes, Hubbell Realty Company

S. W. 6TH STREET

MURPHY STREET

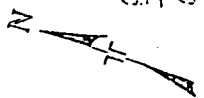
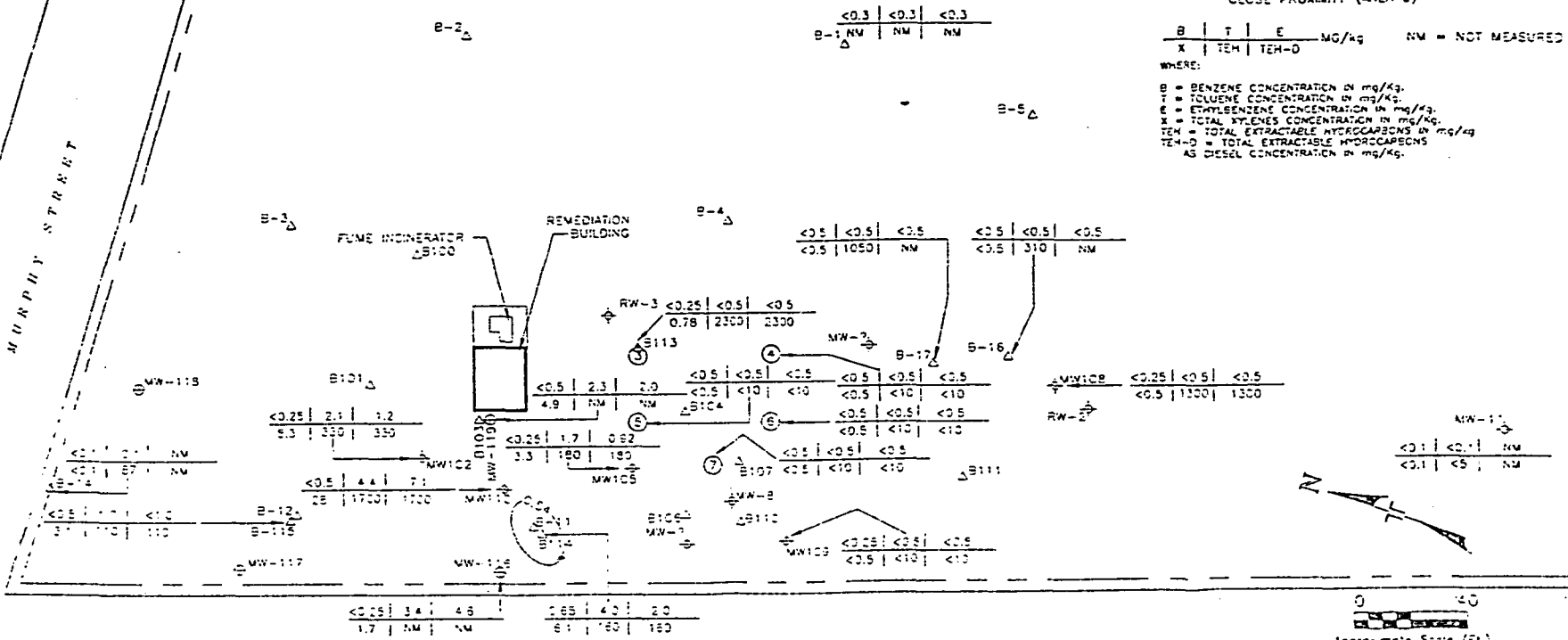
LEGEND

- ⊕ - MONITORING WELL LOCATIONS (MW-X)
- ⊖ - RECOVERY WELL LOCATIONS (RW-X)
- △ - SOIL BORING LOCATIONS
- ③ - INDICATES SEVERAL SOIL BORINGS IN CLOSE PROXIMITY (AREA 3)

B	T	E	MG/KG	NM = NOT MEASURED
X	TEH	TEH-D		

WHERE:

B = BENZENE CONCENTRATION IN mg/Kg.  
 T = TOLUENE CONCENTRATION IN mg/Kg.  
 E = ETHYLENE CONCENTRATION IN mg/Kg.  
 X = TOTAL XYLENES CONCENTRATION IN mg/Kg.  
 TEH = TOTAL EXTRACTABLE HYDROCARBONS IN mg/Kg  
 TEH-D = TOTAL EXTRACTABLE HYDROCARBONS AS DIESEL CONCENTRATION IN mg/Kg.



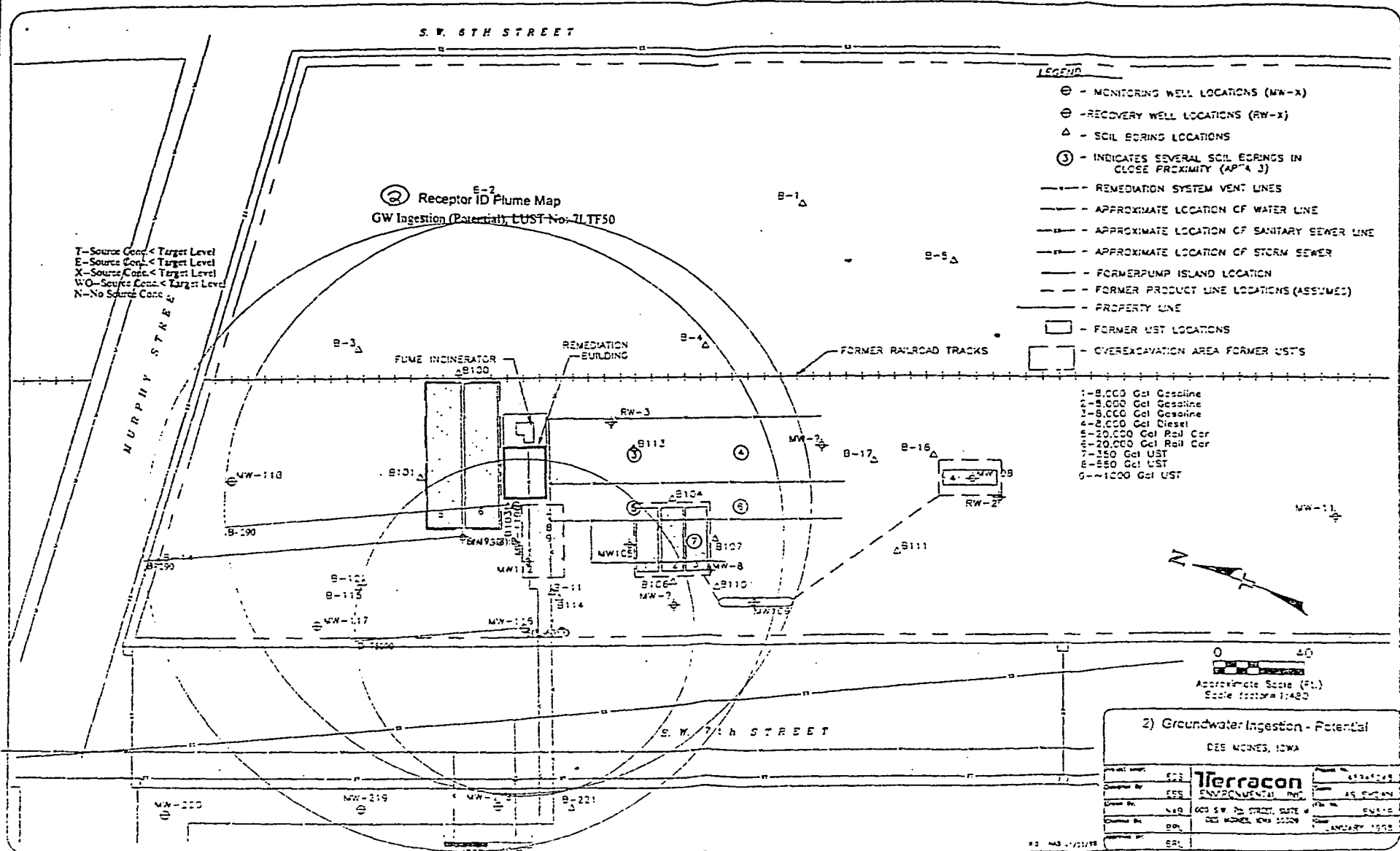
0 10  
 Approximate Scale (ft)  
 Scale factor = 1:400

S. W. 7TH STREET

(16) SOIL CONTAMINATION PLUME MAP - BENZENE  
 519/521 S.W. 7th STREET  
 DES MOINES, IOWA

Project No.	45247245
Prepared By	ESS
Drawn By	ESS
Scale	AS SHOWN
Site No.	50419A
Client	600 S.W. 7th Street, Suite W Des Moines, Iowa 50317
Date	JULY 1993





T-Source Conc. < Target Level  
 E-Source Conc. < Target Level  
 X-Source Conc. < Target Level  
 W-Source Conc. < Target Level  
 N-No Source Conc.

LEGEND

- ⊕ - MONITORING WELL LOCATIONS (MW-X)
- ⊖ - RECOVERY WELL LOCATIONS (RW-X)
- △ - SOIL BORING LOCATIONS
- ③ - INDICATES SEVERAL SOIL BORINGS IN CLOSE PROXIMITY (AP'X J)
- - REMEDIATION SYSTEM VENT LINES
- - APPROXIMATE LOCATION OF WATER LINE
- - APPROXIMATE LOCATION OF SANITARY SEWER LINE
- - APPROXIMATE LOCATION OF STORM SEWER
- - FORMER PUMP ISLAND LOCATION
- - FORMER PRODUCT LINE LOCATIONS (ASSUMED)
- - PROPERTY LINE
- - FORMER LUST LOCATIONS
- - OVEREXCAVATION AREA FORMER LUST'S

- 1-8,000 Gal Gasoline
- 2-8,000 Gal Gasoline
- 3-8,000 Gal Gasoline
- 4-8,000 Gal Diesel
- 5-20,000 Gal Rail Car
- 6-20,000 Gal Rail Car
- 7-150 Gal UST
- 8-550 Gal UST
- 9-1000 Gal UST

2) Groundwater Ingestion - Potential  
 DES MOINES, IOWA

Project No.:	ESS	Client:	ARRINGTON
Designed By:	ESS	AS DRAWN:	
Checked By:	LAD	DATE:	ENL 10
Drawn By:	BD	DES MOINES, IOWA 50309	
Approved By:	ERL	DATE:	JANUARY 1993

82 HAS 1/22/93

S. W. 6TH STREET

MURPHY STREET

LEGEND

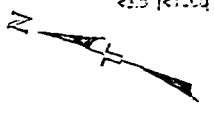
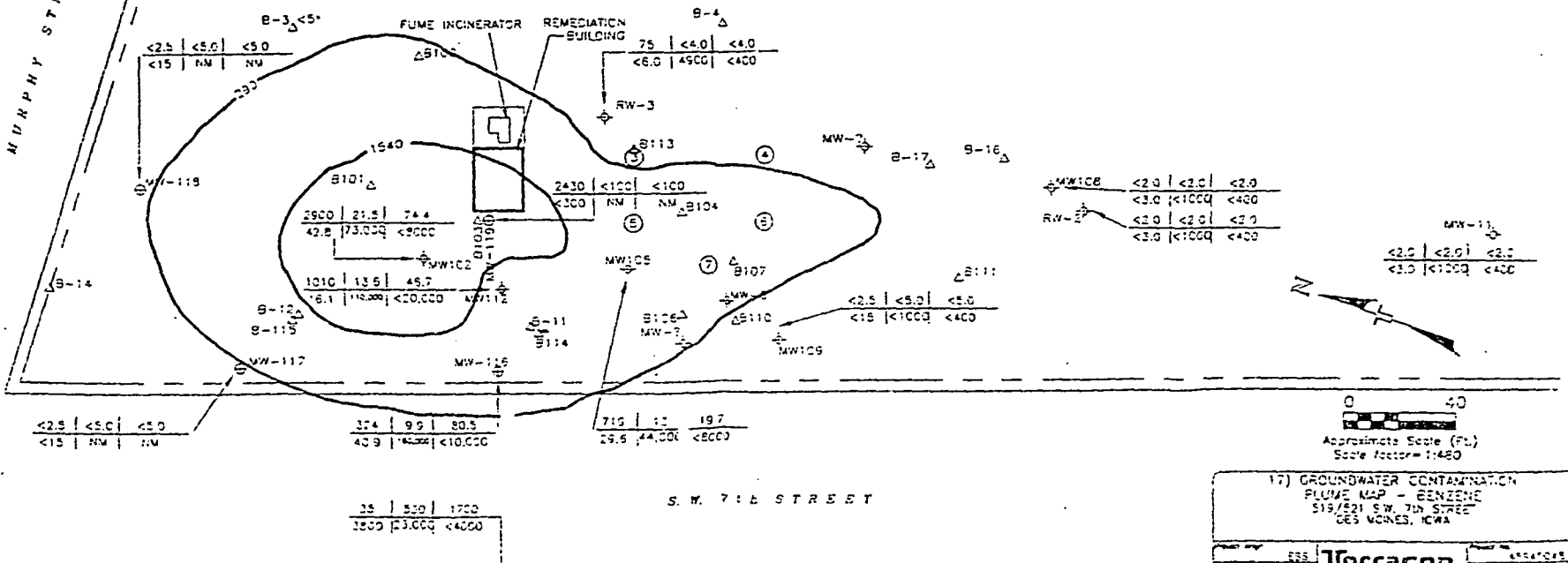
- ⊕ - MONITORING WELL LOCATIONS (MW-X)
  - ⊖ - RECOVERY WELL LOCATIONS (RW-X)
  - △ - SOIL BORING LOCATIONS
  - ⊙ - INDICATES SEVERAL SOIL BORINGS IN CLOSE PROXIMITY (AREA 3)
- NM = NOT MEASURED

B	T	E	US/L
X	TEH-D	TEH-WD	

WHERE:

- B = BENZENE CONCENTRATION IN US/L
- T = TOLUENE CONCENTRATION IN US/L
- E = ETHYLBENZENE CONCENTRATION IN US/L
- X = TOTAL XYLENES CONCENTRATION IN US/L
- TEH-D = TOTAL EXTRACTABLE HYDROCARBONS AS DIESEL CONCENTRATIONS IN US/L
- TEH-WD = TOTAL EXTRACTABLE HYDROCARBONS AS WASTE OIL CONCENTRATION IN US/L

\* BENZENE ANALYTICAL DATA COLLECTED PRIOR TO REMEDIATION



0 40  
Approximate Scale (Ft.)  
Scale factor = 1:480

S. W. 7TH STREET

17) GROUNDWATER CONTAMINATION  
PLUME MAP - BENZENE  
515/21 S.W. 7th STREET  
DES MOINES, IOWA

Project No.	555	Client	DES MOINES
Designed by	555	Scale	AS SHOWN
Drawn by	555	Date	11/11/88
Checked by	555	Project No.	555
Approved by	555	Date	11/11/88

**Terracon**  
ENVIRONMENTAL, INC.  
630 S.W. 7th STREET, SUITE 4  
DES MOINES, IOWA 50319

S. W. 6TH STREET

MURPHY STREET

LEGEND

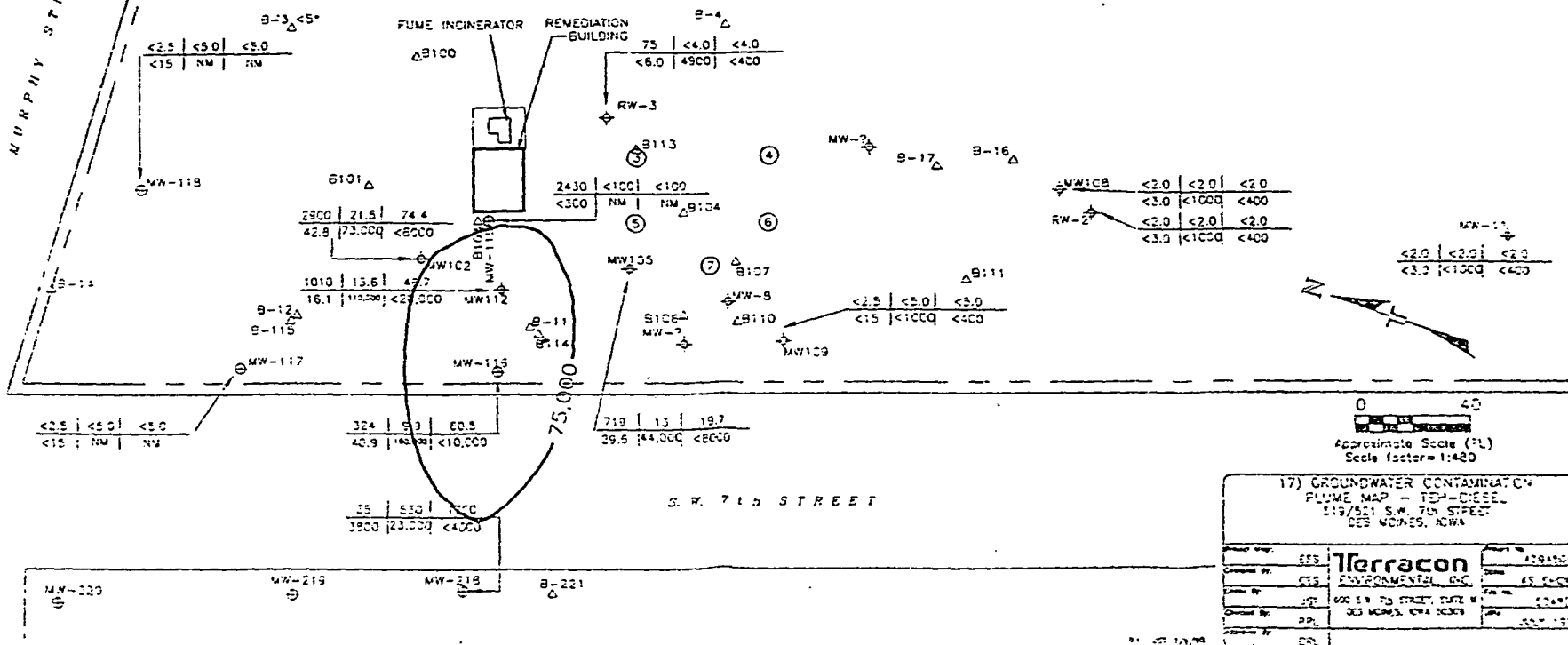
- ⊕ - MONITORING WELL LOCATIONS (MW-X)
  - ⊖ - RECOVERY WELL LOCATIONS (RW-X)
  - Δ - SOIL BORING LOCATIONS
  - ③ - INDICATES SEVERAL SOIL BORINGS IN CLOSE PROXIMITY (AREA 3)
- NM = NOT MEASURED

B	T	E	ug/L
X	TEH-D	TEH-WD	

WHERE:

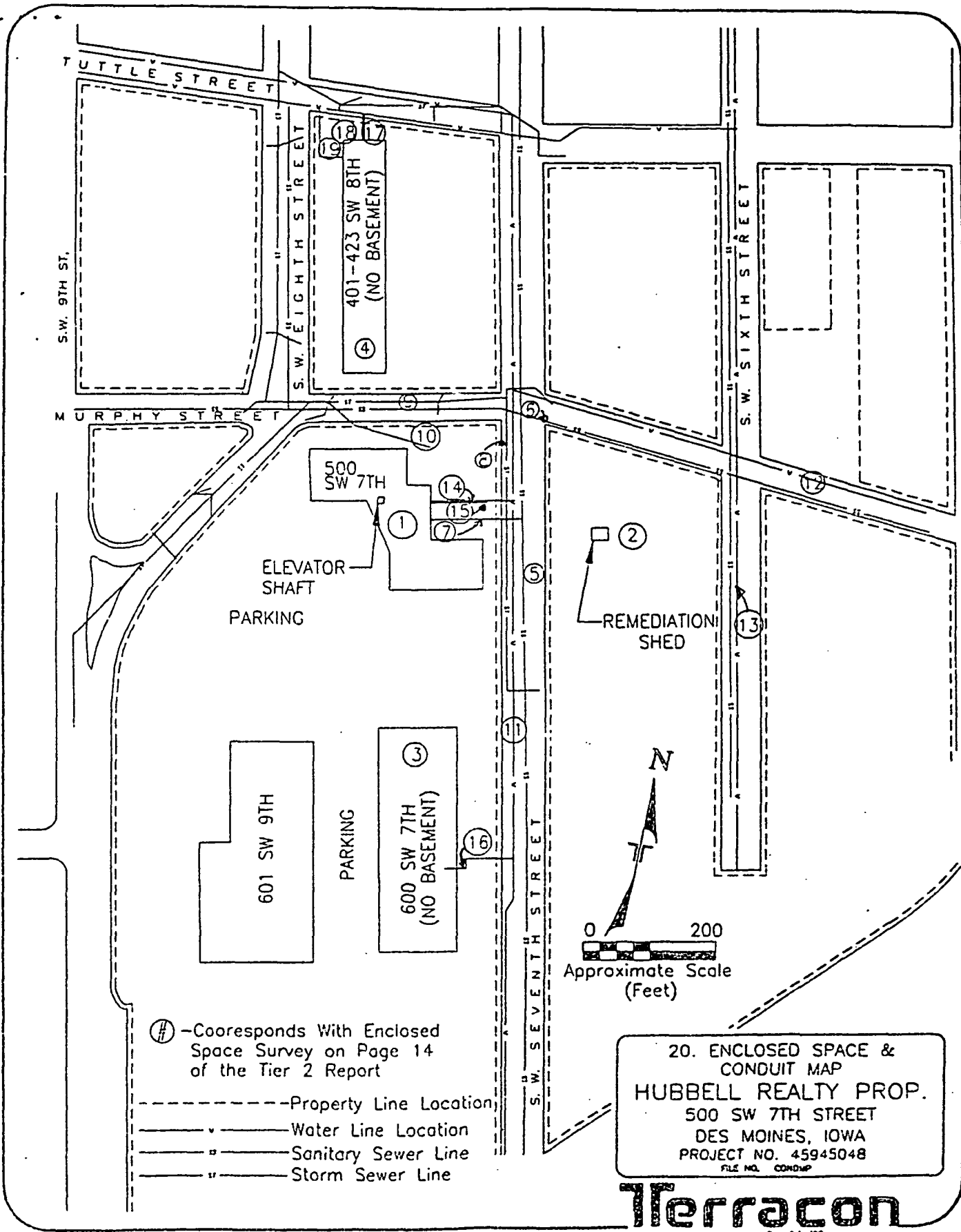
- B = BENZENE CONCENTRATION IN ug/L
- T = TOLUENE CONCENTRATION IN ug/L
- E = ETHYLBENZENE CONCENTRATION IN ug/L
- X = TOTAL XYLENES CONCENTRATION IN ug/L
- TEH-D = TOTAL EXTRACTABLE HYDROCARBONS AS DIESEL CONCENTRATIONS IN ug/L
- TEH-WD = TOTAL EXTRACTABLE HYDROCARBONS AS WASTE OIL CONCENTRATION IN ug/L

\* BENZENE ANALYTICAL DATA COLLECTED PRIOR TO REMEDIATION

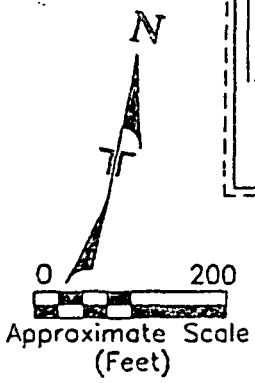


17) GROUNDWATER CONTAMINATION PLUME MAP - TEH-DIESEL 519/521 S.W. 7th STREET DES MOINES, IOWA

Client:	DES	<b>Terracon</b>	Project No:	172910048
Contract No.:	DES	ENVIRONMENTAL, INC.	Date:	05/20/03
Location:	DES	519/521 S.W. 7th STREET, PLATE #	Scale:	AS SHOWN
Drawn By:	DES	DES MOINES, IOWA 50319	Author:	DES
Checked By:	DES		Date:	05/27/03
Approved By:	DES			



- ① - Corresponds With Enclosed Space Survey on Page 14 of the Tier 2 Report
- Property Line Location
- Water Line Location
- Sanitary Sewer Line
- Storm Sewer Line



20. ENCLOSED SPACE & CONDUIT MAP  
**HUBBELL REALTY PROP.**  
 500 SW 7TH STREET  
 DES MOINES, IOWA  
 PROJECT NO. 45945048  
FILE NO. CONDUIT

**Terracon**  
REV 8/4/00

## 1.2 Background Information

The operational history of the system is as follows:

<u>Time Period</u>	<u>Operational Status</u>
July, 1989 to Aug., 1989	Performed environmental site assessment.
April 25, 1990	Received IDNR approval to install soil venting system.
May 2, 1990	System operating with carbon treatment.
May 8, 1990	Carbon treatment system saturated.
May 22, 1990 to July 12, 1990	System operating with carbon treatment.
July 30, 1990 to Jan. 31, 1991	Fume incinerator installed and operating.
Jan. 31, 1991 to Feb. 1, 1991	Fume incinerator blower fan down. Certi-Tec called to determine cause of malfunction. Venting system blower down.
Feb. 1, 1991 to June 14, 1991	Fume incinerator operating.
June 14, 1991 to present	Soil venting shut down during installation of groundwater recovery system.

## 2.0 PROJECT ACTIVITIES

### 2.1 Air Monitoring and Sampling

Air sampling from the soil venting system will be conducted upon groundwater recovery system startup.