PCDR \ PCDR3 \ FORT DRUM
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DAMES & MOORE
A DAMES & MOORE GROUP COMPANY

Safety and Health Phase-Out Report
Remedial Action, Building T-4002
Fort Drum, New York

VOLUME II

Prepared for

R&R International, Inc.

January 27, 1997

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SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 8-6-96 Start Time: 8:15 AM Completion Time: 8:25 Am

Location: Building T-4002

Meeting Conducted by: Steve Lanham

SAFETY ISSUES

Tasks: Site Survey; (Spencer Thew)

Protective Clothing/Equipment: Safety glasses, hard hats, steel toe boots

Chemical Hazards: Soil, contaminants (DDD, DDE, DDT; 2,4-D; 2,4,5-T, Lead)

Physical Hazards: Slips, trips, + falls; moving vehicles

Control Methods: Remain aware of vehicles; Reduce hand to mouth activities; No eating, chewing tobacco,

Special Equipment/Techniques:

Other: Simple survey equipment

Print Name	Sign Name
TIMOTHY A. PATCH	Timothy A. Patch 8-6-96
Robert H. Korosec	Robert H. Korosec 8-6-96

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INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York

August 8, 1996

Instrument(s): MIE Dust Monitor, Quest Noise Meter

Serial No.(s):

Technician's Signature: Stephen C. Yanham

Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
Noise	N	114 dBA source	G	SCL	SN: H44070032
Dust	N Zero	Trailer Room Air	—	SCL	SN: 4017

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 8-8-96

Field Activities: Ditch witch for silt fence

Wind Direction: W > E

Instrument, Model & Serial No.: See Cal. Check Sheet

Estimated Wind Speed: Severe >20 mph

Technician Signature: Steph C. Lanham

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
Noise	1220	2	B2H of Ditch witch operator	90dBA	Wearing hearing protection
Dust	1225	–	'S' of office trailer in wind current	1.68 mg/m³	Severe wind gusts
Noise	1235	1	B2H of Ditchwitch operator	89.5dBA	Wearing hearing prot.

SITE SAFETY BRIEFING
2-Hour Site Orientation Training

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 8-12-96 **Start Time:** **Completion Time:**

Location: Building 4884 Conference Room

Meeting Conducted by: Ken Fischer, Stan Lanham

SAFETY ISSUES

Tasks: Overall Site

Protective Clothing/Equipment: PPE, Respiratory Protection

Chemical Hazards: Pesticides, dust

Physical Hazards: Slips, Trips, Equipment, Moving traffic

Control Methods: PER HSP

Special Equipment/Techniques: PER HSP

Other:

Print Name	Sign Name
P Weilersbacher	Peter Weilersbacher (R&R)
James Spagnolo	James Spagnolo
Joseph Spagnolo	Joseph Spagnolo
Stan Eldridge	Stan Eldridge Blackstone Elc
Gary Ray	Gary Ray (R&R)
Mohammad Husain	[illegible] R&R
Rick Bailey	[illegible] (R&R)
John O'Connor	John O'Connor Blackstone
Dick Anderson	Dick Anderson
Shelby LaBarge	Shelby LaBarge

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 8-12-96

Inspector: Stephen Lanham Stephen C. Lanham

Site Conditions, Weather: Dry, 70-75 °F, Sunny, Slight W-E Breeze

Activities: Begin Dataline trenching

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation? Hand signals	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required) Pending Delivery ←		✓	
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?			✓
Are MSDSs available for every chemical listed/used?			✓
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

Noise monitoring

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?	✓	
Air monitoring log available and current?	✓	
Does monitoring log reflect excursions above action levels?		✓
Has personal sampling been performed?		
Have any exposure symptoms been reported?		✓
HEAT STRESS MONITORING		
Has heat stress monitoring been implemented?		
Are work/rest regimens established/followed?		
Are pulse rate and oral temperature taken?		
Monitoring log available and current?		
Any heat stress incidents?		✓
Are personnel aware of symptoms/first aid?	✓	
Are ambient temperature readings logged?		✓
Are emergency medical treatment and first aid available to personnel?	✓	
PERSONAL PROTECTIVE EQUIPMENT		
All PPE called for in HSP available?	✓	
Is there sufficient PPE available for the personnel involved in the performance of site operations?	✓	
Is PPE used in accordance with SHP?	✓	
Has PPE been upgraded or downgraded?		✓
Is the PPE in place adequate for the chemical and physical hazards on-site?	✓	
Is there a need to modify the PPE requirements?		✓
All personnel appropriately taped-up?		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?			✓
All drums and containers inspected for structural integrity before moving?			
Personnel warned of the potential hazards associated with the contents of containers prior to movement?			
Containers moved using appropriate mechanical devices to avoid injury?			
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?			✓
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?			✓
Site safety and health supervisor monitor decontamination procedures?			
SSHP decontamination procedures observed?			
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?			
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?			
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?			
Is the proper order to PPE removal observed?			
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York

August 12, 1996

Instrument(s): Noise meter

Serial No.(s):

Technician's Signature: Stephen C. Lanham

Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
Noise	N	114 dBA	G	SCL	SN: H44070032

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 8-12-96

Field Activities: Dataline trenching

Wind Direction: W-E

Instrument, Model & Serial No.: See Cal. Check Sheet

Estimated Wind Speed: Slight Breeze → 10 mph Gusts

Technician Signature: Stephen C. Lanham

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
Noise	1030	2	B211 of Excavator Operator	87dBA	Wearing hearing protection

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SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 8-13-96 Start Time: 7:15 AM Completion Time: 7:30 Am

Location: Dataline at Bldg T-4002

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Dataline trench digging

Protective Clothing/Equipment: Level D + hearing protection

Chemical Hazards: None

Physical Hazards: Excavation, slips, trips, falls, equipment

Control Methods: Proper ~~shoring~~ sloping, sight hygiene

Special Equipment/Techniques:

Other:

Print Name	Sign Name
Stan Eldridge	[illegible]
Joseph Sparacino	[illegible]
Tom Baker (Sparacino)	

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 8-13-96 Start Time: 7:35AM Completion Time: 7:45AM

Location: Building T-4002 office Traile

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Soil Density Testing using Troxler Nuclear Density Guage (Sources: CS 137, Ameicium 241) Leak Test 5-29-96

Protective Clothing/Equipment: Level D

Chemical Hazards: Radioactive Source

Physical Hazards: Slips, Trips, Falls, Equipment

Control Methods: Proper Training, PPE

Special Equipment/Techniques: Nuclear safety Training + Procedures

Other: Atlantic Testing to send operator Training Record + most recent leak test data by Fax.

eceived by
x 8-13-96

Print Name	Sign Name
Clay Clemmons	Clay Clemmons

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 8-13-96

Inspector: Stephen Lanham Stephen C. Lanham

Site Conditions, Weather: Dry, 70-75°F, Sunny, Slight W-E Breeze

Activities: Dataline Trenching

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation? Hand Signals	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required) Pending Delivery ←		✓	
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?			✓
Are MSDSs available for every chemical listed/used?			✓
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP? None performed same equipment as prev. day	✓		

Additional Information

Noise monitoring in B2H of Operator of Excavator and trench crew.

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?			✓
All drums and containers inspected for structural integrity before moving?			↓
Personnel warned of the potential hazards associated with the contents of containers prior to movement?			↓
Containers moved using appropriate mechanical devices to avoid injury?			↓
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?			↓
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?			✓
Site safety and health supervisor monitor decontamination procedures?			↓
SSHP decontamination procedures observed?			↓
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?			↓
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?			↓
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?			↓
Is the proper order to PPE removal observed?			↓
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			↓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are unauthorized personnel denied access to decontamination areas, decontamination equipment and change rooms?		
Are washing facilities away from hazardous substances and adequate to permit personnel to remove hazardous substances from their bodies?		
Are decontamination solution(s), equipment and clothing properly marked and left on-site or disposed of?		
DRILLING		
Have proper underground utility clearances been obtained?		
Have overhead utility clearances been considered?		
Flammable liquids in approved containers?		
Emergency rig shutoff within reach of the operator?		
Appropriate fire shutoff within reach of the operator?		
Drilling platform properly stabilized?		
Ropes and chains in good condition?		
EXCAVATION		
Have proper utility clearances been obtained?	✓	
Has the On-site Competent Person been identified and is present? Sparacino/Lanham	✓	
Are daily trench inspections being conducted (or more frequently, as conditions warrant)?	✓	
Support systems (piling, cribbing, shoring) appropriate for the job? Sloping Only	✓	
Is there suitable access by stairs, ladders, ramps, hoists?		
Appropriate guardrails, fences, barricades and warning lights? Area roped off	✓	
MISCELLANEOUS SAFETY PROCEDURES		
If site work is anticipated in dimly lighted areas, is additional lighting provided?		
Is potable water labeled as safe for drinking?	✓	

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

CLAY CLEMONS

of

ATLANTIC TESTING LABORATORIES

HAS SUCCESSFULLY COMPLETED THE TROXLER ELECTRONIC LABORATORIES, INC. TRAINING COURSE FOR THE USE OF NUCLEAR TESTING EQUIPMENT.

SUBJECTS INCLUDED IN THIS COURSE WERE AS FOLLOWS:

Radiological Safety

1. *Principles and practices of radiation protection.*
2. *Leak testing procedures.*
3. *Mathematics and calculations basic to the use and measurement of radioactivity.*
4. *Biological effects of radiation.*
5. *Radioactivity measurement standardization and monitoring techniques and instruments.*
6. *Accident and incident procedures.*
7. *Procedures for nuclear gauge storage and transportation.*
8. *General safety precautions.*

Gauge Operation

1. *Instrument theory*
2. *Operating procedures*
3. *Maintenance*
4. *Field application*
5. *Gauge calibration*

Frank D. Jones
INSTRUCTOR

05/14/91
DATE

WILLIAM F. TROXLER
PRESIDENT

№ 40052

[redacted]

Your Name: [redacted]

Telephone: [redacted]

ORIGINAL COPY

M. Williams
5-29-96

TROXLER

3008 Cornwallis Rd. P.O. Box 12057 Research Triangle Park, North Carolina 27709 U.S.A.

Device - Model # 3411-B, Serial # 20169

Source(s) - Serial # 75-1437, Serial # 47-15653

Date of Test: 5/22/96

[redacted]

- [redacted]
- [redacted]
- [redacted]
- [redacted]

Your Name: [redacted]

Telephone: [redacted]

ORIGINAL COPY

LEAK TEST ANALYSIS

This certifies that the sample accompanying this form has been analyzed using an approved monitoring method that measures both beta/gamma & alpha contamination; and, that the results of this analysis shows the removable activity to be less than 0.005 microcuries.

M. Williams
5-29-96

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 8-14-96 Start Time: 6:40AM Completion Time: 6:50Am

Location: Office trailer at Bldg T-4002

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Beginning removal of aluminum siding on building and installation of fall ~~arrest~~ prevention system on roof.

Protective Clothing/Equipment: Level D

Chemical Hazards: None at this time; will begin monitoring when siding removal begins.

Physical Hazards: Slips, trips, fall, hand tools

Control Methods: Buddy system, attendant on roof, GFCI on generator for electric hand tools

Special Equipment/Techniques: Rope system installed in roof for fall prevention system; Personnel will tie off to center line rope with lanyards and waist belts

Other:

Print Name	Sign Name
Peter Weitersbacher	
Mohammad Husain	
Gary Ray	
Rick Bailey	

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 8-14-96 **Start Time:** 7:10AM **Completion Time:**

Location: Dataline at Bldg T-4002

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Dataline trench digging

Protective Clothing/Equipment: Level D + hearing protection

Chemical Hazards: ~~None~~ Tar seale for catch basin (MSDS to be provided Received 1045AM

Physical Hazards: Excavation, slips, trips, falls, equipment

Control Methods: Proper sloping, site hygiene

Special Equipment/Techniques:

Other:

Print Name	Sign Name
~~Peter Weitersbacher~~	
~~Mohammad Husain~~	
~~Gary Ray~~	
~~Rick Bailey~~	
Stan Eldridge	Stan Eldridge
Joseph Sparacino	Joseph Sparacino
Tom Sparacino	

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: August ~~15~~ 14, 1990

Inspector: Stephen Lanham

Site Conditions, Weather: Sunny, dry, slight breeze E→W

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation? Hand signals	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required) Pending Delivery ←		✓	
Have accident reports been properly completed in a timely fashion?			
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?	✓		
Air monitoring log available and current?	✓		
Does monitoring log reflect excursions above action levels?		✓	
Has personal sampling been performed?	✓		
Have any exposure symptoms been reported?		✓	
HEAT STRESS MONITORING			
Has heat stress monitoring been implemented?			✓
Are work/rest regimens established/followed?			↓
Are pulse rate and oral temperature taken?			↓
Monitoring log available and current?			↓
Any heat stress incidents?			✓
Are personnel aware of symptoms/first aid?	✓		
Are ambient temperature readings logged?		✓	
Are emergency medical treatment and first aid available to personnel?	✓		
PERSONAL PROTECTIVE EQUIPMENT			
All PPE called for in HSP available?	✓		
Is there sufficient PPE available for the personnel involved in the performance of site operations?	✓		
Is PPE used in accordance with SHP?	✓		
Has PPE been upgraded or downgraded?		✓	
Is the PPE in place adequate for the chemical and physical hazards on-site?	✓		
Is there a need to modify the PPE requirements?		✓	
All personnel appropriately taped-up?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site? Dataline trenching	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas? All	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?			✓
All drums and containers inspected for structural integrity before moving?			
Personnel warned of the potential hazards associated with the contents of containers prior to movement?			
Containers moved using appropriate mechanical devices to avoid injury?			
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?			
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?			✓
Site safety and health supervisor monitor decontamination procedures?			
SSHP decontamination procedures observed?			
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?			
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?			
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?			
Is the proper order to PPE removal observed?			
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York

August 14, 1996

Instrument(s): PID, Dust, LEL, O_2

Serial No.(s):

Technician's Signature: Steph C. Ja

Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
O_2	Ambient 20.9	20.9	G	SCL	ISE HMK 211 SN: 8903092-200
LEL	21.4%	21.4%	"	"	"
Dust	Factory →		G	"	MIE PDM-3 SN: 4127
"	zero	—	—	"	"
PID	Ambient	0	G	"	HNU PI-101 SN: 101238
"	—	100 PPM → 57ppm	G	"	"
O_2	Ambient 20.9	20.9	G	SCL	
LEL	21.4%	21.4%	G	SCL	
Dust	Factory →		G	"	
PID	—	100 PPM → 57ppm	G	"	

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 8-14-96

Field Activities: Removing building siding

Wind Direction: W-E

Instrument, Model & Serial No.:

Estimated Wind Speed: slight → none

Technician Signature: [illegible]

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
81496-001	1145	1	Gary Ray Breathing Zone North side	0	PID
"	"	"	"	0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9%	O_2
81496-002	1149	1	Station 1	0	PID
"	"	"	"	0	Dust (no traffic)
"	"	"	"	0	LEL
"	"	"	"	20.9%	O_2
81496-003	1151	1	Station 2	0	PID
"	"	"	"	0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9%	O_2
81496-004	1153	1	Station 3	0	PID
"	"	"	"	0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9%	O_2

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 8-14-96

Field Activities: Removing building siding

Wind Direction: W-E ; 1300 HRS wind direction changed to E-W

Instrument, Model & Serial No.:

Estimated Wind Speed: slight

Technician Signature: Steph C. Gal

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
81496-005	1156	1	Station 4	0	PID
"	"	"	"	0.02	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81496-006	1301	1	Gary Ray BZH	0	PID
"	"	"	"	0.0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9%	O_2
81496-007	1304	1	Station 1	0	PID
"	"	"	"	0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81496-008	1306	1	Station 2	0	PID
"	"	"	"	0	Dust (2.67 truck passing)
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2

* See Calibration Check Sheet for calibration data

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 8-14-96

Field Activities: Removing building siding

Wind Direction: E-W (was W-E in AM)

Instrument, Model & Serial No.:

Estimated Wind Speed: slight

Technician Signature: Steph C. Ya

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
81496-009	1308	2	Station 3	0	PID
"	"	"	"	1.77	Dust (truck passing)
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81496-010	1312	1	Station 4	0	
"	"	"	"	0.22	Dust (truck passing)
"	"	"	"	0	
"	"	"	"	20.9	
81496-011	1400	1	Gary Bay B2H, SE corner	0	PID
"	"	"	"	0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81496-012	1403	1	Station 1	0	PID
"	"	"	"	0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 8-14-96

Field Activities: Removing siding

Wind Direction: E-W (W-E in AM)

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Steph C. Ja

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
81496-013	1406	1	Station 2	0	PID
"	"	"	"	0.89	Dust (truck passing)
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81496-014	1408	1	Station 3	0	PID
"	"	"	"	0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81496-015	1410	1	Station 4	0	PID
"	"	"	"	0.06	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81496-016	1505	1	Gary Kay BZH, East side	0	PID
"	"	"	"	0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2

* See Calibration Check Sheet for [illegible]

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 8-14-96

Field Activities: Removing siding

Wind Direction: E→W

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Steve C. [illegible]

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
81496-017	1507	1	Station 1	0	PID
"	"	"	"	056	Dust (trucks passing)
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81496-018	1510	1	Station 2	0	PID
"	"	"	"	0.71	Dust (truck passing)
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81496-019	1512	1	Station 3	0	PID
"	"	"	"	0.46	Dust (truck passing
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81496-020	1515	1	Station 4	0	PID
"	"	"	"	0.0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.7	O_2

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 8-14-96

Field Activities: Removing siding

Wind Direction: E→W

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Steve C.

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
81496-021	1608	1	Gary Ray BZH East side	0	PID
"	"	"	"	0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81496-022	1611	1	Station 1	0	PID
"	"	"	Station 1	0	Dust
"	"	"	"	0	O_2
"	"	"	"	20.9	LEL
81496-023	1613	1	Station 2	0	PID
"	"	"	"	1.60	Dust (trucks passing)
"	"	"	"	0	~~O_2~~ LEL
"	"	"	"	20.9	O_2
81496-024	1615	1	Station 3	0	PID
"	"	"	"	0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 8-14-96

Field Activities: Removing siding

Wind Direction: E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: [illegible]

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
81496-025	1617	1	Station 4	0	PID
"	"	"	"	0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2

Perimeter Monitoring Locations 8-14-96

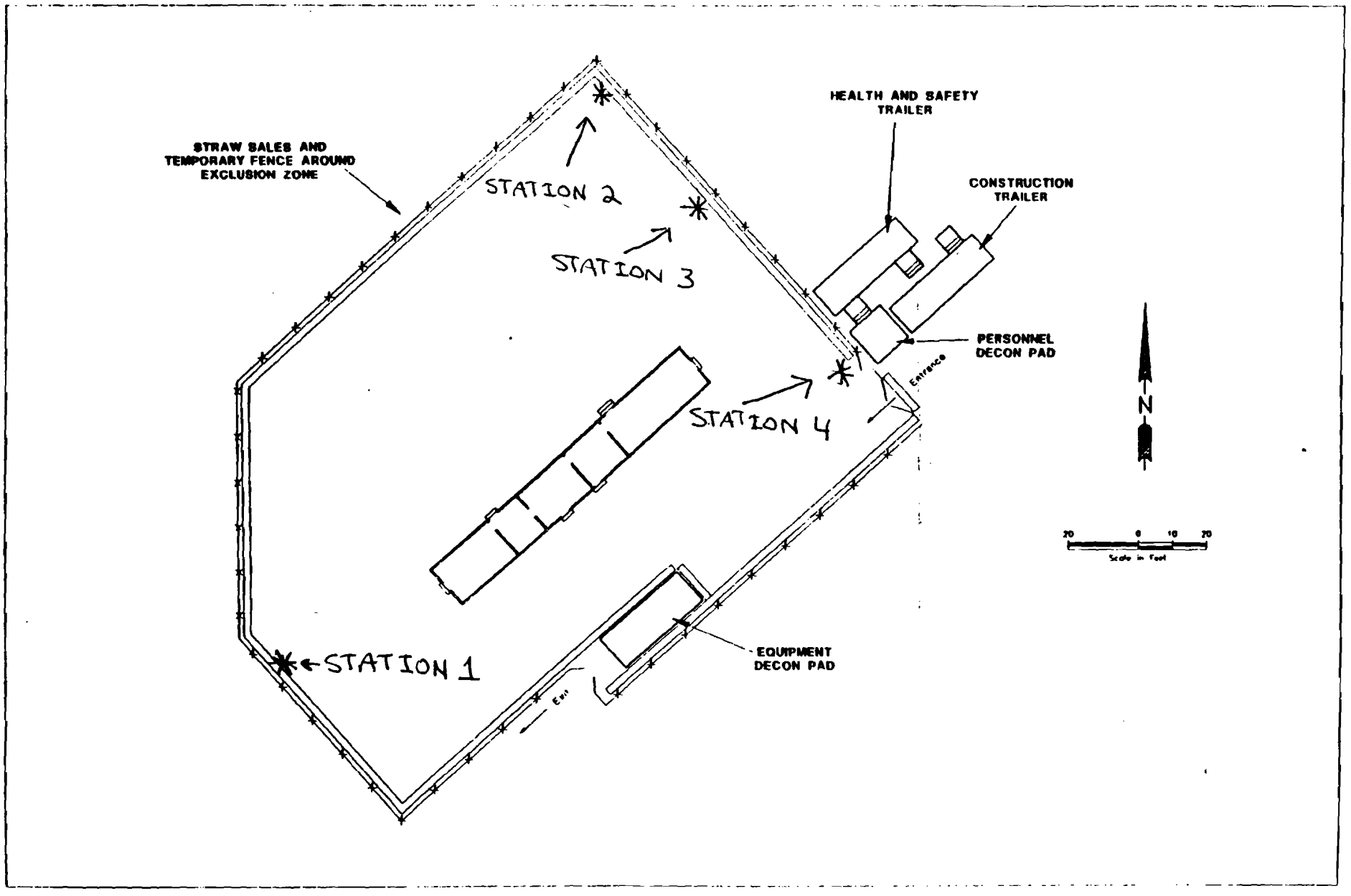

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 8-14-96

Phase: Phase 1 - Bldg. siding removal

Activity: Removing aluminum siding

Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.) Sunny, minimal breeze W-E, dry

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-81496-PH1-A-001	Personal air sample: Gary Ray	5408	0930	1656	446	1.51	1.51	1.51	673.46	
B-001	"	03813	0930	1656	446	0.52	0.50	0.50	223	
C-001	"	03813	0930	1656	446	0.53	0.49	0.49	218.54	
A-002	Station 1 - west end	5429	1100	1648	348	1.55	1.46	1.46	508.08	
B-002	"	3673	1100	1648	348	0.46	0.46	0.46	160.08	
C-002	"	3673	1100	1648	348	0.49	0.48	0.48	167.04	
A-003	Station 2 - NE corner	5412	1101	1649	348	1.58	1.53	1.53	532.44	
B-003	"	3812	1101	1649	348	0.49	0.46	0.46	160.08	
C-003	"	3812	1101	1649	348	0.52	0.49	0.49	170.52	
A 004	Station 3 - East end	5506	1104	1650	346	1.50	1.46	1.46	505.16	
B-004	"	3807	1104	1650	346	0.45	0.44	0.44	152.24	
C-004	"	3807	1104	1650	346	0.47	0.47	0.47	162.62	

INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 8-14-96

Phase: Phase 1 - Building siding removal

Activity: Removing aluminum siding

Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.) Sunny, minimal breeze W-E, dry

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD			FLOW RATE (L/MIN)			TOTAL VOLUME (L)	COMMENTS
			START TIME	STOP TIME	TOTAL MIN.	START	STOP	RECORDED		
FD-81496-PH1-A-005	Station 4-SE corner	5432	1050	1645	355	1.49	1.36	1.36	482.80	
B-005	"	3811	1050	1645	355	0.47	0.47	0.47	166.85	
C-005	"	3811	1050	1645	355	0.50	0.49	0.49	173.95	

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MATERIAL SAFETY DATA SHEET

Coal Tar Driveway Sealer #750

SECTION I PRODUCT INFORMATION

PART NUMBERS:	24091
MSDS DATE:	/ /
MANUFACTURERS NAME:	Gardner Asphalt Corporation
ADDRESS:	4001 E. 7th Avenue Tampa, FL
EMERGENCY PHONE NUMBER:	(813) 248-2101
DISTRIBUTOR:	
CHEMICAL NAME:	
FORMULA:	
CATEGORY:	
BRIEF DESCRIPTION:	

SECTION II HAZARDOUS INGREDIENTS & EXPOSURE LIMITS

There Are No Hazardous Ingredients Listed For This Product

SECTION III TYPICAL PHYSICAL PROPERTIES

BOILING POINT:	212' F.
VAPOR PRESSURE:	60
VAPOR DENSITY:	N/A
SOLUBILITY IN WATER:	Soluble
APPEARANCE AND ODOR:	Dark brown liquid, creosote odor
SPECIFIC GRAVITY:	1.1
% VOLATILE/VOLUME:	ND
pH:	ND
MISC. INFORMATION:	

********** NFPA RATINGS **********

HEALTH = 0 FLAMMABILITY = 0 REACTIVITY = 0 SPECIAL HAZARD =

Store # 3031-2
True Value
State Street Hardware
531 State Street
Watertown, NY 13601

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Coal Tar Driveway Sealer #750

SECTION IV FIRE & EXPLOSION HAZARD DATA

FLASH POINT: N/A
FLAMMABLE LIMITS: N/A
LOWER EXPLOSIVE LIMIT (LEL): N/A
UPPER EXPLOSIVE LIMIT (UEL): N/A
EXTINGUISHING MEDIA:
Foam, dry chemical, water, fog spray, CO2
SPECIAL FIRE FIGHTING PROCEDURES:
Firemen should wear SCBA protect against inhalation of combustion product.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
Keep work areas free of sources of ignition. Combustible material.

SECTION V HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE
EYES:
May cause eye irritation.
SKIN:
May cause skin irritation.
INGESTION:
May cause respiratory system irritation.
INHALATION:
No information given by manufacturer.
FIRST AID-PROCEDURES
EYE CONTACT:
Flush with water for 15 minutes.
SKIN CONTACT:
Wash thoroughly with soap and water. Do not use solvents to remove from skin.
INGESTION:
Drink a large amount of water, induce vomiting and call a physician.
INHALATION:
No information given by manufacturer.

Store # 3881-2
True Value
State Street Hardware
531 State Street
Watertown, NY 13601

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No information given by manufacturer.

INCOMPATIBILITY (materials to avoid):

May react with oxidants.

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon monoxide, carbon dioxide, sulphur oxide and nitrogen oxide.

SECTION VII SPILL OR LEAK PROCEDURES / WASTE DISPOSAL

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Recover as much liquid as possible, absorb spill with Diatomaceous Earth or other sorbent. Advise authorities if product has entered in or may enter sewers or waterways.

WASTE DISPOSAL:

Disposal must be in accordance with Federal, State, and Local regulations.

SECTION VIII SPECIAL PROTECTION

LOCAL EXHAUST:	ND
SPECIAL EXHAUST:	Use in ventilated areas.
OTHER EXHAUST:	ND
MECHANICAL:	ND
PROTECTIVE GLOVES:	Rubber gloves recommended.
EYE PROTECTION:	Safety goggles recommended.
OTHER PROT. EQUIPMENT:	No information given by manufacturer.
RESPIRATORY PROTECTION:	Not required.
VENTILATION:	No information given by manufacturer.

Store # 8881-9
True Value
State Street Hardware
531 State Street
Watertown, NY 13601

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Coal Tar Driveway Sealer #750

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS IN HANDLING AND STORAGE:
Keep away from open flame.
OTHER PRECAUTIONS:
No information given by manufacturer.
ADDITIONAL INFORMATION TO ADD ABOUT PRODUCT:

Store # 3031-2
True Value
State Street Hardware
531 State Street
Watertown, NY 13601

While this information and recommendation set forth herin are believed to be accurate as of the date herof, Corbus Inc. makes no warrentys of fitness for a particular purpose with respect hereto and disclaims all liabilities from reliance therch.

Bethesda, Maryland 20814-4870
(301) 652-2215 FAX (301) 656-8057

CHAIN OF CUSTODY RECORD

NO. 0398

Project No.:

Project Name: Ft. Drum - Bldg T4002

Samplers: (signature) Steph C. Tan

Sta. No.	Date	Time	Comp	Grab	Station Location	Number of Containers	NIOSH S274M (DDD, DDE, and D						Remarks Volume (Liters)
—	—	—	—	—	FD-81496-PH1-C-001	1	✓	—	—	—	—	—	218.54
—	—	—	—	—	FD-81496-PH1-C-002	1	✓	—	—	—	—	—	167.04
—	—	—	—	—	FD-81496-PH1-C-003	1	✓	—	—	—	—	—	170.52
—	—	—	—	—	FD-81496-PH1-C-004	1	✓	—	—	—	—	—	162.62
—	—	—	—	—	FD-81496-PH1-C-005	1	✓	—	—	—	—	—	173.95

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Steph C. Tan	8/14/96 5:30pm		
Relinquished by: (signature)	Date/Time	Received for Laboratory by: (signature)	Date/Time

Remarks: FAX Results to: 315-773-2873
Phone Results to: 301-652-2215 (ext. 271)
Leave Message

Dames & Moore

Distribution: White Copy (Laboratory Copy)
Yellow Copy (Job File)
Pink Copy (Field Geologist Files)

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Bethesda, Maryland 20814-4870
(301) 652-2215 FAX (301) 656-8057

NO. 0397

CHAIN OF CUSTODY RECORD

Project No.:

Project Name: Ft. Drum - Bldg T4002

Samplers: (signature) Stephen C. Farber

Sta. No.	Date	Time	Comp	Grab	Sample # ~~Station Location~~	Number of Containers	NIOSH 7300 (Lead by ICP)		NIOSH 5001 (2,4-D and 2,4,5-T)				Remarks Volume (Liters)
					FD-81496-PH1 A-001	1	✓						673.46
					FD-81496-PH1-A-002	1	✓						508.08
					FD-81496-PH1-A-003	1	✓						532.44
					FD-81496-PH1-A-004	1	✓						505.16
					FD-81496-PH1-A-005	1	✓						482.80
					FD-81496-PH1-B-001	1			✓				223.00
					FD-81496-PH1-B-002	1			✓				160.08
					FD-81496-PH1-B-003	1			✓				160.08
					FD-81496-PH1-B-004	1			✓				152.24
					FD-81496-PH1-B-005	1			✓				166.58

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Stephen C. Farber	8/14/96 5:30pm		
Relinquished by: (signature)	**Date/Time**	**Received for Laboratory by: (signature)**	**Date/Time**

Remarks:
FAX Results to:
315-773-2873
Phone Results to:
301-652 2215 (ext. 271)
Leave Message

Dames & Moore

Distribution: White Copy (Laboratory Copy)
Yellow Copy (Job File)
Pink Copy (Field Geologist Files)

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SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 8-15-96 Start Time: 8:35 Completion Time: 8:40

Location: West end of site at excavation

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Dataline trenching

Protective Clothing/Equipment: Level D + hearing protection

Chemical Hazards: None

Physical Hazards: Excavation, slips, trips, falls, vehicle traffic

Control Methods: Proper sloping, site hygieme, traffic cones, designated traffic watch

Special Equipment/Techniques:

Other:

Print Name	Sign Name
Tom Sparacino	
Stan Eldridge	Stan Eldridge
Joseph Sparacino	

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 8-15-96 Start Time: 8:05 Completion Time: 8:15

Location: Trailer at T-4002

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Building siding and shingle removal

Protective Clothing/Equipment: Level D, fall protection

Chemical Hazards: Resticides, metals

Physical Hazards: slips, trips, falls

Control Methods: PPE, site hygiene, wet methods

Special Equipment/Techniques:

Other:

Print Name	Sign Name
Gary Ray	[illegible]
Peter Weilersbacher	[illegible]
Mohammed Hussain	[illegible]

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 8-15-96

Inspector: Stephen Lanham

Site Conditions, Weather: Sunny, dry, slight breeze E → W

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation? Hand signals	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required) Pending Delivery		✓	
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?	✓	
Air monitoring log available and current?	✓	
Does monitoring log reflect excursions above action levels?		✓
Has personal sampling been performed?	✓	
Have any exposure symptoms been reported?		✓
HEAT STRESS MONITORING		
Has heat stress monitoring been implemented?		
Are work/rest regimens established/followed?		
Are pulse rate and oral temperature taken?		
Monitoring log available and current?		
Any heat stress incidents?		✓
Are personnel aware of symptoms/first aid?	✓	
Are ambient temperature readings logged?		
Are emergency medical treatment and first aid available to personnel?	✓	
PERSONAL PROTECTIVE EQUIPMENT		
All PPE called for in HSP available?	✓	
Is there sufficient PPE available for the personnel involved in the performance of site operations?	✓	
Is PPE used in accordance with SHP?	✓	
Has PPE been upgraded or downgraded?		✓
Is the PPE in place adequate for the chemical and physical hazards on-site?	✓	
Is there a need to modify the PPE requirements?		✓
All personnel appropriately taped-up?		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site? Dataline trench	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?			✓
All drums and containers inspected for structural integrity before moving?			↓
Personnel warned of the potential hazards associated with the contents of containers prior to movement?			↓
Containers moved using appropriate mechanical devices to avoid injury?			↓
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?			↓
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?			✓
Site safety and health supervisor monitor decontamination procedures?			↓
SSHP decontamination procedures observed?			↓
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?			↓
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?			↓
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?			↓
Is the proper order to PPE removal observed?			↓
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			↓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York

August 15, 1996

Instrument(s): PID, Dust, LEL, O_2

Serial No.(s):

Technician's Signature: Stephen C. Farnham

Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
O_2	Ambient 20.9%	20.9%	G	SCL	ISE HMX 271 SN: 8903092-200
LEL	21.4%	21.4%	"	"	"
Dust	Factory →		G	"	MIE PDM-3 SN: 4127
Dust ~~PID~~	Zero	—	—	"	"
PID	Ambient	0	G	"	HNU PI-101 SN: 101238
"	—	100 ppm → 57 ppm	"	"	"
O_2	Ambient 20.9%	20.9%	"	"	—
LEL	21.4%	21.4%	"	"	—
Dust	Factory →		"	"	—
PID	—	100 ppm → 57 ppm	"	"	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 8-15-96

Field Activities: Removing building siding

Wind Direction: ~~W-E~~ E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Yan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
81596-001	0900	1	Gary Ray BZH; North end	0	PID
"	"	"	"	0.0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81596-002	0902	1	STATION 1	0	PID
"	"	"	"	0.0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81596-003	0904	1	STATION 2	0	PID
"	"	"	"	0.0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81596-004	0906	1	STATION 3	0	PID
"	"	"	"	0.0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 8-15-96

Field Activities: Removing siding

Wind Direction: E →

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature:

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
81596-005	0908	1	STATION 4	1	PID
"	"	"	"	0.0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81596-006	0944	1	STATION 1	0	PID
"	"	"	"	0.01	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81596-007	0946	1	STATION 2	0	PID
"	"	"	"	0.09	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81596-008	0949	1	STATION 3	0	PID
"	"	"	"	0.0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 8-15-96

Field Activities: Removing Siding

Wind Direction: ~~W~~ E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature:

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
81596-009	0951	1	STATION 4	0	PID
"	"	"	"	0.0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81596-010	0952	1	Gary BZH W side	0	PID
"	"	"	"	0.0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81596-011	1017	1	Gary Ray BZH W side	0	PID
~~81596~~ "	"	"	"	0.0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81596-012	1019	1	STATION 4	0.	PID
"	"	"	"	0.0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 8-15-96

Field Activities: Removing siding

Wind Direction: E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature:

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
81596-013	1021	1	STATION 3	0	PID
"	"	"		0.11	Dust
"	"	"		0	LEL
"	"	"		20.9	O_2
81596-014	1023	1	STATION 2	0	PID
"	"	"	"	0.0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81596-015	1025	1	STATION 1	0	PID
"	"	"	"	0.25	Dust
"	"	"	"	0	~~0~~ LEL
"	"	"	"	20.9	O_2
81596-016	1012	1	STATION 1	0	PID
"	"	"	"	0.0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 8-15-96

Field Activities: Removing siding

Wind Direction: E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature:

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
81596-017	1015	1	STATION 2	0	
"	"	"	"	0.0	
"	"	"	"	0	
"	"	"	"	20.9	
81596-018	1017	1	STATION 3	0	
"	"	"	"	0.0	
"	"	"	"	0	
"	"	"	"	20.9	
81596-019	1019	1	STATION 4	0	
"	"	"	"	0.07	
"	"	"	"	0	
"	"	"	"	20.9	
81596-020	1021	1	Gary Ray, B2H inside Send	0	
"	"	"	"	0.03	
"	"	"	"	0	
"	"	"	"	20.9	

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 8-15-96

Field Activities: Remove siding/windows

Wind Direction: E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature:

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
81596-021	1120	1	STATION 1	0	PID
"	"	"	"	0.06	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81596-022	1122	1	STATION 2	0	PID
"	"	"	"	0.0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81596-023	1125	1	STATION 3	0	PID
"	"	"	"	0.0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81596-024	1127	"	STATION 4	0	PID
"	"	"	"	0.11	~~O_2 LEL~~ Dust
"	"	"	"	0	~~O_2~~ LEL
"	"	"	"	20.9	O_2

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 8-15-96

Field Activities: Remove siding/windows

Wind Direction: E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature:

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
81596-025	1130	1	Gary Ray BZH; S end rem. Windows	0	PID
~~81596-026~~	"	"	"	0.0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81596-026	1220	1	STATION 1	0	PID
"	"	"	"	0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81596-027	1223	1	STATION 2	0	PID
"	"	"	"	0.11	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81596-028	1225	1	STATION 3	0	PID
"	"	"	"	0.0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 8-15-96

Field Activities: Remove siding/windows

Wind Direction: W → E (opposite from this AM)

Instrument, Model & Serial No.:

Estimated Wind Speed: 5 – 10 mph

Technician Signature:

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
81596-029	1227	1	STATION 4	0	PID
"	"	"	"	0.03	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81596-030	1315	1	STATION 1	0	PID
"	"	"	"	0.0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81596-031	1318	1	STATION 2	0	PID
" ~~81596-032~~	"	"	"	0.0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81596-032	1320	1	STATION #4	0	PID
"	"	"	"	0.0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 8-15-96

Field Activities: Remove siding

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 5 - 10 mph

Technician Signature:

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
81596-023	1224	1	STATION 3	0	PID
"	"	"	"	0	Dust
"	"	"	"	0	LEL
"	"	"	"	20.9	O_2
81596-034					PID
"					~~LEL~~ Dust
"					~~O_2~~ LEL
"					~~PID~~ O_2
81596-035					~~Dust~~ PID
"					~~LEL~~ Dust
"					~~O_2~~ LEL
"					~~R~~ O_2
81596-036					PID
"					Dust
"					LEL
"					O_2

Site Work Halted

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Limited Site Work
Not Representative

INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 8-15-96

Phase: Phase 1 - Building Demolition

Activity: Siding removal

Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.) Sunny, slight breeze E → W

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-81596-PH1-A-001	Personal air sample: Gary Ray	5408	820	1310		1.53	1.52	1.52		
B-001	"	3813	820	1310		0.51	0.49	0.49		
C-001	"	3813	820	1310		0.53	0.53	0.53		
A-002	STATION 1	5429	845	1311		1.57	1.56	1.56		
B-002	"	3673	845	1311		0.46	0.46	0.46		
C-002	"	3673	845	1311		0.48	0.48	0.48		
A-003	STATION 2	5412	847	1312		1.55	1.55	1.55		
B-003	"	3812	847	1312		0.49	0.47	0.47		
C-003	"	3812	847	1312		0.52	0.52	0.52		
A-004	STATION 3	5506	848	1313		1.48	1.47	1.47		
B-004	"	3807	848	1313		0.47	0.46	0.46		
C-004	"	3807	848	1313		0.45	0.45	0.45		

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 8-15-96

Phase: Phase 1 - Building Demolition

Activity: Siding removal

Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.) Sunny, slight breeze E → W

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-81596-PH1-A-005	STATION 4	5432	850	1315		1.47	1.47	1.47		
B-005	"	3811	850	1315		0.50	0.50	0.50		
C-005	"	3811	850	1315		0.47	0.47	0.47		

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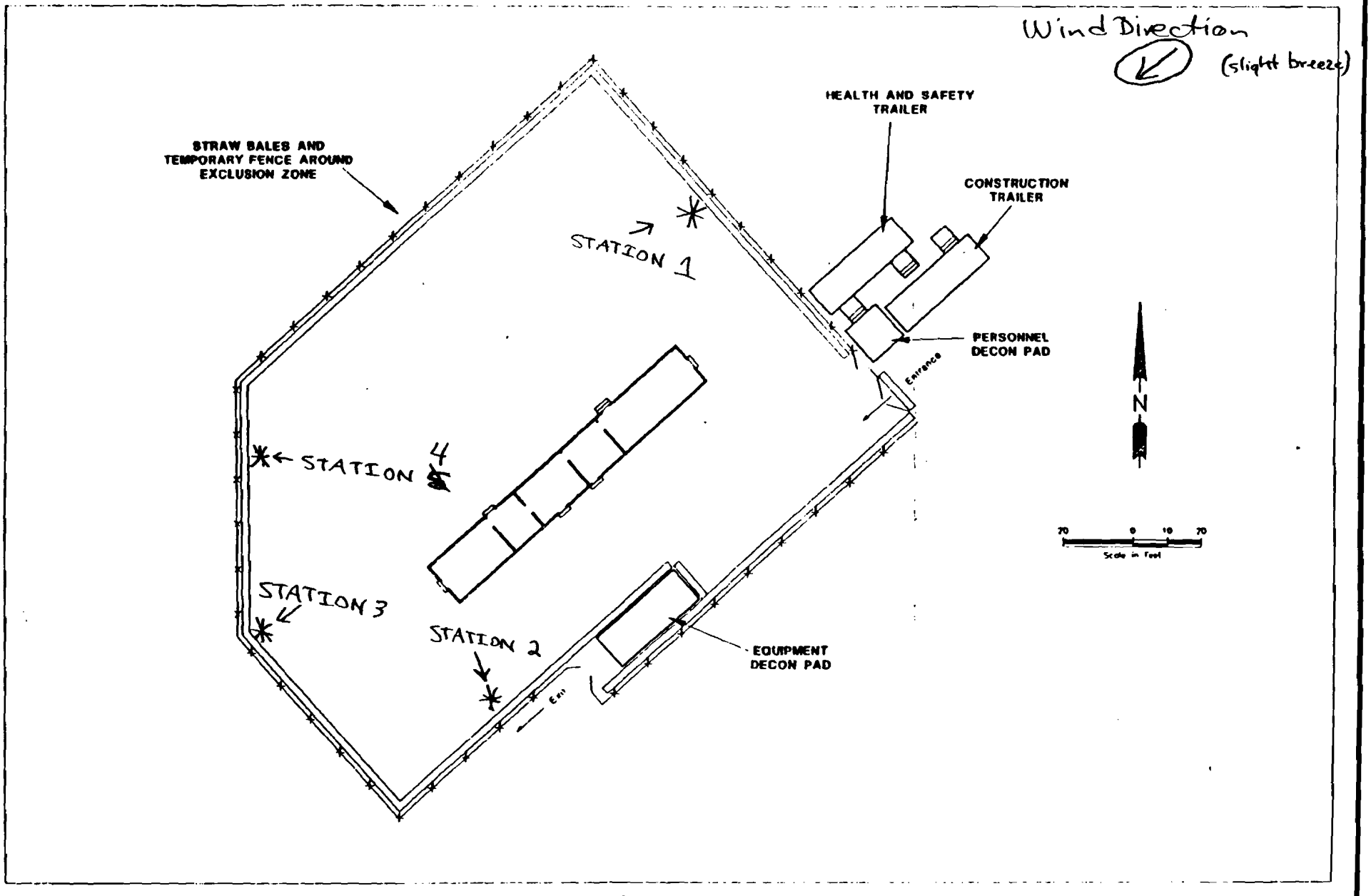

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

INC. Model PDL-10 SN 2583 V5.2 4/89

RENT DATE: 8/15/96
RENT TIME: 14:33:00

IBRATION
.015 V = 0.000 mg/m3
.204 V = 1.390 mg/m3

ER ALARM: - 0.110 mg/m3
ER ALARM: - 0.110 mg/m3

TS: mg/m3

UT READS:- 0.112 mg/m3
T STARTING DATE: 8/15/96
T STARTING TIME: 8:58:32
APSED TIME: 0 DAYS 1:41:26
RALL AVG: 0.000 mg/m3
RALL MIN: - 0.391 mg/m3
OCCURRED 8/15/96 @ 9:07:44
RALL MAX: 0.126 mg/m3
OCCURRED 8/15/96 @ 13:21:18
L: 0.006 mg/m3
L OCCURRED 8/15/96 @ 9:08:12

ME HISTORY
IOD LENGTH: 0:01:00
F PERIODS COMBINED: 1

MIN	AVG	MAX	HIO
E: 8/15/96	TIME:	8:58:32	
0.043	- 0.001	0.007	
0.227	- 0.059	- 0.003	
0.022	- 0.006	0.006	
0.162	- 0.028	0.006	
0.302	- 0.103	- 0.006	
0.175	- 0.053	0.003	
0.019	- 0.001	0.003	
0.065	- 0.012	0.007	
0.382	- 0.101	0.021	
0.391	- 0.115	0.001	
0.001	0.006	0.009	
0.006	0.009	0.013	
0.004	0.009	0.013	
0.004	0.007	0.009	
0.003	0.007	0.009	
0.000	0.004	0.007	
0.001	0.003	0.006	
0.000	0.003	0.004	
0.001	0.003	0.004	
0.001	0.004	0.006	
ATE: 8/15/96	TIME:	9:18:32	
0.001	0.004	0.006	
0.001	0.004	0.006	
0.001	0.004	0.007	
0.001	0.003	0.006	
0.000	0.004	0.010	
0.001	0.006	0.012	
0.000	0.003	0.004	
0.001	0.003	0.004	
0.001	0.007	0.012	
0.001	0.006	0.015	
0.001	0.004	0.007	
0.000	0.003	0.007	
0.000	0.003	0.004	
0.000	0.003	0.004	
0.001	0.004	0.007	
0.001	0.006	0.012	
0.000	0.001	0.003	
0.000	0.004	0.013	
0.000	0.003	0.009	
0.000	0.003	0.004	
E: 8/15/96	TIME:	9:38:32	
0.001	0.007	0.016	
0.006	0.012	0.025	
0.006	0.009	0.012	
0.004	0.009	0.019	
- 0.003	0.007	0.019	
0.000	0.007	0.009	

```
 034      0.003      0.013                  |    -  *+
 .010     0.001      0.004                  |      -*
 .000     0.004      0.009                  |       *+
 .001     0.004      0.004                  |       *
 .001     0.004      0.007                  |       *+
 .000     0.006      0.007                  |       *+
 .001     0.013      0.028                  |       -*+
 .012     0.018      0.026                  |        *+
 .018     0.007      0.015                  |      - *

:  8/15/96  TIME: 10:14:06
).001     0.009      0.012                  |       -*
).040     0.006      0.013                  |    -  *+
).021     0.004      0.022                  |     - * +
).004     0.009      0.016                  |       -*
0.000     0.007      0.009                  |       -*
0.001     0.012      0.024                  |       -*+
0.004     0.013      0.026                  |       -*+
0.000     0.004      0.012                  |       *+
0.001     0.003      0.006                  |       *
0.000     0.006      0.012                  |       *+
0.003     0.006      0.006                  |       *

E:  8/15/96  TIME: 11:09:19
0.110    - 0.015      0.009                  -      * +
0.004     0.015      0.037                  |       -* +
0.004     0.009      0.019                  |       -*
0.004     0.007      0.009                  |       -*
0.004     0.007      0.009                  |       -*
0.001     0.006      0.016                  |       *+
0.004     0.012      0.021                  |       -*+
0.090    - 0.009      0.009                  |-     * +
0.075    - 0.021      0.004                  | -   * +
0.003     0.012      0.028                  |       -*+
0.004     0.007      0.009                  |       -*
0.004     0.010      0.019                  |       -*
0.004     0.006      0.007                  |       *+
0.004     0.007      0.010                  |       -*

TE:  8/15/96  TIME: 12:18:00
0.010     0.003      0.007                  |      -*+
0.007     0.004      0.006                  |      -*
0.001     0.001      0.004                  |       *
0.001     0.004      0.009                  |       *+
0.003     0.007      0.015                  |       -*
0.001     0.012      0.041                  |       -* +
0.057    - 0.009      0.015                  |   -  * +
0.000     0.006      0.012                  |       *+
0.003     0.004      0.007                  |       *+
0.032     0.016      0.031                  |     -  *+
0.009     0.009      0.019                  |      - *

TE:  8/15/96  TIME: 13:13:50
0.019     0.000      0.009                  |      -*+
0.001     0.004      0.007                  |       *+
0.004     0.004      0.007                  |       *+
0.031     0.004      0.047                  |     - *   +
0.007     0.007      0.038                  |      - * +
0.006     0.012      0.035                  |       -* +
0.012     0.013      0.029                  |      - *+
0.100     0.013      0.126                  -        *       +
0.021     0.010      0.087                  |     -  *     +
0.062     0.007      0.100                  |  -     *      +
0.074     0.004      0.069                  | -     *    +
```

DIST
LES LOGGED: 6086

g/m3	SAMPLES		%
.404	106	**	001.74
.110	5980	**********	098.25

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 8-19-96 Start Time: 0815 Completion Time: 0725

Location: Adjacent to Bldg T-4002

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Dataline Trenching

Protective Clothing/Equipment: Level D + hearing protection

Chemical Hazards: None

Physical Hazards: Slips, trips, falls, equipment, excavation

Control Methods: PPE, proper sloping

Special Equipment/Techniques:

Other:

Print Name	Sign Name
Tom Spandaino	[illegible]
Stan Eldridge	[illegible]
Joseph Spandaino	[illegible]

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 8-19-96

Inspector: Stephen Lanham

Site Conditions, Weather: Sunny, dry, slight breeze W→E

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?			
Site work zones clearly defined on-site?			
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?			
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?			
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required) Pending Delivery		✓	
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site? Dataline trench	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?			✓
All drums and containers inspected for structural integrity before moving?			↓
Personnel warned of the potential hazards associated with the contents of containers prior to movement?			↓
Containers moved using appropriate mechanical devices to avoid injury?			↓
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?			✓
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?			✓
Site safety and health supervisor monitor decontamination procedures?			↓
SSHP decontamination procedures observed?			↓
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?			↓
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?			↓
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?			↓
Is the proper order to PPE removal observed?			↓
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are unauthorized personnel denied access to decontamination areas, decontamination equipment and change rooms?	✓	
Are washing facilities away from hazardous substances and adequate to permit personnel to remove hazardous substances from their bodies?	✓	
Are decontamination solution(s), equipment and clothing properly marked and left on-site or disposed of?		
DRILLING		
Have proper underground utility clearances been obtained?		
Have overhead utility clearances been considered?		
Flammable liquids in approved containers?		
Emergency rig shutoff within reach of the operator?		
Appropriate fire shutoff within reach of the operator?		
Drilling platform properly stabilized?		
Ropes and chains in good condition?		
EXCAVATION		
Have proper utility clearances been obtained?	✓	
Has the On-site Competent Person been identified and is present?		
Are daily trench inspections being conducted (or more frequently, as conditions warrant)?		
Support systems (piling, cribbing, shoring) appropriate for the job?		
Is there suitable access by stairs, ladders, ramps, hoists?		
Appropriate guardrails, fences, barricades and warning lights?	✓	
MISCELLANEOUS SAFETY PROCEDURES		
If site work is anticipated in dimly lighted areas, is additional lighting provided?		
Is potable water labeled as safe for drinking?	✓	

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		✓
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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_____

_____

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 8-20-96 Start Time: 0740 Completion Time:

Location: Adjacent to Bldg T-4002

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Dataline trenching

Protective Clothing/Equipment: Level D + hearing protection

Chemical Hazards: None

Physical Hazards: Slips, trips, falls, equipment, excavation

Control Methods: PPE, proper sloping

Special Equipment/Techniques:

Other:

Print Name	Sign Name
Stan Eldridge	Stan Eldridge
Joseph Sparacino	Joseph Sparacino
Tom Sparacino	Tom Sparacino

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 8-20-96

Inspector: Stephen Lanham

Site Conditions, Weather: Sunny, dry, slight breeze

Dataline trenching

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	↓		
Site work zones clearly defined on-site?	↓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	↓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	↓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required) Pending Delivery ←		✓	
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site? ~~Hea~~ Dataline trench	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?			✓
All drums and containers inspected for structural integrity before moving?			↓
Personnel warned of the potential hazards associated with the contents of containers prior to movement?			↓
Containers moved using appropriate mechanical devices to avoid injury?			↓
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?			✓
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?			✓
Site safety and health supervisor monitor decontamination procedures?			↓
SSHP decontamination procedures observed?			↓
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?			↓
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?			↓
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?			↓
Is the proper order to PPE removal observed?			↓
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are unauthorized personnel denied access to decontamination areas, decontamination equipment and change rooms?	✓	
Are washing facilities away from hazardous substances and adequate to permit personnel to remove hazardous substances from their bodies?	✓	
Are decontamination solution(s), equipment and clothing properly marked and left on-site or disposed of?		
DRILLING		
Have proper underground utility clearances been obtained?		
Have overhead utility clearances been considered?		
Flammable liquids in approved containers?		
Emergency rig shutoff within reach of the operator?		
Appropriate fire shutoff within reach of the operator?		
Drilling platform properly stabilized?		
Ropes and chains in good condition?		
EXCAVATION		
Have proper utility clearances been obtained?	✓	
Has the On-site Competent Person been identified and is present?		
Are daily trench inspections being conducted (or more frequently, as conditions warrant)?		
Support systems (piling, cribbing, shoring) appropriate for the job?		
Is there suitable access by stairs, ladders, ramps, hoists?		
Appropriate guardrails, fences, barricades and warning lights?	✓	
MISCELLANEOUS SAFETY PROCEDURES		
If site work is anticipated in dimly lighted areas, is additional lighting provided?		
Is potable water labeled as safe for drinking?	✓	

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 8-21-96 Start Time: Completion Time:

Location: Adjacent to Bldg T-4002

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Dataline trench backfilling

Protective Clothing/Equipment: Level D + hearing protection

Chemical Hazards: None

Physical Hazards: Slips, trips, falls, equipment

Control Methods: site hygiene, stand clear of operating equipment

Special Equipment/Techniques:

Other:

Print Name	Sign Name
Tom Sparacino	[signature]
Stan Eldridge	[signature]
Joseph Sparacino	[signature]

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 8-21-96

Inspector: Stephen Lanham

Site Conditions, Weather: Sunny, dry, slight breeze W→E

Dataline trench backfill

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required) Pending Delivery ←		✓	
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?			✓
All drums and containers inspected for structural integrity before moving?			↓
Personnel warned of the potential hazards associated with the contents of containers prior to movement?			↓
Containers moved using appropriate mechanical devices to avoid injury?			↓
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?			✓
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?			✓
Site safety and health supervisor monitor decontamination procedures?			↓
SSHP decontamination procedures observed?			↓
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?			↓
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?			↓
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?			↓
Is the proper order to PPE removal observed?			↓
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are unauthorized personnel denied access to decontamination areas, decontamination equipment and change rooms?		
Are washing facilities away from hazardous substances and adequate to permit personnel to remove hazardous substances from their bodies?		
Are decontamination solution(s), equipment and clothing properly marked and left on-site or disposed of?		
DRILLING		
Have proper underground utility clearances been obtained?		
Have overhead utility clearances been considered?		
Flammable liquids in approved containers?		
Emergency rig shutoff within reach of the operator?		
Appropriate fire shutoff within reach of the operator?		
Drilling platform properly stabilized?		
Ropes and chains in good condition?		
EXCAVATION		
Have proper utility clearances been obtained?	✓	
Has the On-site Competent Person been identified and is present?		
Are daily trench inspections being conducted (or more frequently, as conditions warrant)?		
Support systems (piling, cribbing, shoring) appropriate for the job? Sloping		
Is there suitable access by stairs, ladders, ramps, hoists?		
Appropriate guardrails, fences, barricades and warning lights?	✓	
MISCELLANEOUS SAFETY PROCEDURES		
If site work is anticipated in dimly lighted areas, is additional lighting provided?		✓
Is potable water labeled as safe for drinking?	✓	

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 8-22-96 Start Time: Completion Time:

Location: Adjacent to Bldg T-4002

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Site grading around Dataline; Setting cover on Dataline catch basin.

Protective Clothing/Equipment: Level D

Chemical Hazards: None

Physical Hazards: Slips, trips, falls

Control Methods: Site hygiene

Special Equipment/Techniques:

Other:

Print Name	Sign Name
Stan Eldridge	[signature]
Tom Paracino	[signature]
Joseph Sparacino	[signature]

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 8-22-96

Inspector: Stephen Lanham

Site Conditions, Weather:

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	↓		
Site work zones clearly defined on-site?	↓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	↓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	↓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required) Pending Delivery ←		✓	
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?			✓
All drums and containers inspected for structural integrity before moving?			
Personnel warned of the potential hazards associated with the contents of containers prior to movement?			
Containers moved using appropriate mechanical devices to avoid injury?			
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?			✓
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?			✓
Site safety and health supervisor monitor decontamination procedures?			
SSHP decontamination procedures observed?			
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?			
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?			
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?			
Is the proper order to PPE removal observed?			
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			✓

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Are unauthorized personnel denied access to decontamination areas, decontamination equipment and change rooms?		
Are washing facilities away from hazardous substances and adequate to permit personnel to remove hazardous substances from their bodies?		
Are decontamination solution(s), equipment and clothing properly marked and left on-site or disposed of?		
DRILLING		
Have proper underground utility clearances been obtained?		
Have overhead utility clearances been considered?		
Flammable liquids in approved containers?		
Emergency rig shutoff within reach of the operator?		
Appropriate fire shutoff within reach of the operator?		
Drilling platform properly stabilized?		
Ropes and chains in good condition?		
EXCAVATION		
Have proper utility clearances been obtained?		
Has the On-site Competent Person been identified and is present?		
Are daily trench inspections being conducted (or more frequently, as conditions warrant)?		
Support systems (piling, cribbing, shoring) appropriate for the job?		
Is there suitable access by stairs, ladders, ramps, hoists?		
Appropriate guardrails, fences, barricades and warning lights?		
MISCELLANEOUS SAFETY PROCEDURES		
If site work is anticipated in dimly lighted areas, is additional lighting provided?		X
Is potable water labeled as safe for drinking?	✓	

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 9 - 4 - 96 Start Time: 0700 Completion Time: 0730

Location: Office Trailer at site

Meeting Conducted by: Ken Fischer

SAFETY ISSUES

Tasks: Continuing building demolition

Protective Clothing/Equipment: Level D

Chemical Hazards: Pesticides (soil)

Physical Hazards: Slips, trips, falls, flying objects

Control Methods: site hygiene, wet methods during demolition.

Special Equipment/Techniques:

Other:

Print Name	Sign Name
GARY RAY	[illegible]
RICK BAILEY	[illegible]
M. HUSAIN	[illegible]
Stephen Lanham	Steph C. Lan

SAMPLES HELD 9/4/96
work suspended due to absence of containers

INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 9-4-96

Phase: Phase I - Building Demolition

Activity: Building siding removal

Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Cloudy, 78°F, still wind W-E

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-4496 PH1-A-001	Personal air sampler Rick Bailley	5412	0855	~~1.4~~ 1155	180	1.46	1.46	1.46	262.80	
-B-001	"	5	"	1155	"	0.43	0.43	0.43	77.4	
-C-001	"	"	"	"	"	0.46	0.45	0.45	81.0	
-A-002	STATION 1	5432	0950	1445	~~280~~ 295	1.46	1.45	1.45	427.75	
-B-002	"	3807	"	"	295	0.46	0.46	0.46	135.70	
-C-002	"	"	"	"	295	0.44	0.44	0.44	129.80	
-A-003	STATION 2	5506	0951	1447	296	1.43	1.43	1.43	423.28	
-B-003	"	3813	"	"	296	0.54	0.53	0.53	156.88	
-C-003	"	"	"	"	296	0.53	0.53	0.53	156.88	
-A-004	STATION 3	~~5366~~ 5438	0952	1440	292	1.51	1.50	1.50	438.0	
-B-004	"	3812	"	1440	"	0.47	0.47	0.47	137.24	
-C-004	"	"	"	"	"	0.49	0.48	0.48	140.16	

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 9-4-96
Phase: Phase I - Building Demolition
Activity: Building siding removal
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.) Cloudy, 78°F, still wind W→E

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD			FLOW RATE (L/MIN)			TOTAL VOLUME (L)	COMMENTS
			START TIME	STOP TIME	TOTAL MIN.	START	STOP	RECORDED		
FD-9496-PH1-A-004D	STATION 3 (COE Duplicate)	5366	0952	1440	292	1.52	1.51	1.51	440.92	
-B-004D	"	3673	"	"	"	0.45	0.44	0.44	128.48	
-C-004D	"	"	"	"	"	0.47	0.47	0.47	137.24	
-A-005	STATION 4	5408	0955	1435	280	1.45	1.45	1.45	406.00	
-B-005	"	3811	"	"	"	0.50	0.50	0.50	140.00	
-C-005	"	"	"	"	"	0.47	0.47	0.47	131.60	

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 9-4-96

Inspector: Stephen Lanham

Site Conditions, Weather: Sunny, 80°F, Dry, ~~Still~~ Slight breeze W→E

Building demolition - Roof removal

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	X		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)		✓	
Have accident reports been properly completed in a timely fashion?	✓		
Is OSHA 200 log posted (as applicable) and does it match accident reports?	✓		
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site? Saw use	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?			✓
All drums and containers inspected for structural integrity before moving?			↓
Personnel warned of the potential hazards associated with the contents of containers prior to movement?			↓
Containers moved using appropriate mechanical devices to avoid injury?			↓
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?			✓
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	X		✓
Site safety and health supervisor monitor decontamination procedures?			↓
SSHP decontamination procedures observed?			↓
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?			↓
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?			↓
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?			↓
Is the proper order to PPE removal observed?			↓
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are unauthorized personnel denied access to decontamination areas, decontamination equipment and change rooms?	✓		
Are washing facilities away from hazardous substances and adequate to permit personnel to remove hazardous substances from their bodies?			
Are decontamination solution(s), equipment and clothing properly marked and left on-site or disposed of?			
DRILLING			
Have proper underground utility clearances been obtained?			
Have overhead utility clearances been considered?			
Flammable liquids in approved containers?			
Emergency rig shutoff within reach of the operator?			
Appropriate fire shutoff within reach of the operator?			
Drilling platform properly stabilized?			✓
Ropes and chains in good condition?			✓
EXCAVATION			
Have proper utility clearances been obtained?			✓
Has the On-site Competent Person been identified and is present?			
Are daily trench inspections being conducted (or more frequently, as conditions warrant)?			
Support systems (piling, cribbing, shoring) appropriate for the job?			
Is there suitable access by stairs, ladders, ramps, hoists?			✓
Appropriate guardrails, fences, barricades and warning lights?			✓
MISCELLANEOUS SAFETY PROCEDURES			
If site work is anticipated in dimly lighted areas, is additional lighting provided?			✓
Is potable water labeled as safe for drinking?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 9-5-96 Start Time: 7:00 Completion Time: 7:15

Location: Building T-4002 Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Building demolition; Roof removal; fiberous board removal

Protective Clothing/Equipment: Level D + fall protection

Chemical Hazards: None (pest.)

Physical Hazards: Slips, trips, falls, tools

Control Methods: Site hygiene, careful tool operation, wet demolition methods

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
Gary Ray	[signature]
Rick Bailey	[signature]
M. Husain	[signature]
P. Weilersbacher	[signature]

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 9-5-96

Inspector: Stephen Lanham

Site Conditions, Weather: Sunny, dry, 80°F, Slight breeze W→E

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)		✓	
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site? Saw	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?			✓
All drums and containers inspected for structural integrity before moving?			
Personnel warned of the potential hazards associated with the contents of containers prior to movement?			
Containers moved using appropriate mechanical devices to avoid injury?			
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?			✓ ✓
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?			✓
Site safety and health supervisor monitor decontamination procedures?			
SSHP decontamination procedures observed?			
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?			
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?			
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?			
Is the proper order to PPE removal observed?			
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			✓ ✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are unauthorized personnel denied access to decontamination areas, decontamination equipment and change rooms?	✓	
Are washing facilities away from hazardous substances and adequate to permit personnel to remove hazardous substances from their bodies?	✓	
Are decontamination solution(s), equipment and clothing properly marked and left on-site or disposed of?	✓	
DRILLING		
Have proper underground utility clearances been obtained?		
Have overhead utility clearances been considered?		
Flammable liquids in approved containers?		
Emergency rig shutoff within reach of the operator?		
Appropriate fire shutoff within reach of the operator?		
Drilling platform properly stabilized?		
Ropes and chains in good condition?		
EXCAVATION		
Have proper utility clearances been obtained?		
Has the On-site Competent Person been identified and is present?		
Are daily trench inspections being conducted (or more frequently, as conditions warrant)?		
Support systems (piling, cribbing, shoring) appropriate for the job?		
Is there suitable access by stairs, ladders, ramps, hoists?		
Appropriate guardrails, fences, barricades and warning lights?		
MISCELLANEOUS SAFETY PROCEDURES		
If site work is anticipated in dimly lighted areas, is additional lighting provided?		N/A
Is potable water labeled as safe for drinking?	✓	

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York

September 5, 1996

Instrument(s): PID Dust

Serial No.(s):

Technician's Signature: Stephen C. Ge

Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
Dust	Factory →		G	SCL	MIE PDM 3 SN: 4017
"	Zero	-	-	-	-
PID	Ambient	0	G	SCL	HNU PI-101 SN: 101238
"	-	100 ppm → 57 ppm	-	"	"
Dust	Factory →		G	SCL	-
"	Zero	-	-	"	-
PID	-	100 ppm → 57	G	"	-

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-5-96

Field Activities: Removing roof material

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Taylor

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
9596-001	0820	1	Rick Bailey B2H	0	PID
"	"	"	"	0.02	Dust
~~"~~	~~"~~	~~"~~	~~"~~		
-002	0830	1	STATION 1	0	PID
"	"	"	"	0.08	Dust
-003	0842	1	STATION 2	0	PID
"	"	"	"	0.06	Dust
-004	0844	1	STATION 3	0.0	PID
"	"	"	"	0.09	Dust
-005	0846	1	STATION 4	0.0	PID
"	"	"	"	0.06	Dust
-006	0915	1	Rick Bailey B2H	0	PID
"	"	"	"	0.07	Dust
-007	0920	1	STATION 1	0	PID
"	"	"	"	0.09	Dust
-008	0923	1	STATION 2	0	PID
"	"	"	"	0.09	Dust

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-5-96

Field Activities: Roof removal

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. [illegible]

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
9596-009	0925	1	STATION 3	0	PID
"	"	"	"	0.07	Dust
-010	0927	1	STATION 4	0	PID
"	"	"	"	0.09	Dust
-011	1006	1	Rick Bailey B2H	0	PID
"	"	"	"	0.07	Dust
-012	1008	1	STATION 1	0	PID
"	"	"	"	0.07	Dust
-013	1010	1	STATION 2	0	PID
"	"	"	"	0.09	Dust
-014	1012	1	STATION 3	0	PID
"	"	"	"	0.09	Dust
-015	1014	1	STATION 4	0	PID
"	"	"	"	0.09	Dust
-016	1144	1	Rick Bailey B2H	0	PID
"	"	"	"	0.06	Dust

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-5-96

Field Activities: Roof removal

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Steph C. Yar

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
9596-017	1146	1	STATION 1	0	PID
"	"	"	"	0.06	Dust
-018	1148	1	STATION 2	0	PID
"	"	"	"	0.09	Dust
-019	1150	1	STATION 3	0	PID
"	"	"	"	0.09	Dust
-020	1152	1	STATION 4	0	PID
"	"	"	"	0.07	Dust
-021	1328	1	Rick Bailey B2H	0	PID
"	"	"	"	0.06	Dust
-022	1330	1	STATION 1	0	PID
"	"	"	"	0.02	Dust
-023	1332	1	STATION 2	0	PID
"	"	"	"	0.02	Dust
-024	1334	1	STATION 3	0	PID
"	"	"	"	0.02	Dust

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-5-96

Field Activities: Roof removal

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Breeze

Technician Signature: Stephen C. Jan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
9596-025	1336	1	STATION 4	0	PID
"	"	"	"	0.02	Dust
-026	1550	1	Rick Bailey BZH	0	PID
"	~~1550~~	"	"	0.06	Dust
-027	1555	1	STATION 1	0	PID
"	"	"	"	0.08	Dust
-028	1600	1	STATION 2	0	PID
"	"	"	"	0.02	Dust
-029	1602	1	STATION 3	0	PID
"	"	"	"	0.06	Dust
-030	1605	1	STATION 4	0	PID
"	"	"	"	0.06	Dust

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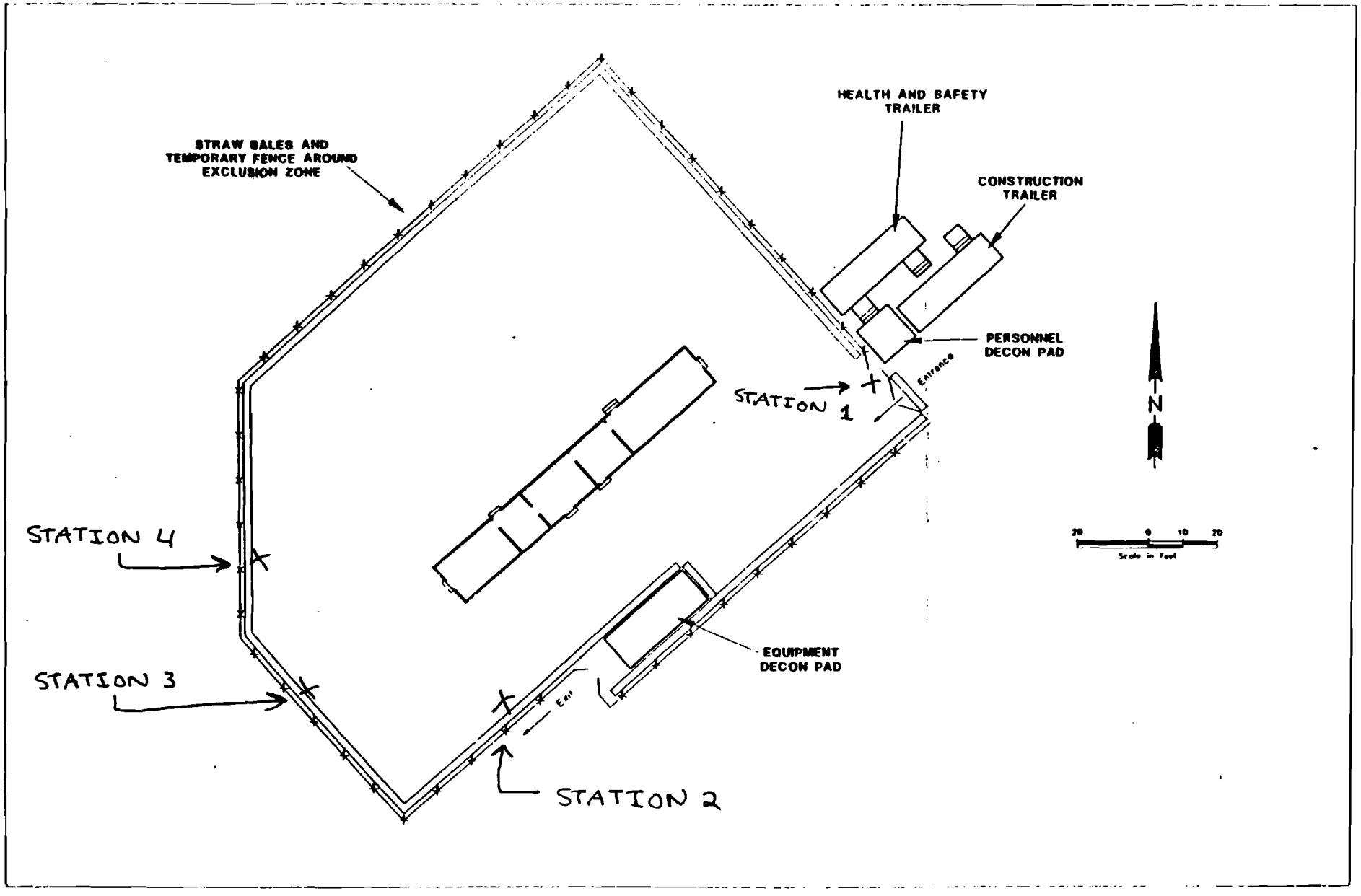

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 9-5-96

Phase: Phase I - Building demolition

Activity: Roof removal

Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Mostly sunny, wind still, W→E, dry.

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FO-9596-PH1-A-001	Personal air sample: Rick Bailey	5408	0745	1510	445	1.45	1.44	1.44	640.80	
B-001	"	5	"	"	"	0.43	0.43	0.43	191.35	
C-001	"	"	"	"	"	0.43	0.43	0.43	191.35	
A-002	STATION 2	5412	0732	1523	471	1.46	1.45	1.45	682.95 ~~472.45~~	
B-002	"	3812	"	"	"	0.47	0.46	0.46	216.66	
C-002	"	"	"	"	"	0.48	0.48	0.48	226.08	
A-003	STATION 1	5432	0730	1526	476	1.45	1.39	1.39	661.64	
B-003	"	3813	"	"	"	0.53	0.51	0.51	242.76	
C-003	"	"	"	"	"	0.53	0.51	0.51	242.76	
A-004	STATION 3	5366	0734	1535 ~~1526~~	481	1.51	1.35 ~~1.39~~	1.35	649.35	
B-004	"	3673	"	1535 ~~1526~~	"	0.44	0.43	0.43	206.83	
C-004	"	"	"	1535	"	0.46	0.46	0.46	221.26	

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 9-5-96

Phase: Phase I - Building demolition

Activity: Roof removal

Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Mostly sunny, wind still. W→E. dry

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD			FLOW RATE (L/MIN)			TOTAL VOLUME (L)	COMMENTS
			START TIME	STOP TIME	TOTAL MIN.	START	STOP	RECORDED		
FD-9596-PH1-A-004D	STATION 3	5506	0734	1536	482	1.43	1.43	1.43	689.26	
B-004D	"	3811	"	"	"	0.50	0.49	0.49	236.18	
C-004D	"	"	"	"	"	0.47	0.46	0.46	221.72	
A-005	STATION 4	5438	0736	1520	464	1.51	1.46	1.46	677.44	
B-005	"	3807	"	"	"	0.46	0.44	0.44	204.16	
C-005	"	"	"	"	"	0.43	0.42	0.42	194.88	

7101 Wisconsin Avenue, Suite 700
Bethesda, Maryland 20814-4870
(301) 652-2215 FAX (301) 656-8059

CHAIN-OF-CUSTODY RECORD

JOB NO: 0394

PROJECT NAME-CLIENT: Ft. Drum - Bldg T4002

SAMPLER (Signature): Stephen C. [illegible]

~~SAMPLE NO.~~	~~Date~~	~~Time~~	Comp.	Grab	Matrix	SAMPLE ~~Station~~ Number ~~and Location~~	Total No. of Containers	NIOSH 7300 (Lead by ICP)	NIOSH 5001 (2,4 D and 2,4,5-T)	NIOSH 5274M (DDD, DDE and DDT)								REMARKS Volume (Liters)
						FD-7576-PH1-A-001	1	✓										640.80
						FD-7576-PH1-A-002	1	✓										472.[illegible]2.75
						FD-7576-PH1-A-003	1	✓										661.64
						FD-7576-PH1-A-004	1	✓										647.35
						FD-7576-PH1-A-005	1	✓										677.44
						FD-7576-PH1-B-001	1		✓									111.35
						FD-7576-PH1-B-002	1		✓									216.66
						FD-7576-PH1-B-003	1		✓									242.76
						FD-7576-PH1-B-004	1		✓									206.83
						FD-7576-PH1-B-005	1		✓									204.16
						FD-7576-PH1-C-001	1			✓								111.35
						FD-7576-PH1-C-002	1			✓								226.08
						FD-7576-PH1-C-003	1			✓								242.76
						FD-7576-PH1-C-004	1			✓								221.26
						FD-7576-PH1-C-005	1			✓								114.88

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Stephen C. [illegible]	9-5-96 5:00pm				

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Report Results To:
				Steve Lanham FAX: 410, 773-2873 Phone: 301-652-2215 (ext. 271) - Leave message -

DISTRIBUTION:
White: Accompanies Shipment
Yellow: Project Files
Pink: Field Log
Gold: QA Files

Dames & Moore

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SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 9-6-96 Start Time: Completion Time:

Location: Building T-4002 Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Roof removal

Protective Clothing/Equipment: Level D+ fall protection

Chemical Hazards: None

Physical Hazards: Slips, trips, falls, tools

Control Methods: Site hygiene, careful tool operation, wet demolition methods

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
Rick Bailey	
Gary Ray	
M. Husain	
P. Weilersbacher	

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 9-6-96

Inspector: Stephen Lanham

Site Conditions, Weather: Sunny, dry, slight breeze

Roof removal

	YES	NO	NA
ADMINISTRATIVE			
Site Control	✓		
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)		✓	
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 9-6-96

Inspector: Stephen Lanham

Site Conditions, Weather: Sunny, dry, slight breeze

Roof removal

	YES	NO	NA
ADMINISTRATIVE			
Site Control	✓		
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)		✓	
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?			✓
All drums and containers inspected for structural integrity before moving?			
Personnel warned of the potential hazards associated with the contents of containers prior to movement?			
Containers moved using appropriate mechanical devices to avoid injury?			
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?			✓
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		✓
Site safety and health supervisor monitor decontamination procedures?			
SSHP decontamination procedures observed?			
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?			
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?			
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?			
Is the proper order to PPE removal observed?			
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			✓

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Are unauthorized personnel denied access to decontamination areas, decontamination equipment and change rooms?	✓	
Are washing facilities away from hazardous substances and adequate to permit personnel to remove hazardous substances from their bodies?	✓	
Are decontamination solution(s), equipment and clothing properly marked and left on-site or disposed of?	✓	
DRILLING		
Have proper underground utility clearances been obtained?		
Have overhead utility clearances been considered?		
Flammable liquids in approved containers?		
Emergency rig shutoff within reach of the operator?		
Appropriate fire shutoff within reach of the operator?		
Drilling platform properly stabilized?		
Ropes and chains in good condition?		
EXCAVATION		
Have proper utility clearances been obtained?		
Has the On-site Competent Person been identified and is present?		
Are daily trench inspections being conducted (or more frequently, as conditions warrant)?		
Support systems (piling, cribbing, shoring) appropriate for the job?		
Is there suitable access by stairs, ladders, ramps, hoists?		
Appropriate guardrails, fences, barricades and warning lights?		
MISCELLANEOUS SAFETY PROCEDURES		
If site work is anticipated in dimly lighted areas, is additional lighting provided?		N/A
Is potable water labeled as safe for drinking?	✓	

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		✓
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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INSTRUMENT CALIBRATION CHECK SHEET
Building T4002
Fort Drum, New York

Instrument(s): PID, Dust

Serial No.(s):

Technician's Signature: Stephen C. Farnham

Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
PID	Ambient	0	G	SCL	HNU PI-101 SN: 101238
"	—	100 ppm → 57 ppm	"	"	"
Dust	Factory →		G	SCL	MIE PDM-3 SN: 4017
"	Zero	—	"	"	"
PID	—	100 ppm → 57 ppm	"	"	—
Dust	Zero	—	"	"	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-6-96

Field Activities: Roof removal

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight breeze

Technician Signature: Stephen C. Yan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
9696-001	0725	1	Rick Bailey BZH	0	PID
"	"	"	"	0.06	Dust
-002	0727	"	Station 1	0	PID
"	"	"	"	0.02	Dust
-003	0728	"	Station 2	0	PID
"	"	"	"	0.04	Dust
-004	0730	"	Station 3	0	PID
"	"	"	"	0.04	Dust
-005	0732	"	Station 4	0	PID
"	"	"	"	0.02	Dust
-006	0851	"	Rick Bailey BZH	0	PID
"	"	"	"	0.06	Dust
-007	0855	"	Station 1	0	PID
"	"	"	"	0.06	Dust
-008	0858	"	Station 2	0	PID
"	"	"	"	0.02	Dust

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-6-96

Field Activities: Roof removal

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight breeze

Technician Signature: Stephen C. Tanha

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
9696-009	0859	1	Station 3	0	PID
"	"	"	"	0.24	Dust
-010	0901	"	Station 4	0	PID
"	"	"	"	0.04	Dust
-011	1004	"	~~R~~ Rick Bailey BZH	0	PID
"	"	"	"	0.06	Dust
-012	1006	1	Station 1	0	PID
"	"	"	"	0.30	Dust
-013	1008	1	Station 2	0	PID
"	"	"	"	0.22	Dust
-014	1010	"	Station 3	0	PID
"	"	"	"	0.10	Dust
-015	1012	"	Station 4	0	PID
"	"	"	"	0.06	Dust
~~-016~~					~~PID~~
~~"~~					~~Dust~~

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INC. Model PDL-10 SN 2332 V5.2 4/89

RENT DATE: 8/06/96
RENT TIME: 12:12:25

IBRATION
.016 V = 0.00 mg/m3
.204 V = 13.90 mg/m3

ER ALARM: - 1.18 mg/m3
ER ALARM: - 1.18 mg/m3

TS: mg/m3

UT READS: 145.51 mg/m3
ST STARTING DATE: 8/06/96
T STARTING TIME: 8:50:20
LAPSED TIME: 0 DAYS 2:02:18
ERALL AVG: 0.12 mg/m3
ERALL MIN: - 2.60 mg/m3
N OCCURRED 8/06/96 @ 10:04:10
ERALL MAX: 148.80 mg/m3
X OCCURRED 8/06/96 @ 9:01:44
EL: 0.34 mg/m3
EL OCCURRED 8/06/96 @ 10:04:18

ME HISTORY
IOD LENGTH: 0:01:00
F PERIODS COMBINED: 1

MIN	AVG	MAX	IO
E: 8/06/96 TIME: 8:50:20			
0.01	0.01	0.06	*
0.00	0.03	0.06	*
0.00	0.01	0.04	*
1.06	- 0.43	0.01	*
0.04	0.01	0.04	*
0.00	0.01	0.04	*
0.00	0.00	0.03	*
0.40	- 0.06	0.13	*
1.91	- 0.38	0.19	*
1.83	- 0.64	- 0.03	*
0.21	- 0.04	0.00	*
1.69	1.85	148.80	-* +
0.13	0.04	0.38	*
TE: 8/06/96 TIME: 10:04:18			
2.60	4.26	144.44	-* +
0.03	0.04	0.21	*
0.01	0.22	0.58	*
0.07	0.18	0.34	*
0.04	0.07	0.13	*
0.06	0.10	0.19	*
0.03	0.04	0.10	*
0.01	0.04	0.10	*
0.00	0.03	0.06	*
0.00	0.01	0.04	*
0.00	0.03	0.12	*
0.00	0.03	0.09	*
0.03	0.03	0.06	*
0.04	0.06	0.18	*
0.07	0.10	0.15	*
0.03	0.04	0.10	*
0.03	0.04	0.06	*
0.03	0.03	0.06	*
0.00	0.01	0.04	*
0.00	0.01	0.03	*
TE: 8/06/96 TIME: 10:24:18			
0.00	0.01	0.04	*
0.00	0.01	0.03	*
0.00	0.01	0.04	*
0.01	0.03	0.04	*
0.00	0.04	0.13	*
0.04	0.09	0.19	*
0.01	0.03	0.06	*
0.03	0.03	0.07	*
0.03	0.04	0.06	*
0.00	0.03	0.07	*
0.01	0.03	0.04	*
0.03	0.07	0.33	*
0.10	0.19	0.33	*
[illegible]	0.07	0.12	*

0.03	0.03	0.06	*
0.03	0.09	0.13	*
0.06	0.07	0.10	*
0.06	0.09	0.19	*

: 8/06/96 TIME: 10:44:18

0.06	0.07	0.16	*
0.04	0.05	0.10	*
0.03	0.04	0.07	*
0.03	0.04	0.07	*
0.03	0.04	0.09	*
0.03	0.03	0.04	*
0.01	0.03	0.06	*
0.00	0.03	0.06	*
0.00	0.03	0.06	*
0.00	0.03	0.07	*
0.00	0.03	0.04	*
0.01	0.03	0.06	*
0.03	0.07	0.21	*
0.03	0.06	0.09	*
0.03	0.04	0.07	*
0.03	0.06	0.18	*
0.04	0.07	0.13	*
0.03	0.06	0.09	*
0.03	0.06	0.10	*
0.04	0.04	0.07	*

E: 8/06/96 TIME: 11:04:18

0.03	0.07	0.15	*
0.07	0.10	0.15	*
0.06	0.12	0.18	*
0.07	0.13	0.24	*
0.04	0.10	0.22	*
0.04	0.06	0.10	*
0.04	0.07	0.10	*
0.06	0.09	0.15	*
0.04	0.05	0.10	*
0.03	0.04	0.06	*
0.03	0.04	0.07	*
0.03	0.04	0.10	*
0.04	0.33	0.71	*
0.13	0.33	0.62	*
0.06	0.24	0.56	*
0.23	0.43	0.67	*
0.07	0.19	0.37	*
0.03	0.04	0.10	*
0.03	0.06	0.12	*
0.04	0.10	0.19	*

TE: 8/06/96 TIME: 11:24:18

0.04	0.12	0.22	*
0.04	0.09	0.16	*
0.13	0.31	0.46	*
0.13	0.27	0.40	*
0.12	0.18	0.28	*
0.03	0.05	0.10	*
0.04	0.10	0.18	*
0.03	0.04	0.10	*
0.03	0.03	0.06	*
0.03	0.09	0.19	*
0.09	0.12	0.18	*
0.04	0.06	0.09	*
0.04	0.07	0.13	*
0.04	0.07	0.10	*

---	---	---	
0.03	0.04	0.07	*
0.03	0.04	0.07	*
0.03	0.07	0.15	*
0.04	0.07	0.13	*

E: 8/06/96 TIME: 11:44:18

0.04	0.13	0.22	*
0.04	0.06	0.10	*
0.06	0.07	0.10	*
0.04	0.06	0.09	*
0.07	0.13	0.27	*
0.03	0.04	0.09	*
0.06	0.15	0.21	*
0.09	0.10	0.12	*
0.07	0.15	0.24	*
0.10	0.95	1.67	*+

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 9-9-96 **Start Time:** **Completion Time:**

Location: Building T-4002 Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Roof removal

Protective Clothing/Equipment: Level D

Chemical Hazards: None (pest.)

Physical Hazards: Slips, trips, falls, equipment

Control Methods: PPE, site hygiene

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
Gary Ray	[signature]
Rick Bailey	[signature]
Dennis Truslow	[signature]
Mohammad Hwain	[signature]
P. Weilersbacher	[signature]

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 9-9-96

Inspector: Stephen Lanham

Site Conditions, Weather: Misty rain, overcast, 68°F, no wind

Roof removal

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)		✓	
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?	✓	
Air monitoring log available and current?	✓	
Does monitoring log reflect excursions above action levels?		✓
Has personal sampling been performed?		✓
Have any exposure symptoms been reported?		✓
HEAT STRESS MONITORING		
Has heat stress monitoring been implemented?		
Are work/rest regimens established/followed?		
Are pulse rate and oral temperature taken?		
Monitoring log available and current?		
Any heat stress incidents?		✓
Are personnel aware of symptoms/first aid?	✓	
Are ambient temperature readings logged?		
Are emergency medical treatment and first aid available to personnel?	✓	
PERSONAL PROTECTIVE EQUIPMENT		
All PPE called for in HSP available?	✓	
Is there sufficient PPE available for the personnel involved in the performance of site operations?	✓	
Is PPE used in accordance with SHP?	✓	
Has PPE been upgraded or downgraded?		✓
Is the PPE in place adequate for the chemical and physical hazards on-site?	✓	
Is there a need to modify the PPE requirements?		✓
All personnel appropriately taped-up?		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?			✓
All drums and containers inspected for structural integrity before moving?			
Personnel warned of the potential hazards associated with the contents of containers prior to movement?			
Containers moved using appropriate mechanical devices to avoid injury?			✓
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?			✓
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✗		✓
Site safety and health supervisor monitor decontamination procedures?			
SSHP decontamination procedures observed?			
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?			
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?			
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?			
Is the proper order to PPE removal observed?			
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			✓

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

_____

_____

_____

9-9-96

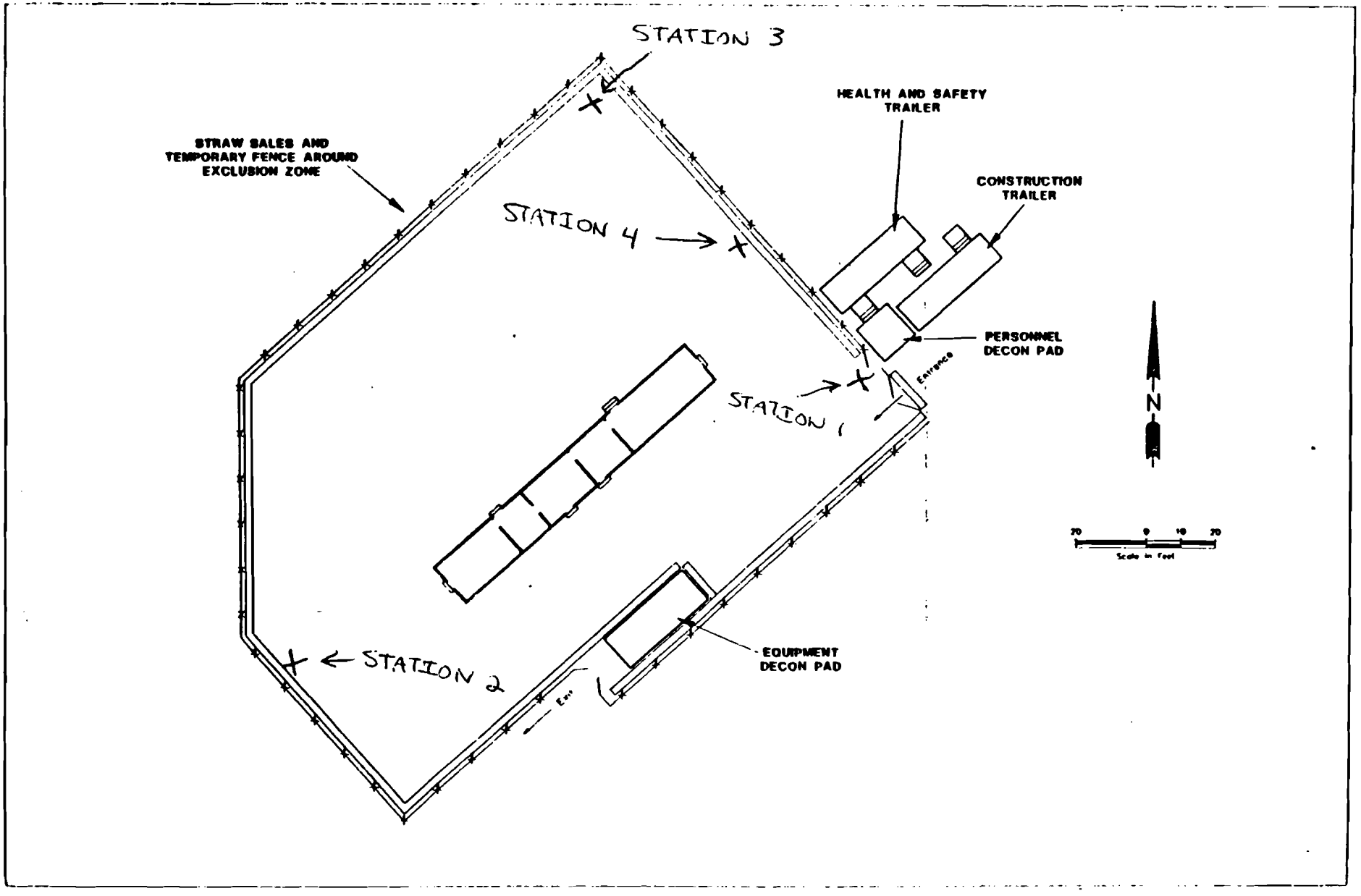

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

INSTRUMENT CALIBRATION CHECK SHEET
Building T4002
Fort Drum, New York

Instrument(s): PID, Dust

Serial No.(s):

Technician's Signature: Stephen C. Yanchar

Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
PID	Ambient	0	G	SCL	HNu PI 101 SN: 101238
"	—	100 ppm → 57ppm	"	"	
Dust	Factory →		G	"	MIE PDM3 SN 4017
—	Zero	—	"	"	"
PID	—	100 ppm → 57ppm	—	"	—
Dust	Factory →		—	"	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-9-96

Field Activities: Roof removal

Wind Direction: Still

Instrument, Model & Serial No.:

Estimated Wind Speed: –

Technician Signature: Stephen C. Yan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
9996-001	0830	1	Donnie Truslow B2H	0	PID
"	"	"	"	0.02	Dust
-002	0832	"	Station 1	0	PID
"	"	"	"	0.02	Dust
-003	0835	"	Station 2	0	PID
"	"	"	"	0.04	Dust
-004	0838	"	Station 3	0	PID
~~-00~~	"	"	"	0.02	Dust
-005	0840	"	Station 4	0	PID
"	"	"	"	0.02	Dust
-006	0949	"	Donnie Truslow B2H	0	PID
"	"	"		0.00	Dust
-007	0951	"	Station 1	0	PID
"	"	"	"	0.00	Dust
-008	0959	"	Station 2	0	PID
"	"	"	"	0.00	Dust

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-9-96

Field Activities: Roof removal

Wind Direction: –

Instrument, Model & Serial No.:

Estimated Wind Speed: Still

Technician Signature: [illegible]

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
9996-009	1002	1	Station 3	0	PID
"	"	"	"	0.00	Dust
-010	1004	"	Station 4	~~0.0~~ 0	PID
"	"	"	"	0.00	Dust
-011	1130	"	Rick Bailey BZH	0	PID
"	"	"	"	0.00	Dust
-012	1132	"	Station 1	0	PID
"	"	"	"	0.00	Dust
-013	1134	"	Station 2	0	PID
"	"	"	"	0.00	Dust
-014	1135	"	Station 3	0	PID
"	"	"	"	0.00	Dust
-015	1137	"	Station 4	0	PID
"	"	"	"	0.00	Dust
-016	1256	"	Donnie Truslow BZH	0	PID
"	"	"	"	0.02	Dust

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-9-96

Field Activities: Roof removal

Wind Direction: —

Instrument, Model & Serial No.:

Estimated Wind Speed: Still

Technician Signature: Stephen C. Lauck

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
9996-017	1258	1	Station 1	0	PID
"	"	"	"	0.00	Dust
-018	1300	"	Station 2	0	PID
"	"	"	"	0.00	Dust
-019	1302	"	Station 3	0	PID
"	"	"	"	0.02	Dust
-020	1305	"	Station 4	0	PID
"	"	"	"	0.00	Dust
-021	1440	"	Donnie Truslow BZH	0	PID
"	"	"	"	0.00	Dust
-022	1442	"	Station 1	0	PID
"	"	"	"	0.03	Dust
-023	1444	"	Station 2	0	PID
"	"	"	"	0.00	Dust
-024	1447	"	Station 3	0	PID
"	"	"	"	0.00	Dust

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-9-96

Field Activities: Roof removal

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Steph C. Yan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
9996-025	1450	1	Station 4	0	PID
"	"	"	"	0.00	Dust
-026	1547	"	Gary Ray BZH	0	PID
"	"	"	"	0.00	Dust
-027	1549	"	Station 1	0	PID
"	"	"	"	0.00	Dust
-028	1551	"	Station 2	0	PID
"	"	"	"	0.00	Dust
-029	1553	"	Station 3	0	PID
"	"	"	"	0.00	Dust
-030	1556	"	station 4	0	PID
"	"	"	"	0.01	Dust

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-9-96

Phase: Building demolition

Activity: Roof removal

Industrial Hygienist: Stephen Lanhan

Comments: (Weather, wind condition, etc.)
Misting rain, Overcast clouds, 68°F
Still (no) wind

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-9496-PHI-A-001	Station 1	5506	0820	1633	493	1.44	1.44	1.44	709.92	
-B-001	"	3813	"	"	"	0.55	0.55	0.55	271.15	
-C-001	"	"	"	"	"	0.54	0.53	0.53	261.29	
-A-002	Station 2	5412	0801	1615	494	1.46	1.46	1.46	721.24	
-B-002	"	3807	"	"	"	0.48	0.45	0.45	222.30	
-C-002	"	"	"	"	"	0.46	0.46	0.46	227.24	
-A-003	Station 3	5438	0803	1617	494	1.52	1.51	1.51	745.94	
-B-003	"	3673	"	"	"	0.45	0.45	0.45	222.30	
-C-003	"	"	"	"	"	0.48	0.47	0.47	232.18	
-A-004	Station 4	5366	0805	1621	496	1.52	1.51	1.51	748.96	
-B-004	"	3811	"	"	"	0.51	0.50	0.50	248.00	
-C-004	"	"	"	"	"	0.47	0.47	0.47	233.12	

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 9-9-96

Phase: Building demolition

Activity: Roof removal

Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD			FLOW RATE (L/MIN)			TOTAL VOLUME (L)	COMMENTS
			START TIME	STOP TIME	TOTAL MIN.	START	STOP	RECORDED		
FD-99916-PHI-A-004D	Station 4 (COE Dup)	5432	0805	1621	496	1.47	1.46	1.46	724.16	
-B-004D	"	5812	"	"	"	0.48	0.48	0.48	238.08	
-C-004D	"	"	"	"	"	0.49	0.48	0.48	238.08	

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INC. Model PDL-10 SN 2332 V5.2 4/89

ENT DATE: 8/09/96
ENT TIME: 16:04:27

BRATION
016 V = 0.00 mg/m3
204 V = 13.90 mg/m3

R ALARM: - 1.18 mg/m3
R ALARM: - 1.18 mg/m3

S: mg/m3

T READS:- 1.88 mg/m3
STARTING DATE: 8/09/96
STARTING TIME: 9:50:34
PSED TIME: 0 DAYS 6:06:11
ALL AVG: 0.27 mg/m3
ALL MIN: - 3.62 mg/m3
OCCURRED 8/09/96 @ 15:53:21
ALL MAX: 144.81 mg/m3
OCCURRED 8/09/96 @ 10:05:50
: 5.07 mg/m3
OCCURRED 8/09/96 @ 9:54:14

ME HISTORY
OD LENGTH: 0:01:00
F PERIODS COMBINED: 1

MIN		AVG		MAX	IO
E: 8/09/96 TIME: 9:50:34					
1.72	-	0.52	-	0.13	*
0.13	-	0.10	-	0.06	*
0.09	-	0.07	-	0.04	*
0.07	-	0.07	-	0.04	*
0.07		2.29		141.29	-*
0.07	-	0.06	-	0.03	*
0.07	-	0.06	-	0.04	*
0.06	-	0.06	-	0.03	*
0.06	-	0.06	-	0.03	*
0.07	-	0.03		0.13	*
0.06	-	0.03		0.06	*
0.06	-	0.04	-	0.01	*
0.10	-	0.04	-	0.03	*
0.06	-	0.04	-	0.01	*
3.56		38.48		144.65	-
3.18		35.87		141.[illegible]	-
0.04	-	0.04	-	0.03	*
0.04	-	0.04	-	0.01	*
0.04	-	0.04	-	0.01	*
0.06	-	0.04	-	0.01	*
E: 8/09/96 TIME: 10:10:34					
0.06	-	0.06	-	0.03	*
0.04	-	0.04	-	0.01	*
0.06	-	0.04	-	0.01	*
0.06	-	0.04	-	0.03	*
0.04	-	0.04		0.00	*
0.06	-	0.04	-	0.03	*
0.04		0.06		0.50	*+
0.04	-	0.03		0.03	*
0.04	-	0.04	-	0.01	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
0.04	-	0.03	-	0.01	*
0.04	-	0.03		0.00	*
0.06	-	0.04	-	0.01	*
0.04	-	0.04	-	0.01	*
0.04	-	0.04	-	0.01	*
0.04	-	0.03		0.03	*
0.04	-	0.03	-	0.01	*
0.04	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
8/09/96 TIME: 10:30:34					
.04	-	0.04	-	0.01	*
.04	-	0.04	-	0.01	*
.04	-	0.03		0.03	*
.06	-	0.03		0.00	*
.04	-	0.04	-	0.03	*
.06	-	0.04	-	0.01	*
.06	-	0.04	-	0.03	*
.04	-	0.03	-	0.01	*

0.04	-	0.04	-	0.01	*		
0.07	-	0.04	-	0.01	*		
0.04	-	0.04	-	0.01	*		
0.04	-	0.04		0.01	*		
0.03	-	0.03		0.00	*		
0.04	-	0.03		0.00	*		
0.04	-	0.03	-	0.01	*		
0.04	-	0.03		0.03	*		
0.04	-	0.04	-	0.01	*		
0.04	-	0.03	-	0.01	*		
0.04	-	0.03	-	0.01	*		

E: 8/09/96 TIME: 10:50:34

0.13	-	0.04	-	0.01	*		
0.04	-	0.04	-	0.01	*		
0.06	-	0.04		0.00	*		
0.04	-	0.04	-	0.01	*		
0.10	-	0.03		0.03	*		
0.03	-	0.03	-	0.01	*		
0.04	-	0.03		0.00	*		
0.04	-	0.04	-	0.01	*		
0.04	-	0.04	-	0.01	*		
0.04	-	0.03	-	0.01	*		
0.04	-	0.04	-	0.01	*		
0.04	-	0.03		0.00	*		
0.04	-	0.03		0.00	*		
0.04	-	0.04		0.00	*		
0.03	-	0.03		0.00	*		
[illegible]	-	[illegible]		[illegible]	*		
0.04	-	0.03		0.00	*		
0.0[illegible]	-	0.04	-	0.01	*		
0.06	-	0.04	-	0.01	*		
[illegible]	-	0.04	-	0.03	*		

E: 8/09/96 TIME: 11:10:34

0.04	-	0.03		0.01	*		
0.04	-	0.03		0.00	*		
0.06	-	0.04	-	0.03	*		
0.0[illegible]	-	0.04	-	0.03	*		
0.05	-	0.03		0.03	*		
0.06	-	0.04	-	0.01	*		
0.04	-	0.04	-	0.01	*		
0.04	-	0.04	-	0.01	*		
0.06	-	0.04	-	0.03	*		
0.06	-	0.04	-	0.03	*		
0.06	-	0.04	-	0.03	*		
0.04	-	0.04	-	0.03	*		
0.06	-	0.04	-	0.03	*		
0.06	-	0.04	-	0.03	*		
0.05	-	0.04	-	0.03	*		
0.06	-	0.04	-	0.01	*		
0.04	-	0.04	-	0.03	*		
0.21		11.36		139.41	-	*	+
0.04	-	0.01		0.06	*		
0.06	-	0.04	-	0.03	*		

8/09/96 TIME: 11:30:34

.06	-	0.06	-	0.03	*		
.05	-	0.04	-	0.01	*		
.06	-	0.04		0.00	*		
[illegible]	-	0.04		0.83	*+		
.07	-	0.03		0.04	*		
.99	-	0.09	-	0.01	*		
.06	-	0.04	-	0.03	*		
.06	-	0.04	-	0.03	*		

0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.01	*
0.04	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
0.04	-	0.04	-	0.01	*
0.04	-	0.04	-	0.03	*
0.04	-	0.04	-	0.01	*
0.06	-	0.04	-	0.03	*
0.04	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04		0.00	*

: 8/09/96 TIME: 11:50:34

0.04	-	0.04	-	0.01	*
0.04	-	0.04	-	0.01	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
0.06	-	0.06	-	0.03	*
0.06	-	0.04	-	0.03	*
0.04	-	0.04	-	0.01	*
0.04	-	0.04	-	0.03	*
[illegible]	-	0.04	-	0.03	*
[illegible]	-	[illegible]	-	0.03	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
0.04	-	0.04	-	0.03	*
0.04	-	0.04	-	0.01	*

: 8/09/96 TIME: 12:10:34

0.06	-	0.06	-	0.03	*
0.06	-	0.04	-	0.03	*
0.04	-	0.04	-	0.01	*
0.06	-	0.04	-	0.01	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
0.07	-	0.06	-	0.03	*
0.06	-	0.06	-	0.03	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
0.06	-	0.06	-	0.03	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.01	*
0.06	-	0.06	-	0.03	*
0.06	-	0.04	-	0.03	*
0.04	-	0.04	-	0.01	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.01	*

8/09/96 TIME: 12:30:34

0.06	-	0.04	-	0.01	*
0.04	-	0.04		0.00	*
0.06	-	0.04	-	0.03	*
[illegible]	-	0.04	-	0.01	*
0.04	-	0.03		0.03	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

0.06	-	0.04	-	0.01	*
0.06	-	0.04	-	0.03	*
0.04	-	0.03		0.04	*
0.04	-	0.03		0.00	*
0.04	-	0.04	-	0.03	*
0.04	-	0.04	-	0.01	*
0.06	-	0.04	-	0.03	*
0.04	-	0.04	-	0.03	*
0.04	-	0.04		0.00	*
0.04	-	0.03		0.01	*
0.04	-	0.03		0.12	*

:: 8/09/96 TIME: 12:50:34

0.12		0.33		0.61	-*
0.27		0.46		0.84	|*
0.12		0.22		0.38	-*
0.01		0.07		0.15	*
0.00		0.03		0.10	*
0.01		0.04		0.15	*
0.01		0.03		0.13	*
0.03	-	0.01		0.03	*
0.03	-	0.03		0.00	*
0.04	-	0.03		0.00	*
0.04	-	0.03		0.00	*
0.04	-	0.03	-	0.03	*
0.04	-	0.04	-	0.01	*
0.04	-	0.04	-	0.03	*
0.04	-	0.04	-	0.03	*
0.04	-	0.04	-	0.03	*
0.04	-	0.04	-	0.03	*
0.05	-	0.03		0.04	*
0.06	-	0.04	-	0.03	*
0.04	-	0.04	-	0.03	*

:: 8/09/96 TIME: 13:10:34

0.04	-	0.01		0.10	*
0.06	-	0.04	-	0.03	*
0.04	-	0.04	-	0.01	*
0.04	-	0.04		0.00	*
0.04	-	0.04	-	0.01	*
0.04	-	0.04	-	0.01	*
0.04	-	0.04	-	0.03	*
0.04	-	0.04	-	0.03	*
0.04	-	0.04	-	0.01	*
0.06	-	0.06	-	0.03	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.01	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
0.04	-	0.04	-	0.03	*
0.06	-	0.04	-	0.01	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
0.04	-	0.04	-	0.03	*

8/09/96 TIME: 13:30:34

0.04	-	0.04	-	0.03	*
0.04	-	0.04	-	0.01	*
0.06	-	0.04	-	0.01	*
.04	-	0.04	-	0.03	*
.06	-	0.04	-	0.03	*
.04	-	0.04	-	0.01	*
.04	-	0.04	-	0.01	*

0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.01	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
0.06	-	0.04	-	0.01	*
0.06	-	0.04	-	0.03	*
0.04	-	0.04	-	0.03	*
0.04	-	0.04	-	0.03	*

: 8/09/96 TIME: 13:50:34

0.06	-	0.04	-	0.03	*
0.04	-	0.04	-	0.03	*
0.04		0.01		0.15	*
0.03	-	0.01		0.07	*
0.03	-	0.01		0.07	*
0.03	-	0.01		0.01	*
0.03	-	0.01		0.03	*
0.03	-	0.03	-	0.01	*
0.04	-	0.03	-	0.01	*
0.04	-	0.03	-	0.01	*
0.04	-	0.04	-	0.03	*
0.04	-	0.04	-	0.01	*
0.03	-	0.03		0.00	*
0.04	-	0.03	-	0.01	*
0.03	-	0.03	-	0.01	*
0.0	-	0.03	-	0.01	*
0.04	-	0.03	-	0.01	*
0.04	-	0.03	-	0.01	*
0.03	-	0.03		0.02	*
0.02	-	0.03	-	0.01	*

: 8/09/96 TIME: 14:10:34

0.04	-	0.03	-	0.01	*
0.04	-	0.03	-	0.01	*
0.04	-	0.03	-	0.01	*
0.04	-	0.04	-	0.03	*
0.04	-	0.03	-	0.01	*
0.04	-	0.04	-	0.03	*
0.04	-	0.04	-	0.01	*
0.06	-	0.04	-	0.01	*
0.04	-	0.04	-	0.01	*
0.04	-	0.04	-	0.03	*
0.06	-	0.04	-	0.03	*
0.04	-	0.04	-	0.03	*
0.04	-	0.04	-	0.01	*
0.06	-	0.04	-	0.01	*
0.04	-	0.04	-	0.01	*
0.06	-	0.03		0.00	*
0.04	-	0.04	-	0.03	*
0.04	-	0.04	-	0.03	*
.06	-	0.04	-	0.03	*
.04	-	0.04	-	0.03	*

8/09/96 TIME: 14:30:34

.06	-	0.03		0.04	*
.04	-	0.03		0.03	*
.06	-	0.04	-	0.03	*
.04	-	0.04	-	0.03	*
.06	-	0.04	-	0.01	*
.04	-	0.04	-	0.01	*
.04		2.17		132.97	-*

+

```
0.07    -  0.04    -  0.01    *
0.44    -  0.04    -  0.01    *
0.04    -  0.04    -  0.01    *
0.06       0.07       5.59    * +
0.06    -  0.04    -  0.03    *
0.07    -  0.06    -  0.03    *
0.06    -  0.04    -  0.01    *
0.09       0.81      52.15    -*                +
0.04    -  0.04    -  0.03    *
0.04    -  0.04    -  0.03    *
0.04    -  0.04    -  0.03    *

:  8/09/96  TIME: 14:50:34
0.06    -  0.04    -  0.03    *
0.06    -  0.04    -  0.03    *
0.04    -  0.04    -  0.03    *
0.04    -  0.04    -  0.03    *
0.04       0.06       0.68    *+
0.38       0.53       0.75    |*
0.06       0.31       0.47    -*
0.01       0.04       0.10    *
0.03       0.04       0.09    *
0.00       0.03       0.06    *
0.01       0.01       0.07    *
0.03    -  0.01       0.01    *
0.01    -  0.01       0.03    *
[illegible]            0.03    *
0.03    -  0.01       0.03    *
0.04    -  0.03       0.00    *
0.04    -  0.03       0.00    *
0.04    -  0.03    -  0.01    *
0.04    -  0.04    -  0.01    *
0.04    -  0.04    -  0.01    *

:  8/09/96  TIME: 15:10:34
0.03    -  0.03       0.00    *
0.04    -  0.03    -  0.01    *
0.04    -  0.03    -  0.01    *
0.04    -  0.04    -  0.01    *
0.04    -  0.04    -  0.01    *
0.04    -  0.04    -  0.01    *
0.04    -  0.04    -  0.01    *
0.06       0.04    -  0.01    *
[illegible]  -  0.04    -  0.01    *
0.04    -  0.04    -  0.01    *
0.04    -  0.04    -  0.03    *
0.04    -  0.04    -  0.03    *
0.04    -  0.04    -  0.03    *
.04     -  0.04    -  0.03    *
.06     -  0.04    -  0.03    *
.06     -  0.04    -  0.01    *
.06     -  0.04    -  0.03    *
.04     -  0.04    -  0.03    *
.06     -  0.04    -  0.03    *
.06     -  0.04       0.00    *

  8/09/96  TIME: 15:30:34
.04     -  0.04    -  0.01    *
.04     -  0.04    -  0.03    *
[illegible]  -  0.04       0.00    *
[illegible]  -  0.04    -  0.03    *
04      -  0.04    -  0.01    *
06      -  0.04    -  0.01    *
06      -  0.04    -  0.03    *
```

257

-	0.04	-	0.04	-	0.01	*
-	0.06	-	0.04	-	0.03	*
-	0.04	-	0.04	-	0.01	*
-	0.04	-	0.03		0.00	*
	0.04	-	0.03		0.34	*+
	2.96	-	0.06		0.04	*
-	0.03	-	0.03		0.00	*
-	0.04		0.12		8.03	* +
-	0.04	-	0.04	-	0.01	*
-	0.04	-	0.03	-	0.01	*
-	0.06	-	0.03		0.01	*

DATE: 8/09/96 TIME: 15:50:34

-	0.04	-	0.03	-	0.01	*
-	0.10	-	0.04	-	0.01	*
-	3.62		4.13		130.90	- * +
-	3.12		10.69		133.43	- * +
-	0.04		2.19		134.05	-* +
-	0.04	-	0.04	-	0.01	*
-	0.04	-	0.04	-	0.03	*

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 9-10-96 Start Time: Completion Time:

Location: Building T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Roof removal, desk demolition

Protective Clothing/Equipment: Level D

Chemical Hazards: None (pest.)

Physical Hazards: Slips, trips, falls, rain slick

Control Methods: Site hygiene, fall system

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
Rick Bailey	[illegible]
M. Husar	[illegible]
P. Weatherspacher	[illegible]
[illegible] Ruslow	[illegible]
Gary Ray	[illegible]

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 9-10-96

Inspector: Stephen Lanham

Site Conditions, Weather:

Roof removal; Interior desk demolition

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)		✓	
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?	✓		
Air monitoring log available and current?	✓		
Does monitoring log reflect excursions above action levels?		✓	
Has personal sampling been performed?		✓	
Have any exposure symptoms been reported?		✓	
HEAT STRESS MONITORING			
Has heat stress monitoring been implemented?			✓
Are work/rest regimens established/followed?			
Are pulse rate and oral temperature taken?			
Monitoring log available and current?			✓
Any heat stress incidents?		✓	
Are personnel aware of symptoms/first aid?	✓		
Are ambient temperature readings logged?			✓
Are emergency medical treatment and first aid available to personnel?	✓		
PERSONAL PROTECTIVE EQUIPMENT			
All PPE called for in HSP available?	✓		
Is there sufficient PPE available for the personnel involved in the performance of site operations?	✓		
Is PPE used in accordance with SHP?	✓		
Has PPE been upgraded or downgraded?		✓	
Is the PPE in place adequate for the chemical and physical hazards on-site?	✓		
Is there a need to modify the PPE requirements?		✓	
All personnel appropriately taped-up?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?			✓
All drums and containers inspected for structural integrity before moving?			↓
Personnel warned of the potential hazards associated with the contents of containers prior to movement?			↓
Containers moved using appropriate mechanical devices to avoid injury?			↓
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?			✓
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?			✓
SSHP decontamination procedures observed?	✗		✓
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?			✓
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?			✓
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?			✓
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-10-96

Field Activities: Roof removal

Wind Direction: W→E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Yank

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
91096-001	0842	1	Donnie Truslow BZH	0	PID
"	"	"	"	0.00	Dust
-002	0845	"	Station 1	0	PID
"	"	"	"	0.00	Dust
-003	0847	"	Station 2	0	PID
"	"	"	"	0.00	Dust
-004	0849	"	Station 3	0	PID
"	"	"	"	0.00	Dust
-005	0852	"	Station 4	0	PID
"	"	"	—	0.00	Dust
-006	0938	"	Gary Ray BZH	0	PID
"	"	"	"	0.09	Dust
-007	0941	"	Station 1	0	PID
"	"	"	"	0.08	Dust
-008	0944	"	Station 2	0	PID
"	"	"	"	0.00	Dust

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-10-96

Field Activities: Sawing furniture/Building demolition

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Yan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
19096-009	0947	1	In building sawing of furniture	0.0	PID
"	"	"	"	4.53	Dust
-010	0951	"	Station ~~2~~ 3	0	PID
"	"	"	"	0.01	Dust
-011	0953	"	Station 4	0	PID
"	"	"	"	0.00	Dust
-012	0944	"	Gary Ray B2H	0	PID
"	"	"	"	0.00	Dust
-013	1048	"	Station 1	0	PID
"	"	"	"	0.00	Dust
-014	1050	"	Station 2	0	PID
"	"	"	"	0.00	Dust
-015	1052	"	Station 3	0	PID
"	"	"	"	0.00	Dust
-016	1055	"	Station 4	0	PID
"	"	"	"	0.00	Dust

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-10-96

Field Activities: Interior Building demo.

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Jones

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
91096-017	1125	1	Donnie Truslow BZH	0	PID
"	"	"	"	0.00	Dust
-018	1251	"	"	0	PID
"	"	"	"	0.02	Dust
-019	1254	"	Station 1	0	PID
"	"	"	"	0.01	Dust
-020	1257	"	Station 2	0	PID
"	"	"	"	0.01	Dust
-021	1259	"	Station 3	0	PID
"	"	"	"	0.00	Dust
-022	1301	"	Station 4	0	PID
"	"	"	"	0.00	Dust
-023	1350	"	Donnie Truslow BZH	0	PID
"	"	"	"	0.03	Dust
-024	1352	"	Station 1	0	PID
"	"	"	"	0.00	Dust

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-10-96

Field Activities: Building demolition

Wind Direction: W→E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Yank

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
91096-025	1356	1	Station 2	0	PID
"	"	"	"	0.01	Dust
-026	1359	"	Station 3	0	PID
"	"	"	"	0.00	Dust
-027	1402	"	Station 4	0	PID
"	"	"	"	0.01	Dust
-028	1502	"	Gary Ray BZH	0	PID
"	"	"	"	0.05	Dust
-029	1504	"	Station 2	0	PID
"	"	"	"	0.00	Dust
-030	1506	"	Station 3	0	PID
"	"	"	"	0.00	Dust
-031	1508	"	Station 4	0	PID
"	"	"	"	0.01	Dust
-032	1509	"	Station 1	0	PID
"	"	"	"	0.00	Dust

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-10-96

Field Activities: Building Demolition

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Steph C. Zar

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
91096-033	1535	1	Donnie Truslow BZH	0	PID
"	"	"	"	0.02	Dust
-034	1537	"	Station 1	0	PID
"	"	"	"	0.01	Dust
-035	1540	"	Station 2	0	PID
"	"	"	"	0.00	Dust
-036	1543	"	Station 3	0	PID
"	"	"	"	0.01	Dust
-037	1547	"	Station 4	0	PID
"	"	"	"	0.03	Dust
~~-038~~					~~PID~~
~~"~~					~~Dust~~

INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York

~~August~~ 10, 1996
September

Instrument(s): PID, Dust

Serial No.(s):

Technician's Signature: Stephen C. Tanner

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0815	PID	Ambient	Zero	G	SCL	HNU PI 101 SN: 101238
	"	—	100ppm → 57ppm	"	"	"
	Dust	Factory →		"	"	MIE Pam 3 SN: 4017
	"	Zero	—	"	"	"
1600	PID	Ambient	Zero	"	"	—
	"	—	100 ppm → 57ppm	"	"	—
	Dust	Factory →		"	"	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 9-10-96

Phase: Building Demolition

Activity: Roof removal / Interior Demo.

Industrial Hygienist: Stephen Lanhan

Comments: (Weather, wind condition, etc.)
Overcast clouds; dry; Slight breeze W→E
65-75° F

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FO-91096-PHI-A-001	Station 1	5412	0806	1620	494	1.49	1.49	1.49	736.06	
-B-001	"	3813	"	"	"	0.53	0.52	0.52	256.88	
-C-001	"	"	"	"	"	0.54	0.53	0.53	261.82	
-A-002	Station 2	5432	0800	1617	497	1.45	1.42	1.42	705.74	
-B-002	"	3811	"	"	"	0.50	0.49	0.49	243.53	
-C-002	"	"	"	"	"	0.47	0.46	0.46	228.62	
-A-003	Station 3	5438	0802	1615	493	1.50	1.48	1.48	729.64	
-B-003	"	3812	"	"	"	0.50	0.50	0.50	246.50	
-C-003	"	"	"	"	"	0.52	0.51	0.51	251.43	
-A-004	Station 4	5366	0758	1610	492	1.51	1.50	1.50	738.00	
-B-004	"	3673	"	"	"	0.46	0.45	0.45	221.40	
-C-004	"	"	"	"	"	0.48	0.46	0.46	226.32	

INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002

Fort Drum, New York

Date: 9-10-96

Phase: Building demolition

Activity: Roof removal/Interior Demo.

Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Overcast clouds; Dry; Slight breeze W→E
65-75°F

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-91096-PH1-A-004D	Station 4 (COE Dup.)	5506	0758	1610	492	1.49	1.49	1.49	733.08	
-B-004D	"	5	"	"	"	0.46	0.46	0.46	226.32	
-C-004D	"	"	"	"	"	0.46	0.46	0.46	226.32	

281

9-10-96

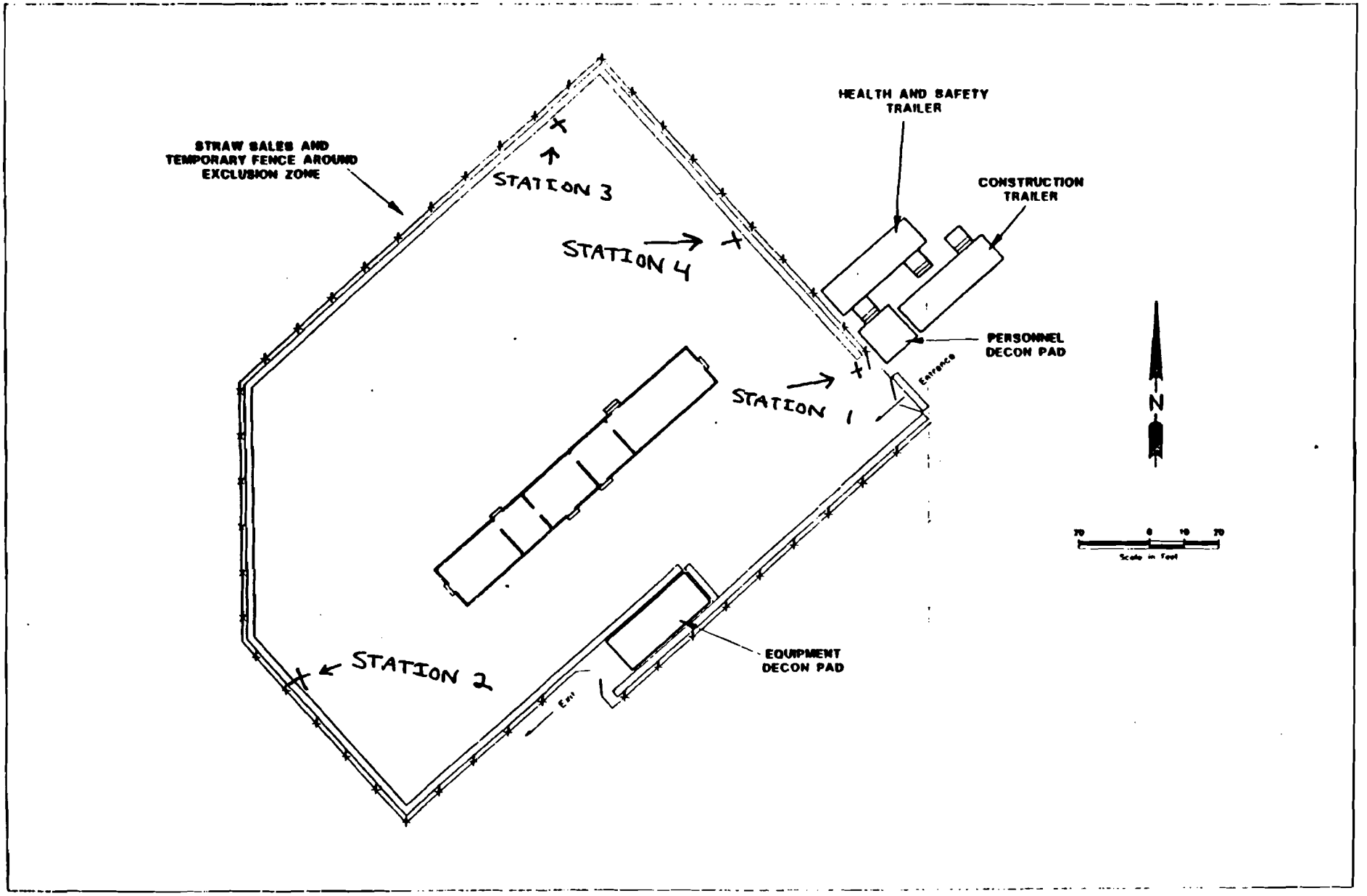

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

283

MIE INC. Model PDL-10 SN 2332 V5.2 4/89

RRENT DATE: 8/10/96
URRENT TIME: 16:36:29

CALIBRATION
0.016 V = 0.00 mg/m3
0.208 V = 14.20 mg/m3

LOWER ALARM: - 1.18 mg/m3
UPPER ALARM: - 1.18 mg/m3

UNITS: mg/m3

INPUT READS:- 2.12 mg/m3
TEST STARTING DATE: 8/09/96
TEST STARTING TIME: 9:50:34
ELAPSED TIME: 0 DAYS 13:50:21
[illegible] 0.12 mg/m3
[illegible] 4.14 mg/m3
MIN OCCURRED 8/10/96 @ 8:49:29
OVERALL MAX: 144.85 mg/m3
MAX OCCURRED 8/09/96 @ 10:05:50
STEL: 5.07 mg/m3
STEL OCCURRED 8/09/96 @ 9:51:14

-	0.04	-	0.04	-	0.01	|*
-	0.06	-	0.04	-	0.03	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.03		0.00	|*
-	0.04	-	0.03		0.34	|*
	3.96	-	0.06		0.04	-*
-	0.03	-	0.03		0.00	|*
-	0.04		0.12		8.03	|* +
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.06	-	0.03		0.01	|*

DATE: 8/09/96 TIME: 15:50:34

-	0.04	-	0.03	-	0.01	|*
-	0.10	-	0.04	-	0.01	|*
-	3.62		4.13		130.94	- * +
-	3.12		10.69		133.47	- * +
-	0.04		2.19		134.09	|* +
-	0.04	-	0.04	-	0.01	|*
@-	0.04	-	0.04	-	0.03	|*

DATE: 8/10/96 TIME: 8:40:52

-	0.04	-	0.01		0.03	|*
-	0.04	-	0.03		0.00	|*
-	0.04	-	0.03		0.00	|*
	0.04	-	0.04	-	0.03	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.03		0.00	|*
-	0.09	-	0.04	-	0.01	|*
	0.06	-	0.04	-	0.01	|*
	4.14	-	0.19	-	0.01	-*
-	0.09	-	0.06	-	0.03	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.01		0.04	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.03	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.06	-	0.04	-	0.01	|*
-	0.04	-	0.03		0.00	|*

DATE: 8/10/96 TIME: 9:00:52

-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.06	-	0.04	-	0.03	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03		0.00	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
	0.04	-	0.03		0.00	|*
	0.04	-	0.03		0.00	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.04		0.00	|*
-	0.04	-	0.04		0.00	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.03		0.01	|*
-	0.03	-	0.03		0.00	|*

-	0.04	-	0.03	-	0.01	|*
-	0.03	-	0.03	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
	0.04	-	0.04	-	0.01	|*
	0.04	-	0.04	-	0.01	|*
	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.01		0.07	|*
-	0.04	-	0.03		0.03	|*
-	0.03	-	0.03		0.00	|*
-	0.03	-	0.01		0.03	|*
-	0.04	-	0.03		0.00	|*
-	0.04	-	0.03		0.00	|*
-	0.03	-	0.03		0.00	|*
-	0.04	-	0.03		0.04	|*
-	0.04		0.00		0.10	|*
-	0.03		0.00		0.09	|*
-	0.03	-	0.01		0.00	|*
-	0.04	-	0.03		0.03	|*
-	0.61	-	0.09		0.13	-*

DATE: 8/10/96 TIME: 9:40:53

-	0.03	-	[illegible]	-	[illegible]	|*
-	0.04	-	0.03		0.01	|*
-	0.03	-	0.04		0.00	|*
	0.00		1.00		3.00	|*+
	0.01		0.40		[illegible]	|*
	0.03		[illegible]		0.03	|*
-	0.04	-	0.03	-	0.01	|*
	0.04	-	0.04	-	0.01	|*
	0.04	-	[illegible]	-	0.03	|*
-	0.04	-	0.03		0.03	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
-	0.03	-	0.04	-	0.01	|*
-	0.03	-	0.03	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
	[illegible]		[illegible]		[illegible]	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.04		0.01	|*
-	0.03	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*

DATE: 8/10/96 TIME: 10:00:53

-	0.03	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.03	-	0.03		0.00	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.03	-	0.03	-	0.01	|*
-	0.04		0.03	-	0.01	|*
-	0.04	-	0.03		0.00	|*
-	0.04	-	0.03	-	0.01	|*
-	0.07	-	0.04	-	0.01	|*

-	0.09	-	0.03		0.04	|*
-	2.00	-	0.27		0.07	-*
-	1.48	-	0.34	-	0.03	*+
	0.[illegible]	-	0.03		0.03	|*
	0.02	-	0.01		0.00	|*
	0.03	-	0.03		0.00	|*
-	0.03	-	0.03		0.00	|*
-	0.03	-	0.03	-	0.01	|*
-	0.03	-	0.03	-	0.01	|*
-	0.03	-	0.03		0.00	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03		0.00	|*
-	0.03	-	0.03	-	0.01	|*
-	0.03	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.03	-	0.03	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.03	-	0.03	-	0.01	|*

DATE: 8/10/96 TIME: 10:40:52

-	0.04	-	0.03	-	0.01	|*
-	0.01	-	0.01		0.01	|*
-	0.[illegible]	-	0.03	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
-	0.0[illegible]	-	0.03	-	0.01	|*
-	0.0[illegible]	-	0.03		0.03	|*
-	0.04		0.03	-	0.01	|*
	0.00		0.03	-	0.01	|*
	0.01		0.03		0.00	|*
-	0.[illegible]	-	0.03		0.[illegible]	|*
-	0.16	-	0.06		0.03	|*
-	0.43	-	0.01		0.00	-*
-	0.[illegible]		0.03	-	0.01	|*
	[illegible]	-	0.[illegible]	-	0.03	|*
-	0.01		0.03	-	0.01	|*
-	0.[illegible]		0.03		0.00	|*
-	0.04	-	0.03	-	0.01	|*
-	0.01	-	0.0[illegible]		0.03	|*
-	0.03	-	0.03		0.03	|*
-	0.0[illegible]	-	0.04	-	0.01	|*

DATE: 8/10/96 TIME: 11:00:52

-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.03	-	0.03	-	0.01	|*
-	0.01	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.03	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.03	-	0.03	-	0.01	|*
-	0.03	-	0.03	-	0.01	|*
-	0.0[illegible]	-	0.03	-	0.01	|*
	0.03	-	0.03	-	0.01	|*
	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
-	0.03	-	0.03		0.00	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.04	-	0.03	|*
-	0.04	-	0.03	-	0.01	|*

-	0.0[illegible]	-	0.03	-	0.01	I*
-	0.0[illegible]		0.02	-	0.01	I*
-	0.04	-	0.04	-	0.01	I*
-	0.04	-	0.03		0.06	I*
	0.04	-	0.04	-	0.03	I*
	0.04	-	0.03	-	0.01	I*
-	0.04	-	0.03	-	0.01	I*
-	0.04	-	0.03	-	0.01	I*
-	0.04	-	0.04	-	0.01	I*
-	0.04	-	0.03		0.00	I*
-	0.04	-	0.03		0.01	I*
-	0.04	-	0.03	-	0.01	I*
-	0.04	-	0.03	-	0.01	I*
-	0.03	-	0.03	-	0.01	I*
-	0.04	-	0.03	-	0.01	I*
-	0.03		0.10		0.55	I*
	0.41		0.59		0.77	I*
	0.56		0.67		0.81	I*
	0.35		0.50		0.65	I*
	0.21		0.27		0.40	I*

DATE: 8/10/96 TIME: 11:40:53

	0.05		0.15		0.24	I*
	0.03		0.05		0.12	I*
	0.03		0.03		0.07	I*
-	0.01		0.01		0.05	I*
	0.01		0.00		0.07	I*
-	0.01		0.05		0.05	I*
-	0.01		0.00		0.07	I*
	0.01	-	0.01		0.00	I*
	0.05	-	0.01		0.02	I*
-	0.03	-	0.01		0.00	I*
-	0.04		[illegible]		[illegible]	I*
-	0.03	-	0.03		0.00	I*
-	0.04		0.03	-	0.01	I*
-	0.03	-	0.03	-	0.01	I*
-	0.03	-	0.03	-	0.01	I*
-	0.04	-	0.03		0.00	I*
-	0.03	-	0.01		0.01	I*
-	0.02	-	0.01		0.00	I*
-	0.04	-	0.03		0.00	I*
	0.04	-	0.01		0.00	I*

DATE: 8/10/96 TIME: 12:00:51

	0.03	-	0.03	-	0.01	I*
-	0.03	-	0.03	-	0.01	I*
-	0.04	-	0.03	-	0.01	I*
-	0.04	-	0.03	-	0.01	I*
-	0.04	-	0.03	-	0.01	I*
	0.04	-	0.03	-	0.01	I*
-	0.04	-	0.03	-	0.01	I*
-	0.04	-	0.03	-	0.01	I*
-	0.04	-	0.01		0.04	I*
-	0.04	-	0.03	-	0.01	I*
-	0.04	-	0.03	-	0.01	I*
	0.04	-	0.04	-	0.01	I*
	0.04	-	0.04	-	0.01	I*
-	0.04	-	0.03	-	0.01	I*
-	0.03	-	0.03	-	0.01	I*
-	0.04	-	0.03	-	0.01	I*
-	0.04	-	0.04	-	0.01	I*
-	0.04	-	0.04	-	0.01	I*
-	0.04	-	0.04	-	0.01	I*
-	0.04	-	0.04	-	0.01	I*

-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.03	-	0.03	-	0.01	|*
	0.03	-	0.03		0.00	|*
	0.03	-	0.03		0.00	|*
-	0.03	-	0.03	-	0.01	|*
-	0.03	-	0.03		0.00	|*
-	0.03	-	0.03		0.00	|*
-	0.03	-	0.01		0.01	|*
-	0.03	-	0.01		0.00	|*
-	0.01	-	0.01		0.00	|*
-	0.03	-	0.03		0.00	|*
	0.03	-	0.03	-	0.01	|*
-	0.01	-	0.01		0.00	|*
-	0.03	-	0.03		0.00	|*
	0.00		0.72		1.42	|*
	0.98		1.14		1.43	|*
	1.26		1.32		1.46	|*
	0.93		1.24		1.49	|*

DATE: 8/10/96 TIME: 12:40:52

	0.67		0.30		1.06	|*
	0.43		0.50		0.60	|*
	0.37		0.41		0.59	|*
	0.13		0.27		0.40	|*
	0.18		[illegible]		0.27	|*
	0.17		[illegible]		0.34	|*
	0.16		0.21		0.25	|*
	0.13		0.16		0.22	|*
	[illegible]		[illegible]		0.21	|*
	0.03		0.00		0.07	|*
-	0.04	-	0.03		0.00	|*
-	0.03	-	0.03	-	0.01	|*
-	0.03	-	0.03	-	0.01	|*
-	0.03	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
	0.40	-	0.04		0.10	-*
-	0.04	-	0.03	-	0.01	|*
-	0.03	-	0.04	-	0.01	|*
-	0.07	-	0.04		0.00	|*

DATE: 8/10/96 TIME: 13:00:52

	0.00		0.01		0.10	|*
-	0.01		0.00		0.07	|*
-	0.01	-	0.01		0.03	|*
-	0.03	-	0.01		0.00	|*
-	0.03	-	0.01		0.00	|*
-	0.03	-	0.03		0.00	|*
-	0.03	-	0.03	-	0.01	|*
-	0.03	-	0.03	-	0.01	|*
-	0.03	-	0.03		0.00	|*
-	0.04	-	0.03	-	0.01	|*
-	0.03	-	0.01		0.01	|*
	0.03	-	0.03	-	0.01	|*
	0.03	-	0.03	-	0.31	|*
-	0.03	-	0.03		0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.03	-	0.03	-	0.01	|*
	[illegible]		0.03		0.01	|*

-	0.03	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
	0.06	-	0.04	-	0.01	|*
	0.06	-	0.04	-	0.03	|*
-	0.04	-	0.04	-	0.03	|*
-	0.04	-	0.04	-	0.03	|*
-	0.04	-	0.04	-	0.03	|*
-	0.04	-	0.04	-	0.03	|*
-	0.04	-	0.04	-	0.03	|*
-	0.04	-	0.04	-	0.03	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.03	|*
-	0.04	-	0.04	-	0.03	|*
-	0.04	-	0.04		0.00	|*
-	0.04	-	0.04	-	0.03	|*
-	0.04	-	0.04		0.00	|*
-	0.04	-	0.04	-	0.03	|*
-	0.04	-	0.04	-	0.01	|*

DATE: 8/10/90 TIME: 13:40:50

-	0.04	-	0.03		0.00	|*
-	0.03	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.03	|*
-	0.03	-	0.04	-	0.03	|*
-	0.04	-	0.04	-	0.03	|*
	0.04		[illegible]		0.00	|*
	0.04		0.04	-	0.01	|*
	0.04	-	0.04		0.01	|*
	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.03	|*
-	0.04	-	0.03		0.00	|*
	0.04		0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.03	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*

DATE: 8/10/90 TIME: 1[illegible]:[illegible]:5[illegible]

-	0.04	-	0.04	-	0.03	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.04		0.00	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.03	|*
-	0.04	-	0.04	-	0.03	|*
-	0.06	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.03	|*
-	0.06	-	0.04	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
	0.06	-	0.04	-	0.01	|*
	0.04	-	0.03		0.00	|*
-	0.06	-	0.03		0.01	|*
	[illegible]		0.03		0.01	|*
-	0.04	-	0.03		0.00	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03		0.01	|*
-	0.04	-	0.03		0.01	|*
-	0.04	-	0.03		0.00	|*

-	0.04	-	0.03		0.04	|*
-	0.04	-	0.03		0.03	|*
-	0.04	-	0.03		0.00	|*
-	0.03	-	0.03		0.00	|*
	0.03	-	0.01		0.00	|*
	0.04	-	0.03	-	0.01	|*
-	0.03	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.03	-	0.03		0.00	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.03	-	0.01		0.00	|*
-	0.03	-	0.03		0.00	|*
-	0.04	-	0.03		0.00	|*
-	0.03	-	0.01		0.01	|*
-	0.03		0.00		0.06	|*
-	0.01	-	0.01		0.01	|*
-	0.03	-	0.03		0.00	|*
-	0.03	-	0.01		0.00	|*
-	0.03	-	0.01		0.01	|*

DATE: 8/10/96 TIME: 14:40:52

-	0.03	-	0.01		0.01	|*
-	0.03	-	0.03	-	0.01	|*
-	[illegible]	-	0.01		0.04	|*
	[illegible]		0.01		0.12	|*
-	0.01	-	0.01		0.03	|*
-	0.03	-	0.03		0.00	|*
	0.04	-	0.03	-	0.01	|*
	0.04	-	0.03		0.00	|*
	0.03	-	0.03		0.00	|*
-	0.03	-	0.01		0.04	|*
-	0.04	-	0.03		0.00	|*
-	0.04	-	0.03	-	0.01	|*
-	0.01	-	0.04	-	0.01	|*
-	0.03	-	0.03		0.03	|*
-	0.04	-	0.03		0.00	|*
-	0.01	-	0.03		0.00	|*
-	0.04	-	0.03		0.00	|*
-	0.04	-	0.03		0.00	|*
-	0.0	-	0.03		[illegible]	|*
-	0.10	-	0.06		0.01	|*

DATE: 8/10/96 TIME: 15:00:52

-	0.06	-	0.01		0.04	|*
-	0.06	-	0.03		0.01	|*
-	0.07	-	0.04		0.00	|*
-	0.04	-	0.03		0.03	|*
-	0.07	-	0.03		0.00	|*
-	0.07	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
-	0.06	-	0.04	-	0.03	|*
-	0.06	-	0.04	-	0.03	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
	0.04	-	0.03		0.03	|*
	[illegible]	-	0.03		0.01	|*
-	0.04	-	0.03		0.04	|*
-	0.04	-	0.03		0.00	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.03	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
	0.04		0.04	-	0.01	|*

-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.03	|*
-	0.04	-	0.04	-	0.03	|*
-	0.04	-	0.04	-	0.01	|*
	0.06	-	0.04	-	0.03	|*
	0.06	-	0.04	-	0.03	|*
-	0.06	-	[illegible]	-	0.01	|*
-	0.06	-	0.04	-	0.01	|*
-	0.06	-	0.04	-	0.03	|*
-	0.06	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.03	|*
-	0.04	-	0.04		0.00	|*
-	0.04	-	0.03		0.00	|*
-	0.04	-	0.03		0.01	|*
-	0.04	-	0.03		0.00	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.03		0.01	|*
-	0.06	-	0.04		0.00	|*

DATE: 8/10/96 TIME: 15:40:58

	[illegible]		[illegible]		0.06	|*
-	0.07	-	0.06	-	0.03	|*
-	0.06	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.03	|*
-	0.04	-	0.04		0.02	|*
	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.03		0.00	|*
	0.04		0.04	-	0.01	|*
-	0.06	-	0.04	-	0.02	|*
-	0.06		0.04	-	0.01	|*
-	0.06	-	0.06	-	0.03	|*
-	0.06	-	0.04		0.02	|*
	0.04	-	0.04	-	0.01	|*
-	0.02	-	0.02	-	0.03	|*
-	0.07	-	0.06	-	0.03	|*
	[illegible]		[illegible]		[illegible]	|*
-	0.06	-	0.04	-	0.03	|*
-	0.06	-	0.04	-	0.01	|*
-	0.04	-	0.04		0.00	|*
-	0.06	-	0.04	-	0.03	|*

DATE: 8/10/96 TIME: 16:00:58

-	0.06	-	0.04	-	0.03	|*
-	0.06	-	0.04	-	0.01	|*
-	0.04	-	0.03		0.01	|*
-	0.04	-	0.03		0.00	|*
-	0.04	-	0.04		0.00	|*
-	0.04	-	0.03		0.01	|*
-	0.04	-	0.01		0.07	|*
-	0.06	-	0.04	-	0.03	|*
-	0.06	-	0.04	-	0.01	|*
-	0.06	-	0.04	-	0.01	|*
-	0.04	-	0.03		0.03	|*
	0.04	-	0.01		0.21	|*
	0.03		0.00		0.13	|*
-	0.04	-	0.01		0.04	|*
-	0.04	-	0.03		0.00	|*
-	0.04	-	0.04	-	0.01	|*
-	0.04	-	0.03		0.00	|*
-	0.06	-	0.04	-	0.01	|*
-	0.04	-	0.04	-	0.01	|*
	[illegible]		[illegible]	-	0.01	|*

-	0.05	-	0.04	-	0.01	|*
-	0.07	-	0.06	-	0.03	|*
-	0.07	-	0.06	-	0.01	|*
	0.04	-	0.04	-	0.01	|*
	0.04	-	0.04	-	0.03	|*

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 9-11-96 Start Time: Completion Time:

Location: Building T-4002 Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Interior building demolition

Protective Clothing/Equipment: Level D

Chemical Hazards: None (pest.)

Physical Hazards: Slips, trips, falls, hand tools

Control Methods: Site hygiene, careful operation of saws

Special Equipment/Techniques:

Other:

Print Name	Sign Name
Donnie Graham	
Rick Bailey	
Gary Ray	
M. Husson	
P. Weilerbacher	

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 9-11-96

Inspector: Steph C. Tan

Site Conditions, Weather: Partly cloudy, dry, Slight breeze W→E

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)		✓	
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?			✓
All drums and containers inspected for structural integrity before moving?			↓
Personnel warned of the potential hazards associated with the contents of containers prior to movement?			↓
Containers moved using appropriate mechanical devices to avoid injury?			↓
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?			✓
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?			✓
SSHP decontamination procedures observed?			✓
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?			✓
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?			✓
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are unauthorized personnel denied access to decontamination areas, decontamination equipment and change rooms?	✓		
Are washing facilities away from hazardous substances and adequate to permit personnel to remove hazardous substances from their bodies?	✓		
Are decontamination solution(s), equipment and clothing properly marked and left on-site or disposed of?	✓		
DRILLING			
Have proper underground utility clearances been obtained?			✓
Have overhead utility clearances been considered?			
Flammable liquids in approved containers?			
Emergency rig shutoff within reach of the operator?			
Appropriate fire shutoff within reach of the operator?			
Drilling platform properly stabilized?			
Ropes and chains in good condition?			✓
EXCAVATION			
Have proper utility clearances been obtained?			✓
Has the On-site Competent Person been identified and is present?			
Are daily trench inspections being conducted (or more frequently, as conditions warrant)?			
Support systems (piling, cribbing, shoring) appropriate for the job?			
Is there suitable access by stairs, ladders, ramps, hoists?			
Appropriate guardrails, fences, barricades and warning lights?			✓
MISCELLANEOUS SAFETY PROCEDURES			
If site work is anticipated in dimly lighted areas, is additional lighting provided?			✓
Is potable water labeled as safe for drinking?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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INSTRUMENT CALIBRATION CHECK SHEET
Building T4002
Fort Drum, New York

Instrument(s): PID, Dust

Serial No.(s):

Technician's Signature: Stephen C. Yanchar

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0705	PID	Ambient	zero	G	SCL	HNU PI101 SN: 101238
	"	—	100 ppm → 57ppm	"	"	"
	Dust	Factory →		"	"	MIE PDM-3 SN: 4017
	"	Zero	—	"	"	"
1630	PID	—	100 ppm → 57ppm	—	"	—
	Dust	Zero	—	—	"	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-11-96

Field Activities: Interior building demo.

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Fair

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
91196-001	0810	1	Donnie Truslow BZH	0	PID
"	"	"		0.00	Dust
-002	0812	"	Station 1	0	PID
"	"	"	"	0.00	Dust
-003	0814	"	Station 2	0	PID
"	"	"	"	0.01	Dust
-004	0816	"	Station 3	0	PID
"	"	"	"	0.01	Dust
-005	0818	"	Station 4	0	PID
"	"	"	"	0.01	Dust
-006	0919	"	Donnie Truslow BZH	0	PID
"	"	"	"	0.09	Dust
-007	0921	"	Station 2	0	PID
"	"	"	"	0.00	Dust
-008	0924	"	Station 3	0	PID
"	"	"	"	0.03	Dust

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-11-96

Field Activities: Interior building demo.

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Steph C. Jan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
91196-009	0926	1	Station 4	0	PID
"	"	"	"	0.05	Dust
-010	0928	"	Station 1	0	PID
"	"	"	"	0.03	Dust
-011	1017	"	Station 1	0	PID
"	"	"	"	0.06	Dust
-012	1020	"	Donnie Truslow BZH	0	PID
"	"	"	"	0.14	Dust
-013	1024	"	Station 2	0	PID
"	"	"	"	0.06	Dust
-014	1026	"	Station 3	0	PID
"	"	"	"	0.06	Dust
-015	1028	"	Station 4	0	PID
"	"	"	"	0.10	Dust
-016	1122	"	Donnie Truslow BZH	0	PID
"	"	"	"	0.09	Dust

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-11-96

Field Activities: Interior building demolition

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Fanham

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
91196-017	1124	1	Station 2	0	PID
"	"	"	"	0.06	Dust
-018	1126	"	Station 3	0	PID
"	"	"	"	0.04	Dust
-019	1128	"	Station 4	0	PID
"	"	"	"	0.06	Dust
-020	1131	"	Station 1	0	PID
"	"	"	"	0.03	Dust
-021	1235	"	Station 1	0	PID
"	"	"	"	0.04	Dust
-022	1237	"	Station 2	0	PID
"	"	"	"	0.04	Dust
-023	1239	"	Station 3	0	PID
"	"	"	"	0.06	Dust
-024	1241	"	Station 4	0	PID
"	"	"	"	0.06	Dust

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-11-96

Field Activities: Interior building demo.

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Steph C. Yank

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
91196-025	1243	1	Donnie Truslow BZH	0	PID
"	"	"	"	0.06	Dust
-026	1430	1	Donnie Truslow BZH	0	PID
"	"	"	"	0.06	Dust
-027	1433	"	Station 1	0	PID
"	"	"	"	0.06	Dust
-028	1435	"	Station 2	0	PID
"	"	"	"	0.08	Dust
-029	1437	"	Station 3	0	PID
"	"	"	"	0.04	Dust
-030	1441	"	Station 4	0	PID
"	"	"	"	0.06	Dust
-031	1535	"	Station 1	0	PID
"	"	"	"	0.06	Dust
-032	1537	"	Donnie Truslow BZH	0	PID
"	"	"	"	0.00	Dust

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-11-96

Field Activities: Interior building demo.

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature:

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
91196-033	1539	1	Station 2	0	PID
"	"	"	"	0.06	Dust
-034	1541	"	Station 3	0	PID
"	"	"	"	0.08	Dust
-035	1543	"	Station 4	0	PID
"	"	"	"	0.08	Dust

INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-11-96
Phase: Building demolition
Activity: Interior demo.
Industrial Hygienist: Stephen C. Lark

Comments: (Weather, wind condition, etc.)
Partly cloudy, dry.

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-91196-PHI-A-001	Donnie Truslow	5408	0742	1550	488	1.51	1.50	1.50	732.00	
-B-001	"	5	"	"	"	0.46	0.45	0.45	219.60	
-C-001	"	"	"	"	"	0.46	0.46	0.46	224.48	
-A-002	Station 1	5366 ~~5506~~	0744	1602	496	1.51	1.51	1.51	748.96	
-B-002	"	3807	"	"	"	0.45	0.45	0.45	223.20	
-C-002	"	"	"	"	"	0.47	0.47	0.47	233.12	
-A-003	Station 2	5506	0746	1612	506	1.51	1.51	1.51	764.06	
-B-003	"	3813	"	"	"	0.54	0.53	0.53	268.18	
-C-003	"	"	"	"	"	0.53	0.53	0.53	268.18	
-A-004	Station 3	5438	0747	1515	508	1.50	1.50	1.50	762.00	
-B-004	"	3811	"	"	"	0.49	0.48	0.48	243.84	
-C-004	"	"	"	"	"	0.47	0.46	0.46	233.68	

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-11-96
Phase: Building Demolition
Activity: Interior demo.
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Partly cloudy, dry

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FO-91196-PHI-A-0045	Station 4	5432	0748	1620	512	1.44	1.44	1.44	737.28	
-B-0045	"	3812	"	"	"	0.49	0.48	0.48	245.76	
-C-0045	"	"	"	"	"	0.52	0.50	0.50	256.00	
-A-005D	" (COE Dup.)	5412	0748	1620	512	1.49	1.48	1.48	757.76	
-B-005D	" "	3673	"	"	"	0.46	0.46	0.46	235.52	
-C-005D	" "	"	"	"	"	0.48	0.47	0.47	240.64	

32

9-11-96

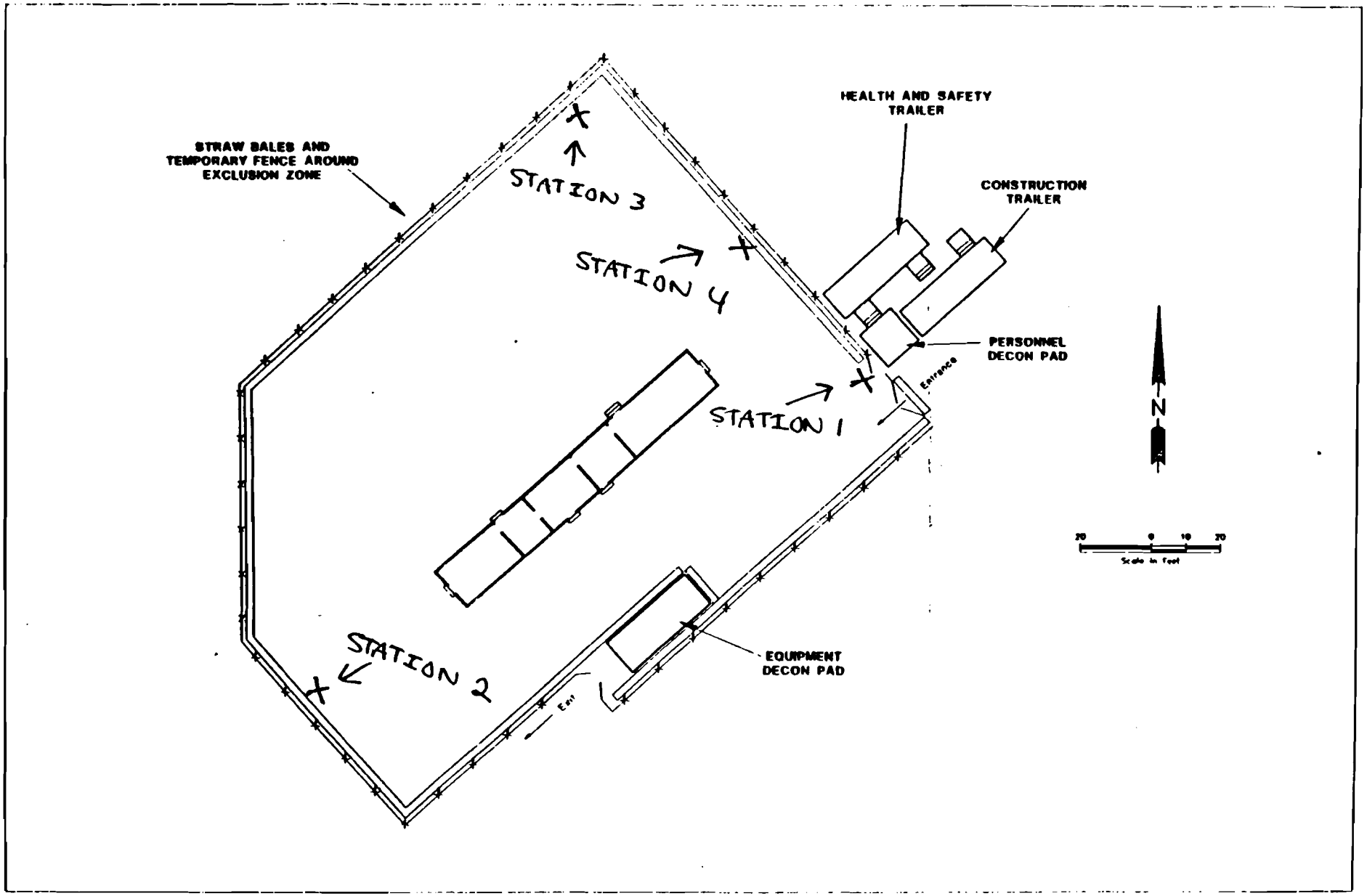

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

329

MIE INC. Model PDL-10 SN 2332 V5.2 4/89

CURRENT DATE: 8/11/96
CURRENT TIME: 16:26:49

CALIBRATION
0.015 V = 0.00 mg/m3
0.200 V = 14.20 mg/m3

LOWER ALARM: - 1.10 mg/m3
UPPER ALARM: - 1.10 mg/m3

UNITS: mg/m3

INPUT READS:- 1.12 mg/m3
TEST STARTING DATE: 8/11/96
TEST STARTING TIME: 8:09:12
ELAPSED TIME: 0 DAYS 7:56:08
OVERALL AVG: 0.03 mg/m3
OVERALL MIN: - 2.24 mg/m3
MIN OCCURRED 8/11/96 @ 9:11:12
OVERALL MAX: 2.3[illegible] mg/m3
MAX OCCURRED 8/11/96 @ 10:[illegible]:31
STEL: 3.5[illegible] mg/m3
STEL OCCURRED 8/11/96 @ 10:34:01

MIE INC. Model PDL-10 SN 2332 V5.2 4/89

CURRENT DATE: 8/11/96
CURRENT TIME: 16:27:33

CALIBRATION
[illegible]
0.206 V = 14.20 mg/m3

LOWER ALARM: - 1.10 mg/m3
UPPER ALARM: - 1.10 mg/m3

UNITS: mg/m3

TIME HISTORY
PERIOD LENGTH: 0:01:00
OF PERIODS COMBINED: 1

MIN	AVG	MAX	HIG
DATE: 8/11/96 TIME: 8:[illegible]			
0.01	0.03	0.04	*
0.01	0.03	0.04	*
0.01	0.03	0.07	*
0.01	0.01	0.03	*
0.01	0.01	0.04	*
0.01	0.01	[illegible]	*
0.01	0.03	0.04	*
0.01	0.03	0.04	*
0.01	0.03	0.04	*
0.01	0.01	0.04	*
0.01	0.03	0.06	*
0.01	0.03	0.07	*
0.01	0.03	0.04	*
0.02	0.03	0.07	*
0.01	0.03	0.04	*
0.01	0.03	0.04	*
0.01		0.[illegible]	-**
0.22	0.41	0.60	-* +
0.26	0.40	0.57	-* +
0.21	0.25	0.37	-*+
DATE: 8/11/96 TIME: 8:29:12			
0.22	0.25	0.32	*
0.15	0.21	0.29	*+
0.18	0.21	0.25	*+
0.13	0.18	0.28	*+
0.16	0.19	0.24	*+
0.12	0.13	0.21	*
0.09	0.10	0.13	-*
0.09	0.09	0.12	*+
0.07	0.09	0.12	*+
0.04	0.07	0.12	*+
0.04	0.06	0.10	*+
0.05	0.06	0.10	*+
0.04	0.05	0.07	*
0.04	0.06	0.09	*
0.03	0.04	0.06	*
0.03	0.04	0.07	*
0.04	0.04	0.06	*

0.04	0.04	0.05		*
0.07	0.04	0.07		*

DATE: 8/11/96 TIME: 8:49:12

0.03	0.04	0.07		*
0.03	0.04	0.07		*
0.03	0.04	0.07		*
0.03	0.04	0.07		*
0.01	0.04	0.06		*
0.01	0.03	0.06		*
0.03	0.03	0.06		*
0.03	0.03	0.06		*
0.03	0.03	0.04		*
0.03	0.03	0.10		*+
0.03	0.03	0.04		*
0.03	0.03	0.04		*
0.03	0.03	0.04		*
0.03	0.03	0.05		*
0.03	0.03	0.04		*
0.03	0.03	0.06		*
0.01	0.03	0.04		*
0.03	0.03	0.06		*
0.03	0.03	0.06		*
0.03	0.03	0.06		*

DATE: 8/11/96 TIME: 9:29:12

[illegible]	0.03	0.04		*
[illegible]	0.07	0.57		* +
0.01	0.02	0.29		* +
0.03	0.04	0.05		*
0.01	0.04	0.07		*
0.01	0.03	0.05		*
[illegible]	[illegible]			*
0.01	0.04	0.07		*
0.07	0.07	0.10		++
0.03	0.03	0.06		*
0.01	0.03	0.04		*
0.03	0.03	0.06		*
- [illegible]	- [illegible]	[illegible]	-	* +
- 1.96	- 0.57	0.00	-	* +
[illegible]	[illegible]	0.01		-- * +
- 0.10	0.00	0.06		- *
[illegible]	[illegible]	0.09		*
[illegible]	- [illegible]	0.07		- *
- 0.34	- 0.03	0.06		- *+
- 0.07	0.00	0.06		-*

DATE: 8/11/96 TIME: 9:29:12

0.01	0.03	0.04		*
0.03	0.03	0.06		*
0.03	0.03	0.06		*
0.03	0.03	0.06		*
0.03	0.03	0.06		*
0.03	0.04	0.10		*+
0.03	0.03	0.06		*
0.03	0.03	0.06		*
0.01	0.03	0.04		*
0.03	0.03	0.04		*
0.03	0.03	0.03		*
0.01	0.03	0.07		*
0.01	0.03	0.05		*
0.03	0.03	0.04		*
0.03	0.03	0.07		*
0.03	0.03	0.06		*
0.03	0.04	0.07		*

0.04	0.07	0.13	*+
0.01	0.03	0.06	*

DATE: 8/11/96 TIME: 9:49:12

0.03	0.03	0.09	*
0.03	0.04	0.07	*
0.03	0.04	0.06	*
0.03	0.03	0.06	*
0.03	0.04	0.05	*
0.03	0.04	0.07	*
0.03	0.03	0.06	*
0.03	0.04	0.06	*
0.03	0.04	0.06	*
0.03	0.03	0.06	*
0.03	0.03	0.06	*
0.03	0.03	0.06	*
0.03	0.04	0.06	*
0.03	0.03	0.06	*
0.03	0.03	0.06	*
0.03	0.04	0.06	*
0.03	0.03	0.06	*
0.03	0.04	0.06	*
0.03	0.03	[illegible]	*
0.03	0.04	0.10	*+

DATE: 8/11/96 TIME: 10:09:12

0.04	0.04	0.07	*
0.03	0.04	0.06	*
0.03	0.03	0.03	*
0.03	0.03	[illegible]	*
0.01	0.01	0.05	*
0.03	0.07	0.06	*
0.01	0.04	0.10	*+
[illegible]	[illegible]	0.01	*
[illegible]	[illegible]	0.06	*
0.03	0.04	0.10	*+
0.03	0.04	0.09	*
0.01	0.04	0.07	*
0.03	0.03	0.05	*
0.01	0.04	0.07	*
0.01	0.06	0.32	* +
0.15	[illegible]	0.13	- *+
0.03	0.06	0.35	* +
[illegible]	[illegible]	0.07	*
0.01	0.05	0.18	*+
0.03	0.03	0.06	*

DATE: 8/11/96 TIME: 10:29:12

0.03	0.04	0.07	*
0.04	0.04	0.06	*
0.03	0.04	0.07	*
0.04	0.04	0.07	*
0.04	0.04	0.06	*
0.04	0.07	0.53	* +
0.54	1.22	1.57	- * +
0.96	1.[illegible]	[illegible]	- * +
1.32	1.62	2.19	- *
0.62	1.00	1.47	- * +
0.55	0.69	0.82	- *+
0.53	0.59	0.68	-*
0.47	0.53	0.69	-*
0.15	0.35	0.52	- *+
0.07	0.18	0.29	-*+
0.21	0.26	0.40	-*+
0.15	0.21	0.29	*+

0.13	0.15	0.18	*
0.13	0.15	0.18	*

DATE: 8/11/96 TIME: 10:49:12

0.09	0.12	0.15	-*
0.08	0.12	0.18	-*
0.07	0.10	0.13	-*
0.07	0.09	0.13	*+
0.07	0.09	0.15	*+
0.07	0.10	0.13	-*
0.07	0.09	0.12	*+
0.06	0.10	0.19	-*
0.07	0.12	0.19	-*
0.07	0.09	0.13	*+
0.07	0.10	0.15	-*
0.06	0.07	0.10	*+
0.06	0.09	0.15	*+
0.06	0.09	0.15	*+
0.07	0.10	0.15	-*
0.06	0.07	0.12	*+
0.07	0.10	0.13	-*
0.07	0.09	0.13	-*
[illegible]	0.09	0.12	*+
0.07	0.09	0.12	*+

DATE: 8/11/96 TIME: 11:09:12

0.12	0.13	0.15	*
0.08	0.10	0.16	-*
0.07	0.10	0.16	-*
0.07	0.07	0.12	*+
0.06	0.08	0.09	*
0.07	0.08	0.12	*+
[illegible]	[illegible]	[illegible]	*+
0.07	0.07	0.12	*+
[illegible]	0.06	0.10	*+
0.04	0.06	0.10	*+
[illegible]	0.07	0.10	*+
0.04	0.06	0.07	*
[illegible]	0.06	0.13	*+
0.05	0.06	0.07	*
[illegible]	0.06	0.09	*
[illegible]	0.04	0.07	*
[illegible]	0.04	0.07	*
[illegible]	0.04	0.07	*
0.04	0.04	0.06	*
0.04	0.04	0.07	*

DATE: 8/11/96 TIME: 11:29:12

0.04	0.06	0.07	*
0.04	0.06	0.12	*+
0.04	0.06	0.07	*
0.08	0.06	0.10	*+
0.04	0.06	0.09	*
0.04	0.06	0.09	*
0.04	0.06	0.12	*+
0.04	0.04	0.10	*+
0.07	0.07	0.16	*+
0.04	0.06	0.09	*
0.04	0.05	0.10	*+
0.05	0.07	0.12	*+
0.04	0.07	0.10	*+
0.04	0.06	0.07	*
0.04	0.06	0.10	*+
0.04	0.04	0.06	*
0.03	0.04	0.07	*

0.04	0.04	0.10	I	++
0.03	0.03	0.06	I	*

DATE: 8/11/96 TIME: 11:49:12

0.03	0.07	0.24	I	* +
0.04	0.04	0.09	I	*
0.03	0.04	0.08	I	*
0.03	0.03	0.05	I	*
0.03	0.03	0.06	I	*
0.03	0.04	0.07	I	*
0.03	0.04	0.07	I	*
0.04	0.05	0.09	I	*
0.04	0.04	0.07	I	*
0.04	0.04	0.07	I	*
0.03	0.04	0.07	I	*
0.03	0.04	0.07	I	*
0.04	0.04	0.07	I	*
0.03	0.03	0.06	I	*
0.04	0.04	0.07	I	*
0.03	0.04	0.06	I	*
0.03	0.03	0.06	I	*
0.03	0.04	0.05	I	*
0.03	0.04	0.05	I	*
0.03	0.04	0.05	I	*

DATE: 8/11/96 TIME: 12:09:12

0.04	0.04	0.05	I	*
0.03	0.04	0.06	I	*
0.03	0.04	0.06	I	*
0.04	0.04	0.06	I	*
0.04	0.04	0.05	I	*
0.03	0.04	0.06	I	*
0.04	0.04	0.06	I	*
0.04	0.04	0.06	I	*
0.03	0.04	0.05	I	*
0.03	0.03	0.05	I	*
0.03	0.04	0.07	I	*
0.03	0.03	0.04	I	*
0.03	0.04	0.06	I	*
0.03	0.04	0.06	I	*
0.03	0.04	0.09	I	*
0.04	0.04	0.07	I	*
0.04	0.04	0.07	I	*
0.04	0.04	0.07	I	*
0.03	0.04	0.07	I	*
0.04	0.06	0.07	I	*

DATE: 8/11/96 TIME: 12:29:12

0.04	0.04	0.06	I	*
0.04	0.04	0.06	I	*
0.04	0.04	0.07	I	*
0.04	0.06	0.07	I	*
0.04	0.04	0.07	I	*
0.04	0.04	0.07	I	*
0.04	0.06	0.09	I	*
0.04	0.06	0.10	I	++
0.04	0.04	0.07	I	*
0.04	0.05	0.10	I	++
0.06	0.07	0.12	I	+-
0.06	0.06	0.09	I	*
0.04	0.04	0.07	I	*
0.04	0.06	0.07	I	*
0.04	0.07	0.13	I	+I
0.05	0.06	0.07	I	*
[illegible]	[illegible]	[illegible]	I	++

[illegible]	[illegible]	0.07	|	*
[illegible]	0.05	0.07	|	*

DATE: 8/11/96 TIME: 12:49:18

0.05	0.07	0.13	|	*+
0.04	0.04	0.07	|	*
0.04	0.04	0.06	|	*
0.04	0.04	0.06	|	*
0.04	0.04	0.06	|	*
0.04	0.04	0.06	|	*
0.03	0.06	0.10	|	*+
0.04	0.04	0.07	|	*
0.04	0.04	0.07	|	*
0.04	0.04	0.10	|	*+
0.04	0.04	0.06	|	*
0.04	0.04	0.06	|	*
0.04	0.04	0.09	|	*
0.04	0.04	0.06	|	*
0.03	0.04	0.06	|	*
0.04	0.04	0.06	|	*
0.03	0.04	0.06	|	*
0.06	0.07	0.13	|	*+
0.04	0.04	0.07	|	*
0.03	0.04	[illegible]	|	*

DATE: [illegible] TIME: 13:09:18

0.03	0.04	0.07	|	*
0.03	0.04	0.05	|	*
0.04	0.04	0.07	|	*
0.03	0.03	0.05	|	*
0.03	0.03	0.05	|	*
0.03	0.04	0.05	|	*
[illegible]	0.04	0.07	|	*
[illegible]	0.04	0.07	|	*
[illegible]	[illegible]	0.06	|	*
[illegible]	[illegible]	0.06	|	*
0.03	0.04	0.05	|	*
0.03	0.03	0.04	|	*
0.03	0.03	0.04	|	*
0.03	0.03	0.05	|	*
0.03	0.03	0.06	|	*
0.03	0.04	0.06	|	*
0.03	0.04	0.05	|	*
0.03	0.04	0.05	|	*
0.03	0.04	0.06	|	*
0.03	0.04	0.06	|	*

DATE: 8/11/96 TIME: 13:29:18

0.04	0.04	0.09	|	*
0.03	0.03	0.06	|	*
0.03	0.03	0.06	|	*
0.03	0.04	0.06	|	*
0.03	0.03	0.04	|	*
0.03	0.04	0.06	|	*
0.03	0.04	0.09	|	*
0.03	0.04	0.06	|	*
0.04	0.04	0.06	|	*
0.04	0.04	0.05	|	*
0.04	0.04	0.06	|	*
0.04	0.04	0.06	|	*
0.04	0.04	0.06	|	*
0.03	0.04	0.06	|	*
0.03	0.04	0.06	|	*
0.04	0.04	0.06	|	*
0.03	0.04	0.06	|	*

0.03	0.04	0.06	|	*
0.03	0.04	0.06	|	*

DATE: 8/11/96 TIME: 13:49:12

0.04	0.04	0.06	|	*
0.03	0.03	0.06	|	*
0.03	0.03	0.06	|	*
0.03	0.03	0.06	|	*
0.03	0.03	0.06	|	*
0.03	0.03	0.04	|	*
0.03	0.03	0.06	|	*
0.04	0.06	0.09	|	*
0.03	0.03	0.06	|	*
0.03	0.04	0.10	|	*+
0.03	0.04	0.09	|	*
0.03	0.03	0.06	|	*
0.03	0.06	0.12	|	*+
0.04	0.04	0.07	|	*
0.03	0.04	0.06	|	*
0.04	0.04	0.07	|	*
0.04	0.06	0.09	|	*
0.03	0.04	0.06	|	*
0.03	[illegible]	0.07	|	*
0.04	0.04	0.06	|	*

[illegible] TIME: [illegible]

[illegible]	0.04	0.07	|	*
[illegible]	[illegible]	[illegible]	|	*
[illegible]	0.04	[illegible]	|	*
[illegible]	[illegible]	0.05	|	*
0.04	0.06	0.07	|	*
0.04	0.04	[illegible]	|	*
[illegible]	0.04	0.06	|	*
[illegible]	[illegible]	0.07	|	*
[illegible]	[illegible]	0.06	|	*
[illegible]	0.04	0.06	|	*
[illegible]		[illegible]	|	*
0.03	0.03	0.06	|	*
0.04	0.04	0.06	|	*
0.04	0.04	0.06	|	*
0.04	0.04	0.07	|	*
0.04	0.04	0.06	|	*
0.04	0.04	0.06	|	*
0.04	0.04	0.07	|	*
0.04	0.04	0.07	|	*
0.04	0.04	0.07	|	*

DATE: 8/11/96 TIME: 14:29:12

0.04	0.04	0.06	|	*
0.04	0.04	0.07	|	*
0.04	0.06	0.10	|	*+
0.04	0.04	0.07	|	*
0.04	0.06	0.07	|	*
0.04	0.06	0.07	|	*
0.04	0.06	0.07	|	*
0.06	0.06	0.09	|	*
[illegible]	0.07	0.10	|	*+
[illegible]	0.06	0.12	|	*+
[illegible]	0.06	0.10	|	*+
[illegible]	[illegible]	0.13	|	*+
0.06	0.07	0.10	|	*+
0.07	0.09	0.12	|	*+
0.09	0.10	0.13	|	-*
0.07	0.09	0.13	|	*+
0.10	0.12	0.15	|	*

[illegible]	[illegible]	[illegible]	
0.05	0.07	0.10	++
0.05	0.06	0.03	*

DATE: 8/11/96 TIME: 14:49:12

0.06	0.03	0.15	++
0.07	0.07	0.09	*
0.06	0.05	0.10	++
0.06	0.07	0.12	++
0.01	0.07	0.16	++
0.06	0.07	0.10	++
0.06	0.06	0.09	*
0.06	0.06	0.10	++
0.06	0.06	0.07	*
0.06	0.07	0.12	++
0.06	0.07	0.10	++
0.06	0.06	0.10	++
0.05	0.05	0.07	*
0.06	0.06	0.07	*
0.06	0.06	0.07	*
0.06	0.06	0.10	++
0.04	0.06	0.07	*
0.04	0.0[illegible]	0.09	*
0.0[illegible]	0.0[illegible]	0.07	*
0.0[illegible]	0.07	0.10	++

[illegible] 8/11/96 TIME: 15:09:12

[illegible]	[illegible]	0.15	++
[illegible]	[illegible]	0.12	++
0.0[illegible]	0.07	0.12	++
0.0[illegible]	0.07	0.12	++
0.0[illegible]	0.03	0.10	++
0.0[illegible]	0.05	0.07	*
0.0[illegible]	0.06	0.07	*
0.0[illegible]	0.06	0.07	*
[illegible]	0.06	0.07	*
0.0[illegible]	0.0[illegible]	0.07	*
0.0[illegible]	0.08	0.07	*
0.06	0.06	[illegible]	*
0.07	0.07	0.15	++
0.06	0.09	0.15	++
0.06	0.07	0.10	++
0.07	0.07	0.12	++
0.07	0.09	0.12	++
0.06	0.08	0.18	++
0.06	0.09	0.15	++
0.06	0.09	0.15	++

DATE: 8/11/96 TIME: 15:29:12

0.06	0.06	0.07	*
0.06	0.06	0.10	++
0.06	0.07	0.12	++
0.04	0.06	0.07	*
- 0.04	0.04	0.07	-*
- 0.07	0.04	0.09	-*
- 0.81	- 0.12	0.07	- *+
- 0.19	0.03	0.07	- *
0.0[illegible]	0.07	0.18	++
0.13	0.04	0.18	-++
- 0.[illegible]	0.02	0.06	-+
- 0.[illegible]	- 0.[illegible]	0.[illegible]	- * +
- 0.[illegible]	0.04	0.12	-++
- 0.26	0.02	0.10	- *+
- 0.05	0.03	0.07	-*
0.04	0.04	0.05	*
0.04	0.04	0.06	*

```
     0.04        0.29        0.90          |          - *     +
  -  0.71     -  0.[illegible]     0.33          |   -   *      +

DATE:  8/11/96  TIME: 15:49:12
                -  0.[illegible]1     -  0.74          |-*+
     1.09     -  1.06     -  1.02          -*
     1.10     -  1.10     -  1.07          *
     1.12     -  1.12     -  1.10          *
  -  1.12     -  1.12     -  1.10          *
  -  1.13     -  1.12     -  1.10          *
  -  1.13     -  1.12     -  1.10          *
  -  1.13     -  1.13     -  1.10          *
  -  1.12     -  1.10     -  1.07          *
  -  1.10     -  1.10     -  1.07          *
  -  1.25     -  1.18     -  1.09         -*
  -  1.19     -  1.15     -  1.12         -*
  -  1.15     -  1.13     -  1.12          *
  -  1.1[illegible]     -  1.13     -  1.10          *
  -  1.13     -  1.13     -  1.12          *
  -  1.13     -  1.13     -  1.12          *
0-   1.13     -  1.13     -  1.12          *
```

DAME MOORE
7101 W[illegible]onsin Avenue, Suite 700
Bethesda, Maryland 20814-4870
(301) 652-2215 FAX (301) 656-8059

24 Hour Turn around

CHAIN OF CUSTODY RECORD

NO. 0401

Project No.:

Project Name: Ft. Drum - Bldg 74002

Samplers: (signature) [illegible]

Sta. No.	Date	Time	Comp	Grab	Sample # Station Location	Number of Containers	NIOSH 7300 (Lead by ICP)		NIOSH 5001 (2,4-D and 2,4,5-T)		NIOSH 5274M (DDD, DDE, and DDT)		Remarks Volume (Liters)
					FD 91196-PH1-A-001	1	✓						132.00
					-B-001	1			✓				217.60
					-C-001	1					✓		224.48

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	Remarks:
Relinquished by: (signature)	Date/Time	Received for Laboratory by: (signature)	Date/Time	

Dames & Moore

Distribution: White Copy (Laboratory Copy)
Yellow Copy (Job File)
Pink Copy (Field Geologist Files)

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DAN ; MOORE
7101 Wisconsin Avenue, Suite 700
Bethesda, Maryland 20814-4870
(301) 652-2215 FAX (301) 656-8059

72 Hr.
Turn around

CHAIN OF CUSTODY RECORD

NO. 0402

Project No.:
Project Name: Ft. Drum - Bldg T4002
Samplers: (signature) Stephen C. Yard

Sta. No.	Date	Time	Comp	Grab	SAMPLE # ~~Station Location~~	Number of Containers	NIOSH 7300 (Lead by ICP)		NIOSH 5001 (2,4-D and 2,4,5-T)				Remarks Volume (Liters)
					FD-91196-PH1-A-002	1	✓						748.76
					-A-003		✓						764.06
					-A-004		✓						762.00
					-A-005		✓						737.28
					-B-002				✓				223.20
					-B-003				✓				268.18
					-B-004				✓				243.84
					-B-005				✓				245.76

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	Remarks:
Relinquished by: (signature)	Date/Time	Received for Laboratory by: (signature)	Date/Time	Dames & Moore

Distribution: White Copy (Laboratory Copy)
Yellow Copy (Job File)
Pink Copy (Field Geologist Files)

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DAMES MOORE
7101 Wisconsin Avenue, Suite 700
Bethesda, Maryland 20814-4870
(301) 652-2215 FAX (301) 656-8057

72 Hour
Turn around

CHAIN OF CUSTODY RECORD

NO. 0403

Project No.:

Project Name: Ft. Drum - Bldg T4002

Samplers: (signature) Stephen C. Ferr

Sta. No.	Date	Time	Comp	Grab	SAMPLE # Station Location	Number of Containers	NIOSH 5274M (DDD, DDE, and DDT)						Remarks Volume (Liters)
					FD-91176 PHI-C-002	↓	✓						233.12
					-C-003	↓	✓						268.18
					-C-004	↓	✓						233.68
					-C-005	↓	✓						256.00

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	Remarks:
Relinquished by: (signature)	Date/Time	Received for Laboratory by: (signature)	Date/Time	

Dames & Moore

Distribution: White Copy (Laboratory Copy)
Yellow Copy (Job File)
Pink Copy (Field Geologist Files)

355

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 9-12-96 Start Time: 0640 Completion Time: 0650

Location: Building T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Interior building demolition

Protective Clothing/Equipment: Level D

Chemical Hazards: None (pest.)

Physical Hazards: Slips, trips, falls, tools

Control Methods: Site hygiene

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
GARY RAY	[illegible]
M. HUSAIN	[illegible]
Rick BAILEY	[illegible]
P. Weilersbacher	[illegible]
D. Tudor	[illegible]

updated at 0855 SC

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 9-12-96

Inspector: Stephen Lanham

Site Conditions, Weather: Sunny, dry, slight breeze W→E

Interior demolition

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	↓		
Site work zones clearly defined on-site?	↓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	↓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	↓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)		✓	
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?			✓
All drums and containers inspected for structural integrity before moving?			
Personnel warned of the potential hazards associated with the contents of containers prior to movement?			
Containers moved using appropriate mechanical devices to avoid injury?			
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?			✓
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?	✓		
SSHP decontamination procedures observed?	✓		
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?	✓		
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?			✓
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			✓

Additional Information

_____

_____

_____

HEALTH & SAFETY INSPECTION FORM (cont'd)

Are unauthorized personnel denied access to decontamination areas, decontamination equipment and change rooms?	✓		
Are washing facilities away from hazardous substances and adequate to permit personnel to remove hazardous substances from their bodies?	✓		
Are decontamination solution(s), equipment and clothing properly marked and left on-site or disposed of?	✓		
DRILLING			
Have proper underground utility clearances been obtained?			✓
Have overhead utility clearances been considered?			
Flammable liquids in approved containers?			
Emergency rig shutoff within reach of the operator?			
Appropriate fire shutoff within reach of the operator?			
Drilling platform properly stabilized?			
Ropes and chains in good condition?			✓
EXCAVATION			
Have proper utility clearances been obtained?			✓
Has the On-site Competent Person been identified and is present?			
Are daily trench inspections being conducted (or more frequently, as conditions warrant)?			
Support systems (piling, cribbing, shoring) appropriate for the job?			
Is there suitable access by stairs, ladders, ramps, hoists?			
Appropriate guardrails, fences, barricades and warning lights?			✓
MISCELLANEOUS SAFETY PROCEDURES			
If site work is anticipated in dimly lighted areas, is additional lighting provided?			✓
Is potable water labeled as safe for drinking?	✓		

Additional Information

_____

_____

_____

HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

_____

_____

_____

INSTRUMENT CALIBRATION CHECK SHEET
Building T4002
Fort Drum, New York

Instrument(s): PID, Dust

Serial No.(s):

Technician's Signature: Stephen C. Yan

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0730	PID	~~A~~ —	100 ppm → 57 ppm	G	SCL	HNU PI 101 SN: 101238
	"	Ambient	zero	"	"	"
	Dust	Factory →		"	"	MIE pdm-3 SN: 4017
	"	zero	—	"	"	"
1600	PID	—	100 ppm → 57 ppm	"	—	—
	Dust	zero	—	↓	—	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-12-96

Field Activities: Interior building demo.

Wind Direction: W→E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. [illegible]

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
91296-017	1450	1	Rick Bailey BZH	0	PID
"	"	"		0.01	Dust
-018					PID
"					Dust
-019					PID
"					Dust
-020					PID
"					Dust
-021					PID
"					Dust
-022					PID
"					Dust
-023					PID
"					Dust
-024					PID
"					Dust

367

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: _____ Field Activities: _____

Wind Direction: _____ Instrument, Model & Serial No.: _____

Estimated Wind Speed: _____ Technician Signature: _____

Background Level: _____

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-12-96

Field Activities: Interior building demo.

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Steph C. Lar

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
9296-001	0800	1	Rick Bailey BZH	0	PID
"	"	"	"	0.00	Dust
-002	0802	"	Station 2	0	PID
"	"	"	"	0.00	Dust
-003	0804	"	Station 1	0	PID
"	"	"	"	0.03	Dust
-004	0806	"	Station 3	0	PID
"	"	"	"	0.00	Dust
-005	0808	"	Station 4	0	PID
"	"	"	"	0.03	Dust
-006	0955	"	Rick Bailey BZH (cutting filecabinet)	0 ~~0.88~~	PID
"	"	"	"	0.88	Dust
-007	1050	"	Rick Bailey BZH (cutting desk)	0	PID
"	"	"	"	0.09	Dust
-008	1052	"	Station 2	0	PID
"	"	"	"	0.08	Dust

371

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-12-96

Field Activities: Interior building demo.

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Ferr

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
91296-009	1054	1	Station 3	0	PID
"	"	"	"	0.06	~~PID~~ Dust
-010	1056	"	Station 4	0	PID
"	"	"	"	0.03	Dust
-011	1058	"	Station 1	0	PID
"	"	"	"	0.03	Dust
-012	1130	"	Station 1	0	PID
"	"	"	"	0.06	Dust
-013	1132	"	Station 2	0	PID
"	"	"	"	0.02	~~PID~~ Dust
-014	1134	"	Donnie Truslow BZH	0	PID
"	"	"	"	0.06	Dust
-015	1137	"	Station 3	0	PID
"	"	"	"	0.04	Dust
-016	1139	"	Station 4	0	PID
"	"	"	"	0.02	Dust

374

9-12-96

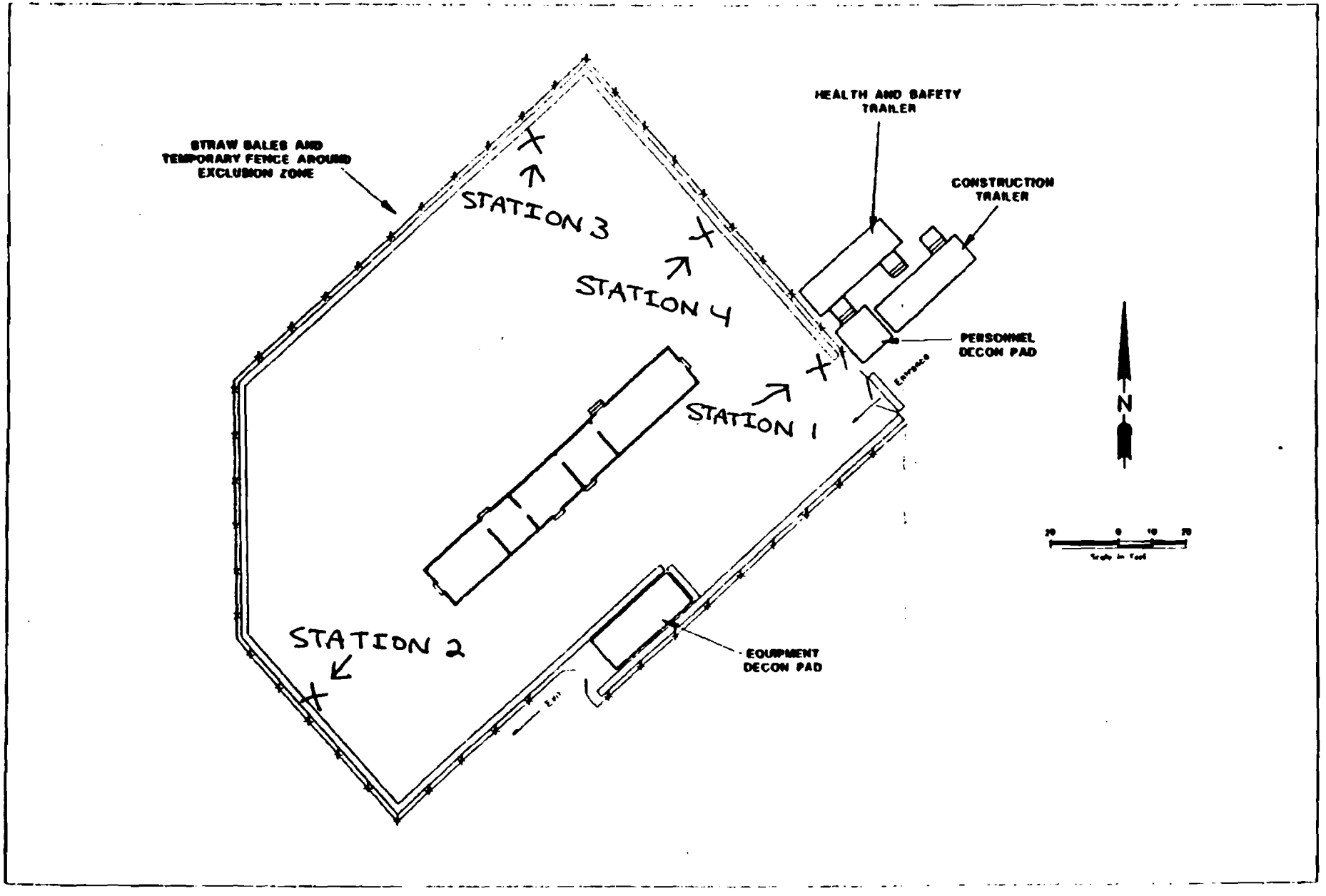

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

375

INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-12-96
Phase: ~~Ext~~ Building Demolition
Activity: Interior demo.
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Partly cloudy, dry, slight breeze W→E

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-91296-PH1-A-001	Station 1	5432	0804	1500	416	1.46	1.46	1.46	607.36	
-B-001	"	3807	"	~~15~~ "	"	0.45	0.45	0.45	187.20	
-C-001	"	"	"	"	"	0.47	0.47	0.47	195.52	
-A-002	Station 2	5366	0802	1508	404	1.52	1.52	1.52	614.08	
-B-002	"	3673	"	"	"	0.46	0.46	0.46	185.84	
-C-002	"	"	"	"	"	0.49	0.46	0.46	185.84	
-A-003	Station 3	5438	0806	1522	404	1.50	1.49	1.49	601.96	
-B-003	"	3812	"	"	"	0.49	0.48	0.48	193.92	
-C-003	"	"	"	"	"	0.52	0.51	0.51	206.04	
-A-004	Station 4	5506	0808	1508	420	1.53	1.53	1.53	642.60	
-B-004	"	3811	"	"	"	0.50	0.50	0.50	210.00	
-C-004	"	"	"	"	"	0.47	0.46	0.46	193.20	

377

INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-12-96
Phase: Building Demolition
Activity: Interior demo.
Industrial Hygienist: Stephen Lanhan

Comments: (Weather, wind condition, etc.)

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD			FLOW RATE (L/MIN)			TOTAL VOLUME (L)	COMMENTS
			START TIME	STOP TIME	TOTAL MIN.	START	STOP	RECORDED		
FD-91296-PHI-A-004D	Station 4 (COE Dup.)	5412	0808	1508	420	1.50	1.49	1.49	625.80	
-B-004D	"	3813	"	"	"	0.54	0.54	0.54	226.80	
-C-004D	"	"	"	"	"	0.53	0.51	0.51	214.20	

379

MIE INC. Model PDL-10 SN 2332 V5.2 4/93

PRINT DATE: 8/12/96
PRINT TIME: 16:39:06

CALIBRATION
0.00 V = 0.00 mg/m3
0.80 V = 14.20 mg/m3

LOWER ALARM: - 1.10 mg/m3
UPPER ALARM: - 1.10 mg/m3

UNITS: mg/m3

INPUT READS:- 1.24 mg/m3
TEST STARTING DATE: 8/12/96
TEST STARTING TIME: 7:58:54

OVERALL AVG: 0.12 mg/m3
[illegible] - 3.24 mg/m3
MIN OCCURRED 8/12/96 @ 8:09:45
[illegible] mg/m3
MAX OCCURRED 8/12/96 @ 8:03:13
STEL: [illegible] mg/m3
STEL OCCURRED [illegible] 7:50:51

MIE INC. Model PDL-10 SN 2338 V5.2 4/89

CURRENT DATE: 8/12/96
CURRENT TIME: 16:39:57

CALIBRATION
0.012 V = 0.00 mg/m3
0.208 V = 14.20 mg/m3

LOWER ALARM: - 1.10 mg/m3
UPPER ALARM: - 1.10 mg/m3

UNITS: mg/m3

TIME HISTORY
PERIOD LENGTH: 0:01:00
OF PERIODS COMBINED: 1

TWA	AVG	MAX	ID
DATE: 8/12/96 TIME: 7:50:57			
[illegible]	0.01	0.10	|*
[illegible]	0.04	2.07	|*
[illegible]	3.62	107.65	[illegible]
[illegible]	[illegible]	116.66	[illegible]
1.4	4.24	113.53	[illegible]
[illegible]	[illegible]	[illegible]	|*
3.24	13.92	121.26	[illegible]
[illegible]	21.00	119.[illegible]	
0.20	0.06	1.65	[illegible]
1.[illegible]	[illegible]	[illegible]	[illegible]
0.00	0.01	0.04	|*
[illegible]	0.01	0.04	|*
0.01	0.02	0.04	[illegible]
0.01	0.03	0.04	|*
0.01	0.03	0.04	|*
0.01	0.03	0.04	|*
0.01	0.01	0.04	|*
0.01	0.03	0.10	|*
0.01	0.01	0.05	|*
0.01	0.03	0.04	|*
DATE: 8/12/96 TIME: 8:18:54			
0.01	0.03	0.05	|*
0.03	0.04	0.09	|*
0.03	0.03	0.13	|*
0.03	0.05	0.13	|*
0.03	0.03	0.04	|*
0.03	0.03	0.04	|*
0.03	0.03	0.04	|*
0.04	0.10	0.32	|*
0.04	0.04	0.07	|*
0.03	0.06	0.12	|*
0.03	0.02	0.06	|*
0.03	0.04	0.13	|*
0.03	0.01	0.09	|*
0.03	0.03	0.01	|*
0.03	0.06	0.12	|*
0.04	0.04	0.07	|*
0.03	0.04	0.09	|*

0.07	0.03	0.07	I*
0.04	0.06	0.09	I*

DATE: 8/12/96 TIME: 8:38:54

0.04	0.06	0.12	I*
0.04	0.06	0.10	I*
0.04	0.06	0.09	I*
0.03	0.04	0.07	I*
0.03	0.04	0.06	I*
0.03	0.06	0.12	I*
0.03	0.04	0.07	I*
0.03	0.04	0.07	I*
0.03	0.06	0.13	I*
0.03	0.04	0.07	I*
0.03	0.04	0.07	I*
0.04	0.06	0.10	I*
0.04	0.04	0.07	I*
0.03	0.04	0.07	I*
0.03	0.04	0.06	I*
0.01	0.04	0.06	I*
0.04	0.04	0.09	I*
0.04	0.04	0.07	I*
0.03	0.03	0.06	I*
0.01	0.04	0.12	I*

DATE: [illegible] TIME: 9:58:54

[illegible]	0.04	0.07	I*
[illegible]	0.04	0.07	I*
[illegible]	0.04	0.07	I*
[illegible]	0.04	0.10	I*
[illegible]	[illegible]	[illegible]	I*
[illegible]	0.03	0.04	I*
[illegible]	0.04	0.06	I*
[illegible]	[illegible]	[illegible]	[illegible]
0.04	0.04	[illegible]	[illegible]
[illegible]	0.03	0.01	I*
[illegible]	0.06	0.03	I*
[illegible]	[illegible]	0.07	I*
[illegible]	0.06	0.15	I*
[illegible]	0.06	0.10	I*
0.03	0.04	0.07	I*
[illegible]	[illegible]	0.07	I*
[illegible]	0.04	0.07	I*
[illegible]	0.03	0.04	I*
0.03	0.04	0.09	I*
0.04	0.04	0.07	I*

DATE: 8/12/96 TIME: 9:18:54

0.03	0.03	0.06	I*
0.03	0.04	0.06	I*
0.03	0.04	0.06	I*
0.03	0.04	0.06	I*
0.03	0.03	0.06	I*
0.04	0.04	0.07	I*
0.03	0.04	0.07	I*
0.04	0.04	0.09	I*
0.03	0.04	0.06	I*
0.03	0.04	0.06	I*
0.04	0.06	0.12	I*
0.07	0.04	0.07	I*
[illegible]	0.06	0.10	I*
0.04	0.04	0.09	I*
0.04	0.07	0.12	I*
0.04	0.06	0.09	I*
0.03	0.04	0.07	I*

0.03	0.04	0.07	|*
[illegible]	[illegible]	[illegible]	|*

DATE: 8/12/96 TIME: 9:38:54

0.03	0.04	0.06	|*
0.03	0.03	0.05	|*
0.04	0.06	0.10	|*
0.04	0.06	0.10	|*
0.04	0.04	0.09	|*
0.04	0.04	0.07	|*
0.03	0.04	0.07	|*
0.04	0.04	0.07	|*
0.06	0.09	0.18	|*
0.04	0.04	0.07	|*
0.04	0.06	0.09	|*
0.04	0.04	0.06	|*
0.03	0.04	0.07	|*
0.04	0.04	0.07	|*
[illegible]	[illegible]	[illegible]	|*
0.04	0.06	0.09	|*
0.04	3.66	114.04	|-* +
0.04	0.13	0.29	|*
[illegible]	[illegible]	[illegible]	|*
[illegible]	[illegible]	[illegible]	|*

DATE: [illegible] TIME: 9:58:54

[illegible]	[illegible]	0.15	|*
[illegible]	[illegible]	[illegible]	|*
[illegible]	[illegible]	[illegible]	|*
[illegible]	[illegible]	[illegible]	|*
[illegible]	[illegible]	[illegible]	|*
0.03	0.03	[illegible]	|*
0.03	0.03	[illegible]	|*
[illegible]	[illegible]	[illegible]	|*
[illegible]	0.03	[illegible]	|*
0.03	0.03	0.04	|*
[illegible]	[illegible]	[illegible]	|*
0.03	[illegible]	[illegible]	|*
0.03	0.04	0.07	|*
0.03	[illegible]	[illegible]	|*
0.03	0.03	0.05	|*
[illegible]	[illegible]	[illegible]	|*
0.04	0.06	0.09	|*
[illegible]	[illegible]	[illegible]	|*
0.06	0.07	0.10	|*
0.06	0.07	0.10	|*

DATE: 8/12/96 TIME: 10:18:54

0.06	0.06	0.09	|*
0.06	0.09	0.19	|*
[illegible]	0.07	0.12	|*
[illegible]	0.06	0.10	|*
0.06	0.07	0.10	|*
0.06	0.07	0.10	|*
0.07	0.07	0.10	|*
0.06	0.07	0.10	|*
0.06	0.07	0.10	|*
0.07	0.09	0.13	|*
0.06	0.07	0.10	|*
0.06	0.07	[illegible]	|*
0.07	0.07	0.10	|*
0.06	0.07	0.10	|*
0.07	0.09	0.10	|*
0.07	0.09	0.13	|*
0.07	0.09	0.12	|*
[illegible]	[illegible]	[illegible]	|*

[illegible]	0.09	0.12	I*
[illegible]	[illegible]	[illegible]	I*

DATE: 8/12/96 TIME: 10:38:54

0.07	0.07	0.10	I*
0.06	0.07	0.10	I*
0.06	0.07	0.10	I*
0.06	0.09	0.12	I*
0.06	0.07	0.10	I*
0.07	0.09	0.13	I*
0.09	0.12	0.18	I*
0.07	0.10	0.12	I*
0.07	0.07	0.10	I*
0.07	0.09	0.12	I*
0.07	0.09	0.10	I*
0.07	0.09	0.18	I*
0.07	0.09	0.13	I*
0.03	0.07	0.12	I*
0.07	0.07	0.10	I*
0.03	0.09	0.10	I*
0.07	0.09	0.13	I*
0.07	0.09	0.10	I*
0.07	0.07	0.10	I*
[illegible]	0.07	0.10	I*

DATE: 8/12/96 TIME: 10:58:51

[illegible]	0.05	0.10	I*
[illegible]	[illegible]	0.10	I*
[illegible]	[illegible]	[illegible]	I*
[illegible]	0.05	0.16	I*
[illegible]	0.10	0.12	I*
[illegible]	[illegible]	0.14	
[illegible]	[illegible]	0.12	I*
0.06	0.05	0.07	I*
[illegible]	0.07	0.12	I*
[illegible]	[illegible]	[illegible]	
[illegible]	0.07	0.10	I*
0.06	0.07	0.12	I*
[illegible]	0.07	0.10	I*
0.07	[illegible]	0.13	I*
[illegible]	0.07	0.10	I*
0.06	0.05	0.07	I*
[illegible]	[illegible]	0.07	I*
0.05	0.06	0.10	I*
0.06	0.06	0.09	I*
0.06	0.06	0.09	I*

DATE: 8/12/96 TIME: 11:18:54

0.06	0.07	0.09	I*
0.06	0.06	0.09	I*
0.06	0.07	0.10	I*
0.06	0.05	0.07	I*
0.06	0.06	0.09	I*
0.04	0.06	0.13	I*
0.06	0.07	0.09	I*
0.06	0.06	0.07	I*
0.06	0.06	0.07	I*
0.06	0.07	0.10	I*
0.06	0.06	0.09	I*
0.06	0.06	0.07	I*
0.06	0.06	0.07	I*
0.06	0.07	0.12	I*
0.06	0.06	0.07	I*
0.06	0.06	0.09	I*
0.06	0.06	0.07	I*
[illegible]	[illegible]	[illegible]	I*

0.04	0.06	0.07	I*
0.06	0.06	0.09	I*

DATE: 8/12/96 TIME: 11:38:54

0.06	0.06	0.07	I*
0.06	0.06	0.10	I*
0.06	0.06	0.09	I*
0.06	0.06	0.07	I*
0.06	0.06	0.09	I*
0.05	0.06	0.09	I*
0.06	0.07	0.10	I*
0.06	0.07	0.10	I*
0.06	0.06	0.07	I*
0.06	0.06	0.07	I*
0.06	0.06	0.09	I*
0.06	0.06	0.09	I*
0.06	0.06	0.07	I*
0.06	0.09	0.21	I*
0.05	0.09	0.12	I*
0.06	0.06	0.09	I*
0.06	[illegible]	0.07	I*
0.06	0.06	0.07	I*
0.06	0.06	0.09	I*
0.06	0.06	0.09	I*

DATE: 8/12/96 TIME: 11:58:54

0.06	0.07	0.09	I*
0.06	0.06	0.07	I*
0.06	0.07	0.07	I*
0.06	0.06	0.07	I*
0.06	0.06	0.07	I*
0.06	0.06	0.07	I*
0.06	0.06	0.07	I*
0.06	0.06	0.07	I*
0.06	[illegible]	0.07	I*
0.06	0.06	0.07	I*
0.07	0.06	0.07	I*
[illegible]	0.07	0.10	I*
[illegible]	[illegible]	0.07	I*
0.04	0.06	0.07	I*
0.06	0.06	0.07	I*
0.04	0.06	0.07	I*
0.06	0.06	0.07	I*
0.06	0.06	0.09	I*
0.05	0.07	0.12	I*
0.06	0.06	0.09	I*

DATE: 8/12/96 TIME: 12:18:54

0.04	0.06	0.07	I*
0.05	0.05	0.09	I*
0.06	0.06	0.07	I*
0.04	0.06	0.07	I*
0.04	0.06	0.07	I*
0.04	0.04	0.07	I*
0.04	0.06	0.07	I*
0.04	0.06	0.07	I*
0.04	0.06	0.07	I*
0.06	0.06	0.09	I*
0.06	0.07	0.15	I*
0.04	0.06	0.07	I*
0.04	0.06	0.07	I*
0.05	0.06	0.07	I*
0.06	0.06	0.07	I*
0.06	0.06	0.07	I*
0.06	0.06	0.07	I*

[illegible]	[illegible]	[illegible]	
0.06	0.06	0.09	I*
0.05	0.07	0.18	I*

DATE: 8/12/96 TIME: 12:38:54

0.06	0.06	0.07	I*
0.04	0.06	0.10	I*
0.05	0.07	0.10	I*
0.06	0.06	0.09	I*
0.06	0.06	0.07	I*
0.06	0.07	0.09	I*
0.06	0.06	0.09	I*
0.06	0.07	0.10	I*
0.06	0.07	0.10	I*
0.06	0.06	0.07	I*
0.06	0.06	0.09	I*
0.04	0.06	0.07	I*
0.06	0.06	0.12	I*
0.06	0.06	0.09	I*
0.05	0.06	0.07	I*
0.06	0.07	0.13	I*
0.04	0.06	0.07	I*
0.01	0.06	0.10	I*
[illegible]	[illegible]	[illegible]	[illegible]
0.04	0.06	0.07	

DATE: [illegible] TIME: 12:58:54

0.01	0.06	0.07	I*
[illegible]	0.06	0.07	I*
[illegible]	[illegible]	[illegible]	I*
0.0	0.01	0.07	I*
0.0[illegible]	[illegible]	0.05	I*
0.05	0.01	0.07	I*
0.0[illegible]	[illegible]	[illegible]	I*
0.0[illegible]	0.06	0.06	I*
[illegible]	0.01	0.07	I*
0.01	0.01	0.07	I*
[illegible]	0.0	[illegible]	I*
0.06	0.01	0.07	I*
0.0[illegible]	0.06	0.07	I*
0.05	[illegible]	[illegible]	I*
0.08	0.00	0.1[illegible]	I*
0.07	0.07	0.13	I*
0.01	0.01	0.07	I*
0.0[illegible]	0.05	0.09	I*
0.06	0.06	0.10	I*
0.06	0.06	0.09	I*

DATE: 8/12/96 TIME: 13:18:54

0.06	0.06	0.07	I*
0.06	0.06	0.07	I*
0.06	0.07	0.10	I*
0.07	0.07	0.10	I*
0.06	0.07	0.10	I*
0.06	0.07	0.09	I*
0.06	0.09	0.16	I*
0.06	0.07	0.13	I*
[illegible]	[illegible]	[illegible]	[illegible]
0.01	0.07	0.10	I*
0.01	0.07	0.10	I*
0.01	0.05	0.09	I*
0.01	0.06	0.10	I*
0.06	0.06	0.10	I*
0.05	0.06	0.09	I*
0.05	0.07	0.09	I*
0.05	0.06	0.07	I*

0.05	0.05	0.07	|*
0.06	0.06	0.09	|*

DATE: 8/12/96 TIME: 13:38:54

0.06	0.07	0.10	|*
0.06	0.07	0.10	|*
0.06	0.06	0.07	|*
0.06	0.07	0.10	|*
0.04	0.06	0.11	|*
0.07	0.09	0.13	|*
0.06	0.07	0.09	|*
0.05	0.07	0.10	|*
0.06	0.07	0.09	|*
0.06	0.07	0.09	|*
0.06	0.07	0.10	|*
0.06	0.06	0.07	|*
0.06	0.07	0.09	|*
0.06	0.07	0.10	|*
0.07	0.07	0.10	|*
0.04	0.06	0.10	|*
0.06	0.06	0.09	|*
0.06	0.06	0.09	|*
0.04	0.05	0.07	|*
0.04	0.06	[illegible]	|

[illegible]

[illegible]	0.06	0.07	|*
[illegible]	0.06	0.12	|*
[illegible]	[illegible]	[illegible]	[illegible]
0.05	0.06	0.07	|*
0.04	0.06	0.07	|*
0.07	0.07	0.10	|*
0.06	0.06	0.[illegible]	|*
0.04	0.06	0.06	|*
[illegible]	0.06	0.07	
0.06	0.07	0.10	|*
0.06	0.06	0.09	|*
[illegible]	0.06	0.07	|*
[illegible]	[illegible]	0.09	|*
0.06	0.06	0.07	|*
[illegible]	0.05	[illegible]	|*
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	0.06	0.07	|*
0.06	0.06	0.07	|*
0.04	0.06	0.07	|*
0.06	0.05	0.09	|*

DATE: 8/12/96 TIME: 14:18:54

0.06	0.06	0.07	|*
0.06	0.06	0.07	|*
0.04	0.06	0.07	|*
0.06	0.05	0.07	|*
0.05	0.06	0.07	|*
0.06	0.05	0.07	|*
0.04	0.06	0.09	|*
0.06	0.05	0.07	|*
0.06	0.06	0.07	|*
0.06	0.06	0.07	|*
[illegible]	[illegible]	[illegible]	|*
[illegible]	0.06	0.07	|*
0.04	0.05	0.07	|*
0.04	0.06	0.07	|*
0.04	0.06	0.07	|*
0.06	0.06	0.07	|*
0.06	0.06	0.09	|*

[illegible]	[illegible]	0.07	|*
0.04	0.05	0.07	|*

DATE: 8/12/96 TIME: 14:38:54

0.04	0.06	0.07	|*
0.04	0.06	0.07	|*
0.06	0.06	0.07	|*
0.04	0.06	0.07	|*
0.04	0.04	0.07	|*
[illegible]	0.06	0.07	|*
[illegible]	0.06	0.07	|*
0.06	0.06	0.07	|*
0.04	0.06	0.10	|*
0.06	0.07	0.09	|*
0.06	0.06	0.07	|*
0.05	0.06	0.10	|*
0.04	0.05	0.09	|*
0.06	0.06	0.07	|*
0.04	0.06	0.07	|*
0.04	0.06	0.07	|*
0.04	0.04	0.07	|*
[illegible]	[illegible]	0.07	|*
[illegible]	[illegible]	0.10	|*
0.07	0.10	[illegible]	|*

DATE: [illegible] TIME: 14:50:54

[illegible]	[illegible]	0.03	|*
[illegible]	[illegible]	[illegible]	|*
[illegible]	[illegible]	0.07	|*
0.04	[illegible]	0.07	|*
[illegible]	[illegible]	0.07	|*
[illegible]	[illegible]	0.07	|*
[illegible]	[illegible]	0.07	|*
[illegible]	[illegible]	0.07	|*
[illegible]	[illegible]	0.07	|*
0.04	[illegible]	0.07	|*
[illegible]	[illegible]	0.07	|*
0.04	[illegible]	0.07	|*
[illegible]	[illegible]	0.07	|*
[illegible]	[illegible]	0.07	|*
[illegible]	[illegible]	0.07	|*
[illegible]	0.06	0.07	|*
[illegible]	[illegible]		|*
0.04	0.06	0.07	|*
0.06	0.06	0.07	|*

DATE: 8/12/96 TIME: 15:19:54

0.04	0.06	0.07	|*
0.05	0.05	0.07	|*
0.04	0.06	0.07	|*
0.03	0.04	0.07	|*
0.04	0.06	0.07	|*
0.04	0.07	0.15	|*
0.04	0.05	0.07	|*
0.04	0.06	0.07	|*
[illegible]	[illegible]	0.07	|*
[illegible]	0.06	0.07	|*
[illegible]	0.06	0.07	|*
[illegible]	0.05	0.07	|*
[illegible]	[illegible]	[illegible]	|*
0.04	0.06	0.07	|*
0.04	0.05	0.07	|*
0.04	0.06	0.07	|*
[illegible]	0.05	0.09	|*

```
     0.0[illegible]        0.06        0.09     |*
     0.0[illegible]        0.04        0.07     |*

DATE:  [illegible]/12/96  TIME: 15:38:54
     0.04        0.04        0.07     |*
     0.04        0.06        0.07     |*
     0.04        0.06        0.07     |*
     0.0[illegible]        0.06        0.07     |*
     0.0[illegible]        0.06        0.07     |*
     0.04        0.04        0.07     |*
     0.04        0.04        0.07     |*
     0.04        0.04        0.07     |*
     0.04        0.04        0.07     |*
     0.04        0.04        0.07     |*
     0.04        0.04        0.07     |*
     0.04        0.04        0.07     |*
     0.04        0.07        1.13     |*
  -  0.41        0.29        1.12     -*
  -  0.97     -  0.77     -  0.43     *
  -  1.1[illegible]  -  1.06     -  0.96     *
     1.16     -  1.15     -  1.10     *
  -  1.16     -  1.16     -  1.13     *
  -  1.18     -  1.15     -  1.1[illegible]
     1.1[illegible]  -  1.1[illegible]  -  1.1[illegible]     *

[illegible]
     1.1[illegible]  -  1.1[illegible]  -  1.1[illegible]     *
  -  1.19     -  1.[illegible]        1.1[illegible]     *
  -  [illegible]
     1.1[illegible]  -  1.1[illegible]        1.[illegible]
     1.1[illegible]  -  1.1[illegible]  -  1.1[illegible]     *
     1.1[illegible]  -  1.1[illegible]  -  1.1[illegible]     *
     1.1[illegible]  -  1.1[illegible]  -  1.18     *
  -  1.1[illegible]        1.1[illegible]  -  1.1[illegible]     *
  -  1.1[illegible]  -  1.19     -  1.18     *
     1.1[illegible]  -  1.1[illegible]  -  1.1[illegible]     *
  -  1.19        1.1[illegible]  -  1.1[illegible]     *
  -  1.1[illegible]        1.1[illegible]        1.1[illegible]     *
  -  1.1[illegible]  -  1.1[illegible]  -  1.1[illegible]     *
  -  1.1[illegible]  -  1.1[illegible]  -  1.1[illegible]     *
  -  1.19     -  1.1[illegible]  -  1.1[illegible]     *
  -  1.19     -  1.1[illegible]  -  1.1[illegible]     *
  -  1.1[illegible]  -  1.19     -  1.16     *
     1.1[illegible]  -  1.1[illegible]  -  1.1[illegible]     *
     1.1[illegible]  -  1.1[illegible]  -  1.18     *
  -  1.19     -  1.19     -  1.18     *

DATE:  8/12/96  TIME: 16:18:5[illegible]
  -  1.19     -  1.19     -  1.18     *
     1.19     -  1.19     -  1.18     *
  -  1.19     -  1.19     -  1.18     *
  -  1.19     -  1.19     -  1.18     *
  -  1.19     -  1.19     -  1.18     *
@-  1.19     -  1.19     -  1.18     *
```

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 9-16-96 Start Time: 6:35AM Completion Time: 0645

Location: Bldg T-4002, Site Trailer

Meeting Conducted by: Steve Lanham

SAFETY ISSUES

Tasks: Building demolition

Protective Clothing/Equipment: Level D

Chemical Hazards: None (pest)

Physical Hazards: Slips, trips, falls, weather

Control Methods: PPE

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
GARY RAY	[illegible]
Rick BAILEY	[illegible]
D. TROSLOW	[illegible]

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 9-16-96

Inspector: Stephen Lanham

Site Conditions, Weather: Rain

Building Demolition

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	↓		
Site work zones clearly defined on-site?	↓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	↓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	↓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)			
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?	✓		
All drums and containers inspected for structural integrity before moving?	✓		X
Personnel warned of the potential hazards associated with the contents of containers prior to movement?	✓		X
Containers moved using appropriate mechanical devices to avoid injury?	✓		
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?		✓	
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?			✓
SSHP decontamination procedures observed?			✓
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?			✓
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?	✓		
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are unauthorized personnel denied access to decontamination areas, decontamination equipment and change rooms?	✓		
Are washing facilities away from hazardous substances and adequate to permit personnel to remove hazardous substances from their bodies?	✓		
Are decontamination solution(s), equipment and clothing properly marked and left on-site or disposed of?	✓		
DRILLING			
Have proper underground utility clearances been obtained?			✓
Have overhead utility clearances been considered?			
Flammable liquids in approved containers?			
Emergency rig shutoff within reach of the operator?			
Appropriate fire shutoff within reach of the operator?			
Drilling platform properly stabilized?			
Ropes and chains in good condition?			
EXCAVATION			
Have proper utility clearances been obtained?			✓
Has the On-site Competent Person been identified and is present?			
Are daily trench inspections being conducted (or more frequently, as conditions warrant)?			
Support systems (piling, cribbing, shoring) appropriate for the job?			
Is there suitable access by stairs, ladders, ramps, hoists?			
Appropriate guardrails, fences, barricades and warning lights?			✓
MISCELLANEOUS SAFETY PROCEDURES			
If site work is anticipated in dimly lighted areas, is additional lighting provided?			✓
Is potable water labeled as safe for drinking?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York

September 16, 1991

Instrument(s): PID, Dust

Serial No.(s):

Technician's Signature: Steph C. S

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0715	PID	–	100 ppm → 57 ppm	G	SCL	HNU PI 101 SN: 101238
	"	Ambient	Zero	"	"	"
	Dust	Factory →		"	"	MIE PDM-3 SN: 4017
	"	Zero →		"	"	"
1530	PID	–	100 ppm → 57 ppm	"	"	—
	Dust	Factory →		"	"	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-16-96

Field Activities: Building Demolition

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 5 – 10 mph

Technician Signature: [illegible]

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
91696-001	0724	1	Donnie Truslow BZH	0	PID
"	"	"	"	0.74	~~HNU~~ Dust
-002	0125	"	Sta. 1	0	PID
"	"	"	"	0.03	Dust
-003	0726	"	Sta. 2	0	PID
"	"	"	"	0.0	Dust
-004	0727	"	Sta. 3	0	PID
"	"	"	"	0.0	Dust
-005	0729	"	Sta. 4	0	PID
"	"	"	"	0.0	Dust
-006	0904	"	Donnie Truslow BZH	0	PID
"	"	"	"	0.03	Dust
-007	0906	"	Station 1	0	PID
"	"	"	"	0.01	Dust
-008	0908	"	Station 2	0	PID
"	"	"	"	0.00	Dust

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-16-96

Field Activities: Building Demolition

Wind Direction: W→E

Instrument, Model & Serial No.:

Estimated Wind Speed: 5-10 mph

Technician Signature: Steph C. Zar

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
91696-009	0910	1	Station 3	0	PID
"	"	"	"	0.02	Dust
-010	"	"	Station 4	0	PID
"	"	"	"	0.00	Dust
-011	1029	"	Donnie Truslow BZH	0	PID
"	"	"	"	0.01	Dust
-012	1031	"	Station 1	0	PID
"	"	"	"	0.00	Dust
-013	1033	"	Station 2	0	PID
"	"	"	"	0.01	Dust
-014	1035	"	Station 3	0	PID
"	"	"	"	0.01	Dust
-015	1037	"	Station 4	0	PID
"	"	"	"	0.02	Dust
-016	1128	"	Donnie Truslow BZH	0	PID
"	"	"	"	0.07	Dust

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-16-96

Field Activities: Building Demolition

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 5-10 mph

Technician Signature: Steph C. Yan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
91696-017	1130	1	Station 1	0	PID
"	"	"	"	0.00	Dust
-018	1132	"	Station 2	0	PID
"	"	"	"	0.00	Dust
-019	1134	"	Station 3	0	PID
"	"	"	"	0.01	Dust
-020	1136	"	Station 4	0	PID
"	"	"	"	0.00	Dust
-021	1325	"	Donnie Trailer Bt 14	0	PID
"	"	"	" 0	0.01	Dust
-022	1328	"	Station 1	0	PID
"	"	"	"	0.00	Dust
-023	1330	"	Station 2	0	PID
"	"	"	"	0.00	Dust
-024	1333	"	Station 3	0	PID
"	"	"	"	0.00	Dust

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-16-96

Field Activities: Building Demolition

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 3 - 5 mph

Technician Signature: Steph C. Tan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
91696-025	1336	1	Station 4	0	PID
"	"	"	"	0.01	Dust
-026	1445	"	Donnie Truslow BZH	0	PID
"	"	"	"	0.01	Dust
-027	1447	"	Sta. 1	0	PID
"	"	"	"	0.00	Dust
-028	1449	"	Sta. 2	0	PID
"	"	"	"	0.01	Dust
-029	1452	"	Sta 3	0	PID
"	"	"	"	0.00	Dust
-030	1455	"	Sta 4	0	PID
"	"	"	"	0.02	Dust
-031					PID
"					Dust
-032					PID
"					Dust

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 9-16-96

Phase: Building Demolition

Activity: Exterior wall demo.

Industrial Hygienist: Staples C. L

Comments: (Weather, wind condition, etc.)
Rainy, overcast, wind W→E (5-10mph)

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FO-91696-PH1-A-001	Station 1	5506	0836	1650	494	1.57	1.55	1.55	765.70	
-B-001	"	3812	"	"	"	0.49	0.45	0.45	222.30	
-C-001	"	"	"	"	"	0.52	0.49	0.49	242.06	
-A-002	Station 2	5432	0835	1641	486	1.49	1.48	1.48	719.28	
-B-002	"	3807	"	"	"	0.47	0.47	0.47	228.42	
-C-002	"	"	"	"	"	0.45	0.45	0.45	218.70	
-A-003	Station 3	5412	0832	1639	487	1.49	1.47	1.47	715.89	
-B-003	"	3673	"	"	"	0.46	0.46	0.46	224.02	
-C-003	"	"	"	"	"	0.48	0.47	0.47	228.89	
-A-004	Station 4	5366	0831	1432	481	1.52	1.52	1.52	731.12	
-B-004	"	3813	"	"	"	0.54	0.53	0.53	254.93	
-C-004	"	"	"	"	"	0.53	0.53	0.53	254.93	

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 9-16-96
Phase: Building Demolition
Activity: Exterior wall demo.
Industrial Hygienist: [illegible]

Comments: (Weather, wind condition, etc.)
Rainy, overcast, wind W→E (5-10 mph)

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FO-91696-PH1-A-004D	Station 4 (COE Dpd)	5438	0831	1632	481	1.51 ~~5438~~	1.50	1.50	721.50	
-B-004D	"	3811	"	"	"	0.50	0.50	0.50	240.50	
-C-004D	"	"	"	"	"	0.47	0.47	0.47	226.07	

9-16-96

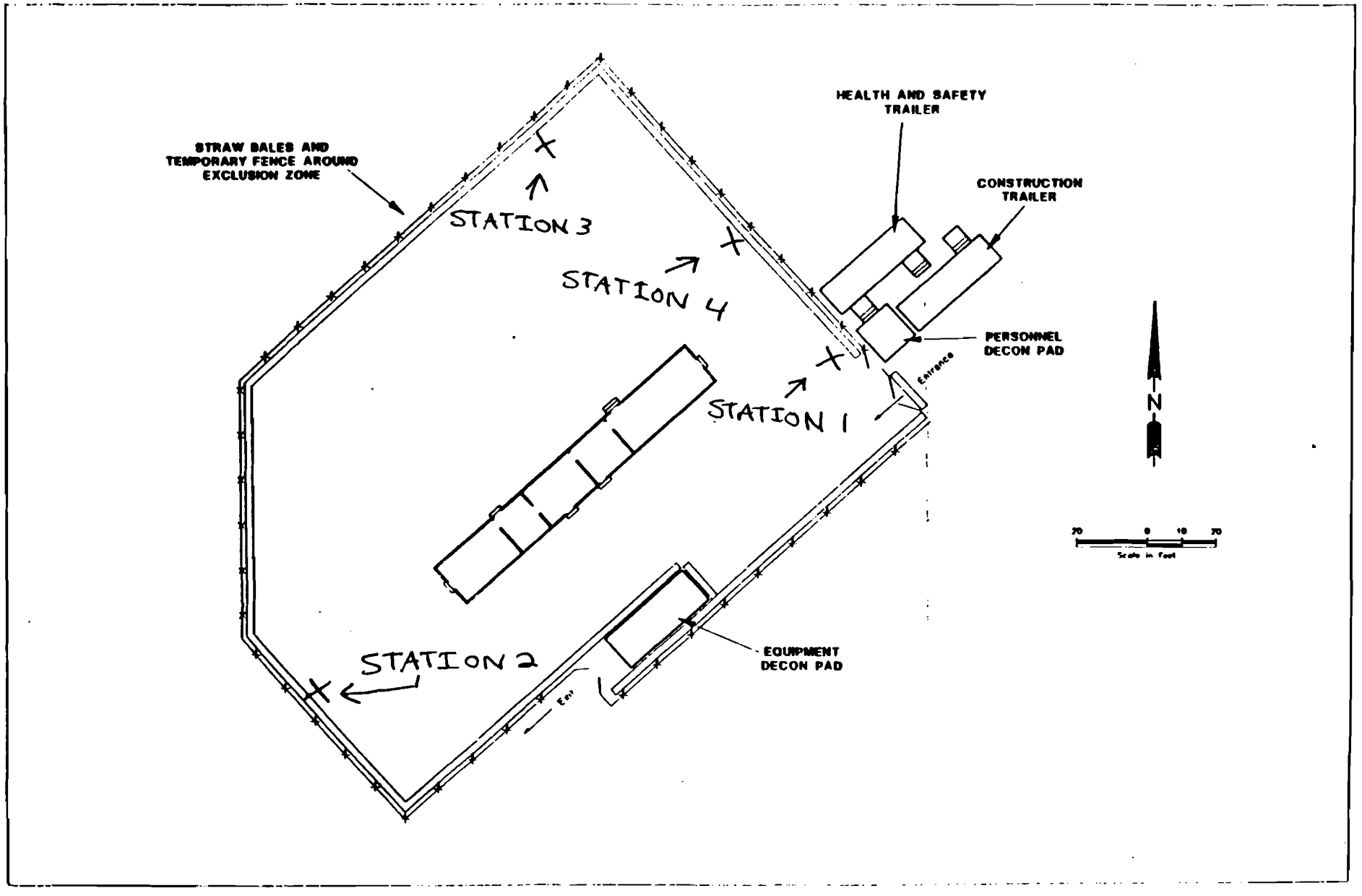

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

423

MIE INC. Model PDL-10 SN 2332 V5.2 4/89

CURRENT DATE: 8/16/96
NEXT TIME: 17:07:25

CALIBRATION
0.015 V = 0.00 mg/m3
0.202 V = 14.20 mg/m3

LOWER ALARM: - 1.10 mg/m3
UPPER ALARM: - 1.10 mg/m3

UNITS: mg/m3

INPUT READ@:- 1.15 mg/m3
TEST STARTING DATE: 8/12/96
[illegible] STARTING TIME: 7:58:54
[illegible] 10:20:07
OVERALL AVG: 0.07 mg/m3
OVERALL MIN - [illegible] mg/m3
MIN OCCURRED 8/13/96 @ 8:05:40
OVERALL [illegible] mg/m3
MAX OC[illegible] 8/12/96 @ 8:05:12
STEL: [illegible] mg/m3
STEL OCCURRED [illegible] 8/12/96 @ 7:58:54

	0.04		0.06	0.09	|*
	0.04		0.04	0.07	|*

DATE: 8/12/96 TIME: 15:38:54

	0.04		0.04	0.07	|*
	0.04		0.06	0.07	|*
	0.04		0.06	0.07	|*
	0.04		0.06	0.07	|*
	0.04		0.06	0.07	|*
	0.04		0.04	0.07	|*
	0.04		0.04	0.07	|*
	0.04		0.04	0.07	|*
	0.04		0.04	0.07	|*
	0.04		0.04	0.07	|*
	0.04		0.04	0.07	|*
	0.04		0.04	0.07	|*
	0.04		0.07	1.13	|*
-	0.41		0.29	1.12	-*
-	0.97	-	0.77	- 0.43	*
-	1.10	-	1.06	- 0.96	*
-	1.16	-	1.15	- 1.10	*
-	1.16	-	[illegible]	- 1.13	*
-	1.18	-	1.18	- 1.15	*
-	1.18	-	1.18	- 1.16	*

DATE: [illegible] TIME: 15:58:54

-	1.1[illegible]	-	1.1[illegible]	- 1.1[illegible]	*
-	1.19	-	1.1[illegible]	- 1.18	*
-	1.18	-	[illegible]	1.[illegible]	
	1.19		[illegible]	- [illegible]	*
	1.19	-	1.18	- 1.1[illegible]	*
	1.19	-	1.19	- 1.1[illegible]	*
	1.19	-	[illegible]	- 1.1[illegible]	*
-	1.19	-	1.19	- 1.18	*
-	1.1[illegible]	-	1.1[illegible]	- 1.1[illegible]	*
-	1.1[illegible]	-	1.19	- 1.18	*
-	[illegible]		[illegible]	- 1.16	*
-	1.1[illegible]		[illegible]	- 1.18	*
-	[illegible]	-	1.19	- 1.18	*
-	1.1[illegible]	-	1.19	- 1.16	*
	1.19	-	1.19	- 1.16	*
-	1.19		[illegible]	[illegible]	*
-	1.19	-	1.19	- 1.16	*
-	1.19	-	1.19	- 1.18	*
-	[illegible]		1.19	- 1.18	*
-	1.19	-	1.19	- 1.18	*

DATE: 8/12/96 TIME: 16:18:54

-	1.19	-	1.19	- 1.18	*
-	1.19	-	1.19	- 1.18	*
-	1.19	-	1.19	- 1.18	*
-	1.19	-	1.19	- 1.18	*
-	1.19	-	1.19	- 1.18	*
-	1.19	-	1.19	- 1.16	*

DATE: 8/16/96 TIME: 7:18:39

	0.03		0.06	0.19	|*
	0.03		0.41	0.66	|*
	0.04		0.43	0.63	|*
	0.02		0.19	0.52	|*
	0.03		0.06	0.13	|*
	0.02		0.04	0.07	|*
	[illegible]		0.06	0.05	|*
	0.01		0.03	0.06	|*
	0.01		0.03	0.04	|*

DATE: 8/10/96 TIME: 9:02:25

	0.03	0.07	0.13	I*
	0.04	0.06	0.10	I*
	0.04	0.06	0.09	I*
	0.04	0.06	0.09	I*
	0.04	0.06	0.09	I*
	0.04	0.04	0.07	I*
	0.04	0.04	0.07	I*
	0.04	0.04	0.06	I*
	0.04	0.04	0.07	I*
	0.04	0.06	0.12	I*
1	0.04	0.04	0.06	I*

DATE: 8/11/96 TIME: 10:27:38

	0.06	0.09	0.15	I*
	0.06	0.07	0.19	I*
	0.04	0.06	0.07	I*
	0.04	0.06	0.07	I*
	0.06	0.09	0.16	I*
	0.03	0.04	0.07	I*
	0.04	0.04	0.09	I*
	0.04	0.04	0.07	I*
	0.04	[illegible]	0.07	I*
9	0.06	0.06	0.[illegible]	I*

DATE: 8/11/96 TIME: 11:20:[illegible]

	[illegible]	[illegible]	[illegible]	I*
	0.04	[illegible]	[illegible]	I*
	[illegible]	[illegible]	0.11	I*
	[illegible]	[illegible]	0.12	I*
	[illegible]	[illegible]	[illegible]	I*
	[illegible]	[illegible]	0.10	I*
	[illegible]	0.06	0.10	I*
	[illegible]	0.07	0.10	I*
	0.07	0.07	0.10	I*
	[illegible]	0.07	0.11	I*
	[illegible]	0.06	0.07	I*
	0.07	0.06	0.10	I*
	[illegible]	[illegible]	0.10	I*
8	0.07	0.11	0.06	I*

DATE: 8/12/96 TIME: 12:24:19

	0.04	0.06	0.09	I*
	0.04	0.06	0.09	I*
	0.04	0.04	0.06	I*
	[illegible]	0.04	0.06	I*
	0.04	0.06	0.09	I*
	0.04	0.06	0.12	I*
	0.04	0.04	0.06	I*
	0.03	0.04	0.07	I*
	0.04	0.06	0.07	I*
	0.04	0.04	0.07	I*
	0.04	0.04	0.07	I*
	0.03	0.04	0.07	I*
	0.07	0.06	0.07	I*
	0.0[illegible]	0.10	0.10	I*
	0.04	0.05	0.07	I*
	0.0[illegible]	0.05	0.05	I*
8	0.04	0.04	0.07	I*

DATE: 8/15/96 TIME: 14:44:02

	0.0[illegible]	0.05	0.07	I*
	0.0[illegible]	0.0[illegible]	0.07	I*
			0.07	I*

[illegible]	0.04	0.07	|*
0.21	0.05	0.09	|*
0.05	0.06	0.10	|*
0.04	0.06	0.09	|*
0.06	0.05	0.10	|*
0.03	0.07	0.12	|*
0.02	0.06	0.09	|*
0.07	0.09	0.10	|*
0.03	0.07	0.10	|*
0.06	0.07	0.12	|*
0.05	0.07	0.10	|*
0.06	0.07	0.10	|*
0.04	0.06	0.10	|*
0.06	0.07	0.10	|*
0.05	0.05	0.12	|*
0.06	0.07	0.10	|*
0.05	0.07	0.12	|*

DATE: 8/16/96 TIME: 15:04:02

0.07	0.05	0.10	|*
0.06	0.07	0.13	|*
0.05	0.09	0.19	|*
0.07	0.09	0.12	|*
[illegible]	0.07	0.10	|*
[illegible]	[illegible]	[illegible]	|*
[illegible]	[illegible]	0.05	|*
0.02	0.07	0.10	|*
[illegible]	[illegible]	[illegible]	|*
[illegible]	[illegible]	[illegible]	|*
0.03	0.05	0.09	|*
[illegible]	[illegible]	0.07	|*
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	0.09	|*
[illegible]	0.02	0.03	|*
[illegible]	0.02	0.07	|*
[illegible]	0.03	0.07	|*
[illegible]	[illegible]	0.09	|*
0.01	0.18	0.90	|*
- 0.03	- 0.07	0.75	*+

DATE: 8/16/96 TIME: 15:11:03

-	[illegible]	-	0.97	-	0.33 *
-	1.10	-	1.09	-	1.03 *
-	1.12	-	1.13	-	1.10 *
-	1.10	-	1.16	-	1.13 *
	1.18	-	1.10	-	1.15 *
-	1.18	-	1.16	-	1.15 *
	1.12	-	1.18	-	1.15 *
	1.11	-	1.18	-	1.15 *
	[illegible]	-	1.18	-	1.16 *
-	1.19	-	1.19	-	1.16 *
-	1.19	-	1.18	-	1.15 *
-	1.19	-	1.18	-	1.15 *
-	1.19	-	1.18	-	1.16 *
-	1.18	-	1.18	-	1.16 *
0-	1.19	-	1.19	-	1.16 *

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 9-17-96 Start Time: Completion Time:

Location: Building T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Building Demolition

Protective Clothing/Equipment: Level D

Chemical Hazards: None (pest.)

Physical Hazards: Slips, trips, falls, tools

Control Methods: Site hygiene, careful operation

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
Donnie Troslow	
Gary Ray	
Rick Bailey	
Peter Weilersbacher	
M. Hussain	

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 9-17-96

Inspector: Stephen Lanham

Site Conditions, Weather: Overcast, wind W→E, slight

Building Demolition

	YES	NO	NA
ADMINISTRATIVE			
Site Control	✓		
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?	✓		
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?	✓		
All drums and containers inspected for structural integrity before moving?	✓		
Personnel warned of the potential hazards associated with the contents of containers prior to movement?	✓		
Containers moved using appropriate mechanical devices to avoid injury?	✓		
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?		✗	✓
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?	✓		
SSHP decontamination procedures observed?			✓
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?	✓		
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?			✓
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are unauthorized personnel denied access to decontamination areas, decontamination equipment and change rooms?	✓		
Are washing facilities away from hazardous substances and adequate to permit personnel to remove hazardous substances from their bodies?	✓		
Are decontamination solution(s), equipment and clothing properly marked and left on-site or disposed of?	✓		
DRILLING			
Have proper underground utility clearances been obtained?			✓
Have overhead utility clearances been considered?			
Flammable liquids in approved containers?			
Emergency rig shutoff within reach of the operator?			
Appropriate fire shutoff within reach of the operator?			
Drilling platform properly stabilized?			
Ropes and chains in good condition?			
EXCAVATION			
Have proper utility clearances been obtained?			✓
Has the On-site Competent Person been identified and is present?			
Are daily trench inspections being conducted (or more frequently, as conditions warrant)?			
Support systems (piling, cribbing, shoring) appropriate for the job?			
Is there suitable access by stairs, ladders, ramps, hoists?			
Appropriate guardrails, fences, barricades and warning lights?			
MISCELLANEOUS SAFETY PROCEDURES			
If site work is anticipated in dimly lighted areas, is additional lighting provided?			✓
Is potable water labeled as safe for drinking?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York

September 17, 1996

Instrument(s): PID, Dust

Serial No.(s):

Technician's Signature: Stephen C. Lambo

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0745	PID	—	100ppm → 57ppm	G	SCL	HNU PI 101 SN: 101238
	"	Ambient	Zero	"	"	"
	Dust	Factory →		"	"	MIE PDM-3 SN: 4017
	"	Zero →		"	"	"
1645	PID	—	100ppm → 57ppm	—	—	—
	Dust	Factory →		—	—	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-17-96

Field Activities: Building Demolition

Wind Direction: W→E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Steph C. Yan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
91796-001	0828	1	Donnie Truslow BZH	0.04	Dust
-002	0830	"	Station 1	0.06	"
-003	0832	"	" 2	0.04	"
-004	0834	"	" 3	0.02	"
-005	0835	"	" 4	0.04	"
-006	0930	"	Donnie Truslow BZH	0.01	"
-007	0932	"	Station 1	0.01	"
-008	0934	"	" 2	0.00	"
-009	0936	"	" 3	0.00	"
-010	0937	"	" 4	0.02	"
-011	1115 ~~0934~~	"	Donnie Truslow BZH	0.00	"
-012	1120	"	Station 1 ~~Donnie Truslow BZH~~	0.01	"
-013	1122	"	~~Station 1~~ Station 2	0.01	"
-014	1124	"	" Station 3	0.02	"
-015	1126	"	Station 4	0.01	"
-016	1326	"	Donnie Truslow BZH	0.06	
-017	1328	"	Station 1	0.10	

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-17-96

Field Activities: Building Demolition

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Yank

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
91196-018	1332	1	Station 2	0.06	Dust
-019	1334	"	Station 3	0.04	"
-020	1335	"	" 4	0.06	"
-021	1525	"	Donnie Truslow BZH	0.19	"
-022	1517	"	Station 2	0.07	"
-023	1519	"	" 3	0.06	"
-024	1520	"	" 4	0.04	"
-025	1522	"	" 1	0.00	"
-026	1630	"	Donnie Truslow BZH	0.01	"
-027	1632	"	Station 1	0.02	"
-028	1634	"	" 2	0.00	"
-029	1636	"	" 3	0.00	"
-030	1639	"	" 4	0.03	"

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 9-17-96

Phase: Building Demolition

Activity: Wall Demo.

Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.) Overcast, damp, wind W→E, slight

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FO-9796-PHI-A-001	Station 1	5366	0732	1635	543	1.52	1.52	1.52	825.36	
-B-001	"	3807	"	"	"	0.45	0.45	0.45	244.35	
-C-001	"	"	"	"	"	0.47	0.47	0.47	255.21	
-A-002	Station 2	5506	0730	1631	~~48~~ 541	1.56	1.56	1.56	843.96	
-B-002	"	3673	"	~~46~~ "	541	0.47	0.47	0.47	254.27	
-C-002	"	"	"	"	"	0.49	0.49	0.49	265.09	
-A-003	Station 3	5432	0733	1632	539	1.49	1.49	1.49	803.11	
-B-003	"	3811	"	"	"	0.51	0.50	0.50	269.50	
-C-003	"	"	"	"	"	0.48	0.47	0.47	253.33	
-A-004	Station 4	5438	0734	1637	543	1.51	1.51	1.51	819.93	
-B-004	"	3813	"	"	"	0.53	0.53	0.53	287.79	
-C-004	"	"	"	"	"	0.53	0.52	0.52	282.36	

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 9-17-96

Phase: Building Demolition

Activity: Wall Demo.

Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD			FLOW RATE (L/MIN)			TOTAL VOLUME (L)	COMMENTS
			START TIME	STOP TIME	TOTAL MIN.	START	STOP	RECORDED		
FD-91796-PH-A-004D	Station 4 (COE Duplicate)	5412	0734	1640	546	1.48	1.47	1.47	802.62	
-B-004D	" "	3812	"	"	"	0.53	0.52	0.52	285.92	
-C-004D	" "	"	"	"	"	0.51	0.51	0.51	278.46	

449

9-17-96

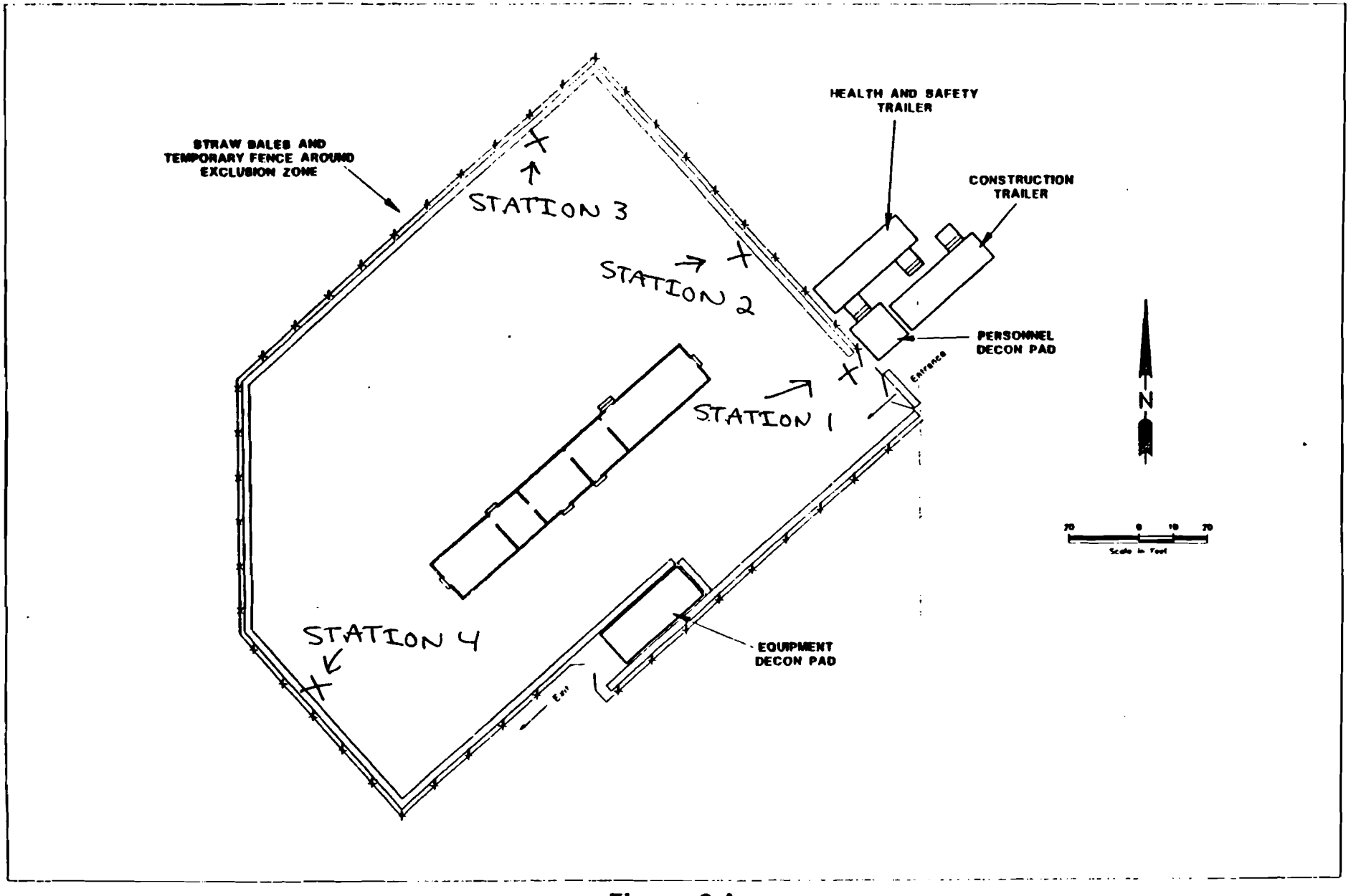

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

451

MIE [illegible] PDL-10 SN [illegible] 4/83

CURRENT DATE: 8/17/96
[illegible]RENT TIME: 16:44:06

CALIBRATION
[illegible] V = [illegible] mg/m3
0.208 V = 14.20 mg/m3

LOWER ALARM: - 1.10 mg/m3
[illegible]ER ALARM: - 1.10 mg/m3

[illegible]: mg/[illegible]

INPUT READS:- 0.99 mg/m3
TEST STARTING DATE: 8/17/96
TEST STARTING TIME: 8:28:17
[illegible]LAPSED TIME: 0 DAYS [illegible]:03:34
OVERALL AVG: 0.07 mg/m3
[illegible] MIN: - [illegible] mg/m3
MIN OCCURRED 8/17/96 @ 14:[illegible]
[illegible] mg/[illegible]
[illegible] OCCURRED [illegible]
[illegible]
[illegible]

MIE INC. Model PDL-10 SN 2332 V0.2 4/89

[illegible] DATE: 8/17/96
[illegible] TIME: 16:44:31

CALIBRATION
0.015 V = 0.00 mg/m3
[illegible] mg/m3

[illegible] ALARM: - 1.10 mg/m3
UPPER ALARM: - 1.10 mg/m3

UNITS: mg/m3

TIME HISTORY
PERIOD LENGTH: 0:01:00
OF PERIODS COMBINED: 1

MIN	AVG	MAX	
DATE: [illegible]	TIME: [illegible]		
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	0.09	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	0.07	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	0.07	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	0.07	0.13	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
0.04	0.06	0.10	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
0.06	0.06	0.07	[illegible]
0.04	0.06	0.07	[illegible]

DATE: 8/17/96 TIME: 8:48:17

0.04	0.06	0.07	[illegible]
0.06	0.07	0.12	[illegible]
0.04	0.06	0.07	[illegible]
0.04	0.06	0.09	[illegible]
[illegible]	0.06	0.07	[illegible]
0.04	0.06	0.07	[illegible]
0.04	0.07	0.16	[illegible]
0.04	0.06	0.07	[illegible]
0.04	0.04	0.06	[illegible]
[illegible]	[illegible]	0.07	[illegible]
0.06	0.06	0.13	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
0.04	0.06	0.07	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
0.06	0.06	0.07	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
0.06	0.07	0.12	[illegible]

0.06	0.06	0.07	*+
0.02	0.08	0.12	* +

DATE: 8/17/98 TIME: 9:08:17

[illegible]	[illegible]	0.09	* +
[illegible]	[illegible]	0.07	*+
0.06	0.06	0.07	*+
0.04	0.05	0.09	-* +
0.06	0.08	0.09	* +
0.06	0.06	0.09	* +
0.04	0.06	0.07	-*+
0.04	0.06	0.09	-* +
0.04	0.05	0.07	-*+
0.04	0.06	0.10	-* +
0.04	0.06	0.07	-*+
0.04	0.06	0.07	-*+
0.04	0.06	0.07	-*+
0.04	0.06	0.07	-*+
0.04	0.06	0.07	-*+
0.04	0.06	0.09	-* +
0.02	0.07	0.12	-* +
0.06	0.02	0.07	*+
[illegible]	[illegible]	0.07	*+
0.06	0.06	[illegible]	* +

DATE: 8/17/98 TIME: 9:28:17

[illegible]	[illegible]	[illegible]	* +
[illegible]	0.06	[illegible]	* +
[illegible]	[illegible]	0.09	-* +
[illegible]	[illegible]	[illegible]	-*+
[illegible]	0.02	0.10	* +
[illegible]	[illegible]	[illegible]	-* +
[illegible]	0.02	0.12	-* +
[illegible]	[illegible]	[illegible]	-*
[illegible]	0.07	0.12	-* +
[illegible]	[illegible]	[illegible]	*
[illegible]	0.06	0.12	-*
[illegible]	[illegible]	[illegible]	*
[illegible]	[illegible]	0.07	-*+
[illegible]	[illegible]	0.07	-*+
[illegible]	0.02	0.07	*
[illegible]	[illegible]	0.07	*+
[illegible]	0.02	0.07	
[illegible]	0.02	0.09	

DATE: 8/17/98 TIME: 11:24:04

0.06	0.07	0.10	-* +
0.06	0.06	0.07	*+
0.06	0.06	0.09	* +
0.06	0.07	0.10	-* +
0.06	0.06	0.10	* +
0.06	0.07	0.12	-* +
[illegible]	[illegible]	0.12	-* +
0.06	0.06	0.10	* +

DATE: [illegible] TIME: 14:25:18

[illegible]	0.09	0.13	-* +
0.07	0.09	0.12	-*
[illegible]	0.12	0.12	-*+
0.07	0.10	0.16	-* +
0.07	0.09	0.12	-*
0.07	0.09	0.12	-* +
[illegible]	0.02	[illegible]	-*+
0.07	0.09	0.13	-* +

	0.00	0.07	0.12
	0.07	0.09	0.13
	0.09	0.12	0.18
@	0.10	0.10	0.12

DATE: 8/17/96 TIME: 14:32:02

	0.08	0.00	0.09
	0.08	0.07	0.10
@	0.06	0.06	0.09

DATE: 8/17/96 TIME: 16:20:31

	0.09	0.12	0.18
	0.10	0.13	0.19
	0.07	0.09	0.12
	0.06	0.09	0.12
	0.07	0.09	0.12
	0.07	0.10	0.12
	0.07	0.09	0.11
	0.09	0.10	0.15
	0.06	0.09	0.12
	0.07	0.09	0.10
	0.07	0.09	0.12
	0.07	0.09	0.10
	0.05	0.07	0.10
	[illegible]	0.07	[illegible]
	[illegible]	0.08	0.10
	[illegible]	[illegible]	0.12
	0.11	0.07	0.13
	[illegible]	[illegible]	[illegible]
	0.08	0.10	0.10
	0.07	0.11	0.13

DATE: 8/17/96, TIME: 16:40:31

	0.07	0.10	0.12
	[illegible]	[illegible]	[illegible]
	0.0[illegible]	0.10	0.20
@	[illegible]	[illegible]	[illegible]

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 9-18-96 Start Time: 0635 Completion Time: 0645

Location: Building T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Building Demolition

Protective Clothing/Equipment: Level D

Chemical Hazards: None (pest.)

Physical Hazards: slips, trips, falls, tools

Control Methods: PPE, site hygiene, careful tool use

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
Gary Ray	[illegible]
Rick Bailey	[illegible]
M. Husam	[illegible]
D. Troslow	[illegible]
Peter Weilersbacher	[illegible]

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HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 9-18-96

Inspector: Stephen Lanham

Site Conditions, Weather: Partly sunny, dry, 70°F, wind E→W, Slight

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	↓		
Site work zones clearly defined on-site?	↓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	↓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	↓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?	✓		✗
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?	✓		
All drums and containers inspected for structural integrity before moving?	✓		
Personnel warned of the potential hazards associated with the contents of containers prior to movement?	✓		
Containers moved using appropriate mechanical devices to avoid injury?	✓		
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?			✓
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?	✓		
SSHP decontamination procedures observed?	✓		
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?	✓		
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?			✓
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are unauthorized personnel denied access to decontamination areas, decontamination equipment and change rooms?	✓		
Are washing facilities away from hazardous substances and adequate to permit personnel to remove hazardous substances from their bodies?	✓		
Are decontamination solution(s), equipment and clothing properly marked and left on-site or disposed of?	✓		
DRILLING			
Have proper underground utility clearances been obtained?			✓
Have overhead utility clearances been considered?			
Flammable liquids in approved containers?			
Emergency rig shutoff within reach of the operator?			
Appropriate fire shutoff within reach of the operator?			
Drilling platform properly stabilized?			
Ropes and chains in good condition?			✓
EXCAVATION			
Have proper utility clearances been obtained?			✓
Has the On-site Competent Person been identified and is present?			
Are daily trench inspections being conducted (or more frequently, as conditions warrant)?			
Support systems (piling, cribbing, shoring) appropriate for the job?			
Is there suitable access by stairs, ladders, ramps, hoists?			
Appropriate guardrails, fences, barricades and warning lights?			✓
MISCELLANEOUS SAFETY PROCEDURES			
If site work is anticipated in dimly lighted areas, is additional lighting provided?			✓
Is potable water labeled as safe for drinking?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			↓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			↓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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INSTRUMENT CALIBRATION CHECK SHEET
Building T4002
Fort Drum, New York

Instrument(s): Dust

Serial No.(s):

Technician's Signature: Steph C. Fan

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0830	Dust	Factory →		G	SCL	MIE PDM-3 SN: 4017
	"	Zero →		"	"	"
1640	"	Factory →		"	"	"

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-18-96

Field Activities: Building Demolition

Wind Direction: E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Yard

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
91896-001	0940	1	Donnie Truslow BZH	0.04	Dust
-002	0941	"	Station 1	0.02	"
-003	0943	"	" 2	0.01	"
-004	0945	"	" 3	0.02	"
-005	0947	"	" 4	0.02	"
-006	1145	"	Donnie Truslow BZH	0.04	"
-007	1147	"	Station 1	0.02	"
-008	1149	"	" 2	0.02	"
-009	1151	"	" 3	0.00	"
-010	1153	"	" 4	0.04	"
-011	1345	"	Donnie Truslow BZH	0.10	"
-012	1347	"	Station 1	0.08	"
-013	1349	"	" 2	0.08	"
-014	1352	"	" 3	0.04	"
-015	1354	"	" 4	0.02	"
-016	1619	"	Donnie Truslow BZH	0.10	"
-017	1621	"	Station 1	0.08	"

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-18-96

Field Activities: Building Demolition

Wind Direction: E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: [illegible] C. 2

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
-018	1624	1	Station 2	0.06	Dust
-019	1626	"	" 3	0.08	"
-020	1628	"	" 4	0.06	"

INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 9-18-96

Phase: Building Demolition

Activity: Waste loading

Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.) Partly sunny, dry, 70°F, wind E→W, slight

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
~~FO-91896-PHI-A-001~~		~~5412~~				~~1.47~~				Not collect work activities changed.
~~-B-001~~		~~3613~~				~~0.47~~				
~~-C-001~~		~~"~~				~~0.48~~				
-A-002	Station 1	5438	1130	1639	309	1.51	1.51	1.51	466.59	
-B-002	"	3811	"	"	"	0.51	0.49	0.49	151.41	
-C-002	"	"	"	"	"	0.48	0.47	0.47	145.23	
-A-003	Station 2	5366	1129	1633	304	1.52	1.51	1.51	459.04	
-B-003	"	3807	"	"	"	0.45	0.45	0.45	136.80	
-C-003	"	" ~~5432~~	"	"	"	0.46	0.45	0.45	136.80	
-A-004	Station 3	5432	1127	1634	307	1.50	1.50	1.50	460.50	
-B-004	"	3813	"	"	"	0.53	0.51	0.51	156.57	
-C-004	"	"	"	"	"	0.53	0.52	0.52	159.64	

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-18-96
Phase: Building Demolition
Activity: Waste Loading
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Partly sunny, dry, 70°F, wind E→W, slight

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FO-91896-PHI-A-005	Station 4	5506	1125	1625	300	1.57	1.57	1.57	471.00	
-B-005	"	3812	"	"	"	0.54	0.53	0.53	159.00	
-C-005	"	"	"	"	"	0.53	0.51	0.51	153.00	
-A-005D	Station 4 (COE Dupl.)	5408	"	"	"	1.56	1.56	1.56	468.00	
-B-005D	"	5	"	"	"	0.53	0.53	0.53	159.00	
-C-005D	"	"	"	"	"	0.53	0.51	0.51	153.00	

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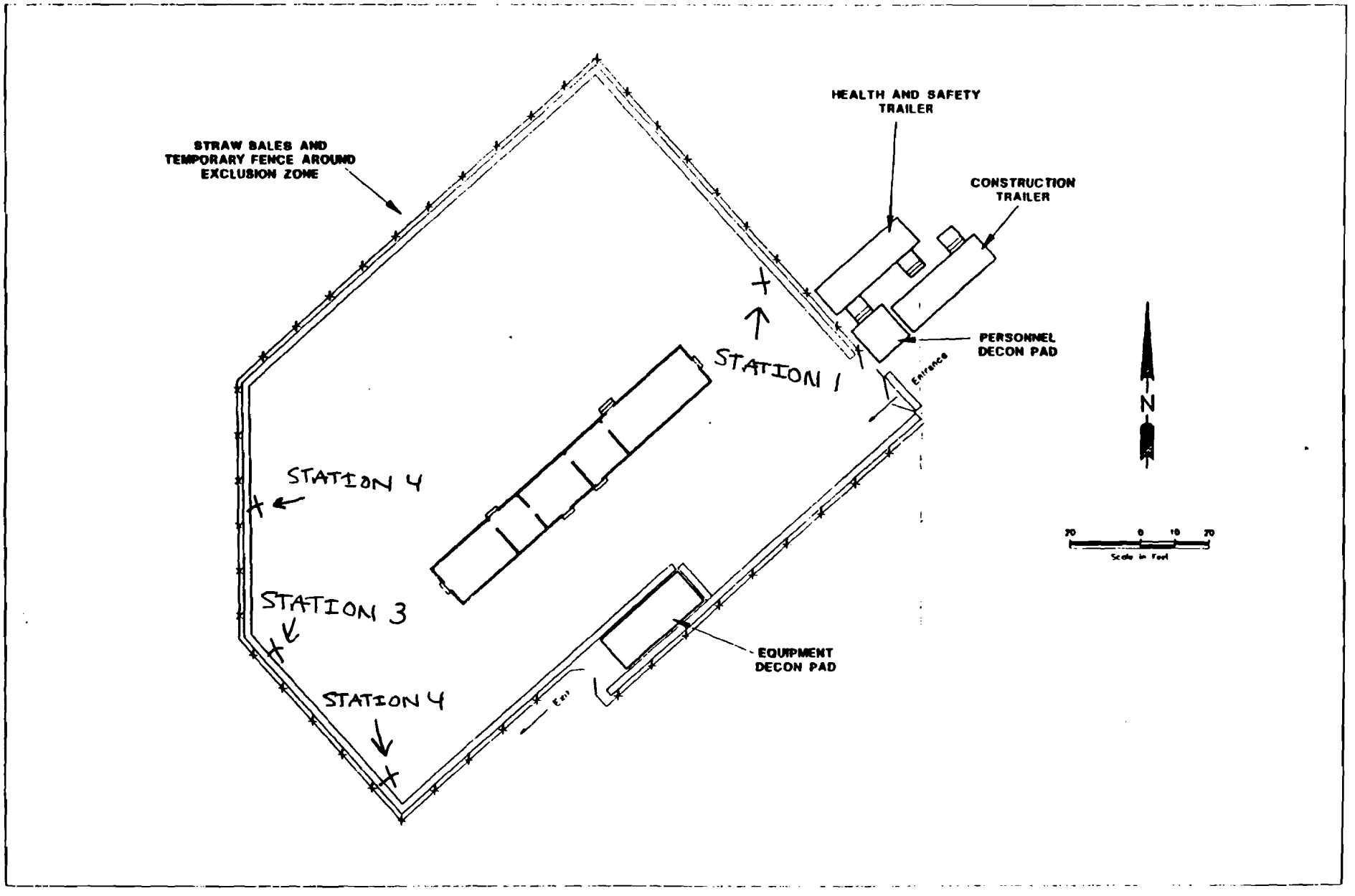

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

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MIE INC. Model PDL-10 SN 2332 V5.2 4/89

[illegible]
[illegible] 16:4[illegible]:08

CALIBRATION
0.015 V = 0.00 mg/m3
0.208 V = 14.20 mg/m3

LOWER ALARM: - 1.10 mg/m3
UPPER ALARM: - 1.10 mg/m3

UNITS: mg/m3

INPUT READS:- 1.13 mg/m3
TEST STARTING DATE: 8/18/96
TEST STARTING TIME: 9:33:23
ELAPSED TIME: 0 DAYS 1:49:29
[illegible] AVG: - 0.10 mg/m3
OVERALL MIN: - 1.15 mg/m3
[illegible] 8/18/96 @ 15:49:33
[illegible]
MAX [illegible] 8/18/96 @ [illegible]:41
STEL: [illegible] mg/m3
[illegible]:13

[illegible] PDE-10 SN 2332 V5.2 4/89

CURRENT DATE: 8/18/96
CURRENT TIME: 16:45:35

CALIBRATION
0.015 V = 0.00 mg/m3
0.208 V = 14.20 mg/m3

LOWER ALARM: - 1.10 mg/m3
UPPER ALARM: - 1.10 mg/m3

UNITS: mg/m3

TIME HISTORY
PERIOD LENGTH: 0:01:00
OF PERIODS COMBINED: 1

MIN	AVG	MAX	HIO
DATE: 8/18/96 TIME: 9:33:23			
0.04	0.06	[illegible]	
	[illegible]	0.07	
	[illegible]	0.07	
0.04	0.06	0.07	
0.06	0.06	0.13	
0.04	0.07	0.15	
0.06	0.06	0.12	
0.05	0.07	0.10	
0.04	0.04	0.07	
0.04	0.06	0.10	
0.04	0.04	[illegible]	
0.04	0.04	0.07	
0.04	0.04	0.06	
0.04	0.06	0.09	
0.04	0.06	0.15	
0.04	0.06	0.10	
0.04	0.06	0.10	
0.04	0.04	0.13	
0.04	0.07	0.12	
0.04	0.04	0.07	
DATE: 8/18/96 TIME: 9:53:23			
0.04	0.04	0.07	
0.04	0.04	0.06	
0.04	0.04	0.06	
DATE: 8/18/96 TIME: 11:41:51			
0.03	0.04	0.07	
0.04	0.06	0.07	
[illegible]	0.06	0.10	
0.06	0.07	0.13	
0.06	0.07	0.12	
0.06	0.06	0.09	
0.06	0.06	0.07	
0.04	0.06	0.09	
0.06	0.06	0.07	
0.04	0.06	0.07	
0.06	0.06	[illegible]	
0.06	0.06	0.07	

0.06	0.06	0.07	*
0.06	0.09	0.09	++
0.06	0.06	0.07	*
0.06	0.09	0.13	-*+
0.06	0.08	0.09	*+
0.06	0.07	0.10	++
0.04	0.06	0.07	-*

DATE: 8/18/96 TIME: 12:01:51

0.06	0.06	0.07	*
0.06	0.06	0.07	*
0.04	0.06	0.07	-*
0.06	0.06	0.07	*
0.06	0.06	0.07	*
0.06	0.06	0.07	*
0.06	0.06	0.07	*
0.06	0.06	0.09	*+
0.06	0.06	0.09	*+
0.06	0.07	0.12	* +
0.06	0.06	0.07	*

DATE: 8/18/96 TIME: 13:38:13

0.06	0.09	0.10	-*
0.07	0.07	0.10	++
0.07	0.09	0.13	[illegible]
0.07	0.09	0.13	-*+
0.07	0.10	0.13	-*+
0.10	0.12	0.18	-*+
0.07	0.10	0.13	-*+
0.07	[illegible]	0.18	-*-
0.08	0.10	0.15	-*+
0.12	0.12	0.15	*+
0.07	0.09	0.10	-
0.06	0.01	0.16	-
0.07	0.09	0.10	-*
0.08	0.07	0.10	*+
0.08	0.07	0.12	*+
0.07	0.09	0.15	-*
0.07	0.10	0.13	-*+
0.10	0.12	0.22	-* +
0.07	0.10	0.15	
0.07	[illegible]	0.12	-

DATE: 8/18/96 TIME: 13:55:13

0.06	0.09	0.12	-*+
0.06	0.09	0.12	-*+
0.07	0.10	0.18	-* +
0.07	0.10	0.15	-*+
0.07	0.09	0.15	-*+
0.07	0.09	0.10	-*

DATE: 8/18/96 TIME: 15:49:33

- 1.15	- 1.15	- 1.12	*|
- 1.15	- 1.15	- 1.13	*|
- 1.15	- 1.15	- 1.12	*|
- 1.13	- 1.13	- 1.12	*|
- 1.13	- 1.13	- 1.12	*|
1.13	- 1.13	- 1.10	*+
1.13	- 1.13	- 1.10	*+
- 1.12	- 1.13	- 1.12	*|
- 1.12	- 1.15	- 1.12	*|
- 1.15	- 1.13	- 1.12	*|
- 1.15	- 1.15	- 1.12	*|
- 1.15	- 1.12	- 1.12	*|
- 1.15	- 1.13	- 1.12	*|

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```
   [illegible]                  [illegible]
   1.15      -  1.13      -  1.15     *|
 -  1.13      -  0.12        0.10     -|                    *      +
    0.09        0.10        0.15      |                            *+
    0.07        0.10        0.15      |                           -*+
    0.09        0.10        0.15      |                            *+

  E:  8/18/96  TIME: 16:05:33
    0.07        0.12        0.15      |                           - *
    [illegible]        [illegible]        0.13      |                            -*
    0.10        0.10        0.12      |                            *+
    0.10        0.12        0.15      |                            -*
    0.09        0.10        0.15      |                            *+
    0.10        0.12        0.18      |                            -*+
    0.10        0.12        0.13      |                            -*
    0.07        0.09        0.12      |                           -*+
    0.10        0.10        0.1[illegible]      |                            *+
    [illegible]        0.10        0.15      |                            *+
    0.12        0.15        0.22      |                             *   +
@   0.15        0.16        0.18      |                             -*
```

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 9-19-96 Start Time: Completion Time:

Location: Bldg T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Building demolition

Protective Clothing/Equipment: Level D

Chemical Hazards: None (pest.)

Physical Hazards: Slips, trips, falls, tools

Control Methods: PPE, careful use of tools.

Special Equipment/Techniques:

Other:

Print Name	Sign Name
Gary Ray	[illegible]
Rick Bailey	[illegible]
Donnie Truslow	[illegible]
M. Hussaw	[illegible]
P. Weilersbacher	[illegible]

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HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 9-19-96

Inspector: Stephen Lanham

Site Conditions, Weather:

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	↓		
Site work zones clearly defined on-site?	↓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	↓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	↓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?	✓		
All drums and containers inspected for structural integrity before moving?	✓		
Personnel warned of the potential hazards associated with the contents of containers prior to movement?	✓		
Containers moved using appropriate mechanical devices to avoid injury?	✓		
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?		✓	X
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?	✓		
SSHP decontamination procedures observed?	✓		
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?	✓		
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?	✓		
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are unauthorized personnel denied access to decontamination areas, decontamination equipment and change rooms?	✓		
Are washing facilities away from hazardous substances and adequate to permit personnel to remove hazardous substances from their bodies?	✓		
Are decontamination solution(s), equipment and clothing properly marked and left on-site or disposed of?	✓		
DRILLING			
Have proper underground utility clearances been obtained?			✓
Have overhead utility clearances been considered?			↓
Flammable liquids in approved containers?			↓
Emergency rig shutoff within reach of the operator?			↓
Appropriate fire shutoff within reach of the operator?			↓
Drilling platform properly stabilized?			↓
Ropes and chains in good condition?			✓
EXCAVATION			
Have proper utility clearances been obtained?			✓
Has the On-site Competent Person been identified and is present?			↓
Are daily trench inspections being conducted (or more frequently, as conditions warrant)?			↓
Support systems (piling, cribbing, shoring) appropriate for the job?			↓
Is there suitable access by stairs, ladders, ramps, hoists?			↓
Appropriate guardrails, fences, barricades and warning lights?			✓
MISCELLANEOUS SAFETY PROCEDURES			
If site work is anticipated in dimly lighted areas, is additional lighting provided?			✓
Is potable water labeled as safe for drinking?	✓		

Additional Information

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_____

HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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_____

_____

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INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York

September 19, 1996

Instrument(s): Dust

Serial No.(s):

Technician's Signature: Steph C. Yank

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0705	Dust	Factory →		G	SCL	MIE PDM-3 SN: 4017
	"	Zero	—	"	"	"
1655	"	Factory →		—	—	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-19-96

Field Activities: Building Demolition

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Fowler

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
91996-018	1308	1	Station 2	0.06	Dust
-019	1310	"	" 3	0.04	"
-020	1312	"	" 4	0.03	"
-021	1440	"	Donnie Truslow BZH	0.12	"
-022	1442	"	Station 1	0.08	"
-023	1445	"	" 2	0.07	"
-024	1447	"	" 3	0.09	"
-025	1450	"	" 4	0.02	"
-026	1600	"	Donnie Truslow BZH	0.12	"
-027	1604	"	Station 1	0.08	"
-028	1607	"	" 2	0.08	"
-029	1609	"	" 3	0.06	"
-030	1611	"	" 4	0.02	"

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-19-96

Field Activities: Building Demolition

Wind Direction: ~~E→W~~ W→E

Instrument, Model & Serial No.:

Estimated Wind Speed: Still → slight

Technician Signature: Stephen C. Tanner

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
91996-001	0745	1	Donnie Truslow BZH	0.04	Dust
-002	0747	"	Station 1	0.02	"
-003	0749	"	" 2	0.02	"
-004	0750	"	" 3	0.04	"
-005	0752	"	" 4	0.04	"
-006	0915	"	Donnie Truslow BZH	0.04	"
-007	0918	"	Station 1	0.04	"
-008	0920	"	" 2	0.06	"
-009	0922	"	" 3	0.04	"
-010	0924	"	" 4	0.02	"
-011	1110	"	Rick Bailey BZH	0.09	"
-012	1112	"	Station 1	0.04	"
-013	1115	"	" 2	0.06	"
-014	1117	"	" 3	0.04	"
-015	1119	"	" 4	0.04	"
-016	1303	"	Donnie Truslow BZH	0.03	
-017	1305	"	Station 1	0.02	

INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-19-96
Phase: Building Demolition
Activity: West side demolition
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Sunny, dry, wind W→E, slight

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FO-91996-PH1-A-001	Station 1	5408	0851	1635	464	1.57	1.56	1.56	723.84	
-B-001	"	3673	"	"	"	0.48	0.48	0.48	222.72	
-C-001	"	"	"	"	"	0.49	0.47	0.47	218.08	
-A-002	Station 2	5506	0853	1625	452	1.58	1.56	1.56	705.12	
-B-002	"	3811	"	"	"	0.49	0.49	0.49	221.48	
-C-002	"	"	"	"	"	0.48	0.47	0.47	212.44	
-A-003	Station 3	5366	0854	1622	448	1.53	1.53	1.53	685.44	
-B-003	"	5	"	"	"	0.54	0.48	0.48	215.04	
-C-003	"	"	"	"	"	0.52	0.50	0.50	224.00	
-A-004	Station 4	5432	0855	1630	455	1.52	1.50	1.50	682.50	
-B-004	"	3813	"	"	"	0.54	0.54	0.54	245.70	
-C-004	"	"	"	"	"	0.53	0.52	0.52	236.60	

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 9-19-96

Phase: Building Demolition

Activity: West side demolition

Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.) Sunny, dry, wind W → E, slight

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-91996-PHI-A-004D	Station 4 (COE Duplicate)	5438	0855	1630	455	1.53	1.51	1.51	687.05	
-B-004D	"	3807	"	"	"	0.48	0.47	0.47	213.85	
-C-004D	"	"	"	"	"	0.48	0.48	0.48	218.40	
-A-005	Personal Sample	5412	0945	1620	395	1.51	1.51	1.51	596.45	
-B-005	"	3812	"	"	"	0.54	0.47	0.47	185.65	
-C-005	"	"	"	"	"	0.53	0.50	0.50	197.50	

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9-19-96

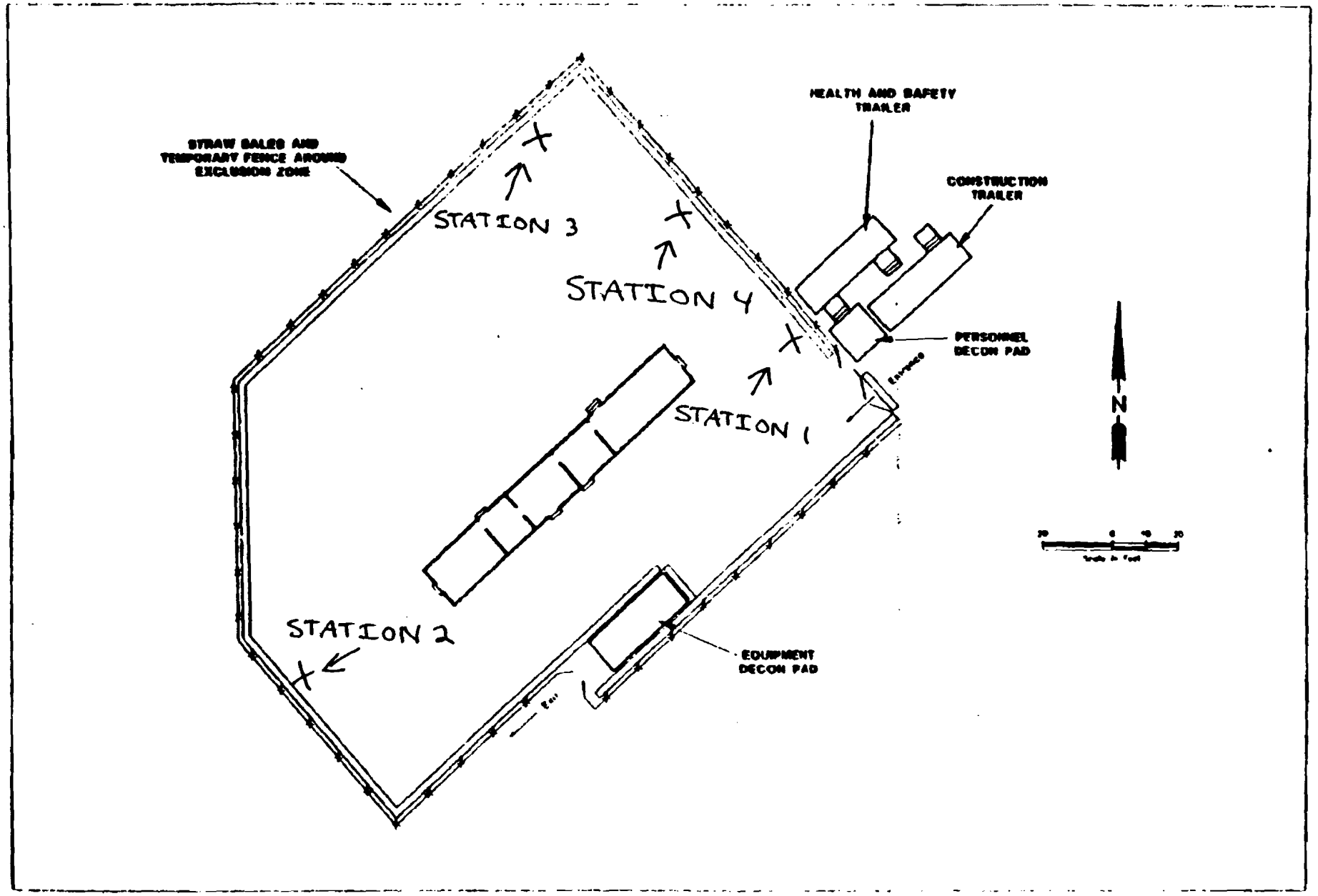

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

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MIE INC. Model PDL-10 SN 2332 V5.2 4/83

CURRENT DATE: 8/19/96
CURRENT TIME: 16:49:29

CALIBRATION
0.015 V = 0.000 mg/m3
0.017 V = 0.040 mg/m3

LOWER ALARM: - 0.300 mg/m3
UPPER ALARM: - 0.300 mg/m3

UNITS: mg/m3

INPUT READS:- 0.444 mg/m3
TEST STARTING DATE: 8/19/96
TEST STARTING TIME: 7:39:31
ELAPSED TIME: 0 DAYS 2:42:41
OVERALL AVG: [illegible] mg/m3
OVERALL MIN: - 0.44[illegible] mg/m3
MIN OCCURRED [illegible]/96 @ 16:00:27
OVERALL MAX: 0.[illegible] mg/m3
MAX OCCURRED 8/19/96 @ 14:40:0[illegible]
STEL: 0.0[illegible] mg/m3
STEL OCCURRED 8/19/96 @ 14:37:5[illegible]

0.024	0.028	0.036	*+
0.024	0.028	0.036	*+
0.024	0.028	0.034	*+
0.028	0.028	0.036	*+
0.028	0.028	0.036	*+
0.028	0.032	0.040	-*
0.028	0.028	0.032	*+
0.024	0.036	0.072	-* +
- 0.172	- 0.044	0.016	- * +
0.012	0.024	0.036	-*+
0.020	0.032	0.056	-*+
0.020	0.028	0.080	* +
0.024	0.032	0.068	-* +
0.024	0.024	0.032	*+
0.024	0.024	0.032	*+
0.024	0.024	0.032	*+
0.028	0.032	0.052	-*+
0.024	0.028	0.036	*+

DATE: 8/19/96 TIME: 9:27:05

0.020	0.024	0.032	*+
0.024	0.028	0.036	*+
0.024	[illegible]	[illegible]	[illegible]
0.028	0.032	0.048	-*+
[illegible]	[illegible]	[illegible]	*+
0.020	0.028	0.036	*+
0.020	0.032	0.040	-*
0.020	[illegible]	[illegible]	-*+
0.020	[illegible]	[illegible]	-*
[illegible]	[illegible]	[illegible]	*+
0.028	0.028	0.036	*+
[illegible]	[illegible]	[illegible]	*+
0.020	0.028	0.040	*+
0.024	0.028	0.040	*+
0.020	0.032	0.040	-*
[illegible]	0.028	[illegible]	*+
[illegible]	0.032	[illegible]	-*
[illegible]	[illegible]	0.048	*+
[illegible]	0.036	[illegible]	*+
[illegible]	[illegible]	0.056	-*+

[illegible] 9:47:05

0.028	0.032	0.044	-*
0.028	0.028	0.032	*+

DATE: 8/19/96 TIME: 10:56:13

0.024	0.028	0.036	*+
0.020	0.024	0.032	*+
0.020	0.024	0.032	*+
0.028	0.032	0.048	-*+
0.028	0.032	0.040	-*
0.028	0.028	0.036	*+
0.028	0.028	0.032	*+
0.028	0.036	0.052	-*+
0.032	0.032	0.052	*+
0.028	0.028	0.048	* +
0.028	0.028	0.032	*+
0.024	0.028	0.032	*+
0.024	0.028	0.036	*+
[illegible]	[illegible]	[illegible]	-*+
0.020	0.024	0.032	*+
0.028	0.032	0.036	-*
0.024	0.028	0.040	*+
0.026	0.028	0.036	*+
0.024	0.028	0.032	*+
[illegible]	[illegible]	[illegible]	[illegible]

DATE: 8/19/96 TIME: 11:16:12

0.024	0.032	0.040	
0.020	0.024	0.028	
0.020	0.028	0.040	
0.020	0.028	0.036	
0.020	0.028	0.040	
0.028	0.032	0.036	
0.024	0.028	0.040	
0.020	0.024	0.032	
0.024	0.028	0.028	
0.028	0.032	0.040	
0.020	0.032	0.044	
0.028	0.028	0.040	
@ 0.040	0.044	0.056	

DATE: 8/19/96 TIME: 13:00:06

0.020	0.024	0.028	
0.016	0.024	0.028	
0.020	0.020	0.032	
0.020	0.028	0.032	
0.024	0.028	[illegible]	
[illegible]	[illegible]	0.036	
0.020	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
0.020	[illegible]	[illegible]	
@ [illegible]	[illegible]	[illegible]	

DATE: [illegible] TIME: [illegible]

[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	0.040	
[illegible]	[illegible]	[illegible]	
0.020	[illegible]	0.132	
[illegible]	[illegible]	0.152	
- 0.100	[illegible]	[illegible]	
- [illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
0.032	0.032	0.040	
[illegible]	[illegible]	0.036	
[illegible]	[illegible]	[illegible]	
0.032	[illegible]	[illegible]	
0.024	0.028	0.032	
[illegible]	[illegible]	0.032	
0.032	0.064	0.092	
0.020	0.040	0.052	
0.028	0.032	0.048	
0.028	0.032	0.060	
0.024	0.028	0.036	
@ 0.032	0.032	0.032	

DATE: 8/19/96 TIME: 15:46:29

0.020	0.028	0.040	
0.028	0.028	0.036	
0.024	0.028	0.036	
0.020	0.024	0.032	
0.020	0.024	0.028	
0.024	0.024	0.028	
0.028	0.032	0.040	
0.024	0.028	0.030	
0.024	0.028	0.040	
0.024	0.024	0.028	
0.024	0.024	0.032	
0.024	0.024	0.036	
0.024	0.044	0.112	
- 0.448	0.004	0.072	

527

- 0.100	- 0.024	0.092	
- 0.276	- 0.048	0.028	- +
0.012	0.024	0.036	-*+
- 0.004	0.020	0.036	- *+
0.020	0.024	0.032	*+

I: 8/19/96 TIME: 16:06:29

0.020	0.024	0.028	*
0.024	0.024	0.028	*
0.030	0.028	0.036	*+
0.024	0.028	0.048	* +
0.020	0.024	0.029	*
0.020	0.024	0.032	*+
0.020	0.024	0.028	*
0.024	0.024	0.028	*

Dam + Moore
7101 Wisconsin Ave., Suite 700
Bethesda, MD 20814
(301) 652-2215 FAX (301) 656-8059

24 Hour Turnaround

Ref.
P.O. # WA-8990

CHAIN OF CUSTODY RECORD

NO. 0412

Project No.:

Project Name: Ft. Drum - Bldg T-4002

Samplers: (signature) Steph C. [illegible]

Sta. No.	Date	Time	Comp	Grab	SAMPLE # ~~Station Location~~	Number of Containers	NIOSH 7300 (Lead)		NIOSH 5001 (2,4-D; and 2,4,5-T)		NIOSH 5274M (DDD; DDE; and DDT)		Remarks Volume (Liters)
					FD-71996-PHI-A-005	1	✓						576.45
					F -B-005	↓			✓				185.65
					↓ -C-005	↓					✓		197.50

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Steph C. [illegible]	9-19-96 5:20PM		
Relinquished by: (signature)	Date/Time	Received for Laboratory by: (signature)	Date/Time

Remarks:
FAX Results (315) 773-2873
Phone Results
(301) 652 2215 (ext. 271)
Leave Message

Dames & Moore

Distribution: White Copy (Laboratory Copy)
Yellow Copy (Job File)
Pink Copy (Field Geologist Files)

529

Dames + Moore
7101 Wisconsin Ave., Suite 100
Bethesda, MD 20814
(301) 652-2215 FAX 656-8059

- Hour Turnaround

Reference
P.O. # WA-8770

CHAIN OF CUSTODY RECORD

NO. 0414

Project No.:

Project Name: Ft. Drum - Bldg T-4002

Samplers: (signature) [signature]

Sta. No.	Date	Time	Comp	Grab	SAMPLE ~~Station~~ # ~~Location~~	Number of Containers	NIOSH 5274M (DDD, DDE, and DDT)						Remarks Volume (Liters)
					FD-71996-PHI-C-001	1	✓						218.08
					-C-002		✓						212.44
					-C-003		✓						224.00
					-C-004		✓						236.60

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	9-19-96 1720		
Relinquished by: (signature)	**Date/Time**	**Received for Laboratory by: (signature)**	**Date/Time**

Remarks:
FAX Results: (314) 773-2873
Phone Results: (301) 652-2215 (ext. 271)
Leave Message

Dames & Moore

Distribution: White Copy (Laboratory Copy)
Yellow Copy (Job File)
Pink Copy (Field Geologist Files)

531

D[illegible]es + Moore
7101 Wisconsin Ave., Suite 700
Bethesda, MD 20814
(301) 652-2215 FAX 656-8057

72 Hour Turn around

Reference
P.O. #WA-8770

CHAIN OF CUSTODY RECORD

NO. 0413

Project No.:

Project Name: Ft. Drum - Bldg T-4002

Samplers: (signature) [signature] C. L

Sta. No.	Date	Time	Comp	Grab	SAMPLE # ~~Station Location~~	Number of Containers	NIOSH 7300 (Lead by TCP)		NIOSH 5001 (2,4-D and 2,4,5-T)				Remarks Volume (Liters)
—	—	—	—	—	FD-T1996-PH1-A-001	1	✓	—	—	—	—	—	723.84
—	—	—	—	—	-A-002	1	✓	—	—	—	—	—	105.12
—	—	—	—	—	-A-003	1	✓	—	—	—	—	—	685.44
—	—	—	—	—	-A-004	1	✓	—	—	—	—	—	682.50
—	—	—	—	—	-B-001	1	—	—	✓	—	—	—	222.72
—	—	—	—	—	-B-002	1	—	—	✓	—	—	—	221.48
—	—	—	—	—	-B-003	1	—	—	✓	—	—	—	215.04
—	—	—	—	—	-B-004	1	—	—	✓	—	—	—	245.70

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature] C. L	7-17-76 / 1720		
Relinquished by: (signature)	**Date/Time**	**Received for Laboratory by: (signature)**	**Date/Time**

Remarks:
Fax Results: (315) 773-2873
Phone Results:
(301) 652-2215 (ext. 271)
Leave Message

Dames & Moore

Distribution: White Copy (Laboratory Copy)
Yellow Copy (Job File)
Pink Copy (Field Geologist Files)

533

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 9-23-96 Start Time: 0640 Completion Time: 0650

Location: Building T-4002, Office Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Building Demolition, downsizing

Protective Clothing/Equipment: Level D

Chemical Hazards: None (pest.)

Physical Hazards: Slips, trips, falls, hand tools

Control Methods: PPE, site hygiene

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
Gary Ray	[illegible]
Rick Bailey	[illegible]
M. Husain	[illegible]
Pweilersbacher	[illegible]
D. Truslow	[illegible]

537

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 9-23-96

Inspector: Stephen Lanham

Site Conditions, Weather: Partly sunny

Building material down sizing

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?			
Site work zones clearly defined on-site?			
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?			
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?			
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?		✓	
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?	✓		
Air monitoring log available and current?	✓		
Does monitoring log reflect excursions above action levels?			
Has personal sampling been performed?		✓	
Have any exposure symptoms been reported?		✓	
HEAT STRESS MONITORING			
Has heat stress monitoring been implemented?			✓
Are work/rest regimens established/followed?			↓
Are pulse rate and oral temperature taken?			↓
Monitoring log available and current?			✓
Any heat stress incidents?		✓	
Are personnel aware of symptoms/first aid?	✓		
Are ambient temperature readings logged?			✓
Are emergency medical treatment and first aid available to personnel?	✓		✗
PERSONAL PROTECTIVE EQUIPMENT			
All PPE called for in HSP available?	✓		
Is there sufficient PPE available for the personnel involved in the performance of site operations?	✓		
Is PPE used in accordance with SHP?	✓		
Has PPE been upgraded or downgraded?		✓	
Is the PPE in place adequate for the chemical and physical hazards on-site?	✓		
Is there a need to modify the PPE requirements?		✓	
All personnel appropriately taped-up?			✓

Additional Information

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_____

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?	✓		
All drums and containers inspected for structural integrity before moving?	✓		
Personnel warned of the potential hazards associated with the contents of containers prior to movement?	✓		
Containers moved using appropriate mechanical devices to avoid injury?	✓		
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?		✓	
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?	✓		
SSHP decontamination procedures observed?	✓		
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?	✓		
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?	✓		
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?	✓		

Additional Information

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_____

_____

HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

_____

_____

_____

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INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York

September 23, 1996

Instrument(s): Dust

Serial No.(s):

Technician's Signature: Stephen C. Hanlon

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0800	Dust	Factory →		G	SCL	MIE PDM-3 SN: 4017
	"	Zero →		"	"	"
1630	"	Factory →		"	"	"

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-23-96

Field Activities: Building Downsizing/Loading

Wind Direction: E→W

Instrument, Model & Serial No.:

Estimated Wind Speed: 5-10 mph

Technician Signature: [illegible] C. Ja[illegible]

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
92396-018	1302	1	Station 1	0.06	Dust
-019	1304	"	" 2	0.08	"
-020	1306	"	" 3	0.04	"
-021	1309	"	" 4	0.02	"
-022	1330	"	Downwind Truck B&H	0.04	"
-023	1332	"	Station 1	0.04	"
-024	1334	"	" 2	0.03	"
-025	1336	"	" 3	0.03	"
-026	1339	"	" 4	0.03	"
-027	1515	"	Kick Bailey B&H (jack hammering concrete)	0.08	
-028	1518	"	Station 2	0.06	
-029	1520	"	" 3	0.04	
-030	1523	"	" 4	0.04	
-031	1529	"	" 1	0.02	

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-23-96

Field Activities: Building material downsizing

Wind Direction: E →

Instrument, Model & Serial No.:

Estimated Wind Speed: 5-10 mph

Technician Signature: Stephen C. Yanka

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
92396-001	0900	1	Donnie Tryslow BZH (concrete demo.)	1.01	Dust
-002	0902	"	"	0.84	"
-003	0905	"	Station 2	0.10	"
-004	0907	"	" 3	0.04	"
-005	0908	"	" 4	0.06	"
-006	0910	"	" 1	0.02	"
-007	1010	"	Donnie Truslow BZH (concrete demo.)	0.08	"
-008	1013	"	Station 1	0.06	"
-009	1015	"	" 2	0.04	"
-010	1018	"	" 3	0.04	"
-011	1020	"	" 4	0.02	"
-012	1135	"	Donnie Truslow BZH	0.09	"
-013	1137	"	Station 1	0.03	"
-014	1139	"	" 2	0.04	"
-015	1142	"	" 3	0.05	"
-016	1145	"	" 4	0.03	"
-017	1300	"	Donnie Truslow BZH	0.08	"

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 9-23-96

Phase: Building Demolition

Activity: material downsizing

Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Partly sunny, dry, wind E → W, 5-10mph

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FO-92396-PHI-A-001	Station 1	5366	0841	1631	470	1.53	1.52	1.52	714.40	
-B-001	"	3673	"	"	"	0.47	0.47	0.47	220.90	
-C-001	"	"	"	"	"	0.49	0.49	0.49	230.30	
-A-002	Station 2	5506	0837	1629	472	1.56	1.55	1.55	731.60 ~~479.55~~	
-B-002	"	3807	"	"	"	0.46	0.45	0.45	212.40	
-C-002	"	"	"	"	"	0.48	0.47	0.47	221.84	
-A-003	Station 3	5438	0836	1628	472	1.53	1.52	1.52	717.44	
-B-003	"	3813	"	"	"	0.54	0.53	0.53	250.16	
-C-003	"	"	"	"	"	0.53	0.53	0.53	250.16	
-A-004	Station 4	5432	0834	1626	472	1.51	1.47	1.47	693.84	
-B-004	"	3811	"	"	"	0.51	0.50	0.50	236.00	
-C-004	"	"	"	"	"	0.49	0.47	0.47	221.84	

549

INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-23-96
Phase: Building Demolition
Activity: Material Downsizing
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Partly sunny, dry, wind E → W, 5-10 mph

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-92396-PHI-A-004D	Station 4 (COE Dmp.)	5408	0833	1625	472	1.55	1.54	1.54	726.88	
-B-004D	"	5	"	"	"	0.48	0.47	0.47	221.84	
-C-004D	"	"	"	"	"	0.47	0.46	0.46	217.12	

551

9-23-96

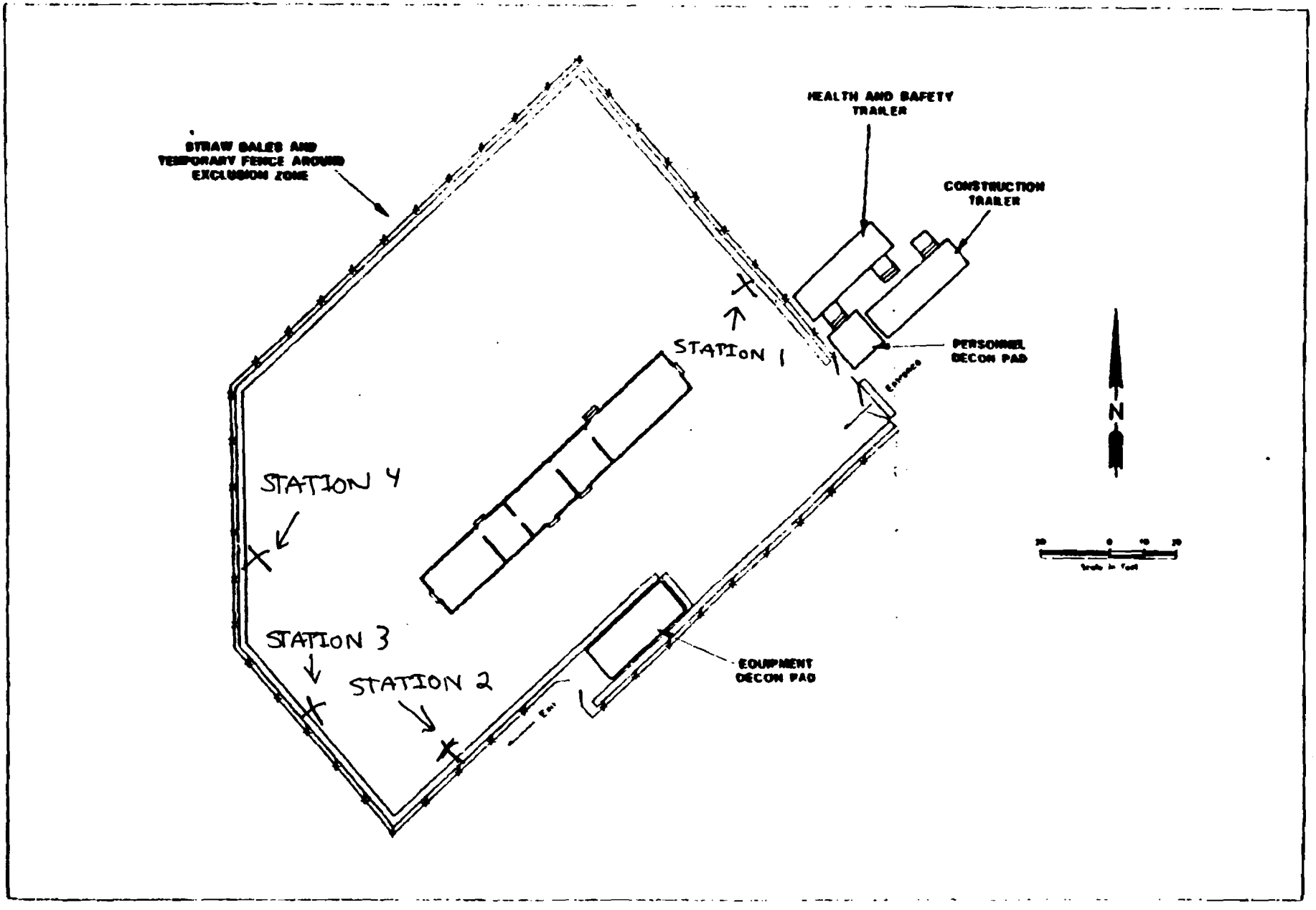

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

553

MIE INC. Model PDL-10 SN 2332 V5.2 4/89

555

CURRENT DATE: 8/24/96
CURRENT TIME: 15:59:21

CALIBRATION
0.015 V = 0.000 mg/m3
0.017 V = 0.040 mg/m3

LOWER ALARM: - 0.300 mg/m3
UPPER ALARM: - 0.300 mg/m3

UNITS: mg/m3

INPUT READS:- 0.324 mg/m3
TEST STARTING DATE: 8/19/96
TEST STARTING TIME: 7:39:31
ELAPSED TIME: 0 DAYS 6:08:19
OVERALL AVG: 0.036 mg/m3
OVERALL MIN: - 0.448 mg/m3
MIN OCCURRED 8/19/96 @ 16:00:27
OVERALL MAX: 0.792 mg/m3
MAX OCCURRED 8/24/96 @ 12:37:07
STEL: 0.033 mg/m3
STEL OCCURRED 8/24/96 @ 10:25:40

MIE INC. Model PDL-10 SN 2332 V5.2 4/89

'RRENT DATE: 8/24/96
(RENT TIME: 15:59:57

CALIBRATION
0.0[illegible] [illegible] 0.000 mg/m3
0.017 V = 0.040 mg/m3

LOWER ALARM: - 0.300 mg/m3
UPPER ALARM: - 0.300 mg/m3

UNITS: mg/m3

TIME HISTORY
PERIOD LENGTH: 0:01:00
OF PERIODS COMBINED: 1

MIN	AVG	MAX	IO
DATE: 8/19/96 TIME: 7:39:31			
0.020	0.024	0.020	I*
0.020	0.024	0.036	I*
0.020	0.036	0.040	I*
0.020	0.032	0.048	I*
0.020	0.024	0.032	I*
0.016	0.024	0.0[illegible]	I*
- 0.020	0.020	0.036	I*
0.020	0.020	0.036	I*
[illegible]	[illegible]	0.040	I*
- 0.024	- 0.048	0.032	-*
0.020	0.020	0.028	I*
0.016	0.020	0.024	I*
0.016	0.020	0.036	I*
0.016	0.020	0.036	I*
0.020	0.024	0.040	I*
0.016	0.024	0.036	I*
0.016	0.020	0.028	I*
0.016	0.020	0.052	I*
0.016	0.020	0.036	I*
0.016	0.016	0.024	I*
DATE: 8/19/96 TIME: 7:59:31			
0.016	0.020	0.028	I*
0.016	0.020	0.024	I*
0.020	0.020	0.028	I*
0.020	0.024	0.029	I*
0.020	0.024	0.032	I*
0.020	0.024	0.032	I*
0.016	0.020	0.032	I*
0.016	0.024	0.032	I*
0.020	0.024	0.028	I*
0.020	0.024	0.032	I*
0.020	0.028	0.040	I*
0.024	0.028	0.036	I*
0.032	0.036	0.044	I*
@ 0.020	0.032	0.036	I*
DATE: 8/19/96 TIME: 9:07:05			
0.020	0.024	0.0[illegible]	I*

559

0.024	0.028	0.036	|*
0.024	0.028	0.036	|*
0.024	0.028	0.036	|*
0.028	0.028	0.036	|*
0.028	0.028	0.036	|*
0.028	0.032	0.040	|*
0.028	0.028	0.032	|*
0.024	0.036	0.072	|*
- 0.172	- 0.044	0.016	-*
0.012	0.024	0.036	|*
0.020	0.032	0.056	|*
0.020	0.028	0.080	|*
0.024	0.032	0.068	|*
0.024	0.024	0.032	|*
0.024	0.024	0.032	|*
0.024	0.024	0.032	|*
0.028	0.032	0.052	|*
0.024	0.028	0.036	|*

DATE: 8/19/96 TIME: 9:27:05

0.020	0.024	0.032	|*
0.024	0.028	0.036	|*
0.024	0.028	0.032	|*
0.028	0.032	0.048	|*
0.028	0.028	0.036	|*
0.032	0.028	0.036	|*
0.028	0.032	0.040	|*
0.028	0.032	0.048	|*
0.028	0.032	0.040	|*
0.024	0.028	0.044	|*
0.028	0.028	0.036	|*
0.020	0.024	0.032	|*
0.020	0.028	0.040	|*
0.024	0.028	0.040	|*
0.028	0.032	0.040	|*
0.032	0.028	0.036	|*
0.028	0.032	0.036	|*
0.032	0.036	0.048	|*
0.032	0.036	0.056	|*
0.028	0.036	0.056	|*

DATE: 8/19/96 TIME: 9:47:05

0.028	0.032	0.044	|*
@ 0.028	0.028	0.032	|*

DATE: 8/19/96 TIME: 10:56:13

0.024	0.028	0.036	|*
0.020	0.024	0.032	|*
0.020	0.024	0.032	|*
0.028	0.032	0.048	|*
0.028	0.032	0.040	|*
0.028	0.028	0.036	|*
0.020	0.028	0.032	|*
0.020	0.036	0.052	|*
0.032	0.032	0.052	|*
0.028	0.028	0.048	|*
0.028	0.028	0.032	|*
0.024	0.028	0.032	|*
0.024	0.028	0.036	|*
0.024	0.032	0.048	|*
0.020	0.024	0.032	|*
0.028	0.032	0.036	|*
0.024	0.028	0.040	|*
0.028	0.028	0.036	|*
0.024	0.028	0.032	|*

561

DATE: 8/19/96 TIME: 11:16:13

	0.024	0.032	0.040	I*
	0.020	0.024	0.028	I*
	0.020	0.028	0.040	I*
	0.020	0.028	0.036	I*
	0.020	0.028	0.040	I*
	0.028	0.028	0.036	I*
	0.024	0.028	0.040	I*
	0.020	0.024	0.032	I*
	0.024	0.028	0.032	I*
	0.028	0.032	0.040	I*
	0.028	0.032	0.044	I*
	0.028	0.028	0.040	I*
@	0.040	0.044	0.056	I*

DATE: 8/19/96 TIME: 13:00:06

	0.020	0.024	0.029	I*
	0.016	0.024	0.028	I*
	0.020	0.028	0.032	I*
	0.020	0.024	0.032	I*
	0.024	0.028	0.036	I*
	0.024	0.020	0.036	I*
	0.020	0.024	0.032	I*
	0.024	0.028	0.032	I*
	0.020	0.024	0.032	I*
@	0.024	0.028	0.032	I*

DATE: 8/19/96 TIME: 14:39:03

	0.020	0.020	0.032	I*
	0.020	0.028	0.040	I*
	0.020	0.028	0.036	I*
	0.028	0.044	0.132	I*
	0.032	0.060	0.152	I*
-	0.100	0.008	0.064	I*
-	0.112	0.000	0.036	-*
	0.020	0.032	0.052	I*
	0.032	0.032	0.040	I*
	0.024	0.028	0.036	I*
	0.024	0.028	0.040	I*
	0.024	0.024	0.032	I*
	0.024	0.028	0.036	I*
	0.024	0.028	0.036	I*
	0.032	0.064	0.092	I*
	0.028	0.040	0.052	I*
	0.028	0.032	0.048	I*
	0.028	0.032	0.060	I*
	0.024	0.028	0.036	I*
@	0.032	0.032	0.032	I*

DATE: 8/19/96 TIME: 15:46:29

	0.028	0.028	0.040	I*
	0.028	0.028	0.036	I*
	0.024	0.028	0.036	I*
	0.020	0.024	0.032	I*
	0.020	0.024	0.029	I*
	0.024	0.024	0.028	I*
	0.028	0.032	0.040	I*
	0.024	0.028	0.036	I*
	0.024	0.028	0.040	I*
	0.024	0.024	0.028	I*
	0.024	0.024	0.032	I*
	0.024	0.024	0.032	I*
	0.024	0.044	0.112	I*
-	0.448	0.004	0.072	-*

563

- 0.168	- 0.024	0.092	-*
- 0.276	- 0.048	0.028	-*
0.012	0.024	0.036	|*
- 0.004	0.020	0.036	|*
0.020	0.024	0.032	|*

TE: 8/19/96 TIME: 15:06:29

0.020	0.024	0.028	|*
0.024	0.024	0.028	|*
0.020	0.028	0.036	|*
0.024	0.028	0.048	|*
0.020	0.024	0.028	|*
0.020	0.024	0.032	|*
0.020	0.024	0.028	|*
@ 0.024	0.024	0.029	|*

DATE: 8/23/96 TIME: 9:04:44

0.020	0.024	0.034	|*
0.020	0.036	0.076	|*
0.052	0.060	0.084	|*
0.004	0.172	0.280	|*+
0.020	0.084	0.212	|*
0.016	0.024	0.032	|*
0.016	0.020	0.036	|*
0.016	0.020	0.036	|*
0.016	0.020	0.024	|*
0.016	0.020	0.028	|*
0.016	0.020	0.032	|*
0.020	0.024	0.028	|*
0.020	0.020	0.028	|*
0.020	0.020	0.028	|*

DATE: 8/23/96 TIME: 10:14:26

0.020	0.028	0.032	|*
0.024	0.028	0.032	|*
0.020	0.024	0.032	|*
0.028	0.028	0.040	|*
0.028	0.032	0.040	|*
0.028	0.028	0.036	|*
0.012	0.040	0.068	|*
0.020	0.028	0.036	|*
0.020	0.024	0.032	|*
0.016	0.020	0.024	|*
0.016	0.020	0.032	|*
0.016	0.024	0.060	|*
0.016	0.024	0.036	|*
@ 0.020	0.024	0.029	|*

DATE: 8/23/96 TIME: 11:33:46

0.000	0.024	0.040	|*
0.024	0.044	0.076	|*
0.032	0.036	0.044	|*
- 0.212	- 0.016	0.036	-*
0.004	0.016	0.028	|*
0.020	0.024	0.032	|*
0.016	0.020	0.028	|*
0.020	0.024	0.032	|*
0.020	0.020	0.032	|*
0.020	0.024	0.032	|*
0.016	0.020	0.028	|*
0.020	0.024	0.032	|*
0.020	0.024	0.040	|*
0.020	0.028	0.040	|*
@ 0.020	0.024	0.028	|*

DATE: 8/23/96 TIME: 12:54:53

565

0.020	0.028	0.036	I*
0.020	0.024	0.032	I*
0.020	0.024	0.032	I*
0.024	0.028	0.036	I*
0.024	0.028	0.036	I*
0.028	0.032	0.044	I*
0.024	0.028	0.040	I*
0.028	0.028	0.040	I*
0.024	0.028	0.032	I*
0.020	0.028	0.032	I*
0.024	0.028	0.040	I*
0.024	0.028	0.036	I*
0.024	0.028	0.036	I*
0.024	0.028	0.032	I*
0.024	0.028	0.032	I*
0.024	0.028	0.036	I*
0.024	0.024	0.032	I*
0.020	0.024	0.032	I*
0.024	0.028	0.036	I*

DATE: 8/23/96 TIME: 13:14:52

0.028	0.028	0.036	I*
0.024	0.028	0.032	I*
0.024	0.024	0.032	I*
0.020	0.028	0.032	I*
0.020	0.028	0.032	I*
0.020	0.028	0.036	I*
0.020	0.028	0.036	I*
0.020	0.024	0.032	I*
0.020	0.024	0.032	I*
0.020	0.020	0.028	I*
0.020	0.020	0.028	I*
0.020	0.020	0.028	I*
0.020	0.024	0.028	I*
0.020	0.020	0.028	I*
0.020	0.024	0.028	I*
0.020	0.024	0.028	I*
0.020	0.024	0.032	I*
0.020	0.024	0.029	I*
0.020	0.024	0.032	I*
0.020	0.020	0.028	I*

DATE: 8/23/96 TIME: 13:34:52

0.016	0.020	0.029	I*
- 0.056	0.008	0.028	I*
0.016	0.024	0.036	I*
0.024	0.032	0.044	I*
0.024	0.028	0.040	I*
0.024	0.028	0.036	I*
0.020	0.032	0.040	I*
0.032	0.032	0.044	I*
0.028	0.032	0.044	I*
0.028	0.028	0.036	I*
0.028	0.032	0.040	I*
0.028	0.032	0.036	I*
0.024	0.032	0.048	I*
0.028	0.032	0.040	I*
0.028	0.028	0.036	I*
0.028	0.028	0.036	I*

DATE: 8/23/96 TIME: 15:09:11

0.028	0.036	0.048	I*
0.028	0.028	0.040	I*
0.028	0.044	0.068	I*
0.036	0.044	0.056	I*

0.026	0.032	0.048	|*
0.028	0.036	0.044	|*
0.024	0.032	0.044	|*
0.028	0.044	0.060	|*
0.026	0.040	0.052	|*
0.024	0.028	0.032	|*
0.028	0.032	0.040	|*
0.028	0.028	0.032	|*
0.029	0.032	0.040	|*
0.032	0.040	0.056	|*
0.026	0.036	0.044	|*
0.028	0.032	0.044	|*
0.028	0.028	0.036	|*
0.024	0.028	0.036	|*
0.020	0.024	0.032	|*
0.024	0.028	0.032	|*

DATE: 8/23/90 TIME: 15:29:11

0.020	0.024	0.032	|*
[illegible]	0.024	[illegible]	|*
0.028	0.028	0.032	|*
[illegible]	0.028	0.032	|*
[illegible]	[illegible]	[illegible]	|*
[illegible]	0.024	[illegible]	|*

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 9-24-96 Start Time: 0645 Completion Time: 0655

Location: Building T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Building load out + sizing

Protective Clothing/Equipment: Level D + overboots

Chemical Hazards: None (pest.)

Physical Hazards: Slips, trips, falls, tools

Control Methods: PPE, carefull tool use

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
GARY RAY	[illegible]
RICK BAILEY	[illegible]
DONNIE TRUXLOW	[illegible]
M. HUSAN	[illegible]
P. Weilersbacher	[illegible]

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HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 9-24-96

Inspector: Stephen Lanham

Site Conditions, Weather: Dry, partly sunny

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	↓		
Site work zones clearly defined on-site?	↓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	↓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	↓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?	✓		
All drums and containers inspected for structural integrity before moving?	✓		
Personnel warned of the potential hazards associated with the contents of containers prior to movement?	✓		
Containers moved using appropriate mechanical devices to avoid injury?	✓		
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?		✓	
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?	✓		
SSHP decontamination procedures observed?	✓		
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?	✓		
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?	✓		
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?	✗		✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are unauthorized personnel denied access to decontamination areas, decontamination equipment and change rooms?	✓		
Are washing facilities away from hazardous substances and adequate to permit personnel to remove hazardous substances from their bodies?	✓		
Are decontamination solution(s), equipment and clothing properly marked and left on-site or disposed of?	✓		
DRILLING			
Have proper underground utility clearances been obtained?			✓
Have overhead utility clearances been considered?			
Flammable liquids in approved containers?			
Emergency rig shutoff within reach of the operator?			
Appropriate fire shutoff within reach of the operator?			
Drilling platform properly stabilized?			
Ropes and chains in good condition?			✓
EXCAVATION			
Have proper utility clearances been obtained?			✓
Has the On-site Competent Person been identified and is present?			
Are daily trench inspections being conducted (or more frequently, as conditions warrant)?			
Support systems (piling, cribbing, shoring) appropriate for the job?			
Is there suitable access by stairs, ladders, ramps, hoists?			
Appropriate guardrails, fences, barricades and warning lights?			✓
MISCELLANEOUS SAFETY PROCEDURES			
If site work is anticipated in dimly lighted areas, is additional lighting provided?			✓
Is potable water labeled as safe for drinking?	✓		

Additional Information

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_____

HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York

September 24, 1996

Instrument(s): Dust

Serial No.(s):

Technician's Signature: Steve C

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0900	Dust	Factory →	G	SCL		MIE PDM-3 SN: 4017
	"	Zero →	"	"	"	"
1540	"	Factory →	"	"	"	"

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-24-96

Field Activities: Building material downsizing

Wind Direction: E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Steph C. Hanham

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
92496-001	0902	1	Donnie Truslow BZH (saw cutting foundation timbers)	0.06	Dust
-002	0904	"	Gary Ray BZH (hammering concrete foundation)	0.08	"
-003	0906	"	Station 2	0.10	"
-004	0908	"	" 3	0.06	"
-005	0911	"	" 4	0.06	"
-006	0918	"	" 1	0.04	"
-007	0916	"	Donnie Truslow BZH	0.03	"
-008	1018	"	Gary Ray BZH	0.04	"
-009	1021	"	Station 2	0.00	"
-010	1023	"	" 3	0.01	"
-011	1025	"	" 4	0.02	"
-012	1028	"	" 1	0.03	"
-013	1110	"	Waste Loading Downwind	0.04	"
-014	1112	"	"	0.04	"
-015	1114	"	Station 2	0.02	"
-016	1116	"	" 3	0.02	"
-017	1119	"	" 4	0.00	"

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-24-96

Field Activities: Building material downsizing

Wind Direction: E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Yank

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
92496-018	1122	1	Station 1	0.00	Dust
-019	1230	"	Downwind from truck	0.00	"
-020	1233	"	Station 2	0.02	"
-021	1234	"	" 3	0.02	"
-022	1237	"	" 4	0.02	"
-023	1239	"	" 1	0.02	"
-024	1340	"	Downwind from foundation hammering	0.19	"
-025	1342	"	"	0.66	"
-026	1345	"	Station 2	0.04	"
-027	1350	"	" 3	0.04	"
-028	1355	"	" 4	0.04	"
-029	1357	"	" 1	0.02	"
-030	1515	"	Donnie Truslow BZH	0.08	"
-031	1518	"	Station 4	0.04	"
-032	1520	"	" 3	0.02	"
-033	1523	"	" 2	0.03	"
-034	1530	"	" 1	0.01	"

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-24-96
Phase: Building material downsizing
Activity: Foundation demolition
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Dry, partly sunny, wind E→W, slight

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD			FLOW RATE (L/MIN)			TOTAL VOLUME (L)	COMMENTS
			START TIME	STOP TIME	TOTAL MIN.	START	STOP	RECORDED		
FD-92496-PM1-A-001	Station 1	5408	0940	1555	375	1.56	1.55	1.55	581.25	
-B-001	"	3812	"	"	"	0.49	0.48	0.48	180.00	
-C-001	"	"	"	"	"	0.52	0.52	0.52	195.00	
-A-002	Station 2	5432	0935	1556	381	1.52	1.52	1.52	579.12	
-B-002	"	5	"	"	"	0.47	0.46	0.46	175.26	
-C-002	"	"	"	"	"	0.46	0.46	0.46	175.26	
-A-003	Station 3	5438	0934	1557	383	1.53	1.52	1.52	582.16	
-B-003	"	3807	"	"	"	0.46	0.46	0.46	176.18	
-C-003	"	"	"	"	"	0.48	0.48	0.48	183.84	
-A-004	Station 4	5506	0933	1559	386	1.55	1.54	1.54	594.44	
-B-004	"	3813	"	"	"	0.55	0.54	0.54	208.44	
-C-004	"	"	"	"	"	0.54	0.53	0.53	204.58	

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 9-24-96

Phase: Building material demolition

Activity: Foundation demolition

Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Dry, partly sunny, wind E→W, slight

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD			FLOW RATE (L/MIN)			TOTAL VOLUME (L)	COMMENTS
			START TIME	STOP TIME	TOTAL MIN.	START	STOP	RECORDED		
FD-92496-PH1-A-004D	Station 4 (COE Dup.)	5366	0933	1559	386	1.53	1.53	1.53	595.17	
-B-004D	" "	3811	"	"	"	0.50	0.50	0.50	194.50	
-C-004D	" "	"	"	"	"	0.48	0.47	0.47	182.83	

585

9-24-96

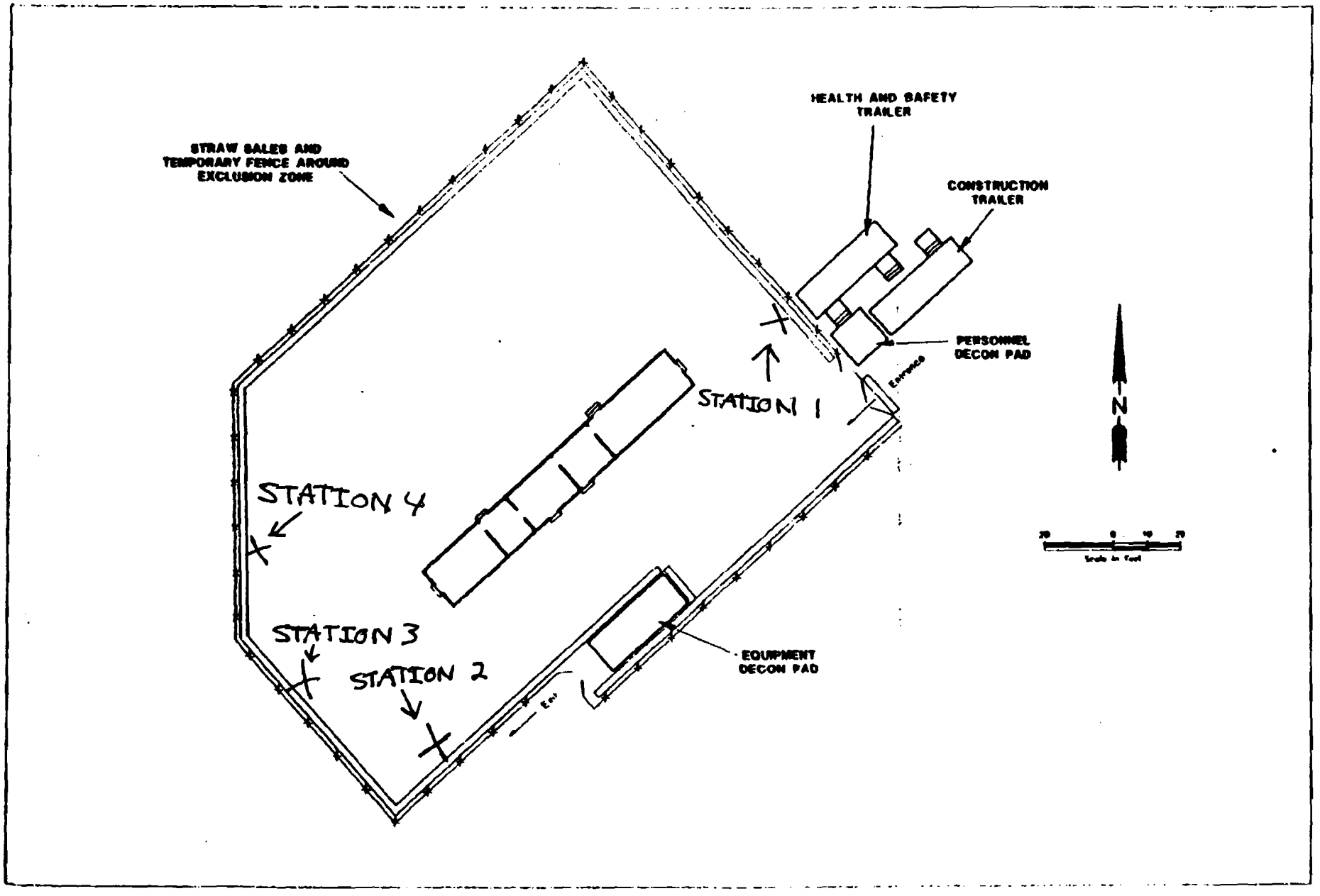

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

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589

MIE INC. Model PDL-10 SN 2332 V5.2 4/89

RENT DATE: 8/24/96
RENT TIME: 16:06:50

CALIBRATION
0.015 V = 0.030 mg/m3
0.017 V = 0.040 mg/m3

LOWER ALARM: - 0.300 mg/m3
UPPER ALARM: - 0.300 mg/m3

UNITS: mg/m3

INLET READS:- 0.344 mg/m3
TEST STARTING DATE: 8/19/96
TEST STARTING TIME: 7:39:31
ELAPSED TIME: 0 DAYS 6:08:19
OVERALL AVG: 0.036 mg/m3
OVERALL MIN: [illegible] mg/m3
MIN OCCURRED 8/19/96 @ 16:00:21
OVERALL MAX: 12.700 mg/m3
MAX OCCURRED 8/24/96 @ 12:37:07
STEL: 0.23[illegible] mg/m3
STEL OCCURRED 8/24/96 @ 10:25:40

591

DATE: 8/24/96 TIME: 9:05:31

	0.020	0.028	0.052	|*
	0.028	0.032	0.040	|*
	0.028	0.028	0.036	|*
	0.000	0.032	0.048	|*
	0.008	0.024	0.036	|*
	0.020	0.024	0.032	|*
	0.020	0.024	0.028	|*
	0.008	0.020	0.032	|*
	0.024	0.028	0.036	|*
-	0.028	0.028	0.040	|*
-	0.020	0.016	0.032	|*
	- 0	0.028	0.036	|*
	[illegible]	0.028	0.032	|*

[illegible]/24/96 TIME: 10:21:20

	[illegible]	0.032	0.052	|*
	[illegible]	0.028	0.036	|*
		0.024	0.032	|*
		0.024	0.032	|*
		0.028	0.032	|*
		0.028	0.036	|*
		0.028	0.036	|*
		0.028	0.044	|*
	0.036	0.040	0.052	|*
	0.336	0.036	0.048	|*
	0.[illegible]	0.036	0.044	|*
	0.032	0.040	0.056	|*
	0.032	0.036	0.044	|*
	0.032	0.040	0.052	|*
	[illegible]	0.040	0.048	|*
	[illegible]	0.040	0.052	|*
	0.036	0.040	0.048	|*
	0.032	0.040	0.068	|*
	0.028	0.032	0.036	|*
@	0.040	0.040	0.048	|*

DATE: 8/24/96 TIME: 10:59:57

	0.020	0.024	0.036	|*
	0.020	0.020	0.036	|*
	0.020	0.024	0.028	|*

593

	0.020	0.024	0.028	|*
	0.020	0.024	0.029	|*
	0.020	0.024	0.028	|*
	0.020	0.024	0.032	|*
	0.024	0.032	0.060	|*
	0.020	0.024	0.032	|*
	0.020	0.020	0.028	|*
	0.020	0.024	0.028	|*
	0.020	0.024	0.028	|*
	0.020	0.024	0.028	|*
	0.020	0.020	0.028	|*
@	0.020	0.020	0.032	|*

DATE: 8/24/96 TIME: 12:29:12

	0.020	0.032	0.052	|*
	0.020	0.036	0.048	|*
	0.020	0.028	0.036	|*
	0.020	0.024	0.028	|*
	0.028	0.028	0.032	|*
	0.020	0.028	0.032	|*
	0.024	0.028	0.032	|*
	0.024	1.188	11.744	|- * +
@	0.900	3.604	9.048	| - * +

DATE: 8/24/96 TIME: 13:46:36

	0.020	0.032	0.048	|*
	0.032	0.044	0.068	|*
	0.020	0.024	0.036	|*
	0.024	0.040	0.040	|*
	0.020	0.068	0.148	|*
	0.060	0.180	0.372	|++
	0.020	0.044	0.108	|*
	0.028	0.028	0.032	|*
	0.024	0.020	0.022	|*
	0.020	0.024	0.029	|*
	0.020	0.020	0.028	|*
	[illegible]	[illegible]	0.048	|*
@	0.020	0.020	0.028	|*

DATE: 8/24/96 TIME: 15:17:28

	0.024	0.020	0.036	|*
	0.028	0.032	0.036	|*
	0.032	0.036	0.048	|*
	0.032	0.040	0.048	|*
	0.032	0.036	0.048	|*
	0.036	0.044	0.060	|*
	0.036	0.036	0.044	|*
	0.036	0.036	0.044	|*
	0.032	0.036	0.040	|*
	0.036	0.036	0.044	|*
	0.036	0.040	0.056	|*
	0.036	0.040	0.052	|*
	0.024	0.036	0.048	|*
	[illegible]	[illegible]	0.040	|*
	0.036	0.040	0.048	|*
@	0.032	0.036	0.040	|*

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 9-25-96 Start Time: 0630 Completion Time: 0640

Location: Building T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Container moving, waterline excavation,

Protective Clothing/Equipment: Level D

Chemical Hazards: None (pesticides in soil)

Physical Hazards: Slips, trips, falls, equipment

Control Methods: PPE

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
Gary Ray	[illegible]
Rick Bailey	[illegible]
Donnie Tiblow	[illegible]

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HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 9-25-96

Inspector: Stephen Lanham

Site Conditions, Weather: Mostly cloudy, damp, still wind

Decon. pad construction; Container load out

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?			
Site work zones clearly defined on-site?			
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?			
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?			
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?			
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?	✓		
Air monitoring log available and current?	✓		
Does monitoring log reflect excursions above action levels?		✓	
Has personal sampling been performed?		✓	
Have any exposure symptoms been reported?		✓	
HEAT STRESS MONITORING			
Has heat stress monitoring been implemented?			✓
Are work/rest regimens established/followed?			✓
Are pulse rate and oral temperature taken?			✓
Monitoring log available and current?			✓
Any heat stress incidents?		✓	
Are personnel aware of symptoms/first aid?	✓		
Are ambient temperature readings logged?			✓
Are emergency medical treatment and first aid available to personnel?	✓		
PERSONAL PROTECTIVE EQUIPMENT			
All PPE called for in HSP available?	✓		
Is there sufficient PPE available for the personnel involved in the performance of site operations?	✓		
Is PPE used in accordance with SHP?	✓		
Has PPE been upgraded or downgraded?		✓	
Is the PPE in place adequate for the chemical and physical hazards on-site?	✓		
Is there a need to modify the PPE requirements?		✓	
All personnel appropriately taped-up?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?	✓		
All drums and containers inspected for structural integrity before moving?	✓		
Personnel warned of the potential hazards associated with the contents of containers prior to movement?	✓		
Containers moved using appropriate mechanical devices to avoid injury?	✓		
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?		✓	
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?	✓		
SSHP decontamination procedures observed?	✓		
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?	✓		
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?	✓		
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York

9-25-96

Instrument(s): Dust

Serial No.(s):

Technician's Signature: Steph C. Yan

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0830	Dust	Factory →		G	SCL	MIE PAM-3 SN: 4017
	"	Zero →		"	"	"
1630	"	Factory →		—	"	"

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-25-96

Field Activities: Site digging preparation

Wind Direction: still wind

Instrument, Model & Serial No.:

Estimated Wind Speed: still

Technician Signature: Steph C. Jem

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
92596-001	1020	1	Downwind from waste box lifting	0.02	Dust
-002	1123	"	Station 1	0.02	
-003	1125	"	" 2	0.04	
-004	1127	"	" 3	0.02	
-005	1130	"	" 4	0.04	
-006	1330	"	Downwind from waste box lifting	0.00	
-007	1333	"	Station 1	0.02	
-008	1335	"	" 2	0.03	
-009	1337	"	" 3	0.02	
-010	1340	"	" 4	0.03	
-011	1555	"	Downwind from waste box lifting	0.05	
-012	1558	"	Station 1	0.00	
-013	1603	"	" 2	0.02	
-014	1605	"	" 3	0.03	
-015	1610	"	" 4	0.05	

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 9-25-96

Phase: Decont. pad const.; Waste container Load-out; Digging preparation

Activity: Site preparation

Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.) Still wind, damp, mostly cloudy

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-92596-PHI-A-001	Station 1	5432	0851	1630	459	1.59	1.55	1.55	711.45	
-B-001	"	3811	"	"	"	0.51	0.51	0.51	234.09	
-C-001	"	"	"	"	"	0.48	0.48	0.48	220.32	
-A-002	Station 2	5408	0849	1622	453	1.54	1.52	1.52	688.56	
-B-002	"	3807	"	"	"	0.47	0.46	0.46	208.38	
-C-002	"	"	"	"	"	0.48	0.47	0.47	212.91	
-A-003	Station 3	5506	0848	1623	455	1.59	1.59	1.59	723.45	
-B-003	"	3812	"	"	"	0.50	0.48	0.48	218.40	
-C-003	"	"	"	"	"	0.53	0.50	0.50	227.50	
-A-004	Station 4	5438	0846	1624	458	1.51	1.48	1.48	677.84	
-B-004	"	5	"	"	"	0.48	0.48	0.48	219.84	
-C-004	"	"	"	"	"	0.47	0.47	0.47	215.26	

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-25-96
Phase: Decon. pad construction; Waste container load-out; Digging preparation
Activity: Site preparation
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Still wind, damp, most cloudy

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-92546-PH1-A-004D	Station 4 (COE Dup.)	5366	0846	1624	458	1.53 ~~0.54~~	1.53	1.53	700.74	
-B-004D	"	3813	"	"	"	0.54	0.54	0.54	247.32	
-C-004D	"	"	"	"	"	0.53	0.53	0.53	242.74	

609

9-25-96

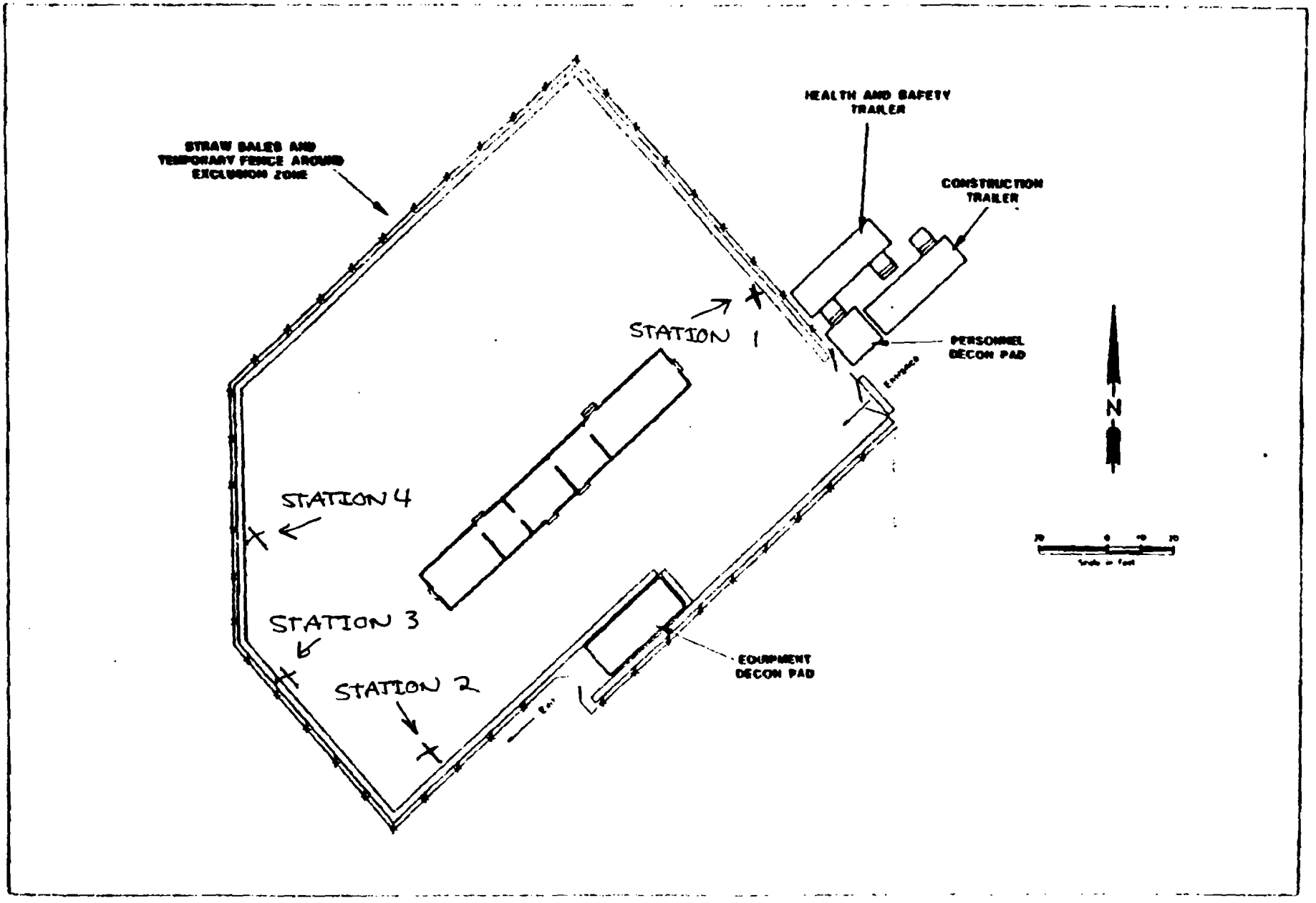

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

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MIE INC. Model PDL-10 SN 2332 V5.2 4/09

TENT DATE: 8/25/96
RENT TIME: 16:44:09

CALIBRATION
0.015 V = 0.030 mg/m3
0.017 V = 0.040 mg/m3

LOWER ALARM: - 0.300 mg/m3
UPPER ALARM: - 0.300 mg/m3

UNITS: mg/m3

INPUT READS:- 0.300 mg/m3
TEST STARTING DATE: 8/25/96
[illegible] TIME: 11:20:55
[illegible]
OVERALL AVG: 0.038 mg/m3
OVERALL MIN: 0.024 mg/m3
MIN OCCURRED 8/25/96 @ 15:57:11
OVERALL MAX: 0.094 mg/m3
MAX OCCURRED 8/25/96 @ 11:30:17
STEL: 0.0[illegible] mg/m3
STEL OCCURRED 8/25/96 @ 13:02:23

MIE INC. Model PDL-10 SN 2332 V5.2 4/89

RUN DATE: 8/25/96
CURRENT TIME: 16:44:41

CALIBRATION
0.013 V = 0.000 mg/m3
0.017 V = 0.040 mg/m3

LOWER ALARM: - 0.300 mg/m3
UPPER ALARM: - 0.300 mg/m3

UNITS: mg/m3

TIME HISTORY
[illegible]
OF PERIODS COMBINED: 1

	MIN	AVG	MAX
DATE: 8/25/96 TIME: 11:20:55			
	0.028	0.036	0.040
	0.032	0.040	0.048
	0.032	0.036	0.048
	0.028	0.032	0.040
	0.032	0.036	0.040
	0.028	0.032	0.036
	0.032	0.032	0.040
	0.028	0.032	0.040
	0.032	0.032	0.040
	0.032	0.040	0.048
	0.032	0.032	0.040
	0.032	0.032	0.040
	0.028	0.032	0.036
	0.032	0.032	0.036
	0.028	0.032	0.040
@	0.020	0.032	0.040
DATE: 8/25/96 TIME: 13:52:23			
	0.020	0.036	0.060
	0.032	0.044	0.056
	0.030	0.036	0.048
	0.028	0.032	0.040
	0.020	0.032	0.040
	0.032	0.036	0.048
	0.030	0.036	0.052
	0.028	0.036	0.052
	0.032	0.036	0.056
	0.028	0.036	0.056
	0.028	0.032	0.048
	0.028	0.036	0.052
	0.036	0.040	0.052
	0.032	0.036	0.040
	[illegible]	[illegible]	0.044
	[illegible]	0.032	0.044
@	0.020	0.032	0.040
DATE: 8/25/96 TIME: 15:55:57			
	0.028	0.036	0.048
	0.024	0.028	0.040

617

0.028	0.032	0.036	* +
0.028	0.032	0.044	− * +
0.032	0.032	0.040	* +
0.032	0.032	0.040	* +
0.028	0.032	0.040	− * +
0.024	0.036	0.048	− * +
0.028	0.032	0.044	− * +
0.028	0.028	0.036	* +
0.028	0.028	0.036	* +
0.024	0.028	0.032	− * +
0.024	0.028	0.036	− * +
0.024	0.028	0.036	− * +
0.028	0.032	0.048	− * +
0.028	0.032	0.040	− * +
0.032	0.032	0.040	* +
0.028	0.028	0.036	* +
0.032	0.032	0.040	* +

DATE: 8/25/96 TIME: 16:15:57

0.028	0.028	0.032	* +
0.032	0.032	0.036	* +
0.032	0.032	0.040	* +
0.028	0.032	0.036	− * +
0.028	0.032	0.048	− * +
0.032	0.032	0.036	* +
0.028	0.032	0.052	− * +
0.032	0.032	0.036	* +
0.032	0.032	0.036	* +

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SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 9-26-96 Start Time: 0735 Completion Time: 0745

Location: Inside construction fence at site

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Beginning excavation of soil in contaminated zone

Protective Clothing/Equipment: Level D + overboots

Chemical Hazards: Pesticides

Physical Hazards: Slips, trips, falls, moving equipment, excavation

Control Methods: PPE, stay alert, stay out of excavation at this time.

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
Gary Ray	[illegible]
Donnie Trosclair	[illegible]

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HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 9-26-96

Inspector: Stephen Lanham

Site Conditions, Weather: Sunny, 55°F.

Beginning soil excavation at west end of site

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?	✓		✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?	✓		
Air monitoring log available and current?	✓		
Does monitoring log reflect excursions above action levels?		✓	
Has personal sampling been performed?	✓		
Have any exposure symptoms been reported?		✓	
HEAT STRESS MONITORING			
Has heat stress monitoring been implemented?			✓
Are work/rest regimens established/followed?			✓
Are pulse rate and oral temperature taken?			✓
Monitoring log available and current?			✓
Any heat stress incidents?		✓	✗
Are personnel aware of symptoms/first aid?	✓		
Are ambient temperature readings logged?			✓
Are emergency medical treatment and first aid available to personnel?	✓		
PERSONAL PROTECTIVE EQUIPMENT			
All PPE called for in HSP available?	✓		
Is there sufficient PPE available for the personnel involved in the performance of site operations?	✓		
Is PPE used in accordance with SHP?	✓		
Has PPE been upgraded or downgraded?		✓	
Is the PPE in place adequate for the chemical and physical hazards on-site?	✓		
Is there a need to modify the PPE requirements?		✓	
All personnel appropriately taped-up?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?			✓
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?	✓		
All drums and containers inspected for structural integrity before moving?	✓		
Personnel warned of the potential hazards associated with the contents of containers prior to movement?	✓		
Containers moved using appropriate mechanical devices to avoid injury?	✓		
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?	✓		
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?	✓		
SSHP decontamination procedures observed?	✓		
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?	✓		
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?	✓		
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York

September 26, 1996

Instrument(s): Dust, CGI, PID

Serial No.(s):

Technician's Signature: Steph C. Lar

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0915	Dust	Factory →		G	SCL	MIE PDM-3 SN: 4017
	"	Zero →		"	"	"
1020	PID	—	100ppm → 57ppm	"	"	HNU PI 101 SN: 101238
	"	Ambient	Zero	"	"	"
	~~CGI~~ O_2	Ambient	20.9	"	"	ISE HMX 211 SN: 8903092-200
	LEL	21.4%	21.4%	"	"	"
1635	Dust	Factory →		—	"	—
	PID	—	100 ppm → 57ppm	—	"	—
	O_2	Ambient	20.9	—	"	—
	LEL	21.4%	21.4%	—	"	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-26-96

Field Activities: Beginning soil excavation

Wind Direction: E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: 3 - 5 mph

Technician Signature: Stephen C. Yard

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
92696-001	0926	1	Downwind from box loading	0.00	Dust
-002	0928	"	"	0.00	"
-003	0929	"	Station 2	0.00	"
-004	0930	"	" 3	0.02	"
-005	0933	"	" 4	0.02	"
-006	0935	"	" 1	0.03	"
-007	1040	"	Downwind from digging	0.08	Dust
"	"	"	"	0	PID
"	"	"	"	0.0	CGI
-008	1042	"	Station 2	0.02	Dust
"	"	"	"	0	PID
"	"	"	"	0	CGI
-009	1044	"	Station 3	0.02	D
"	"	"	"	0	P
"	"	"	"	0	LEL
-010	1046	"	Station 4	0.02	D
"	"	"	"	0	P

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-26-96

Field Activities: Soil excavation

Wind Direction: E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: 3-5 mph

Technician Signature: Steph C. Yan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
92696-010	1046	1	Station 4	0	~~CGI~~ LEL
-011	1049	"	Station 1	0.0	D
"	"	"	"	0	P
"	"	"	"	0	LEL
-012	1140	"	Down wind from digging	0	D
"	"	"	"	0.0	P
"	"	"	"	0	LEL
-013	1142	"	Station 2	0.04	D
"	"	"	"	0.0	P
"	"	"	"	0	LEL
-014	1145	"	Station 3	0.02	D
"	"	"	"	0.0	P
"	"	"	"	0	LEL
-015	1147	"	Station 4	0.04	D
"	"	"	"	0	P
"	"	"	"	0	LEL

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-26-96

Field Activities: Soil excavation

Wind Direction: E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: 3-5 mph

Technician Signature: Steph C. Tank

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
92696-016	1310	1	Down wind from soil loading	0.02	Dust (D)
"	"	"	"	0.0	PID (P)
"	"	"	"	0.0	LEL
-017	1312	"	Station 2	0.02	
"	"	"	"	0.0	
"	"	"	"	0.0	
-018	1315	"	Station 3	0.02	
"	"	"	"	0.0	
"	"	"	"	0.0	
-019	1317	"	Station 4	0.02	
"	"	"	"	0.0	
"	"	"	"	0.0	
-020	1319	"	Station 1	0.02	
"	"	"	"	0.0	
"	"	"	"	0.0	

633

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-26-96

Field Activities: Soil excavation/Loading

Wind Direction: E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: 3 - 5 mph

Technician Signature: Steph C. Jan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
92696-021	1445	1	Downwind from excavation	0.03	Dust (D)
"	"	"	"	0.0	PID (P)
"	"	"	"	0.0	LEL
-022	1447	"	Station 2	0.03	D
"	"	"	"	0.0	P
"	"	"	"	0.0	LEL
-023	1449	"	Station 3	0.02	D
"	"	"	"	0.0	P
"	"	"	"	0.0	LEL
-024	1452	"	Station 4	0.03	D
"	"	"	"	0.0	P
"	"	"	"	0.0	LEL
-025	1455	"	Station 1	0.02	D
"	"	"	"	0.0	P
"	"	"	"	0.0	LEL

635

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-26-96

Field Activities: Soil excavation/Loading

Wind Direction: E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: 3-5 mph

Technician Signature: Stephen C. Yard

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
92696-026	1526	1	Downwind from soil excavation	0.02	Dust
"	"	"	"	0.0	PID
-027	1528	"	Station 2	0.03	Dust
"	"	"	"	0.0	PID
-028	1531	"	Station 3	0.03	D
"	"	"	"	0.0	P
-029	1533	"	Station C/	0.02	D
"	"	"	"	0.0	P
-030	1535	"	Station 1	0.03	D
"	"	"	"	0.0	P

INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-26-96
Phase: Beginning soil excavation
Activity: Digging
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Sunny, 55-60°F, Wind E→W, 3-5 mph

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-92696-PH2-A-001	Station 1	5506	0915	1628	433	1.63	1.61	1.61	697.13	
-B-001	"	3811	"	"	"	0.51	0.50	0.50	216.50	
-C-001	"	"	"	"	"	0.48 ~~1.53~~	0.46	0.46	199.18	
-A-002	Station 2	5438	0900	1610	430	1.53	1.53	1.53	657.90	
-B-002	"	3673	"	"	"	0.47	0.46	0.46	197.80	
-C-002	"	"	"	"	"	0.49	0.47	0.47	202.10	
-A-003	Station 3	5408	0901	1613	432	1.51	1.50	1.50	648.00	
-B-003	"	3813	"	"	"	0.55	0.54	0.54	233.28	
-C-003	"	"	"	"	"	0.54	0.53	0.53	228.96	
-A-004	Station 4	5432	0905	1615	430	1.51	1.47	1.47	632.10	
-B-004	"	3807	"	"	"	0.46	0.46	0.46	197.80	
-C-004	"	"	"	"	"	0.48	0.47	0.47	202.10	

030

INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-26-96
Phase: Beginning soil excavation
Activity: Digging
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Sunny, 55-60°F, wind E→W, 3-5mph

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-92696-PH A-005	Personal Exposure Sample	5412	0950	1630	400	1.50	1.50	1.50	600.00	
-B-005	"	5 ~~3812~~	"	"	"	0.48	0.48	0.48	192.00	
-C-005	"	"	"	"	"	0.47	0.46	0.46	184.00	
-A-003D	Station 3 (COE Duplicate)	5366	0901	1620	~~1.54~~ 439	1.54	1.52	1.52	667.28	
-B-003D	"	5 ~~3812~~	"	"	439	~~0.48~~ 0.52	0.51	0.51	223.89	
-C-003D	"	"	"	"	"	~~0.4~~ 0.53	0.52	0.52	228.28	

641

9-26-96

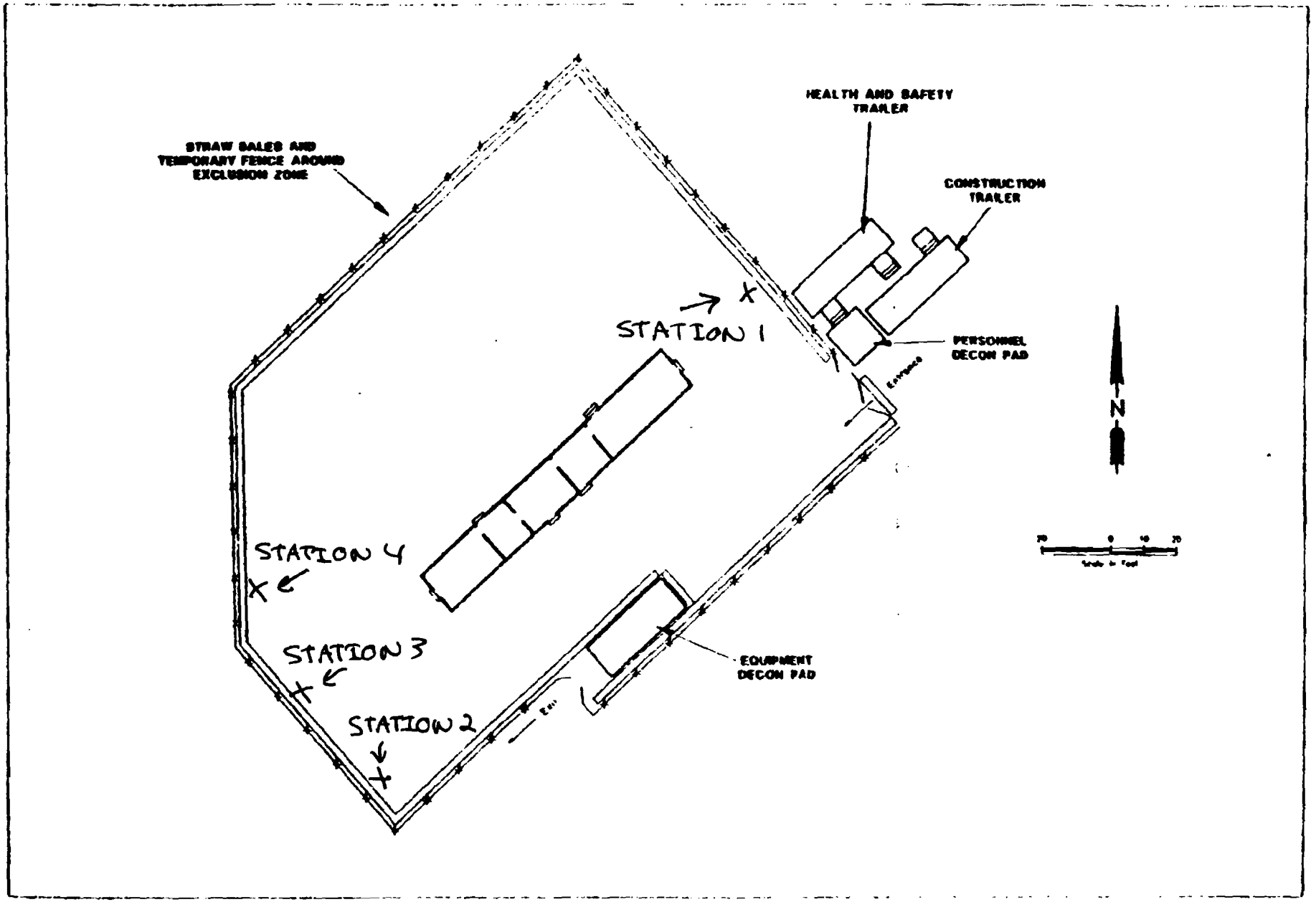

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

643

~~49~~ -
645

MIE INC. Model PDL-10 SN 2332 V5.2 4/89

'RRENT DATE: 8/26/96
RRENT TIME: 16:43:01

[illegible] ION
[illegible] V = [illegible] mg/m3
0.017 V = 0.040 mg/m3

LOWER ALARM: - 0.300 mg/m3
UPPER ALARM: - 0.300 mg/m3

UNITS: mg/m3

INPUT READS:- 0.468 mg/m3
TEST STARTING DATE: 8/25/96
TEST STARTING TIME: 11:20:53
ELAPSED TIME: 0 DAYS 3:52:32
OVERALL AVG: 0.036 mg/m3
OVERALL MIN: - 0.312 mg/m3
MIN OCCURRED 8/26/96 @ 11:47:[illegible]
OVERALL MAX: 0.400 mg/m3
MAX OCCURRED 8/26/96 @ 10:30:56
STEL: [illegible] mg/m3
STEL OCCURRED 8/26/96 @ 14:36:40

MIE INC. Model PDL-10 SN 2332 V5.2 4/89

WHEN: 11:21 8/26/96
RENT TIME: 16:43:24

CALIBRATION
0.015 V = 0.000 mg/m3
0.017 V = 0.040 mg/m3

LOWER ALARM: - 0.300 mg/m3
UPPER ALARM: - 0.300 mg/m3

UNITS: mg/m3

TIME HISTORY
PERIOD LENGTH: 0:01:00
OF PERIODS COMBINED: 1

	MIN	AVG	MAX	ID	
DATE: 8/25/96 TIME: 11:20:55					
	0.020	0.032	0.040	I	*+
	[illegible]	[illegible]	0.040	I	-*
	0.032	0.036	0.040	I	-*
	[illegible]	[illegible]	0.040	I	*+
	[illegible]	0.032	0.040	I	*+
	0.028	0.032	0.036	I	*+
	0.032	0.032	0.040	I	*+
	0.028	0.032	0.040	I	*+
	0.032	0.032	0.040	I	*+
	0.030	0.040	0.084	I	-* +
	0.032	[illegible]	0.040	I	*+
	0.032	0.032	0.040	I	*+
	0.028	0.032	0.036	I	*+
	0.032	0.032	0.036	I	*+
	0.028	[illegible]	[illegible]		*+
0	0.028	0.032	0.040	I	*+
DATE: 8/25/96 TIME: 13:[illegible]:23					
	0.028	0.036	0.060	I	-*+
	0.032	0.044	0.056	I	-*+
	0.036	0.036	0.040	I	*
	0.028	0.032	0.040	I	*+
	0.028	0.032	0.040	I	*+
	0.032	0.036	0.048	I	-+
	0.036	0.036	0.052	I	*
	0.028	0.036	0.052	I	-+
	0.032	0.036	0.056	I	-++
	0.028	0.036	0.056	I	-*+
	0.028	0.032	0.048	I	*+
	0.028	0.036	0.052	I	-*
	0.036	0.040	0.052	I	*
	0.032	0.036	0.040	I	-*
	0.032	0.036	0.044	I	-*
	0.032	0.032	0.044	I	*+
0	0.028	0.032	0.040	I	*+
DATE: 8/25/96 TIME: 15:55:57					
	[illegible]	[illegible]	[illegible]	I	-*
	[illegible]	0.028	0.040	I	*+

```
    0.028       0.028       0.036     |                    *+
    0.028       0.032       0.044     |                    *+
    0.032       0.032       0.040     |                    *+
    0.032       0.032       0.040     |                    *+
    0.028       0.032       0.040     |                    *+
    0.032       0.036       0.048     |                    -*
    0.028       0.032       0.044     |                    *+
    0.028       0.028       0.036     |                    *+
    0.028       0.028       0.036     |                    *+
    0.024       0.028       0.032     |                    *
    0.024       0.028       0.036     |                    *+
    0.024       0.028       0.036     |                    *+
    0.028       0.032       0.048     |                    *+
    0.028       0.032       0.040     |                    *+
    0.032       0.032       0.040     |                    *+
    0.028       0.028       0.036     |                    *+
    0.032       0.032       0.040     |                    *+

DATE:  8/25/96  TIME: 16:15:57
    0.028       0.028       0.032     |                    *
    0.032       0.032       0.036     |                    *+
    0.032       0.032       0.040     |                    *+
    0.028       0.032       0.036     |                    *+
    0.028       0.032       0.048     |                    *+
    0.032       0.032       0.036     |                    *+
    0.028       0.032       0.052     |                    *+
    0.032       0.032       0.036     |                    *+
@   0.032       0.032       0.036     |                    *+

DATE:  8/25/96  TIME:  9:24:17
    0.008       0.012       0.032     |                -   *+
    0.012       0.024       0.028     |                    *+
    0.024       0.028       0.036     |                    *+
    0.004       0.024       0.032     |                   -*
    0.024       0.028       0.036     |                    *+
    0.028       0.032       0.040     |                    *+
    0.028       0.032       0.036     |                    *+
    0.020       0.028       0.032     |                    *
    0.020       0.024       0.032     |                    *
@   0.020       0.024       0.028     |                    *

DATE:  8/25/96  TIME: 10:32:38
    0.028       0.116       0.400     |                    -     *                 +
    0.028       0.032       0.048     |                    *+
    0.028       0.040       0.064     |                    -*+
    0.048       0.060       0.084     |                     -*+
    0.052       0.068       0.108     |                     -*   +
  - 0.004       0.024       0.052     |                  - *+
    0.028       0.032       0.036     |                    *+
    0.028       0.036       0.060     |                    -*+
    0.016       0.028       0.040     |                   -*+
    0.020       0.032       0.044     |                    *+
    0.028       0.032       0.048     |                    *+
    0.008       0.036       0.096     |                  - *   +
  - 0.016       0.020       0.080     |                  - *   +
    0.028       0.032       0.056     |                    * +
    0.028       0.032       0.036     |                    *+
    0.028       0.032       0.036     |                    *+
  - 0.036       0.024       0.036     |                 -  *+
@   0.020       0.028       0.036     |                    *+

DATE:  8/26/96  TIME: 11:40:00
    0.020       0.028       0.056     |                    * +
    0.028       0.040       0.072     |                    -* +
    0.028       0.032       0.048     |                    *+
```

651

```
   0.024      0.028      0.032   |                  *
   0.028      0.036      0.040   |                  -*
   0.032      0.036      0.040   |                  -*
 - 0.312      0.012      0.040   -                 * +
 - 0.236    - 0.024      0.036   |   -          *   +
   0.032      0.036      0.040   |                  -*
   0.028      0.028      0.036   |                  *+
   0.028      0.036      0.044   |                  -*
   0.032      0.036      0.044   |                   *
   0.032      0.036      0.044   |                  -*
@  0.032      0.036      0.056   |                  -*+

DATE:  8/26/96  TIME: 13:07:46
   0.012      0.040      0.056   |                 - *+
   0.040      0.048      0.072   |                   * +
   0.032      0.036      0.052   |                  -*
   0.032      0.036      0.052   |                  -*
   0.032      0.036      0.048   |                  -*
   0.032      0.032      0.040   |                  *+
   0.032      0.044      0.100   |                  -*  +
   0.032      0.032      0.036   |                  *+
   0.028      0.032      0.036   |                  *+
   0.032      0.044      0.072   |                  -* +
   0.028      0.032      0.044   |                  *+
   0.032      0.032      0.040   |                  *+
   0.028      0.032      0.068   |                  * +
   0.032      0.036      0.068   |                  -*+
   0.032      0.036      0.052   |                  -*
   0.032      0.036      0.052   |                  -*
 - 0.228    - 0.028      0.048   |   -          *   +
   0.012      0.024      0.032   |                 -*
   0.024      0.028      0.032   |                  *
 - 0.072      0.024      0.032   |             -    *

DATE:  8/26/96  TIME: 13:27:46
 - 0.132    - 0.012      0.036   |        -      *  +
   0.032      0.040      0.048   |                  -*
   0.040      0.048      0.076   |                   * +
   0.040      0.048      0.076   |                   * +
   0.040      0.044      0.060   |                   *+
   0.048      0.052      0.060   |                   *+
   0.040      0.048      0.056   |                   *+
   0.036      0.044      0.052   |                   *
   0.032      0.040      0.052   |                  -*
   0.036      0.044      0.052   |                   *
   0.040      0.048      0.060   |                   *+
   0.040      0.052      0.088   |                   * +
   0.048      0.052      0.068   |                   *+
   0.036      0.044      0.056   |                   *+
   0.035      0.040      0.048   |                   *
   0.040      0.048      0.056   |                   *+
   0.044      0.048      0.060   |                   *+
   0.040      0.052      0.076   |                   * +
   0.040      0.048      0.060   |                   *+
   0.028      0.036      0.052   |                  -*

DATE:  8/26/96  TIME: 13:47:46
   0.032      0.036      0.044   |                  -*
   0.032      0.036      0.044   |                  -*
   0.032      0.036      0.044   |                  -*
   0.032      0.036      0.044   |                  -*
   0.032      0.036      0.044   |                  -*
   0.032      0.036      0.048   |                  -*
   0.032      0.044      0.056   |                  -*+
   0.040      0.060      0.080   |                   -*+
```

0.036	0.044	0.056	*+
0.032	0.036	0.040	-*
0.032	0.036	0.048	-*
0.032	0.032	0.036	*+
0.032	0.032	0.040	*+
0.032	0.032	0.040	*+
0.032	0.036	0.052	-*
0.032	0.032	0.040	*+
0.032	0.032	0.040	*+
0.028	0.032	0.036	*+
0.028	0.032	0.036	*+

DATE: 8/26/96 TIME: 14:07:46

0.036	0.036	0.048	*
0.036	0.040	0.052	*
0.036	0.040	0.052	*
0.032	0.032	0.048	*+
0.032	0.032	0.044	*+
0.032	0.032	0.040	*+
0.032	0.032	0.040	*+
0.028	0.032	0.036	*+
0.032	0.032	0.036	*+
0.032	0.032	0.036	*+
0.032	0.036	0.040	-*
0.032	0.036	0.044	-*
0.036	0.036	0.052	*
0.036	0.036	0.048	*
0.032	0.036	0.056	-*+
[illegible]	[illegible]	0.040	-*
0.032	0.032	0.036	*+
[illegible]	[illegible]	0.036	*+
[illegible]	0.032	0.036	*+
0.032	0.032	0.036	*+

DATE: 8/26/96 TIME: 14:27:46

0.032	0.032	0.036	*+
0.032	0.032	0.036	*+
0.032	0.032	0.040	*+
0.032	0.032	0.036	*+
0.032	0.036	0.040	-*
0.032	0.036	0.040	-*
[illegible]	0.036	0.044	-*
[illegible]	[illegible]	0.040	-*
0.032	0.036	0.044	-*
0.036	0.036	0.040	*
0.036	0.040	0.052	*
0.036	0.040	0.060	*+
0.048	0.056	0.068	-*
0.044	0.056	0.068	-*
0.048	0.060	0.072	-*+
0.044	0.052	0.064	*+
0.048	0.056	0.076	-*+
0.036	0.048	0.072	* +
0.044	0.052	0.064	*+
0.036	0.048	0.064	*+

TE: 8/26/96 TIME: 14:47:46

0.036	0.044	0.056	*+
0.036	0.040	0.052	*
0.040	0.048	0.060	*+
0.036	0.044	0.068	*+
0.036	0.036	0.048	*
0.032	0.032	0.036	*+
0.032	0.032	0.036	*+
0.032	0.032	[illegible]	*+

655

```
@  0.028      0.032      0.044     |                  *+

DATE:  8/26/96  TIME: 15:19:47
   0.028      0.032      0.040     |                  *+
   0.028      0.036      0.048     |                  -*
   0.028      0.032      0.040     |                  *+
   0.028      0.036      0.056     |                  -*+
   0.032      0.036      0.048     |                  -*
   0.032      0.032      0.040     |                  *+
   0.032      0.032      0.040     |                  *+
   0.032      0.036      0.056     |                  -*+
   0.032      0.032      0.040     |                  *+
   0.032      0.032      0.044     |                  *+
   0.032      0.032      0.040     |                  *+
   0.032      0.032      0.040     |                  *+
   0.028      0.032      0.036     |                  *+
   0.032      0.048      0.132     |                  -*      +
   0.032      0.044      0.068     |                  -*+
   0.032      0.036      0.040     |                  -*
   0.032      0.032      0.040     |                  *+
   0.032      0.040      0.048     |                   *
   0.032      0.036      0.044     |                  -*
@  0.032      0.032      0.040     |                  *+
```

Dame & Moore
7101 Wisconsin Ave., Suite 700
Bethesda, MO 20814
(301) 652-2215 FAX 656-8059

No. 421

CHAIN OF CUSTODY RECORD

Project No.:

Project Name: Ft. Drum - Bldg T-4002

Samplers: (signature) [signature]

Sta. No.	Date	Time	Comp	Grab	SAMPLE # ~~Station Location~~	Number of Containers	NIOSH 7300 (Lead by ICP)		NIOSH 5001 (2,4-D and 2,4,5-T)				Remarks Volume (Liters)
					FD-92696-PH2-A-001	1	✓						697.13
					-A-002		✓						657.90
					-A-003		✓						648.00
					-A-004		✓						632.10
					-B-001				✓				216.50
					-B-002				✓				197.80
					-B-003				✓				233.28
					-B-004				✓				197.80

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	9/26/96 1700		
Relinquished by: (signature)	**Date/Time**	**Received for Laboratory by: (signature)**	**Date/Time**

Remarks: Phone Results 301-652-2215 FAX 315-773-2873

Dames & Moore

Distribution: White Copy (Laboratory Copy)
Yellow Copy (Job File)
Pink Copy (Field Geologist File)

657

Daniel Moore
7101 Wisconsin Ave., Suite 700
Bethesda, MD 20814
(301) 652-2215 FAX 656-8059

NO. 422

CHAIN OF CUSTODY RECORD

Project No.:

Project Name: Ft. Drum - Bldg T-4002

Samplers: (signature) [signature]

Sta. No.	Date	Time	Comp	Grab	SAMPLE # ~~Station Location~~	Number of Containers	NIOSH 5274 M (DDD, DDE, and DDT)	Remarks Volume (Liters)
					FD-92696-PH2-C-001	1	✓	199.18
					-C-002	1	✓	202.10
					-C-003	1	✓	228.96
					-C-004	1	✓	202.10

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	9/1/00		
Relinquished by: (signature)	Date/Time	Received for Laboratory by: (signature)	Date/Time

Remarks: Phone Questions: 301-652-2215
FAX: 315-773-2873

Daniel & Moore

Distribution: White Copy (Laboratory Copy)
Yellow Copy (Job File)
Pink Copy (Field Geologist File)

659

Dan [illegible]
7101 Wisconsin Ave., Suite 700
Bethesda MD 20814
(301) 652-2215 FAX 656-8059

Hour Turn Around

CHAIN OF CUSTODY RECORD

NO. 423

Project No.:

Project Name: Ft. Drum - Bldg T-4002

Samplers: (signature) [illegible]

Sta. No.	Date	Time	Comp	Grab	Sample # Station Location	Number of Containers	NIOSH 7300 (Lead by ICP)		NIOSH 5001 (2,4-D; and 2,4,5-T)		NIOSH 5274m (DDD; DDE; and DDT)		Remarks Volume (Liters)
					FD 92096-PH2-A-005	1	✓						600.00
					-B-005	1			✓				192.00
					-C-005	1					✓		184.00

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[illegible]	[illegible]		
Relinquished by: (signature)	Date/Time	Received for Laboratory by: (signature)	Date/Time

Remarks: Phone Results: 301-652-2215 (ext. 271)
FAX Results: 315-773-2573

Dames & Moore

Distribution: White Copy (Laboratory Copy)
Yellow Copy (Job File)
Pink Copy (Field Geologist Files)

199

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 9-30-96 Start Time: 0630 Completion Time: 0650

Location: Bldg T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Soil excavation/loading

Protective Clothing/Equipment: Level D

Chemical Hazards: Pesticides in soil

Physical Hazards: Slips, trips, falls, equipment

Control Methods: PPE, site hygiene, equipment clearance, limited contact w/soil, decon. procedures

Special Equipment/Techniques:

Other:

Print Name	Sign Name
Rick Bailey	
Gary Ray	
Mohammad Husain	
Peter Weilenbacher	
Dennis Lanham	

665

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York **Date:** 9-30-96

Inspector: Stephen Lanham

Site Conditions, Weather:

Soil excavation/loading

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?	✓		
Air monitoring log available and current?	✓		
Does monitoring log reflect excursions above action levels?		✓	
Has personal sampling been performed?	✓		
Have any exposure symptoms been reported?		✓	
HEAT STRESS MONITORING			
Has heat stress monitoring been implemented?			✓
Are work/rest regimens established/followed?			✓
Are pulse rate and oral temperature taken?			✓
Monitoring log available and current?			✓
Any heat stress incidents?		✓	
Are personnel aware of symptoms/first aid?	✓		
Are ambient temperature readings logged?			
Are emergency medical treatment and first aid available to personnel?	✓		✓
PERSONAL PROTECTIVE EQUIPMENT			
All PPE called for in HSP available?	✓		
Is there sufficient PPE available for the personnel involved in the performance of site operations?	✓		
Is PPE used in accordance with SHP?	✓		
Has PPE been upgraded or downgraded?		✓	
Is the PPE in place adequate for the chemical and physical hazards on-site?	✓		
Is there a need to modify the PPE requirements?		✓	
All personnel appropriately taped-up?			✓

Additional Information

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_____

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?	✓		
All drums and containers inspected for structural integrity before moving?	✓		
Personnel warned of the potential hazards associated with the contents of containers prior to movement?	✓		
Containers moved using appropriate mechanical devices to avoid injury?	✓		
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?	✓		
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?	✓		
SSHP decontamination procedures observed?	✓		
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?	✓		
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?	✓		
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

_____

_____

_____

INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York

September 30, 1996

Instrument(s): Dust, PID, LEL

Serial No.(s):

Technician's Signature: Steph C. Jan

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0730	PID	-	100 ppm → 57 ppm	G	SCL	HNU PI 101 SN: 101238
	"	Ambient	Zero	"	"	"
	O_2	20.9%	20.9%	"	"	ISE HNU 271 SN. 8903092-200
	LEL	21.4%	21.4%	"	"	"
	Dust	Factory →		"	"	MIE pdm 3 SN: 4017
	"	Zero →		"	"	"
30	Dust	Factory →		—	—	—
	PID	—	100 ppm → 57 ppm	—	—	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-30-96

Field Activities: Soil excavation

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 5-10 mph

Technician Signature: Steph C. Fank

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
93096-001	0750	1	At Decon. pad	0.02	Dust
"	"	"	"	0.0	PID
-002	0752	"	Station 1	0.00	D
"	"	"	"	0.0	P
-003	0754	"	Station 2	0.02	D
"	"	"	"	0.0	P
-004	0757	"	Station 3	0.02	D
"	"	"	"	0.0	P
-005	0801	"	Station 4	0.00	D
"	"	"	"	0.0	P
-006	0858	"	At Decon. pad	0.03	D
"	"	"	"	0.0	P
-007	0901	"	Station 2	0.02	D
"	"	"	"	0.0	P
-008	0903	"	Station 3	0.03	D
"	"	"	"	0.0	P

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-30-96

Field Activities: Soil excavation

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 5-10 mph

Technician Signature: Stephen C. Tanner

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
93096-009	0905	1	Station 4	0.03	D
"	"	"	"	0.0	P
-010	0907	"	Station 1	0.02	D
"	"	"	"	0.0	P
-011	0950	"	Station 2	0.03	D
"	"	"	"	0.0	P
-012	0952	"	Station 1	0.02	D
"	"	"	"	0.0	P
-013	0955	"	Station 4	0.03	D
"	"	"	"	0.0	P
-014	0957	"	Station 3	0.06	D
"	"	"	"	0.0	P
-015	1055	"	Donnie Truslow B&H (closing box)	0.08	D
"	"	"	"	0.0	P
-016	1100	"	Station 2	0.03	D
"	"	"	"	0.0	P

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-30-96

Field Activities: Soil excavation

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 5-10 mph

Technician Signature: Stephen C. Hart

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
93096-017	1103	1	Station 3	0.03	D
"	"	"	"	0.0	P
-018	1106	"	Station 4	0.04	D
"	"	"	"	0.0	P
-019	1108	"	Station 1	0.03	D
"	"	"	"	0.0	P
-020					
"					
-021					
"					
-022					
"					
-023					
"					
-024					
"					

Not Collected

677

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-30-96

Field Activities: Soil excavation

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 5-10 mph

Technician Signature: Stephen C. Farnham

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
93096-025	1233	1	At Decon. pad	0.04	Dust
"	"	"	"	0.0	PID
-026	1235	"	Station 1	0.03	D
"	"	"	"	0.0	P
-027	1237	"	Station 3	0.03	D
"	"	"	"	0.0	P
-028	1239	"	Station 4	0.03	D
"	"	"	"	0.0	P
-029	1242	"	Station 2	0.03	D
"	"	"	"	0.0	P
-030	1333	"	Station 2	0.04	D
"	"	"	"	0.0	P
-031	1335	"	Station 1	0.03	D
"	"	"	"	0.0	P
-032	1337	"	Station 4	0.06	D
"	"	"	"	0.0	P

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-30-96

Field Activities: Soil excavation

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 5-10 mph

Technician Signature: Stephen C. Tank

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
13096-033	1339	1	Station 3	0.03	Dust
"	"	"		0.0	PID
-034	1342	"	M1 Decon. pad	0.03	D
"	"	"	"	0.0	P
-035	1525	"	Station 2	0.08	D
"	"	"	"	0.0	P
-036	1528	"	Station 3	0.06	D
"	"	"	"	0.0	P
-037	1531	"	Station 4	0.04	D
"	"	"	"	0.0	P
-038	1535	"	Station 1	0.08	D
"	"	"	"	0.0	P
-039	1537	"	M1 Decon. pad	0.04	D
"	"	"	"	0.0	P
-040	1603	"	Downwind from Box loading	0.06	D
"	"	"	"	0.0	P

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-30-96

Field Activities: Soil excavation

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 5 - 10 mph

Technician Signature: Stephen C. Fanlon

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
93096-041	1606	1	Station 1	0.03	Dust
"	"	"	"	0.0	PID
-042	1608	"	Station 4	0.04	D
"	"	"	"	0.0	P
-043	1610	"	Station 3	0.03	D
"	"	"	"	0.0	P
-044	1613	"	Station 2	0.04	D
"	"	"	"	0.0	P

683

INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 9-30-96

Phase: Phase II Soil

Activity: Soil excavation

Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Mostly sunny, standing water from weekend
Wind W→E 5 10 mph

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-93016-PH2-A-001	Station 1	5506	0846	1646	420	1.58	1.57	1.57	659.40	
-B-001	"	3812	"	"	"	0.53	0.52	0.52	218.40	
-C-001	"	"	"	"	"	0.54	0.53	0.53	222.60	
-A-002	Station 2	5438	0845	1653	428	1.53	1.52	1.52	650.56	
-B-002	"	3813	"	"	"	0.55	0.53	0.53	226.84	
-C-002	"	"	"	"	"	0.54	0.54	0.54	231.12	
-A-003	Station 3	5408	0844	1652	428	1.52	1.52	1.52	650.56	
-B-002	"	3811	"	"	"	0.51	0.50	0.50	214.00	
-C-003	"	"	"	"	"	0.48	0.47	0.47	201.16	
-A-003D	Station 3 (COE Dup.)	5432	0844	1650	426	1.49	1.49	1.49	634.74	
-B-003D	"	5	"	"	"	0.48	0.48	0.48	204.48	
-C-003D	"	"	"	"	"	0.47	0.47	0.47	200.22	

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 9-30-96

Phase: Phase II

Activity: Soil excavation

Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Mostly sunny, standing water from week end
wind W → E, 5-10 mph

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD			FLOW RATE (L/MIN)			TOTAL VOLUME (L)	COMMENTS
			START TIME	STOP TIME	TOTAL MIN.	START	STOP	RECORDED		
FD-93716-PH2-A-004	Station 4	5366	0850	1642	412	1.54	1.54	1.54	634.48	
-B-004	"	3301	"	"	"	0.46	0.45	0.45	185.40	
-C-004	"	"	"	"	"	0.48	0.48	0.46	189.52	
-A-005	Personal Air Sample (Box handling)	5412	0945	1630	395	1.47	1.46	1.46	576.70	
-B-005	" "	3673	"	"	395	0.47	0.46	0.46	181.70	
-C-005	"	"	"	"	395	0.49	0.48	0.48	189.60	

9-30-96

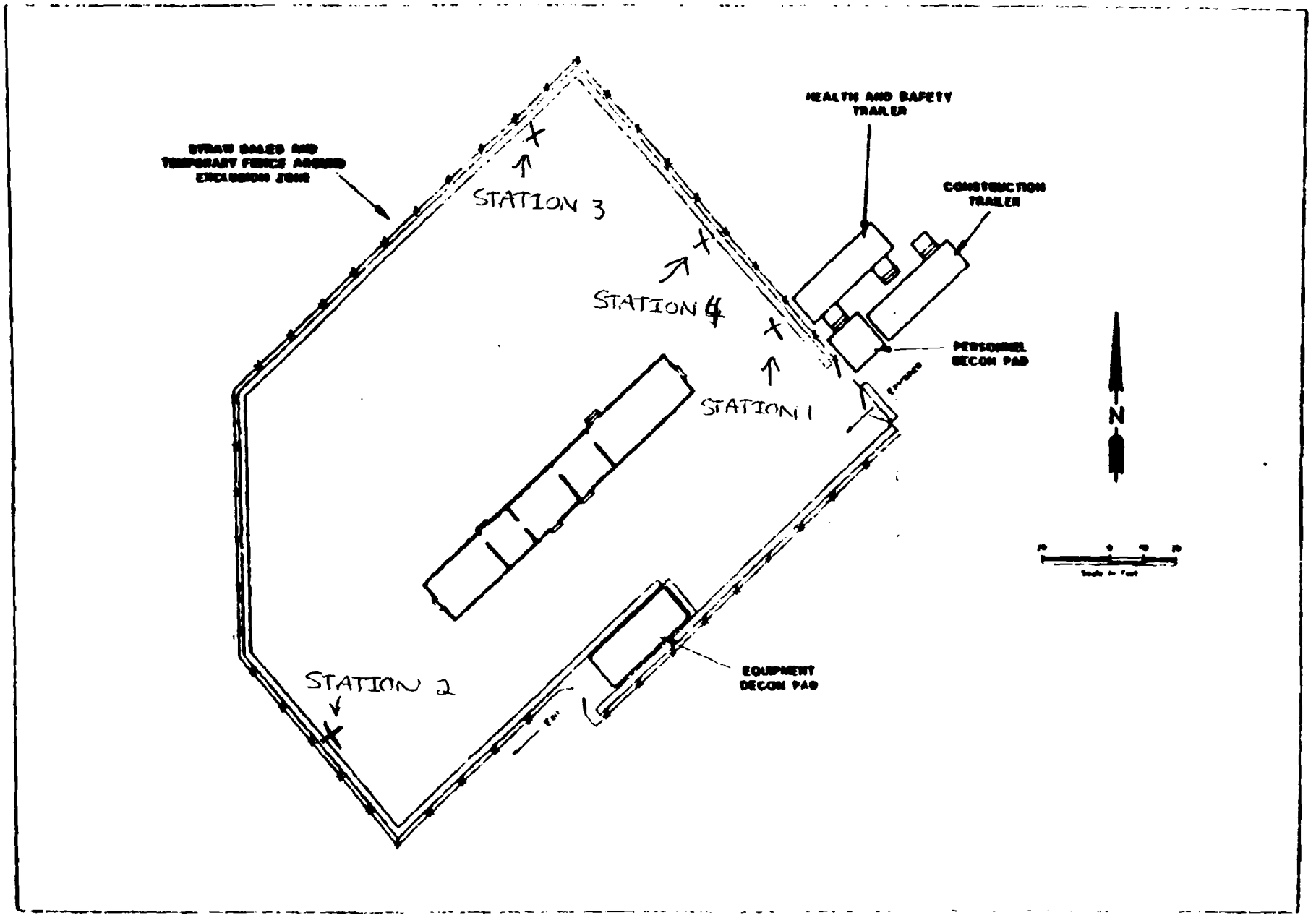

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

689

691

[illegible]

[illegible]
CURRENT TIME: [illegible]:14

CALIBRATI
[illegible]
[illegible]

[illegible] ALARM: - 0.300 mg/m3
[illegible] ALARM: - 0.300 mg/m3

UNITS: mg/m3

[illegible] ALARM: - 0.300 mg/m3
TEST STARTING DATE: 6/30/96
[illegible] STARTING TIME: 7:53:15
[illegible] TIME: 0 DAYS 2:33:14
[illegible] AVG: 0.000 mg/m3
[illegible] mg/m3
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

MIE INC. Model PDL-10 SN 2332 V5.2 4/81

[illegible]

CALIBRATION:
0.015 V = 0.000 mg/m3
0.017 V = 0.040 mg/m3

LOWER ALARM: - 0.300 mg/m3
UPPER ALARM: -.0.300 mg/m3

UNITS: mg/m3

TIME HISTO.
PERIOD LENGTH: 0:01:00
OF PERIODS COMPLETED: 1

[illegible]	[illegible]	MAX	HIL
[illegible]		[illegible]	
0.011	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	*
[illegible]	[illegible]	[illegible]	
0.01	[illegible]	[illegible]	
[illegible]	[illegible]	0.01[illegible]	
[illegible]		[illegible]	
[illegible]		[illegible]	
[illegible]	[illegible]	[illegible]	
0.026	0.03[illegible]	0.07[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	0.0[illegible]	0.03[illegible]	
[illegible]	[illegible]	0.11[illegible]	
[illegible]	0.23[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	0.02[illegible]	[illegible]	
[illegible]	0.02[illegible]	0.0[illegible]	
[illegible]	0.030	0.0[illegible]	
	[illegible]	[illegible]	

[illegible] TIME: 8:59.17

0.012	0.024	0.030	
0.014	[illegible]	[illegible]	
0.010	0.028	[illegible]	
0.016	0.020	0.10[illegible]	
[illegible]	0.090	0.032	
0.010	0.008	0.036	
0.028	0.032	0.040	
[illegible]	0.036	0.032	
0.024	0.028	0.036	
[illegible]	0.032	0.044	
[illegible]	[illegible]	0.03[illegible]	
0.018	[illegible]	0.030	
[illegible]	0.032	0.040	

[illegible] TIME: 9:52.17

0.011	0.028	0.048	
- 0.396	- 0.144	0.125	
[illegible]	[illegible]	[illegible]	

695

- 0.400	- 0.160	0.000	*
- 0.156	- 0.032	0.028	*+
- 1.808	2.140	17.635	- | *
- 2.008	0.284	8.560	- |* +
0.[illegible]	0.032	0.040	|*
0.028	0.028	0.036	|*
0.024	0.028	0.032	|*

DATE: 8/30/96 TIME: 10:44:07

0.028	0.036	0.054	|*
[illegible]	[illegible]	0.060	|*
0.032	[illegible]	0.050	|*
0.032	0.040	0.052	|*
0.032	0.036	0.048	|*
0.036	0.040	0.064	|*
0.032	0.032	0.044	|*
0.032	0.032	0.040	|*
0.032	0.036	0.060	|*
0.032	0.036	0.044	|*
0.036	0.036	0.060	|*
0.032	0.036	0.052	|*
0.032	0.036	0.044	|*
[illegible]	[illegible]	[illegible]	|*
[illegible]	[illegible]	[illegible]	|*
0.032	[illegible]	[illegible]	|*
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	.*
0.032	[illegible]	[illegible]	|*

[illegible] TIME: 11:[illegible]:07

0.032	0.036	0.052	|*
[illegible]	[illegible]	[illegible]	|*
0.032	0.032	0.040	|*
[illegible]	[illegible]	[illegible]	|*
[illegible]	[illegible]	[illegible]	
[illegible]	0.032	0.038	|*
0.032	[illegible]	[illegible]	|*
[illegible]	0.032	0.040	|*
0.032	0.032	0.040	|*
[illegible]	0.032	0.036	|*
[illegible]	[illegible]	[illegible]	|*
[illegible]	0.020	0.040	|*
0.028	0.032	0.036	|*
[illegible]	0.032	0.036	|*

DATE: 8/30/96 TIME: 12:30:37

[illegible] 040	0.044	0.056	|*
0.032	0.044	0.056	|*
[illegible] 040	0.040	0.056	|*
0.032	[illegible]	0.052	|*
[illegible] 036	0.040	0.048	|*
0.040	0.044	0.052	|*
[illegible] 036	0.036	0.048	|*
0.040	0.048	0.060	|*
[illegible] 036	[illegible]	0.052	|*
0.036	0.040	0.052	|*
[illegible]	[illegible]	[illegible]	|*
0.036	0.040	0.048	|*
[illegible] 032	0.040	0.052	|*
0.036	0.044	0.060	|*
[illegible] 040	0.048	0.056	|*
0.040	0.052	0.064	|*
[illegible] 040	0.048	0.056	|*

[illegible]	0.052	[illegible]	|*

DATE: 8/30/96 TIME: 12:50:37

0.048	0.056	0.072	|*
[illegible]	0.032	0.064	|*
0.049	0.052	0.060	|*
0.048	[illegible]	0.056	|*
0.048	[illegible]	[illegible]	|
[illegible] 040	0.048	0.056	|*
0.040	0.048	0.052	|*
[illegible] 040	0.048	0.056	|*
0.040	0.048	0.060	|*
0.040	0.048	0.050	|*
0.040	0.044	0.056	|*
[illegible] 036	0.040	0.052	|*
0 0.036	0.040	0.052	|*

DATE: 8/30/96 TIME: 13:30:27

0.028	0.032	0.040	|*
0.020	[illegible]	[illegible]	|*
0.032	0.032	0.040	|*
0.028	0.032	0.036	|*
[illegible]	[illegible]	[illegible]	|
[illegible]	[illegible]	0.054	-*
[illegible]	[illegible]	0.040	|*
[illegible]	[illegible]	[illegible]	-*
[illegible]	[illegible]	0.02[illegible]	*
[illegible]	[illegible]	[illegible]	|

DATE: 8/30/96 TIME: 15:19:06

0.03[illegible]	0.040	0.052	|*
[illegible]	[illegible]	[illegible]	|*
0.032	0.044	0.060	|*
[illegible]	[illegible]	0.048	|*
0.036	0.040	0.054	|*
[illegible]	[illegible]	[illegible]	|
[illegible]	[illegible]	0.060	|*
[illegible]	[illegible]	[illegible]	|*
[illegible]	[illegible]	0.072	|*
0.048	0.052	0.060	|*
[illegible]	[illegible]	0.072	|*
0.052	0.060	0.072	|*
[illegible] 138	[illegible]	0.120	|*
[illegible]	[illegible]	0.030	|*
[illegible] 160	0.076	0.108	|*
0.052	0.060	0.076	|*
[illegible] 148	0.052	0.068	|*
0.040	0.048	0.060	|*
[illegible] 040	0.052	0.072	|*
0.048	0.056	0.068	|*

DATE: 8/30/96 TIME: 15:39:06

0.044	0.052	0.072	|*
[illegible] 340	[illegible]	[illegible]	|*
0 0.356	0.892	1.608	|-* +

DATE: 8/30/96 TIME: 16:05:53

0.180	0.004	0.056	*|
- 0.190	0.008	0.040	-*
- 0.090	0.012	0.056	-*
0.056	0.044	0.060	|*
0.036	0.040	0.048	|*
0.036	0.036	0.044	|*
0.036	0.028	0.040	|*
[illegible]	[illegible]	0.056	|*

699

```
   [illegible]        [illegible]        0.060        |*
   0.0[illegible]        0.0[illegible]        0.050        |*
   0.0[illegible]        0.0[illegible]        0.[illegible]        *
@  0.0[illegible]        0.0[illegible]        0.[illegible]        *

   [illegible]  TIME: 17:06:0[illegible]
   0.30[illegible]    - 0.304    - 0.300        *
```

Dame Moore
7101 Wisconsin Ave., Suite 700
Bethesda, MD 20814
(301) 652-2215 FAX 656-8059

24 Hr Turn-around

CHAIN OF CUSTODY RECORD

NO. 426

Project No.:

Project Name: Ft. Drum - Bldg T-4002

Samplers: (signature) Stephen C. Lamb

Sta. No.	Date	Time	Comp	Grab	SAMPLE # ~~Station Location~~	Number of Containers	NIOSH 7300 (Lead by ICP)		NIOSH 5001 (2,4-D; and 2,4,5-T)		NIOSH 5274M (DDD, DDE, and DDT)		Remarks Volume (Liters)
					FD 93096-PH2-A-005	1	✓						576.70
					-B-005	1			✓				181.70
					-C-005	1					✓		189.60

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	Remarks
Stephen C. Lamb	9-16-96 [illegible]			Phone [illegible] (ext. 271) [illegible] Messages [illegible]
Relinquished by: (signature)	Date/Time	Received for Laboratory by: (signature)	Date/Time	
				Dames & Moore

Distribution: White Copy (Laboratory Copy)
Yellow Copy (Job File)
Pink Copy (Field Geologist File)

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703

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 10-1-96 Start Time: 0635 Completion Time: 0650

Location: Bldg T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Soil excavation

Protective Clothing/Equipment: Level D + overboots

Chemical Hazards: Pesticides

Physical Hazards: Slips, trips, falls, equipment

Control Methods: PPE, clearance from equipment.

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
Ronnie Ruslow	
Rick Bailey	
Gary Ray	
Mohammad Husain	
D. Weilersbacher	

705

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 10-1-96

Inspector: Stephen Lanham

Site Conditions, Weather: Mostly sunny, dry, wind E→W, 3-5mph

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	↓		
Site work zones clearly defined on-site?	↓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	↓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	↓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?	✓		
Air monitoring log available and current?	✓		
Does monitoring log reflect excursions above action levels?			
Has personal sampling been performed?		✓	
Have any exposure symptoms been reported?		✓	
HEAT STRESS MONITORING			
Has heat stress monitoring been implemented?			✓
Are work/rest regimens established/followed?			✓
Are pulse rate and oral temperature taken?			✓
Monitoring log available and current?			✓
Any heat stress incidents?		✓	
Are personnel aware of symptoms/first aid?	✓		
Are ambient temperature readings logged?			
Are emergency medical treatment and first aid available to personnel?	✓		
PERSONAL PROTECTIVE EQUIPMENT			
All PPE called for in HSP available?	✓		
Is there sufficient PPE available for the personnel involved in the performance of site operations?	✓		
Is PPE used in accordance with SHP?	✓		
Has PPE been upgraded or downgraded?		✓	
Is the PPE in place adequate for the chemical and physical hazards on-site?	✓		
Is there a need to modify the PPE requirements?		✓	
All personnel appropriately taped-up?			✓

Additional Information

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_____

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?	✓		
All drums and containers inspected for structural integrity before moving?	✓		
Personnel warned of the potential hazards associated with the contents of containers prior to movement?	✓		
Containers moved using appropriate mechanical devices to avoid injury?	✓		
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?	✓		
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?	✓		
SSHP decontamination procedures observed?	✓		
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?	✓		
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?	✓		
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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_____

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INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York October 1, 1996

Instrument(s): PID, Dust

Serial No.(s):

Technician's Signature: Steph C. Ya

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0715	PID	–	100 ppm → 57 ppm	G	SCL	HNU PI 101 SN: 101238
	"	Ambient	Zero	"	"	"
	Dust	Factory →		"	"	MIE PDM-3 SN: 4017
	"	Zero	–	"	"	"
1630	PID	–	100 ppm → 57 ppm	—	"	—
	~~"~~	~~Ambient~~				
	Dust	Factory →	—	—	—	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-1-96

Field Activities: Soil excavation/loading

Wind Direction: E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: 3 - 5 mph

Technician Signature: Stephen C. Yanker

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100196-001	0715	1	At Decon. pad	0.03	Dust
"	"	"	"	0.0	PID
-002	0717	"	Station 1	0.03	D
"	"	"	"	0.0	P
-003	0719	"	Station 4	0.04	D
"	"	"	"	0.0	P
-004	0722	"	Station 3	0.00	D
"	"	"	"	0.0	P
-005	0725	"	Station 2	0.02	D
"	"	"	"	0.0	P
-006	0830	"	Downwind from excavation	0.03	D
"	"	"	"	0.0	P
-007	0832	"	Station 4	0.03	D
"	"	"	"	0.0	P
-008	0834	"	Station 3	0.03	D
"	"	"	"	0.0	P

715

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-1-96

Field Activities: Soil excavation/loading

Wind Direction: E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: 3-5 mph

Technician Signature: Stephen C. Tank

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100196-009	0837	1	Station 2	0.02	Dust
"	"	"	"	0.0	PID
-010	0839	"	Station 1	0.04	D
"	"	"	"	0.0	P
-011	0943	"	Downwind from excavation	0.03	D
"	"	"	"	0.0	P
-012	0945	"	Station 4	0.04	D
"	"	"	"	0.0	P
-013	0948	"	Station 3	0.04	D
"	"	"	"	0.0	P
-014	0951	"	Station 2	0.03	D
"	"	"	"	0.0	P
-015	0954	"	Station 1	0.07	D
"	"	"	"	0.0	P
-016	1025	"	Donnie Truslaw BZH (cleaning box)	0.05	D
"	"	"	"	0.0	P

715

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-1-96

Field Activities: Soil excavation

Wind Direction: E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: 3 - 5 mph

Technician Signature: Steph C. Lam

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100196-017	1032	1	Downwind from box loading	0.04	Dust
"	"	"	"	0.0	PID
-018	1105	"	Station 4	0.03	D
"	"	"	"	0.0	P
-019	1107	"	Station 3	0.04	D
"	"	"	"	0.0	P
-020	1109	"	Station 2	0.07	D
"	"	"	"	0.0	P
-021	1111	"	Downwind from box loading	0.07	D
"	"	"	"	0.0	P
-022	1113	"	Station 1	0.05	D
"	"	"	"	0.0	P
-023	1250	"	Downwind from box loading	0.04	D
"	"	"	"	0.0	P
-024	1252	"	Station 4	0.08	
"	"	"	"	0.0	

717

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-1-96

Field Activities: Soil excavation/loading

Wind Direction: E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: 3 - 5 mph

Technician Signature: Stephen C. Tanner

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100196-025	1254	1	Station 3	0.06	Dust
"	"	"	"	0.0	PID
-026	1256	"	Station 2	0.07	D
"	"	"	"	0.0	P
-027	1259	"	Station 1	0.08	D
"	"	"	"	0.0	P
-028	1428	"	Downwind from box loading	0.11	D
"	"	"	"	0.0	P
-029	1430	"	Station 1	0.09	D
"	"	"	"	0.0	P
-030	1432	"	Station 2	0.06	D
"	"	"	"	0.0	P
-031	1434	"	Station 3	0.07	D
"	"	"	"	0.0	P
-032	1438	"	Station 4	0.07	D
"	"	"	"	0.0	P

719

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-1-96

Field Activities: Soil excavation/loading

Wind Direction: W→E (shifted since AM)

Instrument, Model & Serial No.:

Estimated Wind Speed: 5-10 mph

Technician Signature: Stephen C. Fan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100196-033	1520	1	Downwind from box loading	0.05	Dust
"	"	"	"	0.0	PID
-034	1522	"	Station 2 (upwind)	0.03	D
"	"	"	"	0.0	P
-035	1524	"	Station 1	0.07	D
"	"	"	"	0.0	P
-036	1526	"	Station 4	0.05	D
"	"	"	"	0.0	P
-037	1528	"	Station 3	0.05	D
"	"	"	"	0.0	P
-038	1555	"	Downwind at Decon. pad (Box loading)	0.31	D
"	"	"	"	0.0	P
-039	1557	"	Station 4	0.23	D
"	"	"	"	0.0	P
-040	1559	"	Station 3	0.17	D
"	"	"	"	0.0	P

721

INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-1-96
Phase: Phase II - Soil Removal
Activity: Soil excavation/loading
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Mostly sunny, wind 3-5mph, W→E

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-100196-PH2-A-001	Station 1	5432	0801	1605	484	1.49	1.49	1.49	721.16	
-B-001	"	3813	"	"	"	0.55	0.53	0.53	256.52	
-C-001	"	"	"	"	"	0.54	0.54	0.54	261.36	
-A-002	Station 2	5506	0758	1603	485	1.57	1.54	1.54	746.90	
-B-002	"	3807	"	"	"	0.46	0.44	0.44	213.40	
-C-002	"	"	"	"	"	0.48	0.47	0.47	227.95	
-A-003	Station 3	5408	0757	1615	498	1.49	1.47	1.47	732.06	
-B-003	"	3812	"	"	"	0.53	0.52	0.52	258.96	
-C-003	"	"	"	"	"	0.54	0.54	0.54	268.92	
-A-004	Station 4	5438	0755	1620	505	1.52	1.51	1.51	762.55	
-B-004	"	3811	"	"	"	0.51	0.51	0.51	257.55	
-C-004	"	"	"	"	"	0.49	0.47	0.47	237.35	

INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-1-96

Phase: Phase II - Soil Removal

Activity: Soil excavation/Loading

Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Mostly sunny, wind 3-5mph, E-W→E

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD			FLOW RATE (L/MIN)			TOTAL VOLUME (L)	COMMENTS
			START TIME	STOP TIME	TOTAL MIN.	START	STOP	RECORDED		
FO-100196-PH2-A-004D	Station 4 (COE Dup.)	5366	0755	1613	498	1.52	1.51	1.51	751.98	
-B-004D	"	5	"	"	"	0.48	0.48	0.48	239.04	
-C-004D	"	"	"	"	"	0.47	0.47	0.47	234.06	

725

10-1-96

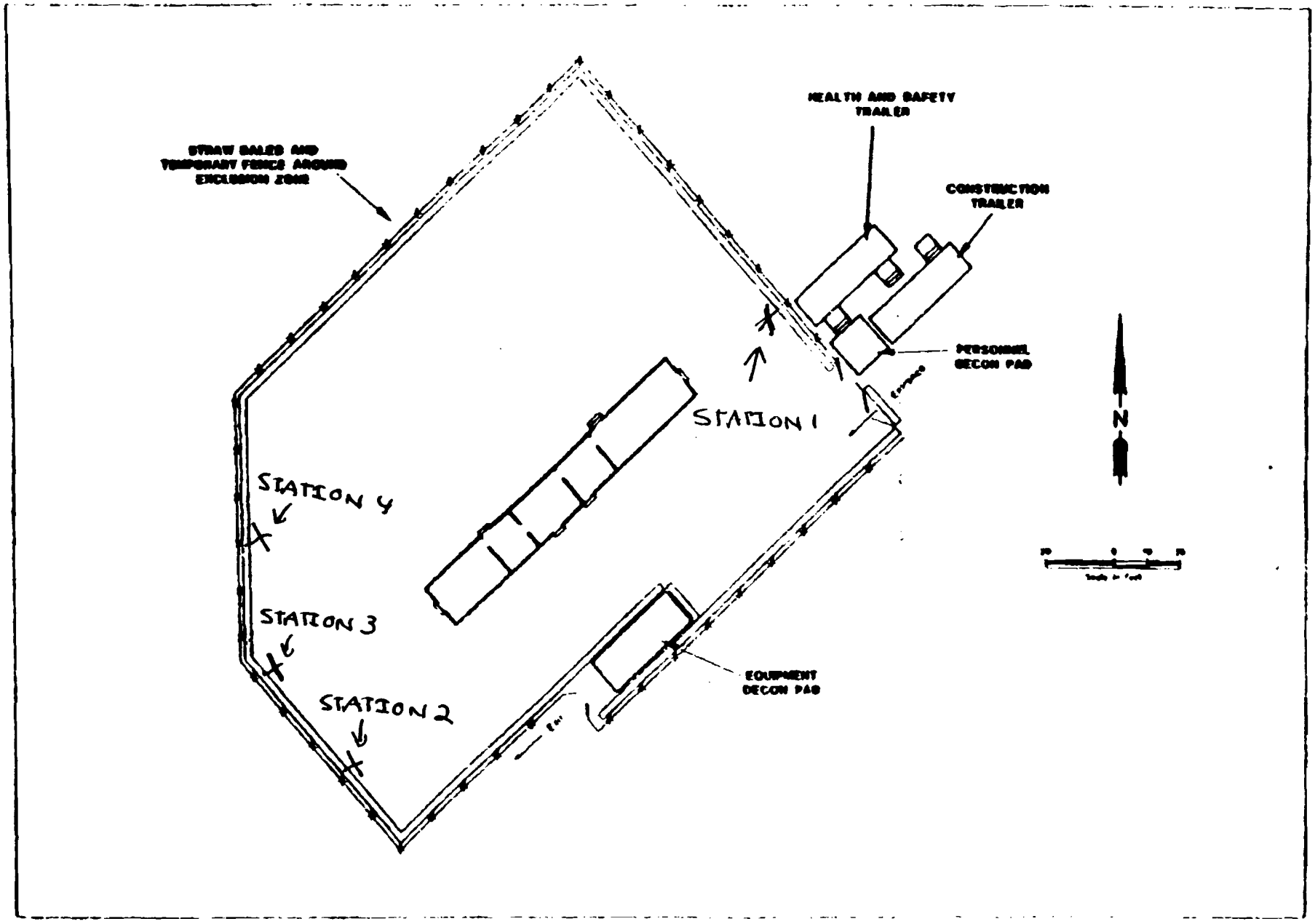

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

10-1-96 (1130 Hours)

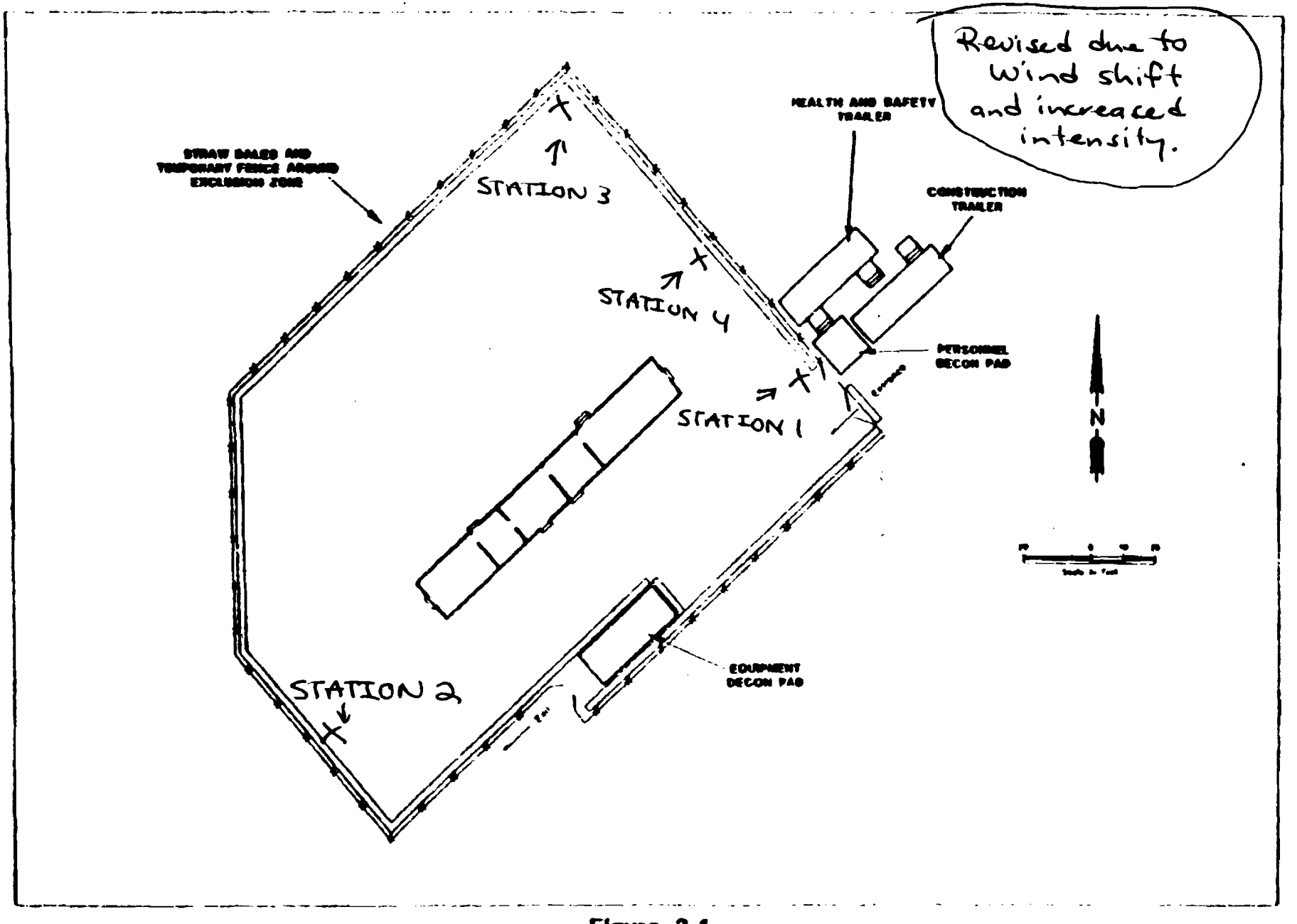

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

731

MIE INC. Model PDL-10 SN 2332 V0.2 4/89

'RENT DATE: 8/31/96
RENT TIME: 16:34:36

CALIBRATION
0.013 V = 0.000 mg/m3
0.017 V = 0.040 mg/m3

LOWER ALARM: - 0.300 mg/m3
UPPER ALARM: - 0.300 mg/m3

UNITS: mg/m3

INPUT READI:- 0.3[illegible] mg/m3
TEST STARTING DATE: 8/31/96
[illegible] TIME: 7:11:33
[illegible] 21:[illegible]:36
OVERALL AVG: 0.444 mg/m3
OVERALL M[illegible] 1.5[illegible] mg/m3
MIN OCCURRED 8/31/96 @ 9:50:36
OVERALL M[illegible] 41.856 mg/m3
MAX OCCURRED 8/31/96 @ 9:52:35
STEL [illegible] mg/m3
STEL OCCURRED 8/31/96 @ 9:45:05

MIE INC. Model PDL-10 SN 2332 V5.2 4/89

RENT DATE: 8/31/96
RENT TIME: 16:35:03

CALIBRATION
0.015 V = 0.000 mg/m3
[illegible] V = [illegible] mg/m3

LOWER ALARM: - 0.306 mg/m3
UPPER ALARM: - 0.300 mg/m3

UNITS: mg/m3

[illegible]
[illegible]
OF PERIODS COMBINED: 1

	M1	M2	M3	MTC
DATE: [illegible] TIME:			7:11:00	
	0.036	0.040	[illegible]	*
	0.036	[illegible]	[illegible]	*
	[illegible]	0.032	[illegible]	*
	0.036	0.036	0.040	*
	[illegible]	[illegible]	[illegible]	*
	0.032	0.036	0.040	*
	0.032	0.032	0.036	*
	[illegible]	[illegible]	[illegible]	*
	0.032	[illegible]	[illegible]	*
	0.036	[illegible]	[illegible]	*
	[illegible]	[illegible]	[illegible]	*
	[illegible]	[illegible]	0.044	*
	0.032	0.036	[illegible]	*
	0.032	0.036	0.040	*
	0.036	0.036	0.044	*
	0.036	0.036	0.044	*
	0.032	0.036	0.040	*
DATE: 8/31/96 TIME:			8:33:55	
	0.036	0.044	[illegible]	*
	0.036	0.036	0.048	*
	[illegible]	0.036	0.040	*
	[illegible]	0.036	0.044	*
	[illegible]	0.036	0.040	*
	0.036	0.036	0.040	*
	0.036	0.040	0.056	*
	0.032	[illegible]	[illegible]	*
	0.032	0.032	0.040	*
	0.032	0.032	0.040	*
	0.036	0.036	0.040	*
	0.032	0.036	0.040	*
	0.036	0.036	0.040	*
	0.036	0.036	0.044	*
	0.032	0.036	0.040	*
DATE: 8/31/96 TIME:			9:45:45	
	[illegible]	[illegible]	[illegible]	*

735

- 0.700	0.684	39.096	-+
- 0.944	9.532	41.448	-| * +
- 1.8[illegible]	7.65[illegible]	41.[illegible]	-| * +
- 1.400	15.780	41.816	-| * +
- 0.688	12.472	41.892	- * +
0.516	3.344	41.068	- * +
0.036	0.048	0.072	*
0.[illegible]	0.[illegible]8	0.064	*
0.044	0.048	0.060	*
0.040	0.048	0.056	*
0.040	0.052	0.06[illegible]	*
0.044	0.048	0.060	*
0.040	0.044	0.052	*
[illegible]	0.040	0.052	*
[illegible]	0.036	0.044	*
0.036	0.040	0.048	*
0.036	0.040	0.048	*
0.040	0.068	0.144	*

DATE: 8/31/96 TIME: 10:05:45

0.040	0.044	0.056	*
0.036	0.044	0.056	*
0.036	0.044	0.052	*
0.036	0.0[illegible]	0.04[illegible]	*
0.0[illegible]	0.0[illegible]	0.052	*
0.0[illegible]	0.0[illegible]	0.052	*
0.0[illegible]	0.0[illegible]	0.056	*
[illegible]	[illegible]	[illegible]	*
[illegible]	[illegible]	0.060	*
0.044	0.048	[illegible]	
[illegible]	[illegible]	[illegible]	
0.04[illegible]	0.04[illegible]	0.044	*

DATE: [illegible]/31/96 TIME: 10:28:27

0.0[illegible]	0.04[illegible]	0.[illegible]	*+
0.0[illegible]	0.04[illegible]	0.048	*
0.0[illegible]	1.34[illegible]	39.260	-* +
0.040	0.040	0.048	*
0.044	0.052	0.072	*
0.0[illegible]	0.0[illegible]	0.056	*
0.044	0.04[illegible]	0.052	*
[illegible]	[illegible]	0.05[illegible]	*
0.048	0.052	0.068	*
0.0[illegible]	0.048	0.060	*

DATE: 8/31/96 TIME: 11:02:25

0.036	0.044	0.108	*
- 0.256	- 0.048	0.060	*
0.032	0.040	0.068	*
0.032	0.040	0.064	*
0.036	0.036	0.048	*
0.036	0.040	0.048	*
0.036	0.040	0.048	*
0.040	0.040	0.052	*
0.036	0.044	0.056	*
0.044	0.052	0.072	*
0.040	0.052	0.064	*
0.04[illegible]	0.044	0.068	*

DATE: 8/31/96 TIME: 12:45:52

0.032	0.036	0.04[illegible]	*
[illegible]	[illegible]	0.048	*
0.036	0.036	0.044	*
0.032	0.036	0.048	*
[illegible]	0.036	0.040	*

0.036	0.036	0.040	*
0.036	0.040	0.044	*
0.035	0.036	0.044	*
0.040	0.040	0.044	*
0.035	0.040	0.044	*
0.036	0.040	0.048	*
0.040	0.040	0.056	*
0.040	0.044	0.048	*
0.040	0.040	0.048	*
0.044	0.044	0.052	*
0.040	0.044	0.052	*
0.040	[illegible]	[illegible]	*
0.052	0.056	0.064	*

DATE: 8/31/96 TIME: 14:29:52

0.036	0.040	0.048	*
0.036	0.040	0.052	*
0.032	0.040	0.048	*
0.036	0.052	0.068	*
0.040	0.044	0.060	*
0.036	0.040	0.048	*
0.036	[illegible]	0.076	*
[illegible]	0.040	0.056	*
0.032	0.040	0.048	*
[illegible]	[illegible]	[illegible]	*
[illegible]	0.076	0.076	*
[illegible]	[illegible]	0.064	*

[illegible]	[illegible]	[illegible]	*
0.032	0.040	[illegible]	*
0.036	[illegible]	[illegible]	*
0.007	0.652	36.580	→
[illegible]	[illegible]	0.036	*
0.032	0.032	0.040	*
[illegible]	[illegible]	[illegible]	*
0.036	0.040	0.044	*
0.032	0.040	0.048	*
0.032	[illegible]	[illegible]	*
0.036	0.044	0.056	*

Dames & Moore
7101 Wisconsin Ave., Suite 700
Bethesda, MD 20814
(301) 652-2225 FAX 656-8059

72HB
TA

Re: P.O.#WA-8990

NO. 427

CHAIN OF CUSTODY RECORD

Project No.:

Project Name: FS Drum - Bldg T-4002

Samplers: (signature) [illegible]

Sta. No.	Date	Time	Comp	Grab	SAMPLE # Station Location	Number of Containers	NIOSH 7300 (Lead)	NIOSH 5001 (2,4-D, 2,4,5-T)					Volume (Liters)	Remarks
					FS-100196-PH2-A-001	1	✓	—	—	—	—	—	721.16	
					-A-002		✓	—	—	—	—	—	746.70	
					-A-003		✓	—	—	—	—	—	732.06	
					-A-004		✓	—	—	—	—	—	762.55	
					-B-001		—	—	✓	—	—	—	256.52	
					-B-002		—	—	✓	—	—	—	213.40	
					-B-003		—	—	✓	—	—	—	258.96	
					-B-004		—	—	✓	—	—	—	257.55	

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	Remarks
[illegible]	6-3-91 [illegible]			[illegible]
Relinquished by: (signature)	Date/Time	Received for Laboratory by: (signature)	Date/Time	
				[illegible] Dames & Moore

Distribution: White Copy (Laboratory Copy)
Yellow Copy (Job File)
Pink Copy (Field Geologist File)

739

Dam [illegible] Moore
7101 Wisconsin Ave., Suite 700
Bethesda MD 20814
(301)652-2215 FAX 656-8059

72 Hou
TA
Re: P.O. # WA-8990

NO. 428

CHAIN OF CUSTODY RECORD

Project No.:

Project Name: Ft. Drum - Bldg T-4002

Samplers: (signature) [signature]

Sta. No.	Date	Time	Comp	Grab	SAMPLE # Station Location	Number of Containers	NIOSH S274M (DDD, DDE, and DDT)						Remarks Volume (Liters)
					FD-100196-PH2-C-001	1	✓						261.36
					-C-002		✓						227.95
					-C-003		✓						268.92
					-C-004		✓						237.55

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	Remarks:
[signature]	10-7 [illegible]			FAX [illegible] 315-[illegible]-2873
Relinquished by: (signature)	Date/Time	Received for Laboratory by: (signature)	Date/Time	

Distribution: White Copy (Laboratory Copy)
Yellow Copy (Job File)
Pink Copy (Field Geologist Files)

Dames & Moore

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SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 10-2-96 Start Time: 0630 Completion Time: 0645

Location: Building T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Soil excavation/loading

Protective Clothing/Equipment: Level D + boots

Chemical Hazards: Resticides

Physical Hazards: Slips, trips, falls, equipment

Control Methods: PPE, equipment clearance, dust control

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
GARY RAY	[illegible]
RICK BAILEY	[illegible]
DONNIE TROSLOW	[illegible]

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HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 10-2-96

Inspector: Stephen Lanham

Site Conditions, Weather: Cloudy, rainy, 60-65°F; Wind W→E, 5-10mph

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?	✓		
Air monitoring log available and current?	✓		
Does monitoring log reflect excursions above action levels?		✓	
Has personal sampling been performed?		✓	
Have any exposure symptoms been reported?		✓	
HEAT STRESS MONITORING			
Has heat stress monitoring been implemented?			✓
Are work/rest regimens established/followed?			✓
Are pulse rate and oral temperature taken?			✓
Monitoring log available and current?			✓
Any heat stress incidents?		✓	
Are personnel aware of symptoms/first aid?	✓		
Are ambient temperature readings logged?			
Are emergency medical treatment and first aid available to personnel?	✓		
PERSONAL PROTECTIVE EQUIPMENT			
All PPE called for in HSP available?	✓		
Is there sufficient PPE available for the personnel involved in the performance of site operations?	✓		
Is PPE used in accordance with SHP?	✓		
Has PPE been upgraded or downgraded?		✓	
Is the PPE in place adequate for the chemical and physical hazards on-site?	✓		
Is there a need to modify the PPE requirements?		✓	
All personnel appropriately taped-up?			✓

Additional Information

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_____

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?	✓		
All drums and containers inspected for structural integrity before moving?	✓		
Personnel warned of the potential hazards associated with the contents of containers prior to movement?	✓		
Containers moved using appropriate mechanical devices to avoid injury?	✓		
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?	✓		
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?	✓		
SSHP decontamination procedures observed?	✓		
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?	✓		
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?	✓		
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?	✓		

Additional Information

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_____

HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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INSTRUMENT CALIBRATION CHECK SHEET

Building T4002

Fort Drum, New York

October 2, 1996

Instrument(s): PID, Dust

Serial No.(s):

Technician's Signature: Stephen C. Landon

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0725	PID	–	100 ppm → 57 ppm	G	SCL	HNU PI 101 SN: 101238
	"	Ambient	Zero	"	"	"
	Dust	Factory	→	"	"	MIE PDM-3 SN: 4017
	"	Zero	→	"	"	"
1630	PID	–	100 ppm → 57 ppm	–	–	–
	Dust	Factory	→	–	–	–

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-2-96

Field Activities: Soil excavation

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 5-10 mph

Technician Signature: Steph C. Jan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100296-001	1130	1	Downwind from box loading	0.00	Dust
"	"	"	"	0.0	PID
-002	1132	"	Station 3	0.01	D
"	"	"	"	0.0	P
-003	1134	"	Station 2	0.00	D
"	"	"	"	0.00	P
-004	1136	"	Station 1	0.01	D
"	"	"	"	0.0	P
-005	1138	"	Station 4	0.0	D
"	"	"	"	0.0	P
-006	1300	"	Downwind from box loading	0.02	D
"	"	"	"	0.0	P
-007	1302	"	Station 3	0.02	D
"	"	"	"	0.0	P
-008	1304	"	Station 2	0.01	D
"	"	"	"	0.0	P

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-2-96

Field Activities: Soil excavation/loading

Wind Direction: W→E

Instrument, Model & Serial No.:

Estimated Wind Speed: 5-10mph

Technician Signature: Stephen C. Yanlan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100296-009	1306	1	Station 1	0.02	Dust
"	"	"	"	0.0	PID
-010	1310	"	Station 4	0.02	D
"	"	"	"	0.0	P
-011	1403	"	At Decon pad (Downwind)	0.02	D
"	"	"	"	0.0	P
-012	~~Statio~~ 1405	"	Station 4	0.02	D
"	"	"	"	0.0	P
-013	1407	"	Station 3	0.02	D
"	"	"	"	0.0	P
-014	1409	"	Station 2	0.01	D
"	"	"	"	0.0	P
-015	1411	"	Station 1	0.01	D
"	"	"	"	0.0	P
-016	1525	"	At Decon. pad (Downwind)	0.02	D
"	"	"	"	0.0	P

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-2-96

Field Activities: Soil excavation

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 5-10 mph

Technician Signature: Steph C. L

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100296-017	1527	1	Station 4	0.02	Dust
"	"	"	"	0.0	PID
-018	1529	"	Station 3	0.00	D
"	"	"	"	0.0	P
-019	1533	"	Station 2	0.02	D
"	"	"	"	0.0	P
-020	1536	"	Station 1	0.02	D
"	"	"	"	0.0	P
-021	1625	"	At Decon. pad (Downwind)	0.02	D
"	"	"	"	0.0	P
-022	1627	"	Station 4	0.02	D
"	"	"	"	0.0	P
-023	1629	"	Station 3	0.03	D
"	"	"		0.0	P
-024	1632	"	Station 2	0.04	D
"	"	"	"	0.0	P

757

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-2-96

Field Activities: Soil excavation

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 10-15 mp

Technician Signature: [illegible]

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100296028	1635	1	Station 1	0.03	Dust
"	"	"	"	0.0	PID

756

INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 10-2-96
Phase: Phase II - Soil Removal
Activity: Soil excavation
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Overcast, passing showers, 60-65°F, wind W→E, 5-10mph

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-100296-PH2-A-001	Station 1	5408	0750	1612	502	1.52	1.50	1.50	753.00	
-B-001	"	3811	"	"	"	0.51	0.50	0.50	251.00	
-C-001	"	"	"	"	"	0.48	0.47	0.47	235.94	
-A-002	Station 2	5366	0755	1615	500	1.53	1.51	1.51	155.00	
-B-002	"	3812	"	"	"	0.53	0.53	0.53	265.00	
-C-002	"	"	"	"	"	0.54	0.52	0.52	260.00	
-A-003	Station 3	5438	0754	1620	504	1.51	1.50	1.50	756.00	
-B-003	"	5	"	"	"	0.48	0.48	0.48	241.92	
-C-003	"	"	"	"	"	0.46	0.45	0.45	226.80	
-A-004	Station 4	5432	0752	1605	493	1.47	1.46	1.46	719.78	
-B-004	"	3813	"	"	"	0.55	0.54	0.54	266.22	
-C-004	"	"	"	"	"	0.55	0.55	0.55	271.15	

INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-2-96
Phase: Phase II - Soil Removal
Activity: Soil excavation
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Overcast, passing showers, 60-65°F, wind W→E, 5-10mph

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD			FLOW RATE (L/MIN)			TOTAL VOLUME (L)	COMMENTS
			START TIME	STOP TIME	TOTAL MIN.	START	STOP	RECORDED		
FD-100296-PH2-A-004D	Station 4 (COE Dup.)	5506	0752	1605	493	1.55	1.54	1.54	759.22	
-B-004D	"	3807	"	"	"	0.46	0.46	0.46	226.78	
-C-004D	"	"	"	"	"	0.48	0.48	0.48	236.64	

769

10-2-96

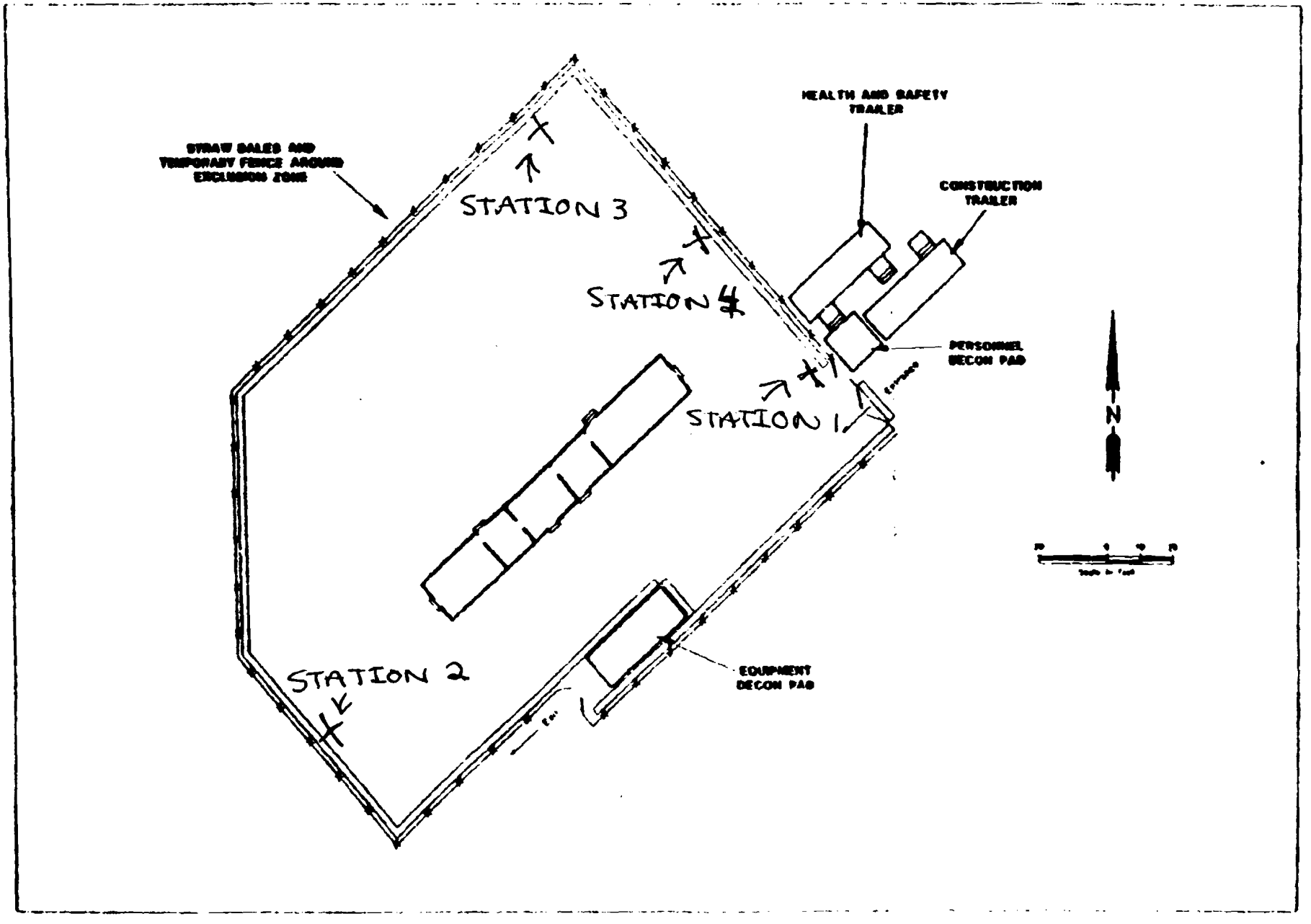

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

765

767

MIE INC. Model PDL-10 SN 2332 V5.2 4/89

[illegible]
[illegible]NT TIME: 16:46:20

CALIBRATION
0.017 V = 0.00 mg/m3
0.209 V = 14.20 mg/m3

LOWER ALARM: - 1.26 mg/m3
UPPER ALARM: - 1.26 mg/m3

UNITS: mg/m3

INPUT READS:- 1.15 mg/m3
TEST STARTING DATE: 8/31/96
TEST STARTING TIME: 7:11:33
ELAPSED TIME: 0 [illegible] 4:03:07
OVERALL AVG: 0.75 mg/m3
OVERALL MIN: - 7.16 mg/m3
[illegible] 8 [illegible]/96 @ [illegible]:50:36
[illegible] 154.76 mg/m3
MAX [illegible] 8 31/96 @ 9:52:35
STEL: 12.1 [illegible]
[illegible]

769

MIE INC. Model PDL-10 SN 2332 V5.2 4/89

CURRENT DATE: 9/01/96
CURRENT TIME: 16:46:51

CALIBRATION
0.017 V = 0.00 mg/m3
0.209 V = 14.30 mg/m3

LOWER ALARM: - 1.28 mg/m3
UPPER ALARM: - 1.26 mg/m3

UNITS: mg/m3

TIME DELAY
PERIOD LENGTH: 0:01:00
OF PERIODS COMBINED: 1

MIN	AVG	MAX	HIO
		7:1[illegible]:33	
[illegible]	0.00	0.03	*
[illegible]	0.01	0.00	*
[illegible]	[illegible]	[illegible]	*
[illegible]	0.01	[illegible]	*
[illegible]	0.01	0.00	*
[illegible]	0.02	0.00	*
- 0.01	-0.03	- 0.01	*
- 0.01	0.03	0.00	*
- 0.00	0.02	- 0.21	*
0.01	0.03	0.00	*
- 0.01	0.01	0.07	*
- 0.02	[illegible]	[illegible]	*
- 0.22	0.01	0.02	*
- [illegible]	0.33	0.00	*
- [illegible]	[illegible]	- [illegible]	*
- [illegible]	[illegible]	0.02	*
- 0.01	0.01	0.02	*
[illegible]	[illegible]	[illegible]	*
0.03	0.01	0.02	*

DATE: 8/31/96 TIME: 8:33:53

- 0.01	0.02	0.09	*
- 0.01	- 0.01	0.03	*
- 0.01	0.01	0.00	*
- 0.03	- 0.01	0.02	*
- 0.03	- 0.01	0.00	*
- 0.01	- 0.01	0.00	*
- 0.01	0.00	0.06	*
- 0.0	0.00	0.06	*
- 0.03	- 0.03	0.00	*
[illegible]	[illegible]	[illegible]	*
0.03	- 0.01	0.03	*
- 0.01	0.01	0.00	*
- [illegible]	[illegible]	0.00	*
- 0.01	- 0.01	0.01	*
0- 0.03	- 0.01	0.00	*

DATE: 8/31/96 TIME: 9:45:45

- 0.95	- 0.18	0.03	*

-	2.71	2.32	144.42	
-	3.61	35.12	152.11	
-	7.16	28.15	152.43	
-	5.32	58.20	154.47	
-	2.69	45.97	154.76	
-	2.05	12.22	151.71	
	0.01	0.02	0.12	*
	0.15	0.03	0.09	*
	0.02	0.03	0.07	*
	0.00	0.03	0.06	*
	0.00	0.05	0.16	*
	0.02	0.03	0.07	*
	0.00	0.02	0.05	*
-	0.01	0.00	0.05	*
-	0.01	- 0.01	0.02	*
-	0.01	0.00	0.03	*
-	0.01	0.00	0.03	*
	0.00	0.10	0.39	*

DATE: 8/31/96 TIME: 10:20:1

	0.00	0.02	0.06	*
-	0.01	0.02	0.06	*
-	0.01	0.02	0.05	*
-	0.01	0.00	0.03	*
-	0.01	0.00	0.05	*
-	0.01	0.01	0.05	*
-	0.01	0.00	0.05	*
	0.00	0.02	0.05	*
	0.00	0.01	0.07	*
	0.02	0.03	0.05	*
	0.00	0.01	0.05	*
	[illegible]	0.00	0.01	*

DATE: 8/31/96 TIME: 10:28:37

	0.00	0.03	1.16	*
	[illegible]	[illegible]	[illegible]	*
-	3.37	4.84	145.02	
	0.00	0.00	0.03	*
	0.02	0.05	0.12	*
	0.00	0.03	0.06	*
	0.02	0.03	0.05	*
	0.02	0.03	0.06	*
	0.03	0.05	0.10	*
@	0.00	0.03	0.07	*

DATE: 8/31/96 TIME: 11:02:25

-	0.01	0.02	0.25	*
-	1.09	- 0.32	0.07	*
-	0.03	0.00	0.10	*
-	0.03	0.03	0.07	*
-	0.01	- 0.01	0.03	*
-	0.01	0.00	0.03	*
-	0.01	0.00	0.03	*
	0.00	0.00	0.05	*
-	0.01	0.02	0.06	*
	0.02	0.05	0.12	*
	0.00	0.05	0.09	*
	0.00	0.02	0.10	*

DATE: 8/31/96 TIME: 12:45:52

-	0.03	- 0.01	0.03	*
-	0.01	0.00	0.03	*
-	0.01	- 0.01	0.02	*
-	0.03	- 0.01	0.03	*
-	0.03	- 0.01	0.02	*
	[illegible]	[illegible]	[illegible]	*

773

-	0.01	- 0.01	0.00	*
-	0.01	0.00	0.02	*
-	0.01	- 0.01	0.02	*
	0.00	0.00	0.02	*
-	0.01	0.00	0.02	*
	0.01	0.00	0.03	*
	0.00	0.00	0.06	*
	0.00	0.02	0.03	*
	0.00	0.00	0.03	*
	0.02	0.02	0.05	*
	0.00	0.02	0.05	*
	0.00	0.02	0.07	*
0	0.05	0.06	0.09	*

DATE: 8/31/96 TIME: 14:29:52

-	0.01	0.00	0.02	*
-	0.01	0.00	0.02	*
-	0.01	0.00	0.03	*
-	0.01	0.05	0.18	*
	0.00	0.02	0.10	*
-	0.01	0.00	0.03	*
-	0.01	0.03	0.13	*
	0.00	0.03	0.05	*
-	0.01	0.00	0.03	*
	0.00	0.02	0.06	*
	0.02	0.06	0.13	*
0	0.02	0.23	0.06	*

DATE: 8/31/96 TIME: 15:15:41

	0.02	0.02	0.05	*
	0.01	0.00	0.07	*
	[illegible]		[illegible]	*
-	0.15	0.26	135.11	-* +
-	0.44	- 0.07	0.06	*
-	0.07	- 0.02	0.00	*
	0.01	0.00	0.02	*
-	0.01	0.00	0.02	*
-	0.01	0.00	0.03	*
-	0.01	- 0.01	0.02	*
0 -	0.01	0.02	0.06	*

DATE: 9/01/96 TIME: 11:18:37

	0.00	0.02	0.05	*
	0.00	0.02	0.03	*
	0.00	0.02	0.05	*
	0.00	0.02	0.05	*
	0.00	0.02	0.05	*
	0.02	0.03	0.12	*
	0.00	0.02	0.05	*
	0.00	0.05	0.15	*
	0.00	0.03	0.07	*
	0.02	0.03	0.06	*
	0.02	0.02	0.03	*
	0.02	0.03	0.06	*
	0.00	0.02	0.05	*
	0.00	0.03	0.10	*
	0.00	0.02	0.06	*
	0.00	0.02	0.03	*
	0.00	0.02	0.05	*
	0.01	0.02	0.05	*
	0.01	0.02	0.05	*
	0.00	0.02	[illegible]	*

DATE: 9/01/96 TIME: 11:38:3[illegible]

	0.00	0.02	0.05	*

	0.02	0.00	0.03	*
	0.00	0.02	0.03	*
	0.02	0.02	0.05	*
	0.00	0.02	0.06	*
	0.00	0.02	0.03	*
	0.00	0.02	0.06	*
	0.00	0.02	0.05	*
	0.00	0.00	0.05	*
	0.02	0.00	0.03	*
	0.00	0.02	0.06	*
	0.00	0.02	0.05	*
	0.00	0.02	0.05	*
	0.00	0.00	[illegible]	*
	0.00	0.00	0.02	*
@	0.02	0.02	0.03	*

DATE: 9/01/96 TIME: 12:59:32

	0.00	0.02	0.05	*
	0.02	0.02	0.03	*
	0.02	0.02	0.07	*
	0.00	0.02	0.05	*
	0.00	0.02	0.05	*
	0.00	0.00	0.03	*
	0.00	0.00	0.03	*
	0.02	0.00	0.03	*
	0.00	0.0[illegible]	0.0[illegible]	*
	0.02	0.0[illegible]	0.02	*
	0.02	0.02	0.05	*
	0.00	0.02	0.05	*
	[illegible]	[illegible]	[illegible]	*
	0.00	0.02	0.02	*
	0.02	0.02	0.06	*
	0.00	0.02	0.05	*
	0.00	0.02	0.05	*
@	0.00	0.00	0.03	*

DATE: 9/01/96 TIME: 14:03:35

-	0.0[illegible]	0.02	0.05	*
	0.00	0.00	0.03	*
	0.00	0.00	0.03	*
	0.00	0.03	0.06	*
-	0.07	0.02	0.[illegible]	*
-	0.09	0.03	1.69	*-
	0.00	0.03	0.10	*
	0.00	0.02	0.06	*
	0.00	0.02	0.05	*
-	0.00	0.02	0.03	*
@	0.00	0.00	0.03	*

DATE: 9/01/96 TIME: 15:17:25

	0.02	0.02	0.05	*
	0.02	0.03	0.05	*
	0.02	0.05	0.12	*
	0.00	0.02	0.05	*
	0.02	0.03	0.05	*
	0.00	0.03	0.05	*
	0.00	0.05	0.13	*
	0.02	0.03	0.05	*
	0.00	0.02	0.05	*
	0.02	0.03	0.05	*
	0.02	0.03	0.05	*
	0.02	0.03	0.16	*
	0.00	0.02	0.13	*
	0.02	0.02	0.05	*
	0.02	0.02	0.05	*

	0.00	0.07	0.05	*
	0.02	0.03	0.05	*
	0.00	0.02	0.03	*
	0.00	0.02	0.05	*

DATE: 9/01/96 TIME: 15:37:25

	0.00	0.03	0.07	*
	0.00	0.03	0.01	*
	0.02	0.02	0.05	*
	0.00	0.02	0.05	*
	0.02	0.05	0.10	*
	0.00	0.02	0.05	*
	0.00	0.02	0.05	*
	0.01	[illegible]	0.05	*
	0.02	0.03	0.06	*
	0.02	0.03	0.05	*
	0.02	0.03	0.05	*
	0.02	0.03	0.05	*
@	0.03	0.05	0.07	*

DATE: 9/01/96 TIME: 16:15:38

	0.03	0.03	0.05	*
	0.02	0.03	0.10	*
	0.01	0.01	0.11	*
	0.02	[illegible]	0.10	*
	0.01	0.02	0.07	*
	[illegible]	[illegible]	0.07	*
	[illegible]	[illegible]	0.12	*
	0.02	[illegible]	0.24	*
	0.02	[illegible]	[illegible]	*
	0.03	[illegible]	[illegible]	
	0.03	0.02	0.05	*
	0.01	0.05	0.10	*
	0.03	0.06	0.12	*
	0.01	0.02	0.07	*
	0.03	0.02	0.06	*
	0.03	0.02	0.01	*
	0.03	0.03	0.06	*
	0.01	0.01	0.07	*
	[illegible]	0.05	0.06	*
@	0.03	0.03	0.02	*

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 10-3-96 Start Time: 0635 Completion Time: 0645

Location: Building T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Soil excavation/loading

Protective Clothing/Equipment: Level D+ over boots

Chemical Hazards: Pesticides

Physical Hazards: Slips, trips, falls, equipment

Control Methods: PPE, dust control, equipment clearance

Special Equipment/Techniques:

Other:

Print Name	Sign Name
Rick Bailey	[signature]
Gary Ray	[signature]
Donnie Troslin	[signature]
M. Lovsdin	[signature]

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SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 10-3-96 Start Time: 09 Completion Time:

Location: Building T-4002; Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Site Survey Crew

Protective Clothing/Equipment: Level D + overboots (in EZ)

Chemical Hazards: Pesticides

Physical Hazards: Slips, trips, falls, equipment

Control Methods: PPE, decontaminate overboots

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
Rick Dufore	Rick Dufore
Alan Hughes	Alan J. Hughes

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HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 10-3-96

Inspector: Stephen Lanham

Site Conditions, Weather: Mostly sunny; Damp ground; 40-45°F; Wind

Soil excavation/loading

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?	✓		
All drums and containers inspected for structural integrity before moving?	✓		
Personnel warned of the potential hazards associated with the contents of containers prior to movement?	✓		
Containers moved using appropriate mechanical devices to avoid injury?	✓		
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?	✓		
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?	✓		
SSHP decontamination procedures observed?	✓		
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?	✓		
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?	✓		
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?	✓		X

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are unauthorized personnel denied access to decontamination areas, decontamination equipment and change rooms?	✓		
Are washing facilities away from hazardous substances and adequate to permit personnel to remove hazardous substances from their bodies?	✓		
Are decontamination solution(s), equipment and clothing properly marked and left on-site or disposed of?	✓		
DRILLING			
Have proper underground utility clearances been obtained?			✓
Have overhead utility clearances been considered?			✓
Flammable liquids in approved containers?			✓
Emergency rig shutoff within reach of the operator?			✓
Appropriate fire shutoff within reach of the operator?			✓
Drilling platform properly stabilized?			✓
Ropes and chains in good condition?			✓
EXCAVATION			
Have proper utility clearances been obtained?	✓		
Has the On-site Competent Person been identified and is present?	✓		
Are daily trench inspections being conducted (or more frequently, as conditions warrant)?	✓		
Support systems (piling, cribbing, shoring) appropriate for the job? Sloping	✓		
Is there suitable access by stairs, ladders, ramps, hoists?	✓		
Appropriate guardrails, fences, barricades and warning lights?	✓		
MISCELLANEOUS SAFETY PROCEDURES			
If site work is anticipated in dimly lighted areas, is additional lighting provided?			✓
Is potable water labeled as safe for drinking?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York October 3, 1996

Instrument(s): Dust, PID

Serial No.(s):

Technician's Signature: Steph C. Yan

Time
0830

Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
Dust	Factory →		G	SCL	MIE PDM-3 SN: 4017
"	Zero →		"	"	"
PID	—	100 ppm → 57 ppm	"	"	HNU PI 101 SN: 101238
"	Ambient	Zero	"	"	"

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-3-96

Field Activities: Soil Excavation

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 5-10 mph

Technician Signature: [illegible]

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100396-017	1552	1	Station 3	0.00	Dust
"	"	"	"	0.0	PID
-018	1554	"	Station 4	0.00	D
"	"	"	"	0.0	P
-019	1556	"	Station 1	0.00	D
"	"	"	"	0.0	P
-020	1558	"	Decon Pad	0.00	D
"	"	"	"	0.0	P

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-3-96

Field Activities: Soil excavation/loading

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 3 - 5 mph

Technician Signature: [illegible]

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100396-001	0845	1	Station 2	0.00	Dust
"	"	"	"	0.0	PID
-002	0847	"	Station 1	0.00	D
"	"	"	"	0.0	P
-003	0851	"	Station 4	0.02	D
"	"	"	"	0.0	P
-004	0853	"	Station 3	0.02	D
"	"	"	"	0.0	P
-005	0855	"	Downwind from digging	0.02	D
"	"	"	"	0.0	P
-006	0950	"	Station 4	0.02	D
"	"	"	"	0.0	P
-007	0952	"	Station 3	0.01	D
"	"	"	"	0.0	P
-008	0954	"	Station 2	0.02	D
"	"	"	"	0.0	P

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-3-96

Field Activities: Soil excavation/loading

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 3-5 mph

Technician Signature: Steph C. Yan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100396-009	~~St~~ 0957	1	Station 1	0.04	Dust
"	"	"	"	0.0	PID
-010	1255	"	Station 3	0.02	D
"	"	"	"	0.0	P
-011	1257	"	Station 2	0.03	D
"	"	"	"	0.0	P
-012	1259	"	Station 1	0.03	D
"	"	"	"	0.0	P
-013	1302	"	Station 4	0.03	D
"	"	"	"	0.0	P
-014	1305	"	At Equip. Decon. Pad	0.02	D
"	"	"	"	0.0	P
-015	1545	"	Station 1	0.00	D
"	"	"	"	0.0	P
-016	1547	"	Station 2	0.02	D
"	"	"	"	0.0	P

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-3-96
Phase: Phase II - Soil Removal
Activity: Soil excavation/loading
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Mostly sunny; 40-45°F; Wind NW → SE

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FO-100396-PH2-A-001	Station 1	5432	0835	1613	462	1.52	1.52	1.52	702.24	
-B-001	"	3812	"	"	"	0.53	0.52	0.52	240.24	
-C-001	"	"	"	"	"	0.54	0.54	0.54	249.48	
-A-002	Station 2	5408	0833	1610	457	1.53	1.53	1.53	699.21	
-B-002	"	3811	"	"	"	0.49	0.49	0.49	223.93	
-C-002	"	"	"	"	"	0.48	0.47	0.47	214.79	
-A-003	Station 3	5366	0830	1620	470	1.54	1.54	1.54	723.80	
-B-003	"	3813	"	"	"	0.55	0.53	0.53	249.10	
-C-003	"	"	"	"	"	0.55	0.54	0.54	253.80	
-A-004	Station 4	5506	0834	1615	461	1.57	1.56	1.56	719.61	
-B-004	"	3807	"	"	"	0.46	0.45	0.45	207.45	
-C-004	"	"	"	"	"	0.47	0.47	0.47	216.67	

INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 10-3-96
Phase: Phase II - Soil Removal
Activity: Soil excavation/loading
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Mostly sunny; 40-45°F; Wind

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD			FLOW RATE (L/MIN)			TOTAL VOLUME (L)	COMMENTS
			START TIME	STOP TIME	TOTAL MIN.	START	STOP	RECORDED		
FO-100396-PH2-A-004D	Station 4 (COE Dup.)	5438	0834	1619	457	1.56	1.55	1.55	708.35	
-B-004D	"	5	"	"	"	0.47	0.47	0.47	214.79	
-C-004D	"	"	"	"	"	0.48	0.46	0.46	210.22	

10-3-96

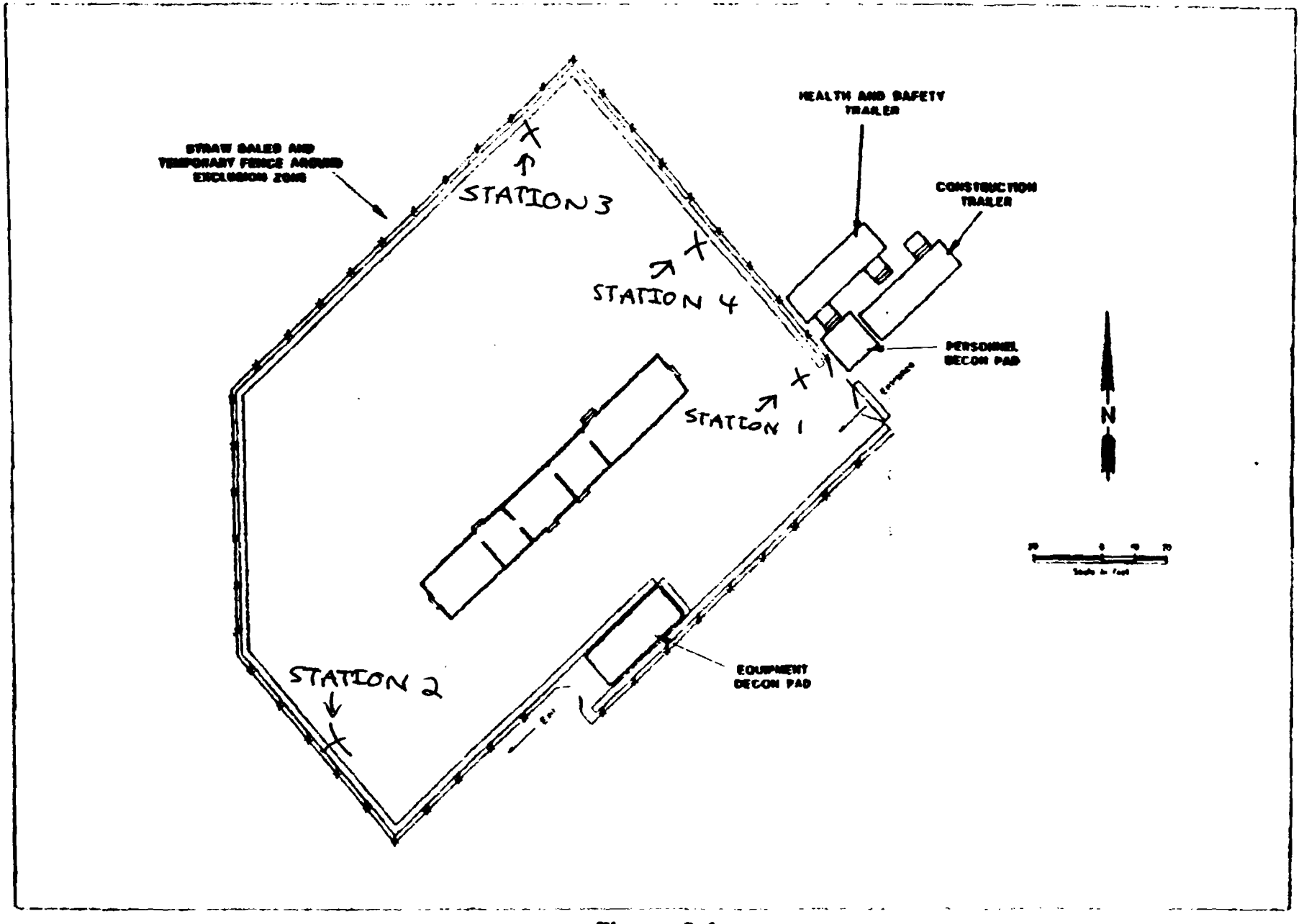

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

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TOPOGRAPHIC & UTILITY SURVEYS - BOUNDARY SURVEYS - AERIAL SURVEYS
GEOGRAPHIC INFORMATION SYSTEMS -CONSTRUCTION SURVEYS
SUBDIVISION DESIGN

Spencer F. Thew, P.E. - L.S.

Facsimile Cover Sheet

To:	PETER WALLERSBACHER
Company:	R & R INT.
Phone:	
Fax:	773 - 2673
From:	JIM THEW
Company:	
Phone:	386-2776
Fax:	
Date:	10/3/96
Pages including this cover page:	7

Comments:

40 Ha, 8 Ha & MEDICAL

Box 201
Owls Head, New York 12969
Phone - (518) 483-4158

Box 29
Canton, New York 13617
Phone - (315) 386-2776

Box 35
Cicero, New York 13039
Phone - (315) 699-4268

Certificate of Completion

This Certifies That
Alan J. Hughes

Is hereby awarded this certificate
on this 27th day of May, 1994
by
ATLANTIC TESTING LABORATORIES, LIMITED

For satisfactorily completing the requirements of the 40-Hour Safety Training Course for Hazardous Waste Operations developed pursuent to regulations promulgated by the Occupational Safety and Health Administration

Joseph Farrell
Program Director

Marijean B. Remington
Vice President, Science & Engineering

Certificate of Completion

Awarded to

Alan J. Hughes

For satisfactorily completing the requirements of the 8-Hour Refresher Training course for Hazardous Waste Operations developed pursuant to regulations promulgated by the Occupational Safety and Health Administration.

Presented by

Atlantic Testing Laboratories, Limited

April 26, 1996

atl

Marijean B. Remington
Vice President, Science & Engineering

Joseph Farrell
Program Director

807

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DOCTORS CLINIC
172 EAST ORVIS STREET
MASSENA, NEW YORK 13662
(315) 764-0501

August 13, 1996

TO WHOM IT MAY CONCERN:

THE FOLLOWING INDIVIDUALS WERE SEEN BY MY AND WERE GIVEN A PHYSICAL EXAMINATION. MY IMPRESSION IS THAT THEY ARE IN GOOD PHYSICAL HEALTH.

[redacted]

ALAN HUGHES

IF YOU HAVE ANY QUESTIONS, PLEASE FEEL FREE TO CONTACT ME.

SINCERELY,

Henry J Dobies MD

HENRY J. DOBIES, M.D.

HJD/ml

Certificate of Completion

This Certifies That

RICK DUFORE

Has satisfactorily completed the requirements for

The O'Brien & Gere Engineers, Inc. Forty-Hour Safety Training Course for Hazardous Waste Operations

developed pursuant to

Regulations promulgated by the Occupational Safety and Health Administration

And is hereby awarded this certificate

by

O'Brien & Gere Engineers, Inc.

Organization

Syracuse, New York

City and State

on this 23rd *day of* July 19 87

Swiatoslav W. Kaczman, Ph.D., C.I.H.

Edwin C. Tifft, Jr., Ph.D.
Vice President

OCT. 3. 1993 9:25AM HTL LTD NO. 614 P. 5

Certificate of Completion

Awarded to

Richard L. Dufore

For satisfactorily completing the requirements of the 8-Hour Refresher Training course for Hazardous Waste Operations developed pursuant to regulations promulgated by the Occupational Safety and Health Administration.

Presented by

Atlantic Testing Laboratories, Limited

April 26, 1996

atl

Marijean B. Remington
Vice President, Science & Engineering

Joseph Farrell
Program Director

8/3

815

DOCTORS CLINIC
173 EAST ORVIS STREET
MASSENA, NEW YORK 13662
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[redacted] Richard Dufore

IF YOU HAVE ANY QUESTIONS, PLEASE FEEL FREE TO CONTACT ME.

SINCERELY,

Henry J. Dobies M.D.

HENRY J. DOBIES, M.D.

HJD/mi

817

MIE INC. Model PDL-10 SN 2332 V5.2 4/89

CURRENT DATE: 9/03/96
CURRENT TIME: 16:43:15

VIBRATION
0.017 V = 0.00 mg/m3
[illegible]

LOWER ALARM: - 1.26 mg/m3
UPPER ALARM: - 1.26 mg/m3

UNITS: mg/m3

INPUT READS:- 2.13 mg/m3
TEST STARTING DATE: 9/03/96
TEST STARTING TIME: 0:17:53
ELAPSED TIME: 0 DAYS 1:12:17
OVERALL AVG: 0.03 mg/m3
OVERALL MIN: - 2.98 mg/m3
[illegible] OCCURRED 9/03/96 @ 15:54:19
OVERALL MAX: 135.50 mg/m3
MAX OCCURRED 9/03/96 @ 15:56:48
STEL: 0.13 mg/m3
[illegible]

M.L INC. Model PDL-10 SN 2332 V5.2 4/89

[illegible] DATE: [illegible]/03/96
[illegible] TIME: [illegible]:43:41

LIBRATION
0.017 V = 0.00 mg/m3
0.209 V = 14.20 mg/m3

LOWER ALARM: - 1.26 mg/m3
UPPER ALARM: - 1.26 mg/m3

UNITS: mg/m3

TIME HISTORY
PERIOD LENGTH: 0:01:00
OF PERIODS COMBINED: 1

	MIN	AVG	MAX	IO
DATE:	[illegible]/03/96	TIME:	8:17:53	
-	0.01	0.02	0.07	*
	0.03	0.06	0.19	*
-	0.01	0.03	[illegible]	*
	[illegible]	[illegible]	[illegible]	*
	0.00	0.01	[illegible]	*
	[illegible]	0.02	0.07	*
	[illegible]	[illegible]	[illegible]	
	0.01	0.00	[illegible]	
	0.00	0.03	0.06	*
	[illegible]	0.02	[illegible]	*
	0.00	0.02	0.05	*
	[illegible]	[illegible]	0.05	*
-	0.01	0.00	0.05	*
-	[illegible]	[illegible]	0.06	*
	0.00	0.02	0.06	*
	0.00	0.02	0.06	*
	[illegible]	0.00	0.03	*
	0.00	0.00	0.03	*
	0.00	0.03	0.07	*
	0.00	0.02	0.06	*
DATE:	9/03/96	TIME:	8:37:53	
	0.00	0.00	0.03	*
	0.00	[illegible]	[illegible]	
	0.00	0.02	[illegible]	
	[illegible]	[illegible]	0.28	*
	0.02	0.03	0.06	*
	0.03	0.03	0.06	*
	0.02	0.05	0.13	*
	0.02	0.05	0.15	*
	0.02	0.05	0.07	*
-	1.80	0.02	0.07	*
	0.05	0.06	0.10	*
	0.03	0.03	0.07	*
	0.00	0.00	0.03	*
	0.00	0.00	0.03	*
-	0.01	0.00	0.05	*
-	[illegible]	- 0.27	0.00	*
-	0.18	- 0.04	0.05	*
-	0.01	0.00	[illegible]	*

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	[illegible]	[illegible]	[illegible]	
-	0.0	0.02	0.02	*

DATE: 9/03/96 TIME: 8:57:53

0-	0.0	0.02	0.07	*

TE: 9/03/96 TIME: 9:56:19

	0.02	0.03	0.06	*
	0.01	0.02	0.03	*
	0.00	0.03	0.06	*
-	0.04	0.03	0.07	*
-	0.10	- 0.04	0.02	*
-	0.0[illegible]	0.00	0.02	*
-	0.01	- 0.01	0.02	*
-	[illegible]	[illegible]	0.10	*
-	0.01	0.00	0.05	*
-	0.01	0.00	0.03	*
-	[illegible]	[illegible]	[illegible]	*
-	0.01	[illegible]	[illegible]	*
	0.03	0.02	0.05	*
	0.02	0.02	0.05	*
5-	0.01	0.00	0.05	*

DATE: [illegible] TIME: 15:46:51

	[illegible]	0.05	0.12	*
	0.01	0.05	0.12	*
	[illegible]	0.02	0.07	*
	[illegible]	[illegible]	0.07	*
	[illegible]	0.05	0.02	*
	[illegible]	0.03	0.07	*
	[illegible]	[illegible]	0.02	*
	[illegible]	[illegible]	0.11	*
	[illegible]	0.17	0.11	*
	[illegible]	- 0.04	0.02	*
-	0.1[illegible]	[illegible]	[illegible]	*
-	[illegible]	0.11	0.12	*
	0.11	0.00	0.02	*
	[illegible]	0.02	0.01	*
	0.02	0.01	0.07	*
-	[illegible]	0.01	0.07	*
	0.03	0.03	0.07	*
0	[illegible]	0.11	0.06	*

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 10-7-96 Start Time: 0640 Completion Time: 0650

Location: Bldg T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Soil excavation

Protective Clothing/Equipment: Level D + overboots

Chemical Hazards: Pesticides

Physical Hazards: Slips, trips, falls, equipment

Control Methods: PPE, equipment clearance, decontamination.

Special Equipment/Techniques: ——

Other:

Print Name	Sign Name
Gary Ra,	[illegible]
Donnie Truslow	[illegible]
Rick Bailey	[illegible]
D Wedenbrichen	[illegible]

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HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 10-7-96

Inspector: Stephen Lanham

Site Conditions, Weather: Sunny; 40-45°F; Wind E → W, 3-5mph

Soil excavation

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	↓		
Site work zones clearly defined on-site?	↓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	↓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	↓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?		✓	
Is OSHA 200 log posted (as applicable) and does it match accident reports?		–	✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?	✓		
Air monitoring log available and current?	✓		
Does monitoring log reflect excursions above action levels?		✓	
Has personal sampling been performed?		✓	
Have any exposure symptoms been reported?		✓	
HEAT STRESS MONITORING			
Has heat stress monitoring been implemented?			✓
Are work/rest regimens established/followed?			✓
Are pulse rate and oral temperature taken?			✓
Monitoring log available and current?			✓
Any heat stress incidents?		✓	
Are personnel aware of symptoms/first aid?	✓		
Are ambient temperature readings logged?			
Are emergency medical treatment and first aid available to personnel?	✓		
PERSONAL PROTECTIVE EQUIPMENT			
All PPE called for in HSP available?	✓		
Is there sufficient PPE available for the personnel involved in the performance of site operations?	✓		
Is PPE used in accordance with SHP?	✓		
Has PPE been upgraded or downgraded?		✓	
Is the PPE in place adequate for the chemical and physical hazards on-site?	✓		
Is there a need to modify the PPE requirements?		✓	
All personnel appropriately taped-up?			✓

Additional Information

_____

_____

_____

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?	✓		
All drums and containers inspected for structural integrity before moving?	✓		
Personnel warned of the potential hazards associated with the contents of containers prior to movement?	✓		
Containers moved using appropriate mechanical devices to avoid injury?	✓		
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?	✓		
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?	✓		
SSHP decontamination procedures observed?	✓		
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?	✓		
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?	✓		
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?	✓		

Additional Information

_____

_____

_____

HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

_____

_____

_____

831

INSTRUMENT CALIBRATION CHECK SHEET
Building T4002
Fort Drum, New York

Instrument(s): IS HMX271

Serial No.(s): 8903092-200

Technician's Signature: [illegible]

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0800	O_2	Ambient	20.9	G	SCL	—
	LEL	21.4%	21.4	"	"	"
1645	O_2	Ambient	20.9	—	—	—
	LEL	21.4	21.4	—	—	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

INSTRUMENT CALIBRATION CHECK SHEET
Building T4002
Fort Drum, New York

Instrument(s): PID, Dust

Serial No.(s):

Technician's Signature: Steph C. Ga

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0730	PID	—	100 ppm → 57ppm	G	SCL	HNU PI 101 SN: 101238
	"	Ambient	Zero	"	"	"
	Dust	Factory →		"	"	MIE PDM-3 SN: 4017
	"	Zero →		"	"	"
1645	PID	—	100 ppm → 57ppm	—	—	—
	"	Ambient	Zero	—	—	—
	Dust	Factory →		—	—	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-7-96

Field Activities: Soil excavation

Wind Direction: E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: 3-5 mph

Technician Signature: Stephen C. Z

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100796-~~001~~ LEL1	0840	1	In excavation	20.8	O_2 (%)
"	"	"	"	0.0	LEL (%)
-001	0842	"	Station 1	0.07	Dust
"	"	"	"	0.0	PID
-002	0844	"	Station 4	0.04	D
"	"	"	"	0.0	P
-003	0846	"	Station 3	0.04	D
"	"	"	"	0.0	P
-004	0848	"	Station 2	0.02	D
"	"	"	"	0.0	P
-005	1008	"	Station 1	0.09	
"	"	"	"	0.0	
-006	1010	"	Station 4	0.04	
"	"	"	"	0.0	
-007	1013	"	Station 3	0.04	
"	"	"	"	0.0	

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-7-96

Field Activities: Soil excavation

Wind Direction: E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: 3 - 5 mph

Technician Signature: Stephen C. Yard

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100796-008	1015	1	Station 2	0.09	Dust
"	"	"	"	0.0	PID
-009	1250	"	Station 1	0.03	D
"	"	"	"	0.0	P
-010	1252	"	Station 4	0.04	D
"	"	"	"	0.0	P
-011	1255	"	Station 3	0.07	D
"	"	"	"	0.0	P
-012	1259	"	Station 2	0.13	D
"	"	"	"	0.0	P
-013	1303	"	At Decon. pad	0.10	D
"	"	"	"	0.0	P
-014	1410	"	At Decon. pad.	0.04	D
"	"	"	"	0.0	P
-015	1412	"	Station 4	0.04	
"	"	"	"	0.0	

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-7-96

Field Activities: Soil excavation

Wind Direction: E→W

Instrument, Model & Serial No.:

Estimated Wind Speed: 3 - 5 mph

Technician Signature: Steph C. Yan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100196-016	1415	1	Station 3	0.06	Dust
"	"	"	"	"	PID
-017	1418	"	Station 2	0.04	D
"	"	"	"	0.0	P
-018	1421	"	Station 1	0.08	D
"	"	"	"	0.0	P
-019	1551	~~5~~ 1	Station 1	0.06	D
"	"	"	"	0.0	P
-020	1553	"	Station 4	0.04	D
"	"	"	"	0.0	P
-021	1555	"	Station 3	0.06	D
"	"	"	"	0.0	P
-022	1558	"	Station 2	0.08	D
"	"	"	"	0.0	P
-023	1601	"	At Decon. pad	0.06	D
"	"	"	"	0.0	P

836

LEL
~~Explosive~~

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-7-96

Field Activities: Soil excavation

Wind Direction: E → W

Instrument, Model & Serial No.: IS HMX 271

Estimated Wind Speed: 3-5 mph

Technician Signature: Stephen C. Yanle

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100796-LEL2	1005	1	In excavation	20.9%	O_2/LEL
-LEL3	1300	"	"	20.9%	"
-LEL4	1340	"	"	20.8%	"
-LEL5	1520	"	"	20.9%	
-LEL6	1610	"	"	20.7%	

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 10-7-96
Phase: Soil Removal
Activity: Soil Excavation
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Sunny; 40-45°F; Wind E→W, 3-5mph

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-100796-PH2-A-001	Station 1	5506	0827	1626	479	1.58	1.54	1.54	737.66	
-B-001	"	3812 ~~5~~	"	"	"	0.51 ~~0.48~~	0.51	0.51	244.29	
-C-001	"	"	"	"	"	0.52 ~~0.47~~	0.52	0.52	249.08	
-A-002	Station 2	5432	0828	1624	476	1.51	1.48	1.48	704.48	
-B-002	"	3813	"	"	"	0.56	0.54	0.54	257.04	
-C-002	"	"	"	"	"	0.55	0.54	0.54	257.04	
-A-003	Station 3	5408	0825	1620	475	1.52	1.51	1.51	717.25	
-B-003	"	~~3812~~ 5	"	"	"	0.48	0.48	0.48	228.00	
-C-003	"	5	"	"	"	0.47	0.47	0.47	223.25	
-A-004	Station 4	5438	0826	~~1620~~ 1628	482	1.55	~~1.51~~ 1.51	~~1.51~~ 1.51	727.82	
-B-004	"	3811	"	"	"	0.46	~~0.47~~ 0.47	~~0.46~~ 0.46	221.72	
-C-004	"	"	"	"	"	0.49	~~0.48~~ 0.45	~~0.48~~ 0.48	216.90	

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-7-96
Phase: Soil Removal
Activity: Soil Excavation
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Sunny; 40-45°F; Wind E→W, 3-5 mph

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD			FLOW RATE (L/MIN)			TOTAL VOLUME (L)	COMMENTS
			START TIME	STOP TIME	TOTAL MIN.	START	STOP	RECORDED		
F0-100796-PH2-A-003D	Station 3 (COE Dup.)	5366	0825	1617	472	1.54	1.54	1.54	726.88	
-B-003D	"	3807	"	"	"	0.47	0.45	0.45	212.40	
-C-003D	"	"	"	"	"	0.48	0.47	0.47	221.84	

845

10-7-96

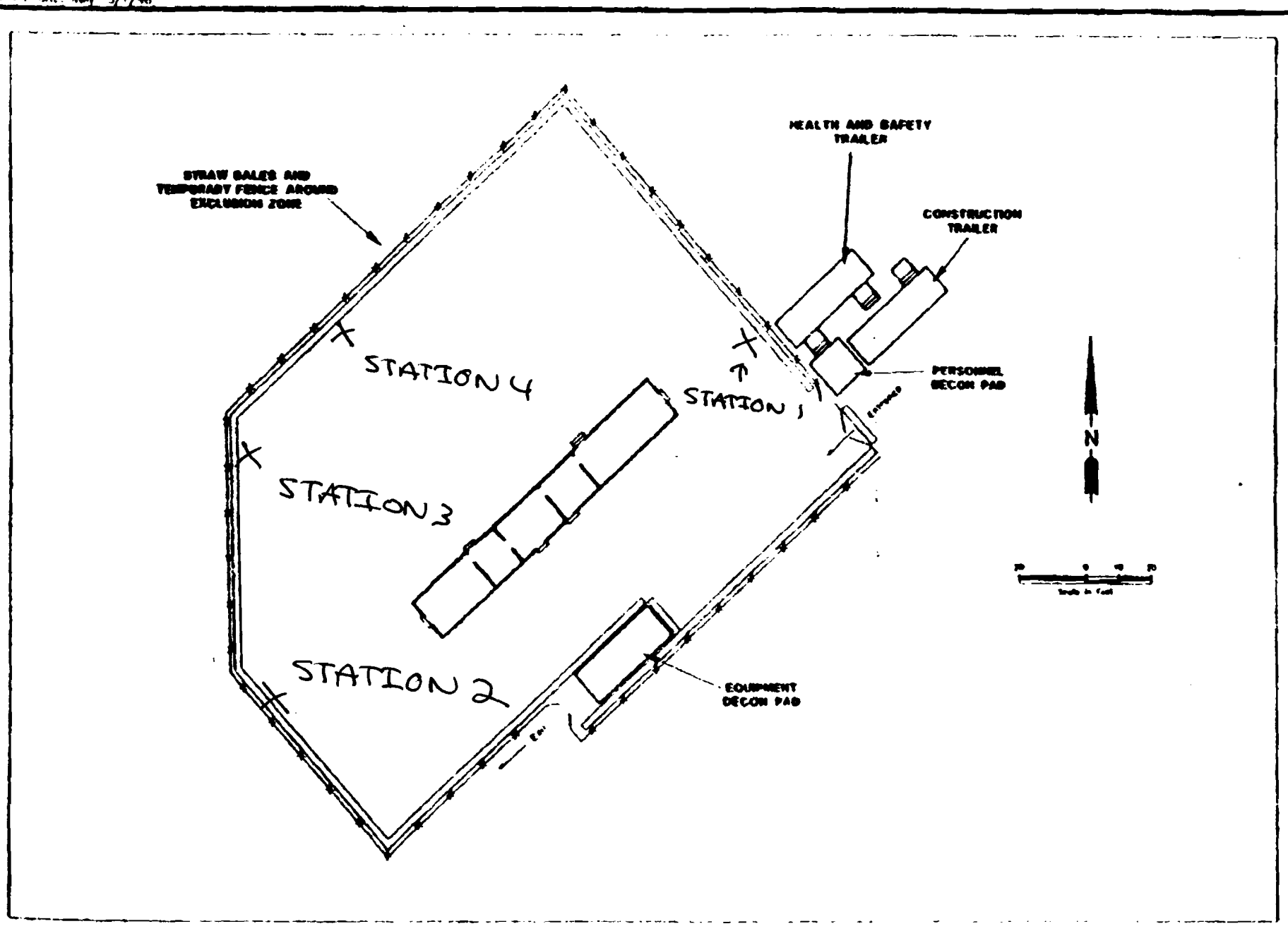

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

847

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MIE INC. Model PDL-10 SN 2332 V5.2 4/89

CURRENT DATE: 9/07/96
RRENT TIME: 16:45:11

CALIBRATION
0.017 V = 0.00 mg/m3
0.209 V = 14.20 mg/m3

LOWER ALARM: - 1.26 mg/m3
UPPER ALARM: - 1.26 mg/m3

UNITS: mg/m3

INPUT READS:- 1.06 mg/m3
TEST STARTING DATE: 9/07/96
TEST STARTING TIME: 10:13:00
[illegible] 0 DAYS 0:42:12
OVERALL AVG: 0.03 mg/m3
OVERALL MIN: - 2.15 mg/m3
[illegible]
OVERALL MAX: 0.31 mg/m3
MAX OCCURRED 9/07/96 @ 15:55:59
STEL: [illegible] mg/m3
STEL OCCURRED 9/07/96 @ 14:08:15

MIE INC. Model PDL-10 SN 2332 V5.2 4/89

CURRENT DATE: 9/07/96
RRENT TIME: 16:45:36

CALIBRATION
0.017 V = 0.00 mg/m3
0.209 V = 14.20 mg/m3

LOWER ALARM: - 1.26 mg/m3
UPPER ALARM: - 1.26 mg/m3

UNITS: mg/m3

IME HISTORY
[illegible] LENGTH [illegible]
OF PERIODS COMBINED: 1

	MIN	AVG	MAX
DATE: [illegible]	TIME: [illegible]		
-	0.0[illegible]	- 0.21	0.12
-	2.1[illegible]	- 0.59	0.02
-	1.11	- 0.[illegible]	0.00
	0.02	0.0[illegible]	0.12
	0.31	0.05	0.07
	0.[illegible]	0.[illegible]	0.07
	0.21	0.17	0.12
	0.08	0.[illegible]	[illegible]
@	0.05	0.03	0.09
[illegible]	[illegible]	TIME: 10:0[illegible]	
	0.00	0.03	0.07
-	1.77	- 0.12	0.16
-	[illegible]	- 0.13	0.05
	0.0[illegible]	0.[illegible]	0.2[illegible]
@	0.18	0.19	0.21
DATE: 9/07/1[illegible]	TIME: 14:05:15		
	0.10	0.16	0.27
	0.10	0.15	0.21
	0.10	0.15	0.21
	0.13	0.15	0.24
	0.09	0.16	0.30
	0.09	0.15	0.25
	0.0[illegible]	0.06	0.15
	0.00	0.06	0.10
-	1.66	- 0.35	0.05
	0.00	0.06	0.24
-	0.38	- 0.04	0.07
-	0.13	0.03	0.12
	0.05	0.12	0.21
	0.05	0.07	0.16
	0.0[illegible]	0.05	0.09
	0.0[illegible]	0.09	0.15
@	0.0[illegible]	0.12	0.2[illegible]
DATE: 9/07/96	TIME: 15:55:15		
	0.05	0.12	0.31
	0.03	0.05	0.07
	0.05	0.05	0.12

0.05	0.06	0.10
0.03	0.07	0.21
0.05	0.05	0.07
0.05	0.07	0.25
0.02	0.07	0.15
0.05	0.05	0.06
0.05	0.06	0.09
0.05	0.06	0.09
0.05	0.06	0.07
0.06	0.06	0.07

```
-*
-+  +
*-
-*   +
-*+
*+
-*
-*
-*
 *
```

853

855

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 10-8-96 Start Time: 0635 Completion Time: 0650

Location: Building T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Soil excavation

Protective Clothing/Equipment: Level D + overboots

Chemical Hazards: Pesticides

Physical Hazards: Slips, trips, falls, equipment

Control Methods: PPE, site hygiene, equipment clearance

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
Gary Ry	
M. Husain	
R Bailey	
[illegible]	[illegible]
[illegible]	P. Weilenbacher

857

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 10-8-96

Inspector: Stephen Lanham

Site Conditions, Weather:

Soil Excavation

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	↓		
Site work zones clearly defined on-site?	↓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	↓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	↓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?	✓		
Air monitoring log available and current?	✓		
Does monitoring log reflect excursions above action levels?		✓	
Has personal sampling been performed?	✓		
Have any exposure symptoms been reported?		✓	
HEAT STRESS MONITORING			
Has heat stress monitoring been implemented?			✓
Are work/rest regimens established/followed?			↓
Are pulse rate and oral temperature taken?			↓
Monitoring log available and current?			✓
Any heat stress incidents?		✓	
Are personnel aware of symptoms/first aid?	✓		
Are ambient temperature readings logged?			✓
Are emergency medical treatment and first aid available to personnel?	✓		
PERSONAL PROTECTIVE EQUIPMENT			
All PPE called for in HSP available?	✓		
Is there sufficient PPE available for the personnel involved in the performance of site operations?	✓		
Is PPE used in accordance with SHP?	✓		
Has PPE been upgraded or downgraded?		✓	
Is the PPE in place adequate for the chemical and physical hazards on-site?	✓		
Is there a need to modify the PPE requirements?		✓	
All personnel appropriately taped-up?			✓

Additional Information

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_____

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?	✓		
All drums and containers inspected for structural integrity before moving?	✓		
Personnel warned of the potential hazards associated with the contents of containers prior to movement?	✓		
Containers moved using appropriate mechanical devices to avoid injury?	✓		
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?	✓		
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?	✓		
SSHP decontamination procedures observed?	✓		
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?	✓		
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?	✓		
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

_____

_____

_____

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-8-96

Field Activities: Soil excavation

Wind Direction: E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: 3-5 mph

Technician Signature: Stephen C. Hank

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100896-001	0740	1	Station 1	0.02	Dust
"	"	"	"	0.0	PID
-002	0743	"	Station 4	0.03	D
"	"	"	"	0.0	P
-003	0745	"	Station 3	0.02	D
"	"	"	"	0.0	P
-004	0747	"	Station 2	0.03	D
"	"	"	"	0.0	P
-005	0749	"	At Box loading downwind	0.04	D
"	"	"	"	0.0	P
-006	0853	"	Station 4	0.02	D
"	"	"	"	0.0	P
-007	0855	"	Box loading downwind	0.04	D
"	"	"	"	0.0	P
-008	0858	"	Station 3	0.02	D
"	"	"	"	0.0	P

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-8-96

Field Activities: Soil excavation

Wind Direction: E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: 3-5 mph

Technician Signature: Stephen C. Jan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100896-009	0903	1	Station 2	0.03	Dust
"	"	"	"	0.0	PID
-010	0905	"	Station 1	0.04	D
"	"	"	"	0.0	P
-011	1200	"	Station 1	0.10	D
"	"	"	"	0.0	P
-012	1202	"	Station 4	0.10	D
"	"	"	"	0.0	P
-013	1205	"	Station 3	0.09	D
"	"	"	"	0.0	P
-014	1207	"	Station 2	0.12	D
"	"	"	"	0.0	P
-015	1400	"	Station 1	0.06	D
"	"	"	"	0.0	P
-016	1402	"	Box loading downwind	0.09	D
"	"	"	"	0.0	P

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-8-96

Field Activities: Soil excavation

Wind Direction: E → W

Instrument, Model & Serial No.:

Estimated Wind Speed: 3-5 mph

Technician Signature: Steph C. Jan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100896-017	1404	1	Station 4	0.08	Dust
"	"	"	"	0.0	PID
-018	1408	"	Station 3	0.08	D
"	"	"	"	0.0	P
-019	1410	"	Station 2	0.08	D
"	"	"	"	0.0	P
-021	1540	"	Box loading downwind	0.06	D
"	"	"	"	0.0	P
-022	1542	"	Station 4	0.04	D
"	"	"	"	0.0	P
-023	1545	"	Station 3	0.02	D
"	"	"	"	0.0	P
-024	1548	"	Station 2	0.04	D
"	"	"	"	0.0	P
-025	1550	"	Station 1	0.04	D
"	"	"	"	0.0	P

LEL

REAL TIME AIR MONITORING DATA SHEET

Building T4002
Fort Drum, New York

Date: 10-8-96

Field Activities: Soil excavation

Wind Direction: E → W

Instrument, Model & Serial No.: 8903092-200

Estimated Wind Speed: 3-5mph

Technician Signature: Steph C. Yan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100896-LEL1	0800	1	In excavation	20.9%	O_2/LEL
-LEL2	0850	"	" "	20.9%	"
-LEL3	1100	"	" "	20.9%	"
-LEL4	1130	"	" "	20.8%	"
-LEL5	1230	"	" "	20.9%	"
-LEL6	1330	"	" "	20.9%	"
-LEL7	1430	"	" "	20.8%	"
-LEL8	1530	"	" "	20.9%	"

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INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York October 8, 1996

Instrument(s): Dust, PID

Serial No.(s):

Technician's Signature: Steph Cs

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0700	PID	—	100 ppm → 57 ppm	G	SCL	HNU PI 101 SN: 101238
	"	Ambient	zero	"	"	"
	Dust	Factory →		"	"	MIE PDM-3 SN: 4017
	"	Zero →		"	"	"
1630	PID	—	100 ppm → 54 ppm	—	SCL	—
	"	Ambient	zero	—	"	—
	Dust	Factory →		—	"	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

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INSTRUMENT CALIBRATION CHECK SHEET

LEL

Building T4002
Fort Drum, New York

October 8, 1996

Instrument(s): IIS HMX 271

Serial No.(s): 8903092-200

Technician's Signature: Steph C. 2

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0700	O_2	20.9%	Ambient	G	SCL	—
	LEL	21.4%	21.4%	"	"	—
1630	O_2	20.9	Ambient	—	"	—
	LEL	21.4%	21.4%	—	"	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-8-96
Phase: Soil Removal
Activity: Soil excavation
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Cloudy; 45-50°F; wind E→W, 3-5mph

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD			FLOW RATE (L/MIN)			TOTAL VOLUME (L)	COMMENTS
			START TIME	STOP TIME	TOTAL MIN.	START	STOP	RECORDED		
FD-100896-PH2-A-001	Station 1	5506	0845	1625	460	1.56	1.56	1.56	717.60	
-B-001	"	3811	"	"	"	0.49	0.49	0.49	225.40	
-C-001	"	"	"	"	"	0.51	0.49	0.49	225.40	
-A-002	Station 2	5438	0850	1621	451	1.54	1.54	1.54	694.54	
-B-002	"	3812	"	"	"	0.55	0.53	0.53	239.03	
-C-002	"	"	"	"	"	0.54	0.54	0.54	243.54	
-A-003	Station 3	5432	0855	1619	444	1.50	1.50	1.50	666.00	
-B-003	"	3813	"	"	"	0.54	0.53	0.53	235.32	
-C-003	"	"	"	"	"	0.55	0.52	0.52	230.88	
-A-004	Station 4	5408	0857	1614	437	1.52	1.52	1.52	664.24	
-B-004	"	5	"	"	"	0.48	0.48	0.48	209.76	
-C-004	"	"	"	"	"	0.49	0.47	0.47	205.36	

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-8-96
Phase: Soil Removal
Activity: Soil excavation
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Cloudy; 45-50°F; wind E→W, 3-5mph

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-100896-PH2-A-004D	Station 4 (COE Dup)	5366	0857	1614	437	1.53	1.53	1.53	668.61	
-B-004D	"	3807	"	"	"	0.47	0.47	0.47	205.36	
-C-004D	"	"	"	"	"	0.49	0.45	0.45	196.65	
-A-005	Personal Exposure Sample	5412	1000	1645	405	1.48	1.44	1.44	583.20	
-B-005	"	3673	"	"	"	0.47	0.46	0.46	186.30	
-C-005	"	"	"	"	"	0.48	0.48	0.48	194.40	

877

10-8-96

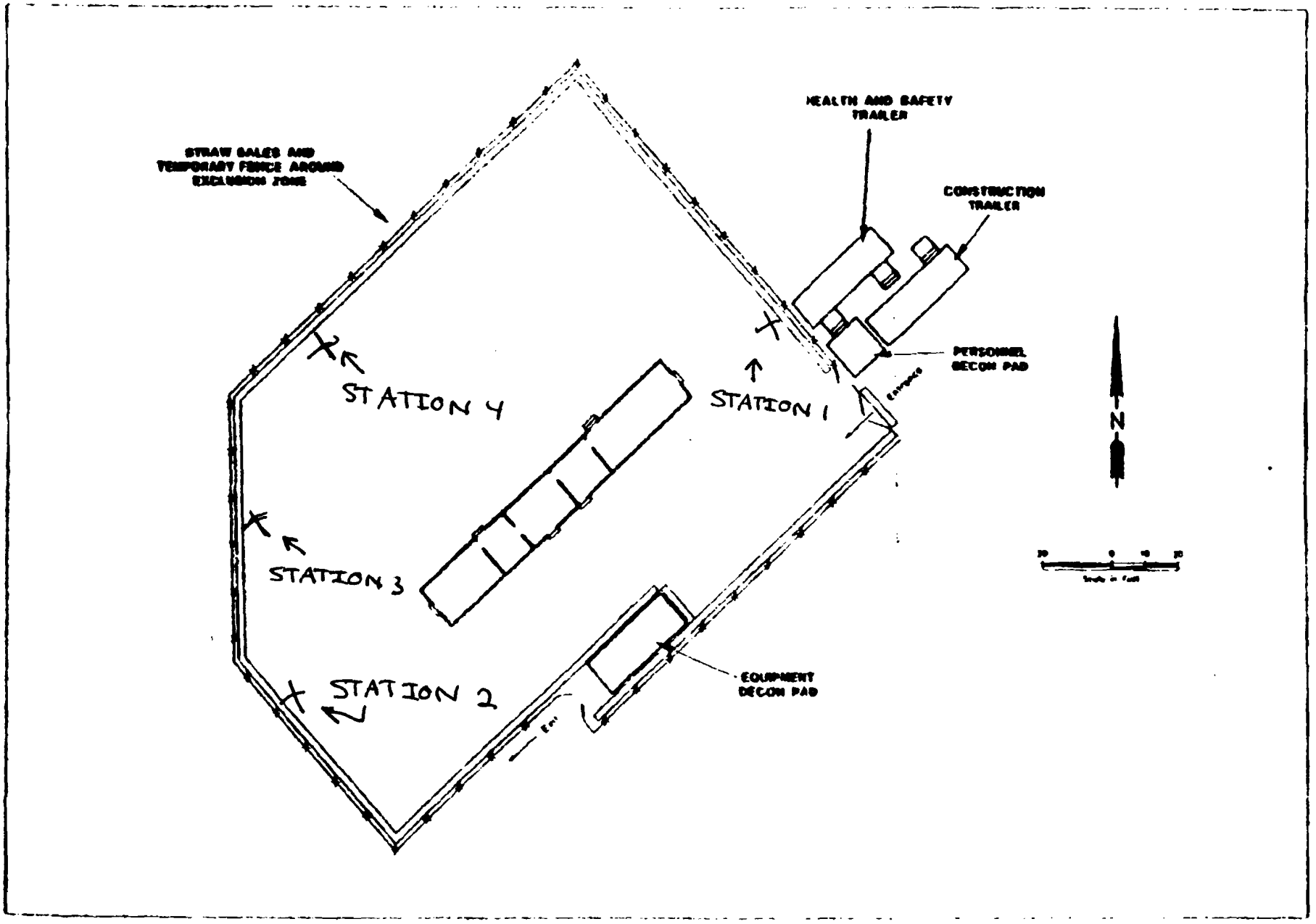

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

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881

MIE INC. Model PDL-10 SN 2332 V5.2 4/89

CURRENT DATE: 10/08/96
RENT TIME: 16:51:19

CALIBRATION
0.017 V = 0.00 mg/m3
0.209 V = 14.20 mg/m3

LOWER ALARM: - 1.26 mg/m3
UPPER ALARM: - 1.26 mg/m3

UNITS: mg/m3

INPUT READS:- 1.45 mg/m3
TEST STARTING DATE: 10/08/96
TEST STARTING TIME: 7:33:23
ELAPSED TIME: 0 DAYS 1:47:13
OVERALL AVG: 0.09 mg/m3
OVERALL MIN: - 0.78 mg/m3
MIN OCCURRED 10/08/96 @ [illegible]
OVERALL MAX: 1.75 mg/m3
MAX OCCURRED 10/08/96 @ 11:52:[illegible]
STEL: 0.10 mg/m3
STEL OCCURRED 10/08/96 @ 14:01:45

MIE INC. Model PDL-10 SN 2332 V5.2 4/89

CURRENT DATE: 10/08/96
CURRENT TIME: 16:51:47

CALIBRATION
0.017 V = 0.00 mg/m3
0.309 V = 14.20 mg/m3

LOWER ALARM: - 1.26 mg/m3
UPPER ALARM: - 1.26 mg/m3

UNITS: mg/m3

[illegible]
[illegible] LENGTH: 0:01:00
OF PERIODS COMBINED: 1

MIN	AVG	MAX	
[illegible]	[illegible]	[illegible]	
[illegible]	0.05	0.10	[illegible]
0.07	[illegible]	[illegible]	[illegible]
0.07	0.02	0.09	*+
0.02	0.03	[illegible]	*+
0.02	0.02	0.07	*+
0.02	0.03	0.06	*+
0.03	[illegible]	0.06	*+
0.04	0.02	0.06	*
0.05	[illegible]	0.10	-+
[illegible]	[illegible]	[illegible]	*+
[illegible]	[illegible]	0.07	*+
[illegible]	[illegible]	0.05	-*
[illegible]	[illegible]	0.06	*+
[illegible]	0.02	0.07	*+
0.03	0.03	0.06	*+
[illegible]	0.02	0.06	*+
0.03	0.03	0.06	*
0.01	0.01	0.05	*-
0.03	0.05	0.07	*+
0.03	[illegible]	0.05	*

DATE: 10/08/96 TIME: 7:59:23

0.03	0.03	0.06	*
0.03	0.03	0.07	*+
0.02	0.03	0.06	*+
[illegible]	0.08	0.13	-*+
0.05	0.05	0.07	*+
0.05	0.07	0.18	-*+
0.05	0.05	0.07	*+
0.05	0.05	0.07	*+
0.03	0.05	0.07	*+
0.05	0.03	0.07	*+
0.05	0.05	0.07	-*
0.03	0.05	0.07	*+
[illegible]	[illegible]	0.10	*+
[illegible]	[illegible]	0.13	-*+
[illegible]	[illegible]	0.12	-*
[illegible]	0.05	0.10	-*

DATE: 10/08/96 TIME: 8:54:57

885

	0.04	0.03	0.06
	0.03	0.05	0.07
	0.00	0.09	0.39
-	0.64	- 0.12	0.05
	0.00	0.03	0.07
-	0.01	0.05	0.07
	0.03	0.06	0.09
	0.03	0.06	0.12
	0.03	0.05	0.07
@	0.00	0.03	0.06

DATE: 10/08/96 TIME: 9:32:08

-	0.78	- 0.09	0.13
	0.03	0.06	0.18
	0.05	0.07	0.10
	0.06	0.07	0.12
@	0.10	0.13	0.16

DATE: 10/08/96 TIME: 11:40:45

	0.07	0.10	0.13
	0.10	0.15	0.25
	0.09	0.13	0.19
	0.07	0.13	0.24
	0.05	0.07	0.16
	0.06	0.09	0.12
	0.07	0.09	0.11
	0.12	0.15	0.21
	0.10	0.13	0.28
	0.10	0.12	0.27
	0.22	0.31	0.52
	0.19	0.93	1.75
	0.43	0.53	[illegible]
	0.25	0.34	0.43
@	0.21	0.36	0.42

DATE: 10/08/96 TIME: 14:01:48

	0.06	0.07	0.12
	0.08	0.10	0.13
	0.07	0.09	0.15
	0.09	0.10	0.16
	0.08	0.12	0.15
	0.10	0.10	0.25
	0.04	0.10	0.18
	0.07	0.16	0.47
	0.07	0.09	0.13
	0.05	0.06	0.07
	0.05	0.07	0.19
	0.12	0.21	0.40
	0.06	0.09	0.16
	0.05	0.09	0.13
	0.06	0.09	0.12
@	0.06	0.07	0.10

DATE: 10/08/96 TIME: 15:28:46

	0.06	0.06	0.10
	0.05	0.07	0.12
	0.06	0.09	0.12
	0.06	0.07	0.12
	0.05	0.06	0.10
	0.06	0.07	0.12
	0.07	0.10	0.15
	0.07	0.10	0.18
	0.07	0.10	0.13
	0.07	0.09	0.13
	0.06	0.09	0.13

887

0.07	0.10	0.12	*+
0.07	0.09	0.12	*
0.11	0.12	0.22	* +
0.07	0.09	0.12	*
0.07	0.16	0.36	-* +
0.10	0.16	0.22	-*+
0.06	0.07	0.12	*
0.06	0.06	0.07	*

DATE: 13/08/96 TIME: 15:48:46

0.06	0.06	0.09	*
0.05	0.06	0.07	-*
0.05	0.06	0.07	-*
0.05	0.05	0.07	*+
0.04	0.05	0.10	*+
0.03	0.05	0.07	*+
0.03	0.05	0.07	*+
0.02	0.05	0.05	*+

DAMES & MOORE
7101 Wisconsin Avenue, Suite 700
Bethesda, Maryland 20814-4870
(301) 652-2215 FAX (301) 656-8059

CHAIN-OF-CUSTODY RECORD

№ ~~2008~~ 433

JOB NO:

PROJECT NAME-CLIENT: Ft. Drum - Bldg T-4002

SAMPLER (Signature): Stephen C. Lau

~~SAMPLE NO.~~	~~Date~~	~~Time~~	~~Comp.~~	~~Grab~~	~~Matrix~~	SAMPLE # ~~Station Number and Location~~	Total No. of Containers	NIOSH 7300 (Lead by ICP)	NIOSH 5001 (2,4-D and 2,4,5-T)	NIOSH 5274M (DDD; DDE; and DDT)							Volume (Liters)
						FD-100896-PH2-A-005	1	✓									583.20
						-B-005	1		✓								186.30
						-C-005	1			✓							194.40

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Stephen C. Lau	10-8-96 1700				

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Report Results To:
				FAX: 315-773-2873 Phone: 301-652-2215 (ext. 271)

DISTRIBUTION:
White: Accompanies Shipment
Yellow: Project Files
Pink: Field Log
Gold: QA Files

Dames & Moore

889

DAMES MOORE
7101 Wisconsin Avenue, Suite 700
Bethesda, Maryland 20814-4870
(301) 652-2215 FAX (301) 656-8059

CHAIN-OF-CUSTODY RECORD

№ ~~2008~~ 432

JOB NO:

PROJECT NAME-CLIENT: Ft. Drum - Bldg T-4002

SAMPLER (Signature): Steph C. Lan

SAMPLE NO.	Date	Time	Comp.	Grab	Matrix	SAMPLE # ~~Station Number and Location~~	Total No. of Containers	NIOSH 7300 (Lead by ICP)	NIOSH 5001 (2,4-D; and 2,4,5-T)	NIOSH 5274M (DDD; DDE; and DDT)								REMARKS Volume (Liters)
						FD-100896-PH2-A-001	1	✓										717.60
						-A-002		✓										694.54
						-A-003		✓										666.00
						-A-003		✓										664.24
						-B-001			✓									225.40
						-B-002			✓									239.03
						-B-003			✓									235.32
						-B-004			✓									209.76
						-C-001				✓								225.40
						-C-002				✓								243.54
						-C-003				✓								230.88
						-C-004				✓								205.36

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Steph C. Lan	10-9-96 1700				
Relinquished by: (Signature)	**Date/Time**	**Received for Laboratory by: (Signature)**	**Date/Time**	**Report Results To:** FAX: 315-773-2873 Phone: 301-652-2215 (ext. 271)	

DISTRIBUTION:
White: Accompanies Shipment
Yellow: Project Files
Pink: Field Log
Gold: QA Files

Dames & Moore

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SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 10-9-96 Start Time: 0640 Completion Time: 0650

Location: Building T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Soil excavation

Protective Clothing/Equipment: Level D + overboots

Chemical Hazards: Pesticides

Physical Hazards: Slips, trips, falls, equipment, slippery surface.

Control Methods: PPE, site hygiene, equipment clearance, caution on slick surfaces

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
Gary Ray	
R Bailey	
D. Truslow	
M. Husam	
P. Weilersbacher	

895

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 10-9-96

Inspector: Stephen Lanham

Site Conditions, Weather: Clouds, slight rain, wind W→E, 1-3mph

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?	✓		
All drums and containers inspected for structural integrity before moving?	✓		
Personnel warned of the potential hazards associated with the contents of containers prior to movement?	✓		
Containers moved using appropriate mechanical devices to avoid injury?	✓		
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?	✓		
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?	✓		
SSHP decontamination procedures observed?	✓		
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?	✓		
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?	✓		
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are unauthorized personnel denied access to decontamination areas, decontamination equipment and change rooms?	✓		
Are washing facilities away from hazardous substances and adequate to permit personnel to remove hazardous substances from their bodies?	✓		
Are decontamination solution(s), equipment and clothing properly marked and left on-site or disposed of?	✓		
DRILLING			
Have proper underground utility clearances been obtained?	✗		✓
Have overhead utility clearances been considered?			
Flammable liquids in approved containers?			
Emergency rig shutoff within reach of the operator?			
Appropriate fire shutoff within reach of the operator?			
Drilling platform properly stabilized?			
Ropes and chains in good condition?			✓
EXCAVATION			
Have proper utility clearances been obtained?	✓		
Has the On-site Competent Person been identified and is present?	✓		
Are daily trench inspections being conducted (or more frequently, as conditions warrant)?	✓		
Support systems (piling, cribbing, shoring) appropriate for the job? Sloping	✓		
Is there suitable access by stairs, ladders, ramps, hoists?	✓		
Appropriate guardrails, fences, barricades and warning lights?	✓		
MISCELLANEOUS SAFETY PROCEDURES			
If site work is anticipated in dimly lighted areas, is additional lighting provided?			✓
Is potable water labeled as safe for drinking?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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901

INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York

October 9, 1996

Instrument(s): Dust, PID

Serial No.(s):

Technician's Signature: [illegible]

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0730	Dust	Factory →		G	SCL	MIE DUM-3 SN: 4017
	"	Zero →		"	"	"
	PID	—	100 ppm → 57 ppm	"	"	HNU PI 101 SN: 101238
	"	Ambient	Zero	"	"	—
1630	Dust	Factory →		—	—	—
	PID	—	100 ppm → 57 ppm	—	—	—
	"	Ambient	Zero	—	—	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

LEL 903

INSTRUMENT CALIBRATION CHECK SHEET

October 9, 1996

Building T4002
Fort Drum, New York

Instrument(s): IS HMX 271

Serial No.(s): 8903092-200

Technician's Signature: Steve C2

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0730	O_2	Ambient	20.9%	G	SCL	—
	LEL	21.4%	21.4%	"	"	—
1635	O_2	Ambient	20.9%	—	—	—
	LEL	21.4%	21.4%	—	—	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-9-96

Field Activities: Soil excavation

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 1-3 mph

Technician Signature: Stephen C. Zank

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100996-001	0830	1	Station 1	0.02	Dust
"	"	"	"	0.0	PID
-002	0832	"	Station 4	0.02	D
"	"	"	"	0.0	P
-003	0833	"	Station 3	0.04	D
"	"	"	"	0.0	P
-004	0835	"	Station 2	0.04	D
"	"	"	"	0.0	P
-005	0837	"	Box loading downwind	0.02	D
"	"	"	"	0.0	P
-006	0947	"	Station 1	0.02	D
"	"	"	"	0.0	P
-007	0949	"	Station 4	0.03	D
"	"	"	"	0.0	P
-008	0951	"	station 3	0.02	D
"	"	"	"	0.0	P

905

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-9-96

Field Activities: Soil excavation

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 1-3 mph

Technician Signature: Stephen C. Lam

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100996-009	0954	1	Station 2	0.02	Dust
"	"	"	"	0.0	PID
-010	0956	"	Box loading downwind	0.02	D
"	"	"	"	0.0	P
-011	1045	"	Station 1	0.04	D
"	"	"	"	0.0	P
-012	1047	"	Station 4	0.02	D
"	"	"	"	0.0	P
-013	1049	"	Station 3	0.02	D
"	"	"	"	0.0	P
-014	1051	"	Station 2	0.02	D
"	"	"	"	0.0	P
-015	1053	"	Box loading downwind	0.02	D
"	"	"	"	0.0	P
-016	1335	"	Box loading, downwind	0.04	
"	"	"	"	0.0	

907

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-9-96

Field Activities: Soil excavation

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 1-3 mph

Technician Signature: Steph C. Tan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100996-017	1338	1	Station 1	0.02	Dust
"	"	"	"	0.0	PID
-018	1340	"	Station 2	0.02	D
"	"	"	"	0.0	P
-019	1343	"	Station 3	0.08	D
"	"	"	"	0.0	P
-020	1345	"	Station 4	0.09	D
"	"	"	"	0.0	P
-021	1515	"	Box loading, downwind	0.04	D
"	"	"	"	0.0	P
-022	1517	"	Station 2	0.04	D
"	"	"	"	0.0	P
-023	1519	"	Station 3	0.03	D
"	"	"	"	0.0	P
-024	1522	"	Station 4	0.04	D
"	"	"	"	0.0	P

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-9-96

Field Activities: Soil excavation

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 1-3 mph

Technician Signature: Stephen C. Zank

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100996-025	1525	1	Station 1	0.04	Dust
"	"	"	"	0.0	PID

016

LEL

REAL TIME AIR MONITORING DATA SHEET

Building T4002
Fort Drum, New York

Date: 10-9-96

Field Activities: Soil excavation

Wind Direction: W → E

Instrument, Model & Serial No.: 3092092-200

Estimated Wind Speed: 1-3 mph

Technician Signature: Steph C. 2

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
100996-LEL1	0800	1	Soil excavation	20.9%	O2/LEL
-LEL2	0850	"	" "	20.9%	"
-LEL3	0930	"	" "	20.8%	"
-LEL4	1030	"	" "	20.9%	"
-LEL5	1115	"	" "	20.9%	"
-LEL6	1300	"	" "	20.9%	"
-LEL7	1400	"	" "	20.9%	"

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-9-96
Phase: Soil Removal
Activity: Soil excavation
Industrial Hygienist: Stephen C. Gant

Comments: (Weather, wind condition, etc.)
Cloudy, drizzle, wind W→E, 1-3 mph

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-100996-PH2-A-001	Station 1	5432	0905	1620	435	1.51	1.51	1.51	656.85	
-B-001	"	3812	"	"	"	0.52	0.52	0.52	226.20	
-C-001	"	"	"	"	"	0.54	0.54	0.54	234.90	
-A-002	Station 2	5408	0907	1605	418	1.52	1.52	1.52	635.36	
-B-002	"	3813	"	"	"	0.54	0.54	0.54	225.72	
-C-002	"	"	"	"	"	0.54	0.53	0.53	221.54	
-A-003	Station 3	5366	0909	1613	424	1.52	1.52	1.52	644.48	
-B-003	"	3807	"	"	"	0.46	0.46	0.46	195.04	
-C-003	"	"	"	"	"	0.48	0.48	0.48	203.52	
-A-004	Station 4	5438	0906	1625	439	1.53	1.53	1.53	671.67	
-B-004	"	5	"	"	"	0.48	0.47	0.47	206.33	
-C-004	"	"	"	"	"	0.47	0.47	0.47	206.33	

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-9-96

Phase: Soil Removal

Activity: Soil excavation

Industrial Hygienist: Steph C. Ze

Comments: (Weather, wind condition, etc.)
Cloudy, drizzle, wind W→E, 1-3 mph

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-100996-PH2-A-003D	Station 3 (COE Dup.)	5506	0909	1610	421	1.56	1.53	1.53	644.13	
-B-003D	"	3811	"	"	"	0.50	0.50	0.50	210.50	
-C-003D	"	"	"	"	"	0.48	0.48	0.48	202.08	

919

10-9-96

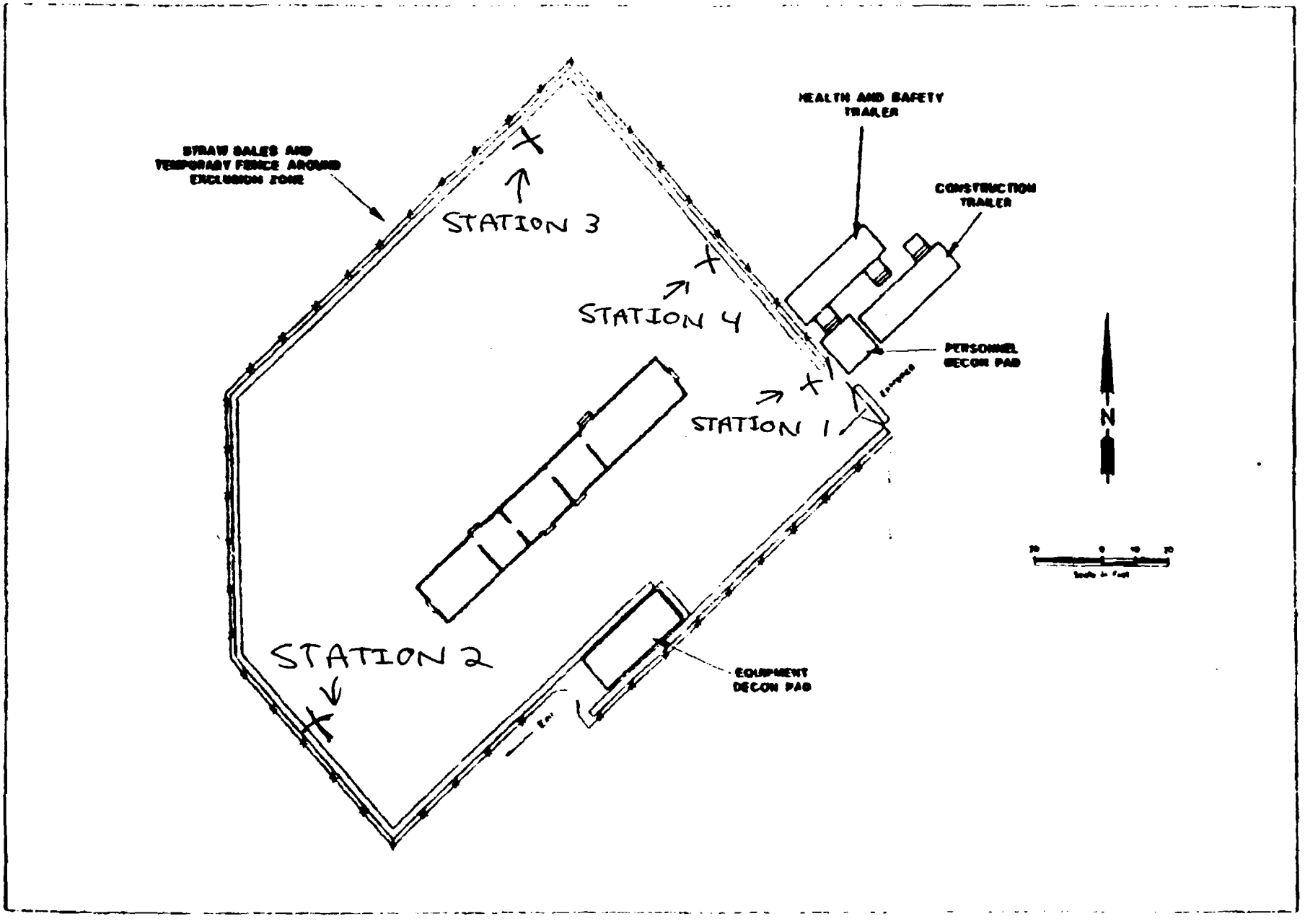

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

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923

MIE INC. Model PDL-10 SN 2332 V5.2 4/89

CURRENT DATE: 10/09/96
CURRENT TIME: 16:34:01

CALIBRATION
0.017 V = 0.00 mg/m3
0.209 V = 14.20 mg/m3

LOWER ALARM: - 1.26 mg/m3
UPPER ALARM: - 1.26 mg/m3

UNITS: mg/m3

INPUT READS:- 1.29 mg/m3
TEST STARTING DATE: 10/09/96
TEST STARTING TIME: 9:43:31
ELAPSED TIME: 0 DAYS 2:57:40
OVERALL AVG: 0.09 mg/m3
OVERALL MIN: 0.0[illegible] mg/m3
MIN OCCURRED 10/09/96 @ [illegible]
OVERALL MAX: 0.34 mg/m3
MAX OCCURRED 10/09/96 @ 10:59:[illegible]
STEL: 0.18 mg/m3
STEL OCCURRED 10/09/96 @ 12:19:06

925

MIE INC. Model PDL-10 SN 2332 V5.2 4/89

CURRENT DATE: 10/09/96
RENT TIME: 16:34:27

CALIBRATION
0.017 V = 0.00 mg/m3
0.200 V = 14.20 mg/m3

LOWER ALARM: - 1.26 mg/m3
UPPER ALARM: - 1.26 mg/m3

UNITS: mg/m3

[illegible]
PERIOD LENGTH: 0:01:00
OF PERIODS COMBINED: 1

MIN	AVG	MAX
DATE: [illegible]	[illegible]	[illegible]
0.05	0.06	0.10
0.05	0.07	0.10
0.05	0.06	0.10
0.02	0.09	0.16
0.05	0.06	0.09
0.07	0.07	0.10
0.05	0.05	0.07
0.[illegible]	0.06	0.10
0.0[illegible]	0.06	0.09
[illegible]	0.06	0.16
0.05	0.06	0.12
[illegible]	[illegible]	[illegible]
[illegible]	0.06	0.15
0.03	0.06	0.09
0.03	0.06	0.15
0.03	0.07	0.15
0.03	0.06	0.12
0.0[illegible]	0.03	0.10
0.03	0.05	0.09
0.05	0.06	0.10
DATE: 10/09/96	TIME: 10:03:31	
0.05	0.05	0.07
0.05	0.05	0.10
[illegible]	0.09	0.25
0.0[illegible]	0.06	0.09
0.05	0.05	0.09
0.05	0.05	0.07
0.05	0.05	0.07
0.05	0.06	0.13
0.05	0.05	0.07
0.05	0.06	0.09
0.05	0.06	0.12
0.05	0.06	0.10
0.05	0.06	0.12
0.0[illegible]	0.07	0.12
0.09	0.10	0.15
0.06	0.10	0.16
0.05	0.06	0.09

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0.05	0.06	0.10	
0.05	0.06	0.10	

DATE: 10/09/96 TIME: 10:23:31

0.06	0.07	0.22	
0.07	0.12	0.24	
0.05	0.07	0.13	
0.05	0.07	0.12	
0.05	0.07	0.13	
0.05	0.09	0.13	
0.05	0.10	0.11	
0.06	0.09	0.13	
0.06	0.09	0.12	
0.06	0.07	0.12	
0.05	0.07	0.10	
0.05	0.07	0.13	
0.06	0.07	0.13	
0.05	0.09	0.15	
0.06	0.09	0.15	
0.05	0.07	0.15	
0.05	0.09	0.16	
0.05	0.06	0.10	
0.06	[illegible]	0.11	
0.05	0.07	0.12	

DATE: 10/09/96 TIME: 10:43:31

0.06	0.07	0.12	
0.05	0.07	0.12	
0.05	0.10	0.24	
0.06	0.07	0.12	
0.07	0.13	0.27	
0.05	0.07	0.13	
0.05	0.09	0.12	
0.05	0.06	0.10	
0.05	[illegible]	[illegible]	
0.05	0.07	0.12	
0.05	0.06	0.09	
0.05	0.09	0.14	
0.05	0.09	0.13	
0.07	0.10	0.15	
0.07	0.12	0.25	
0.09	0.15	0.34	
@ 0.07	0.12	0.21	

DATE: 10/09/96 TIME: 12:00:36

0.07	0.09	0.10	
0.06	0.07	0.10	
0.07	0.09	0.12	
0.07	0.09	0.12	
0.09	0.10	0.15	
0.10	0.12	0.15	
0.07	0.09	0.13	
0.07	0.10	0.16	
0.07	0.10	0.13	
0.07	0.09	0.13	
0.06	0.09	0.13	
0.09	0.10	0.15	
0.09	0.12	0.16	
0.07	0.09	0.12	
0.05	0.10	0.15	
0.05	0.07	0.13	
0.06	0.09	0.12	
0.06	0.09	0.19	
0.06	0.09	0.16	
0.05	0.09	0.13	

DATE: 10/09/96 TIME: 12:20:36

0.07	0.12	0.15	- * +
0.07	0.12	0.18	- * +
0.06	0.10	0.13	- * +
0.07	0.12	0.16	- * +
0.05	0.09	0.19	- * +
0.07	0.12	0.21	- * +
0.10	0.10	0.16	* +
0.02	0.06	0.12	- * +
0.09	0.12	0.15	- * +
0.06	0.09	0.13	- * +
0.07	0.10	0.13	- * +
0.07	0.10	0.13	- * +
0.31	0.10	0.18	- * +
0.0	0.12	0.19	- * +
0.07	0.09	0.12	- * +
0.06	0.10	0.15	- * +
0.07	0.10	0.15	- * +
0.06	0.09	0.13	- * +
0.05	0.08	0.15	- * +
0.08	0.07	0.19	- * +

DATE: 10/09/96 TIME: 12:40:36

0.10	0.12	0.15	- * +
0.07	0.10	0.16	- * -
0.07	0.02	0.12	- * +
0.0	0.20	0.18	- * +
0.	[illegible]	[illegible]	- * -
0.01	0.01	0.11	- * +
0.21	0.09	0.13	- * +
0.02	0.09	0.12	- * +
0.06	0.07	0.13	- * +
0.08	0.09	0.13	- * +
0.07	0.09	0.12	- * +
0.09	0.09	0.13	- * +
0.01	0.11	0.16	- * +
0.09	0.12	0.15	- +
[illegible]	0.12	0.16	- + +
0.10	0.12	0.12	- * +
0.05	0.10	0.16	-
0.12	0.13	0.18	- * +
0.12	0.13	0.16	- * +
0.10	0.12	0.18	- * +

DATE: 10/09/96 TIME: 13:00:36

0 0.10	0.13	0.19	- * +

DATE: 10/09/96 TIME: 13:31:37

0.07	0.10	0.19	- * +
0.07	0.09	0.16	- * +
0.07	0.07	0.10	* +
0.10	0.12	0.18	- * +
0.13	0.12	0.19	- * +
0.13	0.16	0.21	- * +
0.12	0.15	0.24	- * +
0.10	0.13	0.24	- * +
0.13	0.15	0.21	-* +
0.12	0.15	0.24	- * +
0.07	0.10	0.13	- * +
0.2	0.10	0.12	- * +
0.1	0.13	0.18	- * +
0.1	0.10	0.18	- * +
0 0.1	0.15	0.18	- * +

DATE: 10/09/96 TIME: 15:09:48

0.09	0.10	0.15	- * +

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0.07	0.07	0.10	
0.06	0.07	0.10	
0.06	0.07	0.10	
0.05	0.06	0.07	
0.06	0.09	0.15	
0.06	0.06	0.10	
0.05	0.06	0.12	
0.07	0.10	0.15	
0.06	0.08	0.12	
0.07	0.10	0.16	
0.10	0.15	0.24	
0.06	0.12	0.18	
0.07	0.10	0.15	
0.07	0.10	0.15	
0.09	0.12	0.16	
0.07	0.09	0.13	
0.06	0.09	0.13	
0.07	0.10	0.16	
0.07	0.10	0.13	

DATE: 10/09/96 TIME: 15:29:46

0.09	0.12	0.15	
0.07	0.10	0.15	
0.09	0.13	0.19	
0.10	0.12	0.16	
0.12	0.12	0.18	
0 0.12	0.15	0.19	

No site work performed
- Boxes not available

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SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 10-15-96 Start Time: 0700 Completion Time: 0715

Location: Building T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Soil removal

Protective Clothing/Equipment: Level D + overboots

Chemical Hazards: Pesticides

Physical Hazards: Slips, trips, falls, equipment

Control Methods: Site hygiene, equipment clearance

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
GARY RAY	[illegible]
DONNIE TROSLOW	[illegible]
[illegible] MARSILLO	[illegible]
Peter Weilersbacher	[illegible]

HEALTH & SAFETY INSPECTION FORM

935

Project/Number: Building T4002, Fort Drum, New York Date: 10-15-96

Inspector: Stephen Lanham

Site Conditions, Weather: Sunny, 35-40°F, wind 3-5mph, W→E

NO site work; Boxes not available

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?			
Site security and control measures evident in the field?			
Site work zones clearly defined on-site?			
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?			
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?			
Emergency phone numbers conspicuously posted at site?			
Informational Programs			
Site health and safety briefings held and documented?			
OSHA poster (where required)			
Have accident reports been properly completed in a timely fashion?			
Is OSHA 200 log posted (as applicable) and does it match accident reports?			
Does written inventory of chemicals match those that are present?			
Are MSDSs available for every chemical listed/used?			
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?			

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?			
Air monitoring log available and current?			
Does monitoring log reflect excursions above action levels?			
Has personal sampling been performed?			
Have any exposure symptoms been reported?			
HEAT STRESS MONITORING			
Has heat stress monitoring been implemented?			
Are work/rest regimens established/followed?			
Are pulse rate and oral temperature taken?			
Monitoring log available and current?			
Any heat stress incidents?			
Are personnel aware of symptoms/first aid?			
Are ambient temperature readings logged?			
Are emergency medical treatment and first aid available to personnel?			
PERSONAL PROTECTIVE EQUIPMENT			
All PPE called for in HSP available?			
Is there sufficient PPE available for the personnel involved in the performance of site operations?			
Is PPE used in accordance with SHP?			
Has PPE been upgraded or downgraded?			
Is the PPE in place adequate for the chemical and physical hazards on-site?			
Is there a need to modify the PPE requirements?			
All personnel appropriately taped-up?			

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?			
If there are overhead hazards on-site, do personnel war hard hat in these work areas?			
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?			
All drums and containers inspected for structural integrity before moving?			
Personnel warned of the potential hazards associated with the contents of containers prior to movement?			
Containers moved using appropriate mechanical devices to avoid injury?			
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?			
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?			
Site safety and health supervisor monitor decontamination procedures?			
SSHP decontamination procedures observed?			
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?			
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?			
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?			
Is the proper order to PPE removal observed?			
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			
If there are fewer than 20 people on-site, is there a minimum of one toilet available?			
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			
Is food handled in accordance with local food handling regulations?			
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			
Compressed gas cylinders in safe condition?			
Electrical equipment intrinsically safe? (for potential explosive atmospheres)			
OVERALL			
Any gross unsafe activities observed?			
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?			

Additional Information

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SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 10-16-96 Start Time: 0920 Completion Time: 0935

Location: Building T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Soil excavation, Box loading

Protective Clothing/Equipment: Level D + overboots

Chemical Hazards: Pesticides

Physical Hazards: Slips, trips, falls, equipment

Control Methods: PPE, site hygiene, decon.

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
Dennis Troslan	[illegible]
Gary Ray	[illegible]

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HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 10-16-96

Inspector: Stephen Lanham

Site Conditions, Weather: Cloudy; 50-55°F; Wind W→E, 3-5mph

Soil Loading

	YES	NO	NA
ADMINISTRATIVE			
Site Control	X		
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?	✓		
Air monitoring log available and current?	✓		
Does monitoring log reflect excursions above action levels?		✓	
Has personal sampling been performed?		✓	
Have any exposure symptoms been reported?		✓	
HEAT STRESS MONITORING			
Has heat stress monitoring been implemented?			✓
Are work/rest regimens established/followed?			✓
Are pulse rate and oral temperature taken?			✓
Monitoring log available and current?			✓
Any heat stress incidents?		✓	
Are personnel aware of symptoms/first aid?	✓		
Are ambient temperature readings logged?			✓
Are emergency medical treatment and first aid available to personnel?	✓		
PERSONAL PROTECTIVE EQUIPMENT			
All PPE called for in HSP available?	✓		
Is there sufficient PPE available for the personnel involved in the performance of site operations?	✓		
Is PPE used in accordance with SHP?	✓		
Has PPE been upgraded or downgraded?		✓	
Is the PPE in place adequate for the chemical and physical hazards on-site?	✓		
Is there a need to modify the PPE requirements?		✓	
All personnel appropriately taped-up?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?	✓		
All drums and containers inspected for structural integrity before moving?	✓		
Personnel warned of the potential hazards associated with the contents of containers prior to movement?	✓		
Containers moved using appropriate mechanical devices to avoid injury?	✓		
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?	✓		
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?	✓		
SSHP decontamination procedures observed?	✓		
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?	✓		
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?	✓		
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York

10-16-96

Instrument(s): PID, Dust

Serial No.(s):

Technician's Signature: Steph C. Fank

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
1000	PID	~~Amb~~	100 ppm → 5 ppm	G	SCL	HNU PI101 SN: 101238
	"	Ambient	Zero	"	"	"
	Dust	Factory →		"	"	MIE PDM-3 SN: 4017
	"	Ambient	Zero	"	"	"
1745	PID	-	100 ppm → 5 ppm	—	—	—
	"	Ambient	Zero	—	-	-
	Dust	Factory →		—	—	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

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INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York

10-16-96

Not used; No excavation

Instrument(s): LEL

Serial No.(s):

Technician's Signature: [illegible] CS

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
1015	O_2	20.9	20.9	G	SCL	ID: [illegible] SN: 3098092-200
	LEL	21.4	21.4	"	"	"
1745	O_2	20.9	20.9	–	–	–
	LEL	21.4	21.4	–	–	–

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-16-96

Field Activities: Soil excavation + loading

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 3-5 mph

Technician Signature: [signature]

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
101696-001	1105	1	Downwind Box loading	0.08	Dust
"	"	"	"	0.0	PID
-002	1107	"	Station 2	0.13	D
"	"	"	"	0.0	P
-003	1109	"	Station 3	0.10	D
"	"	"	"	0.0	P
-004	1112	"	Station 4	0.08	D
"	"	"	"	0.0	P
-005	1115	"	Station 1	0.10	D
"	"	"	"	0.0	P
-006	1205	"	Box loading downwind	0.09	D
"	"	"	"	0.0	P
-007	1208	"	Station 3	0.10	D
"	"	"	"	0.0	P
-008	1210	"	Station 4	0.12	D
"	"	"	"	0.0	P

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-16-96

Field Activities: Soil excavation and loading

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 3-5 mph

Technician Signature: Steph C. Lam

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
101696-009	1215	1	Station 1	0.10	Dust
"	"	"	"	0.0	PID
-010	1219	"	Station 2	0.10	D
"	"	"	"	0.0	P
-011	1315	"	Box loading, downwind	0.10	
"	"	"	"	0.0	
-012	1317	"	Station 3	0.12	
"	"	"	"	0.0	
-013	1319	"	Station 4	0.09	
"	"	"	"	0.0	
-014	1322	"	Station 5	0.04	
"	"	"	"	0.0	
-015	1325	"	Station 1	0.04	
"	"	"	"	0.0	
-016	1435	"	Box loading, downwind	0.08	
"	"	"	"	0.0	

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-16-96

Field Activities: Soil excavation loading

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 3-5 mph

Technician Signature: Stephen C. Lank

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Results/ Units	Comments/Recommendations
101696-017	1438	1	Station 4	0.08	Dust
"	"	"	"	0.0	PID
-018	1439	"	Station 3	0.04	
"	"	"	"	0.0	
-019	1441	"	Station 2	0.09	
"	"	"	"	0.0	
-020	1444	"	Station 1	0.06	
"	"	"	"	0.0	
-021	1630	"	Box loading, downwind	0.02	
"	"	"		0.0	
-022	1632	"	Station 3	0.04	
"	"	"	"	0.0	
-023	1634	"	Station 4	0.02	
"	"	"	"	0.0	
-024	1637	"	Station 1	0.01	
"	"	"	"	0.0	

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-16-96

Field Activities: Soil excavation + loading

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: 3 - 5 mph

Technician Signature: Steph C. Yarla

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
101696-025	1640	1	Station 2	0.01	Dust
"	"	"	"	0.0	PID
-026	~~1641~~ 1715	"	Boxloading, downwind	0.01	
"	~~1642~~ "	"	"	0.0	
-027	~~1643~~ 1717	"	Station 3	0.02	
"	"	"	"	0.0	
-028	~~1644~~ 1719	"	Station 4	0.03	
"	"	"	"	0.0	
-029	~~1645~~ 1721	"	Station 1	0.01	
"	"	"	"	0.0	
-030	1725	"	Station 2	0.01	
"	"		"	0.0	

INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-16-96

Phase: Phase II Soil Removal

Activity: Soil excavation + loading

Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Cloudy, 50-50°F, still wind

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FO-101696-RH2-A-001	Station 1	5432	1050	1725	395	1.55	1.55	1.55	612.25	
-B-001	"	3807	"	"	"	0.46	0.45	0.45	177.75	
-C-001	"	"	"	"	"	0.49	0.47	0.47	185.65	
-A-002	Station 2	5438	1055	1710	375	1.57	1.55	1.55	581.25	
-B-002	"	3811	"	"	"	0.51	0.51	0.51	191.25	
-C-002	"	"	"	"	"	0.49	0.48	0.48	180.00	
-A-003	Station 3	5408	1048	1720	392	1.53	1.52	1.52	595.84	
-B-003	"	3813	"	"	"	0.55	0.54	0.54	211.68	
-C-003	"	"	"	"	"	0.55	0.55	0.55	215.60	
-A-004	Station 4	5506	1045	1715	390	1.58	1.56	1.56	608.40	
-B-004	"	3812	"	"	"	0.53	0.52	0.52	202.80	
-C-004	"	"	"	"	"	0.54	0.54	0.54	210.60	

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-16-96
Phase: Phase II Soil Removal
Activity: Soil excavation + loading
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Cloudy, 50-55 °F, still wind

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD			FLOW RATE (L/MIN)			TOTAL VOLUME (L)	COMMENTS
			START TIME	STOP TIME	TOTAL MIN.	START	STOP	RECORDED		
FO-101696-PH2-A-003D	Station 3 (QEDup.)	5366	1048	1717	391	1.55	1.54	1.54	602.14	
-B-003D	"	5	"	"	"	0.48	0.47	0.47	183.77	
-C-003D	"	5	"	"	"	0.47	0.47	0.47	183.77	

10-16-96

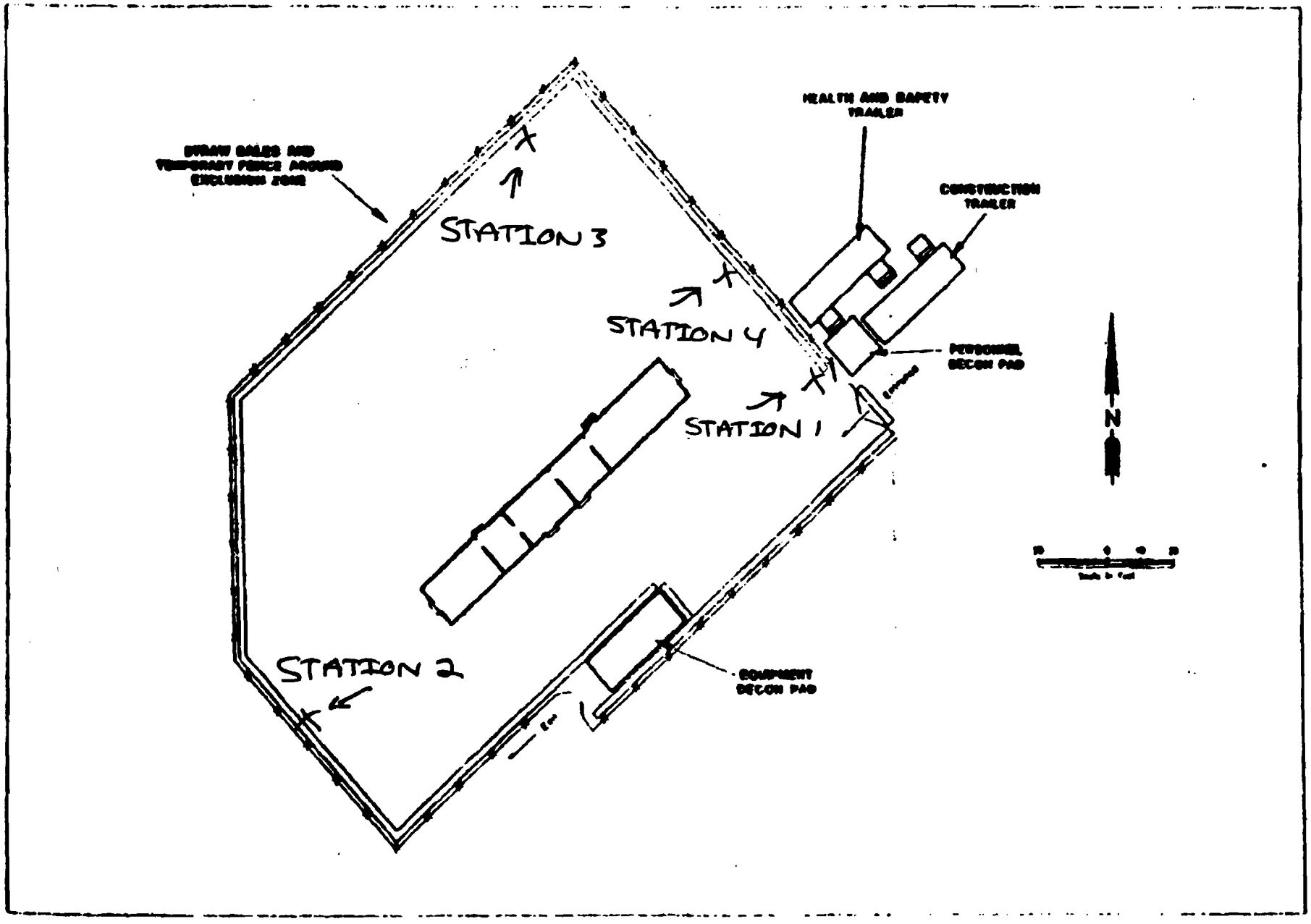

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

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MIE INC. Model PDL-10 SN 2332 V5.2 4/89

CURRENT DATE: 10/16/96
CURRENT TIME: 17:57:17

CALIBRATION
0.017 V = 0.00 mg/m3
0.209 V = 14.[illegible] mg/m3

LOWER ALARM: - 1.26 mg/m3
UPPER ALARM: - 1.26 mg/m3

UNITS: mg/m3

INPUT READS:- 1.12 mg/m3
TEST STARTING DATE: 10/16/96
TEST STARTING TIME: 11:07:39
ELAPSED TIME: 0 DAYS 3:07:47
OVERALL AVG: 0.12 mg/m3
OVERALL MIN: 0.06 mg/m3
MIN OCCURRED 10/16/96 @ 12:22:23
OVERALL MAX: 0.42 mg/m3
MAX OCCURRED 10/16/96 @ 13:36:34
STEL: 0.16 mg/m3
STEL OCCURRED 10/16/96 @ 14:[illegible]

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MIE INC. Model PDL-10 SN 2332 V5.2 4/89

AGENT DATE: 10/16/96
AGENT TIME: 17:57:45

CALIBRATION
0.017 V = 0.00 mg/m3
0.209 V = 14.20 mg/m3

LOWER ALARM: - 1.26 mg/m3
UPPER ALARM: - 1.26 mg/m3

UNITS: mg/m3

TIME HISTORY
PERIOD LENGTH: 0:01:00
OF PERIODS COMBINED: 1

	MIN	AVG	MAX
DATE: 10/16/96 TIME: 11:07:39			
	0.09	0.10	0.15
	0.09	0.12	0.18
	0.10	0.12	0.1[illegible]
	0.12	0.16	0.25
	0.12	0.15	0.2[illegible]
	0.10	0.12	0.15
	0.10	0.12	0.16
	0.12	0.12	0.16
	0.10	0.12	0.15
@	0.10	0.12	0.15
DATE: 10/16/96 TIME: 11:56:57			
	0.09	0.10	0.13
	0.10	0.12	0.15
	0.10	0.12	0.18
	0.10	0.12	0.12
	0.10	0.13	0.19
	0.10	0.12	0.15
	0.12	0.13	0.18
	0.12	0.13	0.19
	0.12	0.13	0.15
	0.12	0.15	0.27
	0.12	0.13	0.15
	0.10	0.13	0.18
	0.10	0.12	0.16
	0.12	0.13	0.18
	0.12	0.13	0.19
	0.10	0.12	0.18
	0.10	0.12	0.16
	0.10	0.12	0.16
	0.12	0.13	0.18
	0.10	0.12	0.15
DATE: 10/16/96 TIME: 12:16:57			
	0.09	0.10	0.13
	0.10	0.12	0.16
	0.07	0.10	0.15
	0.10	0.12	0.15
	[illegible]	[illegible]	[illegible]

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	0.07	0.09	0.12	- * +
	0.09	0.10	0.13	-* +
@	0.07	0.09	0.10	- *+

DATE: 10/16/96 TIME: 13:20:46

	0.12	0.13	0.18	- * +
	0.10	0.13	0.19	- * +
	0.10	0.13	0.18	- * +
	0.10	0.13	0.19	- * +
	0.13	0.13	0.18	* +
	0.12	0.15	0.19	- * +
	0.10	0.12	0.13	- * +
	0.12	0.13	0.19	- * +
	0.10	0.12	0.15	- * +
	0.10	0.10	0.13	* +
	0.12	0.13	0.18	- * +
	0.12	0.13	0.15	- *+
	0.12	0.16	0.21	- * +
	0.12	0.13	0.21	- * +
	0.12	0.13	0.18	- * +
	0.13	0.21	0.42	- * +
	0.15	0.22	0.34	- * +
	0.15	0.18	0.22	- * +
	0.15	0.18	0.21	- * +
	0.15	0.18	0.21	- * +

DATE: 10/16/96 TIME: 13:40:46

	[illegible]	[illegible]	0.19	-* +
	0.10	0.18	0.24	- * +
	0.15	0.19	0.25	- * +
	0.13	0.16	0.21	- * +
	0.13	0.16	0.21	- * +
	0.13	0.16	0.21	- * +
	0.13	0.15	0.18	-* +
	0.13	0.15	0.24	-* +
	0.13	0.16	0.19	- * +
	0.12	0.15	0.21	- * +
	0.13	0.16	0.21	- * +
	0.12	0.13	0.18	- * +
	0.13	0.15	0.21	-* +
	0.13	0.13	0.19	* +
@	0.13	0.13	0.15	*+

DATE: 10/16/96 TIME: 14:23:56

	0.09	0.12	0.15	- * +
	0.10	0.12	0.15	- * +
	0.09	0.10	0.15	-* +
	0.07	0.12	0.15	- * +
	0.10	0.12	0.18	- * +
	0.10	0.12	0.21	- * +
	0.09	0.13	0.18	- * +
	0.10	0.10	0.13	* +
	0.09	0.09	0.12	* +
	0.10	0.12	0.13	- * +
	0.10	0.12	0.15	- * +
	0.10	0.12	0.16	- * +
	0.09	0.10	0.12	-* +
	0.10	0.10	0.13	* +
	0.10	0.10	0.13	* +
	0.10	0.12	0.13	- * +
	0.10	0.12	0.13	- * +
	0.09	0.10	0.12	-* +
	0.12	0.12	0.15	* +
	0.10	0.12	0.18	- * +

0.09	0.10	0.13	-* +
0.10	0.12	0.15	- * +
0.07	0.10	0.13	- * +
0.09	0.10	0.12	-* +
0.07	0.10	0.13	- * +
0.09	0.10	0.12	-* +
0.10	0.10	0.13	* +
0.10	0.12	0.15	- * +
0.10	0.12	0.13	- * +
0.10	0.12	0.15	- * +
0.12	0.13	0.19	- * +
0.12	0.12	0.15	* +
0.10	0.12	0.15	- * +
0.10	0.10	0.12	* +
0.09	0.10	0.13	-* +
0.09	0.12	0.15	- * +
0.09	0.10	0.13	-* +
0.07	0.10	0.15	- * +
0.07	0.10	0.12	- * +

DATE: 10/16/96 TIME: 15:03:56

0.07	0.09	0.13	- * +
0.07	0.09	0.10	- *+
0.07	0.09	0.10	- *+
0.07	0.10	0.13	- * +
0.07	0.10	0.15	- * +
0.07	0.09	0.12	- * +
0.07	0.07	0.10	* +
0.07	0.07	0.10	* +

DATE: 10/16/96 TIME: 16:22:07

0.07	0.09	0.12	- * +
0.07	0.09	0.12	- * +
0.07	0.09	0.12	- * +
0.07	0.09	0.12	- * +
0.06	0.07	0.12	-* +
0.07	0.09	0.12	- * +
0.07	0.09	0.12	- * +
0.07	0.09	0.12	- * +
0.07	0.09	0.13	- * +
0.07	0.09	0.10	- *+
0.07	0.09	0.10	- *+
0.07	0.10	0.13	- * +
0.07	0.09	0.12	- * +
0.09	0.10	0.12	-* +
0.09	0.12	0.18	- * +
0.10	0.12	0.18	- * +
0.07	0.10	0.13	- * +
0.09	0.10	0.13	-* +
0.09	0.10	0.12	-* +
0.09	0.10	0.12	-* +

DATE: 10/16/96 TIME: 16:42:07

0.09	0.10	0.13	-* +
0.07	0.10	0.13	- * +
0.09	0.10	0.13	-* +
0.07	0.09	0.12	- * +
0.09	0.10	0.13	-* +
0.09	0.10	0.12	-* +
0.09	0.10	0.13	-* +
0.07	0.09	0.12	- * +
0.07	0.10	0.15	- * +
0.07	0.10	0.12	- * +

975

0.07	0.09	0.12	- * +
0.07	0.09	0.12	- * +
0.09	0.09	0.12	* +
0.07	0.09	0.12	- * +
0.07	0.09	0.12	- * +
0.07	0.09	0.12	- * +
0.07	0.09	0.12	- * +
0.07	0.09	0.12	- * +
0.07	0.09	0.12	- * +

DATE: 10/16/96 TIME: 17:02:07

0.07	0.09	0.12	- * +
0.07	0.09	0.12	- * +
0.07	0.07	0.12	* +
0.09	0.10	0.13	-* +
0.07	0.09	0.13	- * +
0.07	0.09	0.13	- * +
0.07	0.10	0.12	- * +
0.07	0.10	0.12	- * +
0.07	0.09	0.12	- * +
0.07	0.07	0.12	* +
0.07	0.07	0.10	* +
0.07	0.09	0.12	- * +
0.07	0.09	0.13	- * +
0.07	0.09	0.10	- *+
0.07	0.09	0.13	- * +
0.07	0.09	0.12	- * +
0.07	0.09	0.10	- *+
0.07	0.09	0.12	- * +
0.07	0.09	0.12	- * +
0.07	0.09	0.12	- * +

DATE: 10/16/96 TIME: 17:22:07

0.07	0.09	0.12	- * +
0.07	0.07	0.10	* +
0.07	0.07	0.10	* +
0.07	0.09	0.12	- * +
0.07	0.10	0.12	- * +
0.09	0.10	0.12	-* +
0.09	0.10	0.13	-* +
0.09	0.10	0.12	-* +

977

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 10-17-96 Start Time: 0700 Completion Time: 0715

Location: Building T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Soil excavation and loading

Protective Clothing/Equipment: Level D + over boots

Chemical Hazards: Pesticides

Physical Hazards: Slips, trips, falls, equipment

Control Methods: PPE, site hygiene, equipment clearance

Special Equipment/Techniques: –

Other:

Print Name	Sign Name
Gary Ray	[illegible]
Rick Bailey	[illegible]
Dennis Moslow	[illegible]

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HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 10-17-96

Inspector: Stephen Lanham

Site Conditions, Weather: Partly cloudy,

Soil excavation and loading

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			
Is OSHA 200 log posted (as applicable) and does it match accident reports?			
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?			
Air monitoring log available and current?			
Does monitoring log reflect excursions above action levels?			
Has personal sampling been performed?			
Have any exposure symptoms been reported?			
HEAT STRESS MONITORING			
Has heat stress monitoring been implemented?			✓
Are work/rest regimens established/followed?			✓
Are pulse rate and oral temperature taken?			✓
Monitoring log available and current?			✓
Any heat stress incidents?		✓	
Are personnel aware of symptoms/first aid?	✓		
Are ambient temperature readings logged?			✓
Are emergency medical treatment and first aid available to personnel?	✓		
PERSONAL PROTECTIVE EQUIPMENT			
All PPE called for in HSP available?	✓		
Is there sufficient PPE available for the personnel involved in the performance of site operations?	✓		
Is PPE used in accordance with SHP?	✓		
Has PPE been upgraded or downgraded?		✓	
Is the PPE in place adequate for the chemical and physical hazards on-site?	✓		
Is there a need to modify the PPE requirements?		✓	
All personnel appropriately taped-up?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?	✓		
All drums and containers inspected for structural integrity before moving?	✓		
Personnel warned of the potential hazards associated with the contents of containers prior to movement?	✓		
Containers moved using appropriate mechanical devices to avoid injury?	✓		
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?	✓		
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?	✓		
SSHP decontamination procedures observed?	✓		
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?	✓		
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?	✓		
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?			
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?			

Additional Information

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985

INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York 10-17-96

Instrument(s): PID, Dust

Serial No.(s):

Technician's Signature: [illegible]

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0730	PID	—	100 ppm → 57 ppm	G	SCL	HNU PI 101 SN: 101238
	"	Ambient	Zero	"	"	"
	Dust	Factory →		"	"	MIE PDM-3 SN: 4017
	"	Zero →		"	"	"
1715	PID	—	100 ppm → 57 ppm	—	—	—
	"	Ambient	Zero	—	—	—
	Dust	Factory →		—	—	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

LEL 987

INSTRUMENT CALIBRATION CHECK SHEET

Building T4002 10-17-96

Fort Drum, New York

Instrument(s): CGI

Serial No.(s):

Technician's Signature: [illegible] C S

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0730	O_2	20.9	20.9	G	SCL	ZS HMX 871 SN: 3092092-200
	LEL	21.4	21.4	"	"	"
1710	O_2	20.9	20.9	—	—	—
	LEL	21.4	21.4	—	—	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-17-96

Field Activities: Soil excavation + loading

Wind Direction: Variable

Instrument, Model & Serial No.:

Estimated Wind Speed: still

Technician Signature: Steph C. Lan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
101796-001	0842	1	Box loading, downwind	0.04	Dust
"	"	"	"	0.0	PID
-002	0844	"	Station 3	0.04	
"	"	"	"	0.0	
-003	0847	"	Station 4	0.02	
"	"	"	"	0.0	
-004	0849	"	Station 1	0.04	
"	"	"	"	0.0	
-005	0851	"	Station 2	0.02	
"	"	"	"	0.0	
-006	0945	"	Box loading, downwind	0.06	
"	"	"	"	0.0	
-007	0947	"	Station 3	0.04	
"	"	"	"	0.0	
-008	0949	"	Station 4	0.04	
"	"	"	"	0.0	

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-17-96

Field Activities: Soil excavation + loading

Wind Direction: Variable

Instrument, Model & Serial No.:

Estimated Wind Speed: still

Technician Signature: Stephen C. Yan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
101796-009	0952	1	Station 1	0.02	Dust
"	"	"	"	0.0	PID
-010	0955	"	Station 2	0.04	
"	"	"	"	0.0	
-011	1045	"	Box loading, downwind	0.04	
"	"	"	"	0.0	
-012	1047	"	Station 4	0.06	
"	"	"	"	0.0	
-013	1049	"	Station 1	0.04	
"	"	"	"	0.0	
-014	1052	"	Station 2	0.04	
"	"	"	"	0.0	
-015	1054	"	Station 3	0.08	
"	"	"	"	0.0	
-016	1143	"	Box loading, downwind	0.08	
"	"	"	"	0.0	

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-17-96

Field Activities: Soil excavation + loading

Wind Direction: Variable

Instrument, Model & Serial No.:

Estimated Wind Speed: 3-5 mph

Technician Signature: Steph C. Lan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Reading Units	Comments/Observations
10196-017	1145	1	Station 1	0.06	Dust
"	"	"	"	0.0	PID
-018	1147	"	Station 4	0.03	
"	"	"	"	0.0	
-019	1149	"	Station 3	0.08	
"	"	"	"	0.0	
-020	1153	"	Station 2	0.06	
"	"	"	"	0.0	
-021	1325	"	Boxloading, downwind	0.08	
"	"	"	"	0.0	
-022	1327	"	Station 3	0.04	
"	"	"	"	0.0	
-023	1329	"	Station 4	0.06	
"	"	"	"	0.0	
-024	1332	"	Station 2	0.06	
"	"	"	"	0.0	

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-17-96

Field Activities: Soil excavation + loading

Wind Direction: Variable

Instrument, Model & Serial No.:

Estimated Wind Speed: 3-5 mph

Technician Signature: Stephen C. Yank

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
101796-025	1335	1	Station 1	0.05	Dust
"	"	"	"	0.0	PID
-026	1515	"	Box loading, downwind	0.08	
"	"	"	"	0.0	
-027	1517	"	Station 1	0.06	
"	"	"	"	0.0	
-028	1520	"	Station 2	0.08	
"	"	"	"	0.0	
-029	1522	"	Station 3	0.08	
"	"	"	"	0.0	
-030	1524	"	Station 4	0.10	
"	"	~	"	0.0	
-031					
"					
-032					
"					

995

INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-17-96
Phase: Phase II - Soil Removal
Activity: Soil excavation
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.) Partly cloudy, variable wind, 3-5mph

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-101796-PH2-A-001	Station 1	5438	0840	1632	472	1.56	1.53	1.53	722.16	
-B-001	"	3807	"	"	"	0.47	0.46	0.46	217.12	
-C-001	"	"	"	"	"	0.48	0.47	0.47	221.84	
-A-002	Station 2	5506	0835	1640	485	1.56	1.52	1.56	756.60	
-B-002	"	5	"	"	"	0.47	0.46	0.46	223.10	
-C-002	"	"	"	"	"	0.48	0.47	0.47	227.95	
-A-003	Station 3	5366	0831	1634	483	1.53	1.52	1.52	734.16	
-B-003	"	3813	"	"	"	0.55 0.55	0.54	0.54	260.82	
-C-003	"	"	"	"	"	0.55	0.53	0.53	255.99	
-A-004	Station 4	5432	0830	1630	480	1.51	1.50	1.50	720.00	
-B-004	"	3812	"	"	"	0.53	0.53	0.53	254.40	
-C-004	"	"	"	"	"	0.54	0.54	0.54	259.20	

007

INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-17-96
Phase: Phase II - Soil Removal
Activity: Soil excavation
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Partly cloudy; Variable wind, 3-5mph

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD			FLOW RATE (L/MIN)			TOTAL VOLUME (L)	COMMENTS
			START TIME	STOP TIME	TOTAL MIN.	START	STOP	RECORDED		
FO-101796-PH2-A-005	Personnel exposure sample	5412 ~~5408~~	0900	1625	445	1.49 ~~1.58~~	1.49	1.49	663.05	
-B-005	"	3673	"	"	"	0.47	0.46	0.46	204.70	
-C-005	"	"	"	"	"	0.50	0.48	0.48	213.60	
-A-003D	Station 3 (COE Duplicate)	5408	0840	1638	478	1.58	1.58	1.58	755.24	
-B-003D	"	3811	"	"	"	0.48	0.48	0.48	229.44	
-C-003D	"	"	"	"	"	0.51	0.49	0.49	234.22	

999

10-17-96

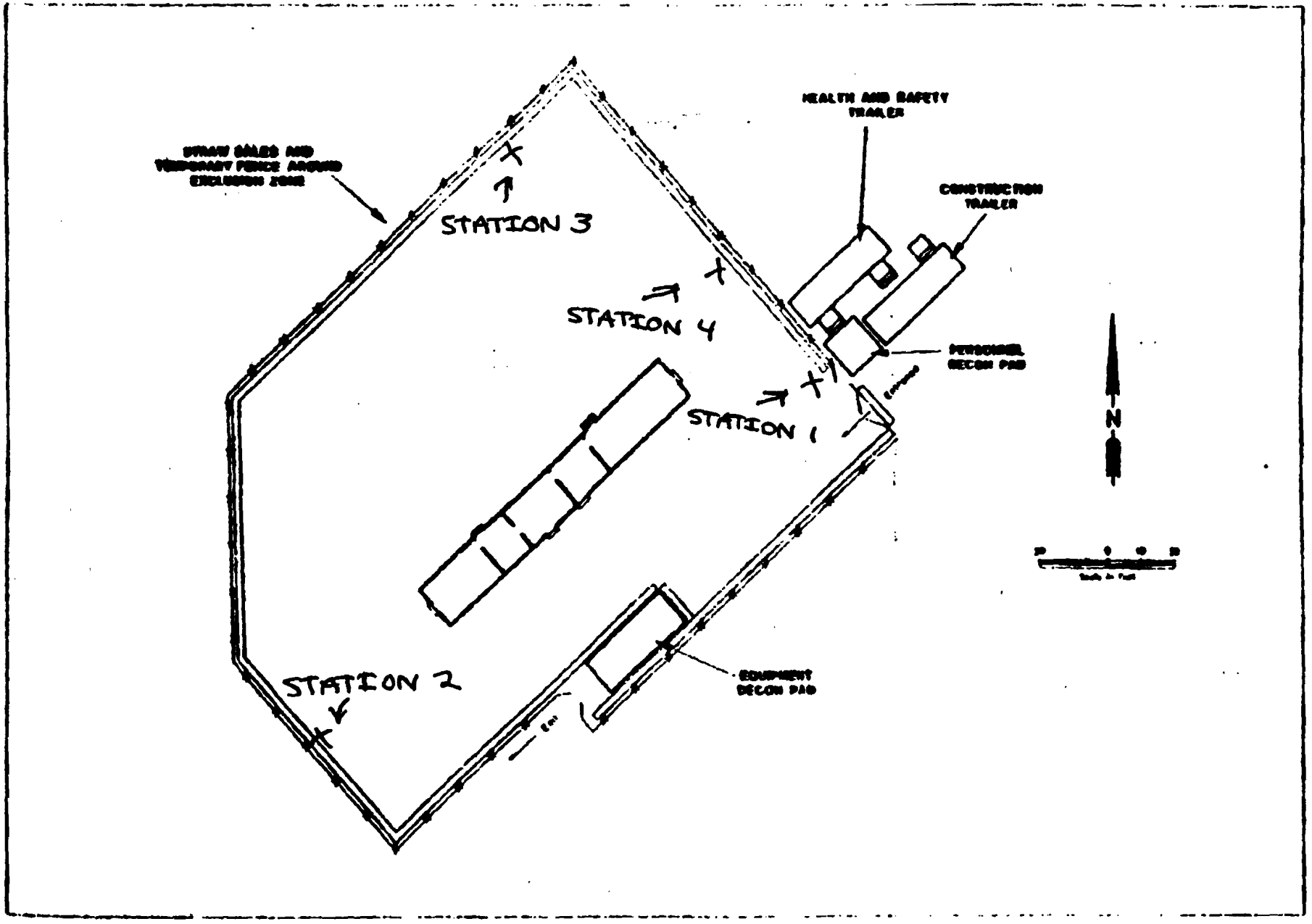

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

1001

MIE INC. Model PDL-10 SN 2332 V5.2 4/89

1003

CURRENT DATE: 10/17/96
CURRENT TIME: 17:15:49

CALIBRATION
0.017 V = 0.00 mg/m3
0.209 V = 14.20 mg/m3

LOWER ALARM: - 1.26 mg/m3
UPPER ALARM: - 1.26 mg/m3

UNITS: mg/m3

INPUT READS:- 1.20 mg/m3
TEST STARTING DATE: 10/16/96
TEST STARTING TIME: 11:07:39
ELAPSED TIME: 0 DAYS 5:40:51
OVERALL AVG: 0.12 mg/m3
OVERALL MIN: - 2.91 mg/m3
MIN OCCURRED 10/17/96 @ 8:39:37
OVERALL MAX: 1.30 mg/m3
MAX OCCURRED 10/17/96 @ 13:42:11
STEL: 0.28 mg/m3
STEL OCCURRED 10/17/96 @ 11:07:17

1005

MIE INC. Model PDL-10 SN 2332 V5.2 4/89

RRENT DATE: 10/17/96
RRENT TIME: 17:16:13

CALIBRATION
0.017 V = 0.00 mg/m3
0.209 V = 14.20 mg/m3

LOWER ALARM: - 1.26 mg/m3
UPPER ALARM: - 1.26 mg/m3

UNITS: mg/m3

TIME HISTORY
PERIOD LENGTH: 0:01:00
OF PERIODS COMBINED: 1

	MIN	AVG	MAX	HID
DATE: 10/16/96 TIME: 11:07:25				
	0.09	0.10	0.15	*+
	0.09	0.12	0.18	-*
	0.10	0.13	0.21	-*
	0.12	0.16	0.25	*+
	0.12	0.15	0.25	*+
	0.10	[illegible]	[illegible]	-*
	0.10	0.12	0.16	-*
	0.10	0.12	0.16	-*
	0.10	0.12	0.15	-*
@	0.10	0.12	0.15	-*
DATE: 10/16/96 TIME: 11:56:57				
	0.09	0.10	0.13	*+
	0.10	0.12	0.15	-*
	0.10	0.12	0.18	-*
	0.10	[illegible]	[illegible]	-*
	0.10	0.13	0.19	-*
	0.10	0.12	0.15	-*
	0.12	0.13	0.18	*
	0.12	0.13	0.19	*
	0.12	0.13	0.15	*
	0.12	0.15	0.27	*+
	0.12	0.13	0.15	*
	0.10	0.13	0.18	-*
	0.10	0.12	0.16	-*
	0.12	0.13	0.18	*
	0.12	0.13	0.19	*
	0.10	0.12	0.18	-*
	0.10	0.12	0.16	-*
	0.10	0.12	0.16	-*
	0.12	0.13	0.18	*
	0.10	0..12	0.15	-*
DATE: 10/16/96 TIME: 12:16:57				
	0.09	0.10	0.13	*+
	0.10	0.12	0.16	-*
	0.07	0.10	0.15	*+
	0.10	0.12	0.15	-*
	0.10	0.12	0.15	-*

1007

0.07	0.09	0.12		*+
0.09	0.10	0.13		*+
0.07	0.09	0.10		*

TE: 10/16/96 TIME: 13:20:46

0.12	0.13	0.18		*
0.10	0.13	0.19		-*
0.10	0.13	0.18		-*
0.10	0.13	0.19		-*
0.13	0.13	0.18		*
0.12	0.15	0.19		*
0.10	0.12	0.13		-*
0.12	0.13	0.19		*
0.10	0.12	0.15		-*
0.10	0.10	0.13		*+
0.12	0.13	0.18		*
0.12	0.13	0.15		*
0.12	0.16	0.21		*
0.12	0.13	0.21		*
0.12	0.13	0.18		*
0.13	0.21	0.42		* +
0.15	0.22	0.34		-*+
0.15	0.18	0.22		*+
0.15	0.18	0.21		*
0.15	0.18	0.21		*

DATE: 10/16/96 TIME: 13:40:46

0.13	0.15	0.19		*
0.15	0.18	0.24		*+
0.15	0.19	0.25		*+
0.13	0.16	0.21		*
0.13	0.16	0.21		*
0.13	0.16	0.21		*
0.13	0.15	0.18		*
0.13	0.15	0.24		*+
0.13	0.16	0.19		*
0.12	0.15	0.21		*
0.13	0.16	0.21		*
0.12	0.13	0.18		*
0.13	0.15	0.21		*
0.13	0.13	0.19		*
0.13	0.13	0.15		*

DATE: 10/16/96 TIME: 14:23:56

0.09	0.12	0.15		-*
0.10	0.12	0.15		-*
0.09	0.10	0.15		*+
0.07	0.12	0.15		-*
0.10	0.12	0.18		-*
0.10	0.12	0.21		-*
0.09	0.13	0.18		-*
0.10	0.10	0.13		*+
0.09	0.09	0.12		*+
0.10	0.12	0.13		-*
0.10	0.12	0.15		-*
0.10	0.12	0.16		-*
0.09	0.10	0.12		*+
0.10	0.10	0.13		*+
0.10	0.10	0.13		*+
0.10	0.12	0.13		-*
0.10	0.12	0.13		-*
0.09	0.10	0.12		*+
0.12	0.12	0.15		*
0.10	0.12	0.18		-*

1009

0.09	0.10	0.12	I	*+
0.09	0.10	0.13	I	*+
0.10	0.12	0.15	I	-*
0.07	0.10	0.13	I	*+
0.09	0.10	0.12	I	*+
0.07	0.10	0.13	I	*+
0.09	0.10	0.12	I	*+
0.10	0.10	0.13	I	*+
0.10	0.12	0.15	I	-*
0.10	0.12	0.13	I	-*
0.10	0.12	0.15	I	-*
0.12	0.13	0.19	I	*
0.12	0.12	0.15	I	*
0.10	0.12	0.15	I	-*
0.10	0.10	0.12	I	*+
0.09	0.10	0.13	I	*+
0.09	0.12	0.15	I	-*
0.09	0.10	0.13	I	*+
0.07	0.10	0.15	I	*+
0.07	0.10	0.12	I	*+

DATE: 10/16/96 TIME: 15:03:56

0.07	0.09	0.13	I	*+
0.07	0.09	0.10	I	*
0.07	0.09	0.10	I	*
0.07	0.10	0.13	I	*+
0.07	0.10	0.15	I	*+
0.07	0.09	0.12	I	*+
0.07	0.09	0.10	I	*
0.07	0.07	0.10	I	*
0.07	0.07	0.10	I	*

DATE: 10/16/96 TIME: 16:22:07

0.07	0.09	0.12	I	*+
0.07	0.09	0.12	I	*+
0.07	0.09	0.12	I	*+
0.07	0.09	0.12	I	*+
0.06	0.07	0.12	I	*+
0.07	0.09	0.12	I	*+
0.07	0.09	0.12	I	*+
0.07	0.09	0.12	I	*+
0.07	0.09	0.13	I	*+
0.07	0.09	0.10	I	*
0.07	0.09	0.10	I	*
0.07	0.10	0.13	I	*+
0.07	0.09	0.12	I	*+
0.09	0.10	0.12	I	*+
0.09	0.12	0.18	I	-*
0.10	0.12	0.18	I	-*
0.07	0.10	0.13	I	*+
0.09	0.10	0.13	I	*+
0.09	0.10	0.12	I	*+
0.09	0.10	0.12	I	*+

DATE: 10/16/96 TIME: 16:42:07

0.09	0.10	0.13	I	*+
0.07	0.10	0.13	I	*+
0.09	0.10	0.13	I	*+
0.07	0.09	0.12	I	*+
0.09	0.10	0.13	I	*+
0.09	0.10	0.12	I	*+
0.09	0.10	0.13	I	*+
0.07	0.09	0.12	I	*+
0.07	0.10	0.15	I	*+
0.07	0.10	0.12	I	*+

1011

```
     0.07        0.09        0.12                    |          *+
     0.07        0.09        0.12                    |          *+
     0.09        0.09        0.12                    |          *+
     0.07        0.09        0.12                    |          *+
     0.07        0.09        0.12                    |          *+
     0.07        0.09        0.12                    |          *+
     0.07        0.09        0.12                    |          *+
     0.07        0.09        0.12                    |          *+
     0.07        0.09        0.12                    |          *+

DATE: 10/16/96  TIME: 17:02:07
     0.07        0.09        0.12                    |          *+
     0.07        0.09        0.12                    |          *+
     0.07        0.07        0.12                    |          *+
     0.09        0.10        0.13                    |          *+
     0.07        0.09        0.13                    |          *+
     0.07        0.09        0.13                    |          *+
     0.07        0.10        0.12                    |          *+
     0.07        0.10        0.12                    |          *+
     0.07        0.09        0.12                    |          *+
     0.07        0.07        0.12                    |          *+
     0.07        0.07        0.10                    |          *
     0.07        0.09        0.12                    |          *+
     0.07        0.09        0.13                    |          *+
     0.07        0.09        0.10                    |          *
     0.07        0.09        0.13                    |          *+
     0.07        0.09        0.12                    |          *+
     0.07        0.09        0.10                    |          *
     0.07        0.09        0.12                    |          *+
     0.07        0.09        0.12                    |          *+
     0.07        0.09        0.12                    |          *+

DATE: 10/16/96  TIME: 17:22:07
     0.07        0.09        0.12                    |          *+
     0.07        0.07        0.10                    |          *
     0.07        0.07        0.10                    |          *
     0.07        0.09        0.12                    |          *+
     0.07        0.10        0.12                    |          *+
     0.09        0.10        0.12                    |          *+
     0.09        0.10        0.13                    |          *+
@    0.09        0.10        0.12                    |          *+

DATE: 10/17/96  TIME:  8:39:37
@-   2.91    -   2.68    -   2.42    - * +           |

DATE: 10/17/96  TIME:  8:40:40
     0.09        0.07        0.10                    |          *
     0.07        0.09        0.15                    |          *+
     0.07        0.09        0.13                    |          *+
     0.10        0.13        0.21                    |          -*
     0.10        0.10        0.15                    |          *+
     0.07        0.10        0.15                    |          *+
     0.09        0.10        0.13                    |          *+
     0.10        0.12        0.16                    |          -*
     0.12        0.12        0.15                    |           *
     0.10        0.12        0.15                    |          -*
     0.10        0.12        0.18                    |          -*
     0.09        0.12        0.15                    |          -*
     0.09        0.10        0.13                    |          *+
     0.10        0.13        0.21                    |          -*
     0.13        0.15        0.19                    |           *
     0.13        0.15        0.19                    |           *
     0.12        0.12        0.15                    |           *
     0.10        0.12        0.16                    |          -*
```

1013

DATE: 10/17/96 TIME: 9:00:40

@ 0.10	0.13	0.18	|	-*

DATE: 10/17/96 TIME: 9:39:53

0.07	0.10	0.13	|	*+
0.07	0.10	0.13	|	*+
0.10	0.13	0.30	|	-*+
0.09	0.10	0.15	|	*+
0.07	0.10	0.18	|	*+
0.07	0.09	0.13	|	*+
0.06	0.07	0.12	|	*+
0.06	0.09	0.12	|	*+
0.09	0.12	0.15	|	-*
0.10	0.12	0.15	|	-*
0.10	0.12	0.19	|	-*
0.07	0.10	0.13	|	*+
0.07	0.09	0.12	|	*+
0.07	0.10	0.16	|	*+
0.07	0.10	0.13	|	*+
0.07	0.10	0.13	|	*+
0.07	0.09	0.12	|	*+
0.07	0.10	0.15	|	*+
0.10	0.12	0.15	|	-*
0.09	0.10	0.12	|	*+

DATE: 10/17/96 TIME: 9:59:53

0.07	0.09	0.13	|	*+
@ 0.09	0.09	0.10	|	*

DATE: 10/17/96 TIME: 10:44:37

0.10	0.12	0.15	|	-*
0.10	0.12	0.19	|	-*
0.10	0.13	0.19	|	-*
0.09	0.12	0.27	|	-*+
0.09	0.12	0.19	|	-*
0.10	0.12	0.15	|	-*
0.09	0.10	0.13	|	*+
0.10	0.12	0.15	|	-*
0.10	0.12	0.15	|	-*
0.09	0.10	0.1[illegible]	|	*+
0.09	0.10	0.13	|	*+
0.09	0.10	0.13	|	*+
0.10	0.12	0.13	|	-*
0.10	0.12	0.15	|	-*
0.09	0.10	0.13	|	*+
0.10	0.12	0.15	|	-*
0.09	0.10	0.15	|	*+
0.12	0.13	0.19	|	*
0.10	0.12	0.15	|	-*
0.10	0.12	0.16	|	-*

DATE: 10/17/96 TIME: 11:04:37

0.12	0.13	0.19	|	*
0.10	0.12	0.13	|	-*
0.10	0.13	0.19	|	-*
0.10	0.12	0.13	|	-*
0.09	0.10	0.13	|	*+
0.12	0.12	0.13	|	*
0.19	0.22	0.43	|	- *+
0.28	0.43	0.58	|	-* +
0.31	0.40	0.50	|	-*+
0.31	0.40	0.49	|	-*+
0.22	0.27	0.33	|	*
0.16	0.21	0.24	|	*+

1015

0.16	0.18	0.21	*
0.16	0.18	0.19	*
0.18	0.18	0.22	*+
0.16	0.18	0.21	*
0.15	0.18	0.22	*+
0.15	0.18	0.22	*+

DATE: 10/17/96 TIME: 11:45:43

0.13	0.13	0.15	*
0.13	0.13	0.15	*
0.12	0.15	0.22	*+
0.15	0.21	0.27	*+
0.13	0.16	0.22	*+
0.13	0.18	0.24	*+
0.12	0.15	0.19	*
0.13	0.16	0.24	*+
0.12	0.16	0.22	*+
0.13	0.16	0.21	*
0.12	0.15	0.21	*
0.12	0.13	0.18	*
0.12	0.13	0.19	*
0.12	0.15	0.21	*
0.12	0.15	0.25	*+
0.10	0.12	0.15	-*
0.10	0.12	0.18	-*
0.12	0.13	0.19	*
0.12	0.12	0.15	*
0.12	0.12	0.16	*

TE: 10/17/96 TIME: 12:01:43

0.13	0.13	0.19	*
0.13	0.15	0.18	*
0.12	0.15	0.18	*

DATE: 10/17/96 TIME: 13:26:49

0.07	0.13	0.67	-* +
0.06	0.10	0.27	* +
0.06	0.12	0.95	-* +
0.06	0.10	0.34	* +
0.07	0.13	0.68	-* +
0.05	0.10	0.44	* +
0.07	0.12	0.80	-* +
0.07	0.12	0.25	-*+
0.07	0.12	0.46	-* +
0.06	0.15	0.49	-* +
0.06	0.12	0.46	-* +
0.06	0.12	0.40	-* +
0.07	0.12	0.34	-* +
0.06	0.12	0.53	-* +
0.07	0.12	0.43	-* +
0.07	0.16	1.30	-* +
0.07	0.15	0.55	-* +
0.06	0.18	1.29	-* +
0.07	0.15	0.64	-* +
0.07	0.15	1.02	-* +

TE: 10/17/96 TIME: 13:46:49

0.28	0.15	0.70	- + +

DATE: 10/17/96 TIME: 15:06:10

0.05	0.09	0.19	*+
0.09	0.10	0.18	*+
0.09	0.10	0.13	*+
0.09	0.12	0.18	-*

1017

0.10	0.13	0.19	|	-*
0.12	0.13	0.19	|	*
0.10	0.12	0.18	|	-*
0.10	0.13	0.19	|	-*
0.12	0.13	0.19	|	*
0.10	0.12	0.15	|	-*
0.10	0.12	0.15	|	-*
0.09	0.10	0.13	|	*+
0.10	0.10	0.13	|	*+
0.10	0.12	0.15	|	-*
0.10	0.10	0.18	|	*+
0.10	0.12	0.15	|	-*
0.10	0.10	0.13	|	*+
0.10	0.12	0.15	|	-*

DATE: 10/17/96 TIME: 15:26:10

0.09	0.10	0.12	|	*+
0.09	0.13	0.24	|	-*+
0.10	0.10	0.13	|	*+
0.09	0.12	0.19	|	-*
0.13	0.16	0.24	|	*+
0.12	0.16	0.27	|	*+
0.13	0.16	0.19	|	*
0.13	0.15	0.21	|	*
0.13	0.18	0.27	|	*+

24 Hour 'urn-around re: F.O.4 W/ 990

DAMES & M E
7101 Wiscons. venue, Suite 700
Bethesda, Maryland 20814-4870
(301) 652-2215 FAX (301) 656-8059

CHAIN-OF-CUSTODY RECORD

№ ~~1734~~ 437

JOB NO:

PROJECT NAME-CLIENT: Ft. Drum - Bldg T-4002

SAMPLER (Signature): Steph C. Lan

ANALYSES REQUIRED: NIOSH 7300 (Lead by ICP); NIOSH 5001 (2,4-D; and 2,4,5-T); NIOSH S274M (DDD, DDE; and DDT)

~~SAMPLE NO~~	~~Date~~	~~Time~~	~~Comp~~	~~Grab~~	~~Matrix~~	SAMPLE # ~~Station Number and Location~~	Total No. of Containers	NIOSH 7300	NIOSH 5001	NIOSH S274M							REMARKS Volume (Liters)
						FD-101796-PH2-A-005	1	✓									663.05
						-B-005	↓		✓								204.70
						-C-005	↓			✓							213.60

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Steph C. Lan	10-17-96 1630				

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time

Report Results To: Steve Lanham
Phone results: 301-652-2215 (ext. 271)
FAX Results: 315-773-2873

DISTRIBUTION:
White: Accompanies Shipment
Yellow: Project Files
Pink: Field Log
Gold: QA Files

Dames & Moore

1019

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 10-18-96 Start Time: 0650 Completion Time: 0705

Location: Bldg T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Soil excavation

Protective Clothing/Equipment: Level D + over boots

Chemical Hazards: Pesticides

Physical Hazards: Slips, trips, falls, equipment

Control Methods: PPE, site hygiene, equipment clearance

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
GARY R[illegible]	[illegible]
[illegible]	[illegible]
RICK BAILEY	[illegible]
M. HUSAW	[illegible]

1023

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 10-18-96

Inspector: Stephen Lanham

Site Conditions, Weather:

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?		✗	✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?		✗	✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?	✓		
Air monitoring log available and current?	✓		
Does monitoring log reflect excursions above action levels?		✓	
Has personal sampling been performed?		✓	
Have any exposure symptoms been reported?		✓	
HEAT STRESS MONITORING			
Has heat stress monitoring been implemented?			✓
Are work/rest regimens established/followed?			✓
Are pulse rate and oral temperature taken?			✓
Monitoring log available and current?			✓
Any heat stress incidents?		✓	
Are personnel aware of symptoms/first aid?	✓		
Are ambient temperature readings logged?			✓
Are emergency medical treatment and first aid available to personnel?	✓		
PERSONAL PROTECTIVE EQUIPMENT			
All PPE called for in HSP available?	✓		
Is there sufficient PPE available for the personnel involved in the performance of site operations?	✓		
Is PPE used in accordance with SHP?	✓		
Has PPE been upgraded or downgraded?		✓	
Is the PPE in place adequate for the chemical and physical hazards on-site?	✓		
Is there a need to modify the PPE requirements?		✓	
All personnel appropriately taped-up?			✓

Additional Information

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_____

_____

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?	✓		
All drums and containers inspected for structural integrity before moving?	✓		
Personnel warned of the potential hazards associated with the contents of containers prior to movement?	✓		
Containers moved using appropriate mechanical devices to avoid injury?	✓		
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?	✓		
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?	✓		
SSHP decontamination procedures observed?	✓		
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?	✓		
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?	✓		
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?	✓		

Additional Information

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_____

_____

HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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_____

_____

1029

LEL

INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York

10-18-96

Instrument(s): CGI

Serial No.(s):

Technician's Signature: Steph C. Yan

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0645	O_2	20.9	20.9	G	SCL	IS HMX 271 SN: 3092092-200
	LEL	21.4	21.4	"	"	"
1635	O_2	20.9	20.9	—	—	—
	LEL	21.4	21.4	—	—	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

1031

INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York

10-18-96

Instrument(s): PID, Dust

Serial No.(s):

Technician's Signature: Steph C. Faul

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0645	PID	—	100 ppm →57 ppm	G	SCL	HNU PI 101 SN: 101238
	"	Ambient	Zero	"	"	"
	Dust	Factory	→	"	"	MIE PDM-3 SN: 4017
	"	Zero	→	"	"	"
1638	PID	—	100 ppm →57 ppm	—	—	—
	Dust	Factory	→	—	—	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10 18-96

Field Activities: Soil excavation + loading

Wind Direction: NE → SW

Instrument, Model & Serial No.:

Estimated Wind Speed: 5-10 mph

Technician Signature: Steph C. L

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
101896-001	0720	1	Decon pad	0.02	
"	"	"	"	0.0	
-002	0722	"	Station 4	0.02	
"	"	"	"	0.0	
-003	0725	"	Station 3	0.04	
"	"	"	"	0.0	
-004	0728	"	Station 2	0.02	
"	"	"	"	0.0	
-005	0732	"	Station 1	0.02	
"	"	"	"	0.0	
-006	0901	"	Deco-pad	0.02	
"	"	"	"	0.0	
-007	0902	"	station 2	0.03	
"	"	"	"	0.0	
-008	0904	"	Station 3	0.03	
"	"	"	"	0.0	

1033

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-18-96

Field Activities: Soil excavation + loading

Wind Direction: NE→SW

Instrument, Model & Serial No.:

Estimated Wind Speed: 5-10 mph

Technician Signature: Stephen C. Yan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
101896-009	0906	1	Station 4	0.02	
"	"	"	"	0.0	
-010	0908	"	Station 1	0.03	
"	"	"	"	0.0	
-011	1040	"	Decon. pad	0.03	
"	"	"	"	0.0	
-012	1042	"	Station 4	0.02	
"	"	"	"	0.0	
-013	1044	"	Station 3	0.03	
"	"	"	"	0.0	
-014	1046	"	Station 2	0.04	
"	"	"	"	0.0	
-015	1049	"	Station 1	0.05	
"	"	"	"	0.0	
-016	1310	"	Station 1	0.08	
"	"	"	"	0.0	

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-18-96

Field Activities: Soil excavation + loading

Wind Direction: NE → SW

Instrument, Model & Serial No.:

Estimated Wind Speed: 5-10 mph

Technician Signature: Steph C. Fa

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
101896-017	1312	1	Station 2	0.09	
"	"	"	"	0.0	
-018	1314	"	Station 3	0.08	
"	"	"	"	0.0	
-019	1316	"	Station 4	0.06	
"	"	"	"	0.0	
-020	1319	"	Decon. pad	0.08	
"	"	"	"	0.0	
-021	1420 ~~1320~~	"	At excavator decon.	0.10	
"	"	"	"	0.0	
-022	1422	"	Station 1	0.08	
"	"	"	"	0.0	
-023	1424	"	Station 4	0.06	
"	"	"	"	0.0	
-024	1426	"	Station 3	0.02	
"	"	"	"	0.0	

1037

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-18-96

Field Activities: Soil excavation + loading

Wind Direction: NE → SW

Instrument, Model & Serial No.:

Estimated Wind Speed: 5-10 mph

Technician Signature: Steph C. Lan

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
101896-025	1429	1	Station 2	0.06	
"	"	"	"	0.0	
-026	1615	"	At Decon pad	0.08	
"	"	"	"	0.0	
-027	1617	"	Station 4	0.06	
"	"	"	"	0.0	
-028	1619	"	Station 3	0.08	
"	"	"	"	0.0	
-029	1621	"	Station 2	0.06	
"	"	"	"	0.0	
-030	1623	"	Station 1	0.08	
"	"	"	"	0.0	

0230

INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-18-96
Phase: Phase II - Soil Removal
Activity: Soil excavation
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.) Partly sunny, wind NE→SW, 5-10 mph, 40-45°F

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FO-101896-PH2-A-001	Station 1	5506	0847	1600	433	1.57	1.56	1.56	675.48	
-B-001	"	3807	"	"	"	0.46	0.44	0.44	190.52	
-C-001	"	"	"	"	"	0.48	0.48	0.46	199.18	
-A-002	Station 2	5408	0845	1601	436	1.56	1.54	1.54	671.44	
-B-002	"	3802	"	"	"	0.53	0.52	0.52	226.72	
-C-002	"	"	"	"	"	0.55	0.55	0.55	239.80	
-A-003	Station 3	5438	0844	1603	~~446~~ 439	1.56	1.55	1.55	680.45	
-B-003	"	5	"	"	"	0.48	0.46	0.46	201.94	
-C-003	"	"	"	"	"	0.47	0.47	0.47	206.30	
-A-004	Station 4	5432	0843	1605	442	1.52	1.52	1.52	671.84	
-B-004	"	3811	"	"		0.51	0.50	0.50	221.00	
-C-004	"	"	"	"		0.49	0.48	0.48	212.16	

1041

INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 10-18-96
Phase: Phase II - Soil Removal
Activity: Soil excavation
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD			FLOW RATE (L/MIN)			TOTAL VOLUME (L)	COMMENTS
			START TIME	STOP TIME	TOTAL MIN.	START	STOP	RECORDED		
FD-101896-PH2-A-004D	Station 4 (COE Dup.)	5366	0843	1605	442	1.51	1.50	1.50	663.00	
-B-004D	"	3813	"	"	"	0.56	0.56	0.56	247.52	
-C-004D	"	"	"	"	"	0.55	0.54	0.54	238.68	

1043

10-18-96

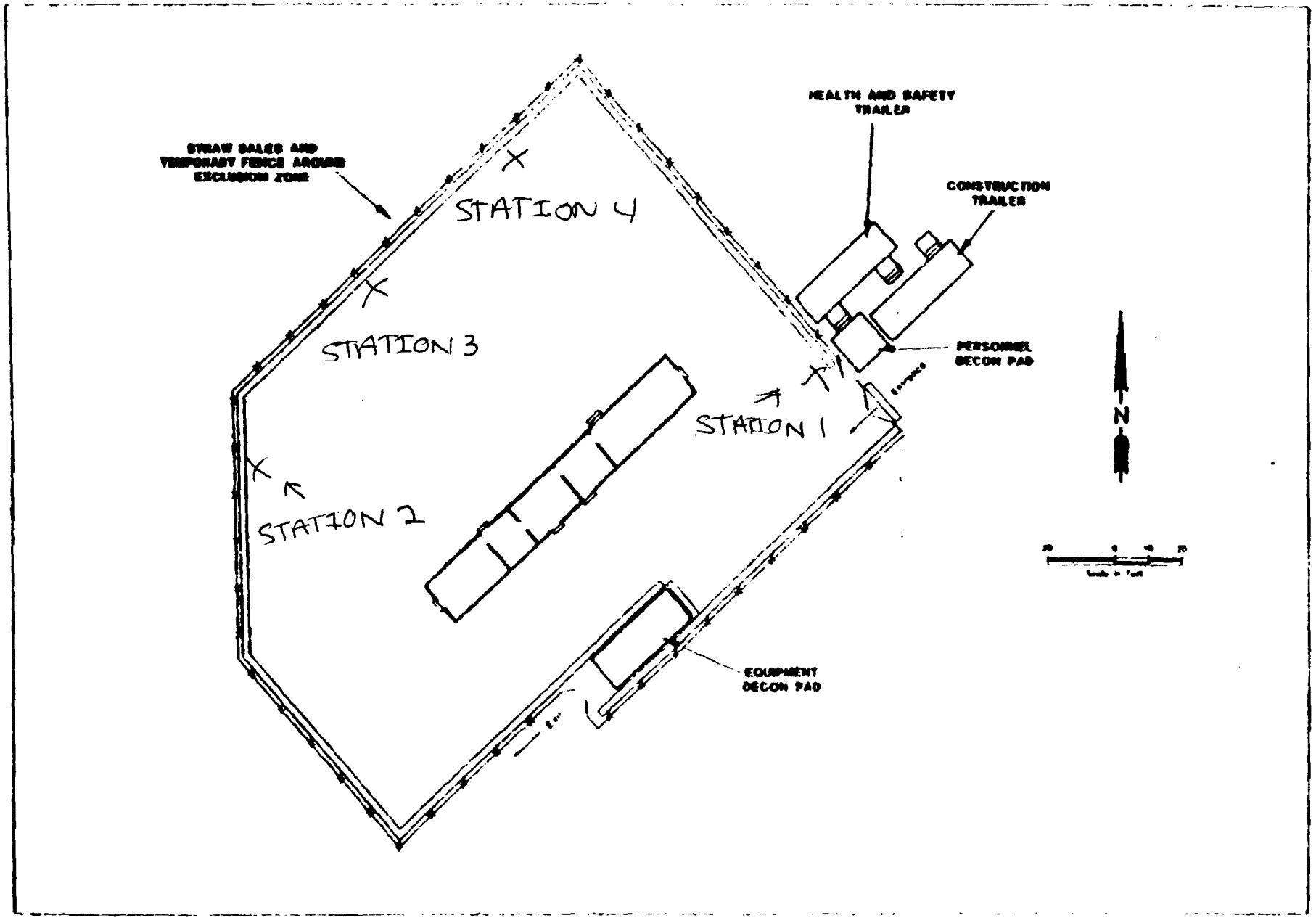

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

1045

MIE INC. Model PDL-10 SN 2332 V5.2 4/89

1047

CURRENT DATE: 10/18/96
CURRENT TIME: 16:26:20

CALIBRATION
0.001 V = 0.00 mg/m3
0.215 V = 12.90 mg/m3

LOWER ALARM: - 1.40 mg/m3
UPPER ALARM: - 1.40 mg/m3

UNITS: mg/m3

INPUT READS:- 1.26 mg/m3
TEST STARTING DATE: 10/18/96
TEST STARTING TIME: 7:21:36
ELAPSED TIME: 0 DAYS 8:54:42
OVERALL AVG: - 0.12 mg/m3
OVERALL MIN: - 1.64 mg/m3
MIN OCCURRED 10/18/96 @ 10:51:35
OVERALL MAX: 3.13 mg/m3
MAX OCCURRED 10/18/96 @ 9:22:17
STEL: - 0.05 mg/m3
STEL OCCURRED 10/18/96 @ 15:59:34

1049

MIE INC. Model PDL-10 SN 2332 V5.2 4/89

CURRENT DATE: 10/18/96
CURRENT TIME: 16:26:41

CALIBRATION
0.021 V = 0.[illegible] mg/m3
0.215 V = 12.90 mg/m3

LOWER ALARM: - 1.40 mg/m3
UPPER ALARM: - 1.40 mg/m3

UNITS: mg/m3

TIME HISTORY
PERIOD LENGTH: 0:01:00
OF PERIODS COMBINED: 1

	MIN		AVG		MAX	HIO	
DATE: 10/18/96 TIME: 7:21:36							
-	0.17	-	0.17	-	0.15	|	*+
-	0.16	-	0.12		0.04	|	-* +
-	[illegible]		[illegible]		[illegible]	|	*+
	[illegible]		[illegible]	-	[illegible]	|	-*
	[illegible]		0.16	-	0.15	|	*+
	0.15	-	0.17	-	0.15	|	*+
-	0.20	-	0.17	-	0.15	|	-*+
-	0.20	-	0.17	-	0.16	|	-*
-	0.20	-	0.17	-	0.15	|	-*+
-	0.20	-	0.16	-	0.16	|	-*
-	0.20	-	0.17	-	0.16	|	-*+
-	[illegible]	-	0.16	-	0.13	|	*+
-	[illegible]		[illegible]	-	0.12	|	*+
-	0.17	-	0.17	-	0.13	|	*+
-	0.17	-	0.16	-	0.13	|	*+
-	0.17	-	0.16	-	0.13	|	*+
-	0.19	-	0.17	-	0.15	|	*+
-	0.17	-	0.16	-	0.13	|	*+
-	0.19	-	0.15	-	0.07	|	-*+
	[illegible]	-	0.15	-	0.11	|	-*
DATE: 10/18/96 TIME: 7:41:36							
-	0.17	-	0.15	-	0.11	|	-*
-	0.15	-	0.15	-	0.11	|	-*
-	0.16	-	0.16	-	0.13	|	*+
-	0.17	-	0.16	-	0.13	|	*+
-	0.16	-	0.15	-	0.12	|	-*
-	0.16	-	0.15	-	0.09	|	-*+
-	0.16	-	0.15	-	0.11	|	-*
-	0.16	-	0.15	-	0.13	|	-*
	0.15	-	0.15	-	0.11	|	-*
	0.16	-	0.16	-	0.13	|	*+
-	0.16	-	0.15	-	0.09	|	-*+
0-	0.16	-	0.15	-	0.13	|	-*
DATE: 10/18/96 TIME: 9:01:25							
-	0.15	-	0.15	-	0.12	|	*
-	0.15	-	0.13	-	0.11	|	*
-	0.12	-	0.13	-	0.11	|	*

1051

-	0.15	-	0.15	-	0.13	*
-	0.16	-	0.15	-	0.11	-*
-	0.15	-	0.13	-	0.11	*
-	0.15	-	0.15	-	0.12	*
-	0.15	-	0.13	-	0.11	*
-	0.16	-	0.15	-	0.11	-*
	0.17	-	0.15	-	0.12	-*
	0.15	-	0.13	-	0.09	*+
-	0.17	-	0.15	-	0.08	-*+
-	0.15	-	0.13	-	0.09	*+
-	0.15	-	0.12	-	0.01	* +
-	0.16	-	0.15	-	0.11	-*
-	0.15	-	0.13	-	0.08	*+
-	0.16	-	0.15	-	0.12	-*
-	0.13	-	0.12	-	0.09	*+
-	0.16	-	0.15	-	0.12	-*

DATE: 10/18/96 TIME: 9:21:25

-	0.15	-	0.11		0.12	* +
-	0.13	-	0.09	-	0.01	-* +
-	0.16	-	0.13	-	0.07	-*+
-	0.15	-	0.15	-	0.11	*
-	0.15	-	0.13	-	0.11	*
-	0.15	-	0.12	-	0.04	* +
-	0.15	-	0.15	-	0.11	*
-	0.15	-	0.15	-	0.13	*
-	0.15	-	0.15	-	0.11	*
-	0.12	-	0.12	-	0.08	*+
-	0.15	-	0.15	-	0.11	*
-	0.11		0.11	-	0.04	-* +
	0.15	-	0.12	-	0.07	*+
	0.15		0.15	-	0.11	*
-	0.15	-	0.15	-	0.11	-*
-	0.13	-	0.13	-	0.09	*+
-	0.16	-	0.16	-	0.13	*+
-	0.15	-	0.09	-	0.04	-*+
-	0.12	-	0.12	-	0.09	*+
-	0.12	-	0.11	-	0.07	*+

DATE: 10/18/96 TIME: 10:49:52

-	0.13	-	0.11	-	0.04	* +
-	1.01	-	0.42	-	0.01	- * +
-	1.54	-	0.29	-	0.01	- * +
-	1.22	-	0.44	-	0.15	- * +
-	0.37	-	0.19	-	0.13	- *+
-	0.15	-	0.13	-	0.08	*+
-	0.16	-	0.15	-	0.11	-*
-	0.16	-	0.13	-	0.11	-*
-	0.15		0.13	-	0.11	*
-	0.15	-	0.12	-	0.09	*+
-	0.15	-	0.13	-	0.09	*+
-	0.16	-	0.12	-	0.07	-*+
-	0.13	-	0.11	-	0.07	*+
-	0.15	-	0.12	-	0.08	*+
-	0.13	-	0.12	-	0.09	*+
-	0.15	-	0.13	-	0.09	*+
-	0.13	-	0.12	-	0.11	*

DATE: 10/18/96 TIME: 12:40:49

-	0.11	-	0.11	-	0.09	*+

DATE: 10/18/96 TIME: 12:54:08

-	0.15	-	0.11	-	0.08	*-
-	0.13	-	0.09	-	0.05	-*+
-	0.13	-	0.05		0.11	- * +

1053

-	[illegible]	-	[illegible]	-	[illegible]	
-	0.11	-	0.09	-	0.04	-*+
-	0.11	-	0.09	-	0.08	-*
-	0.13	-	0.12	-	0.09	*+
-	0.13	-	0.12	-	0.09	*+
	0.13	-	0.12	-	0.07	*+
	0.13	-	0.12	-	0.09	*+
	0.13	-	0.12	-	0.07	*+
-	0.15	-	0.11	-	0.04	* +
-	0.15	-	0.13	-	0.11	*
-	0.15	-	0.15	-	0.12	*
-	0.15	-	0.13	-	0.12	*
-	0.13	-	0.13	-	0.11	*
-	0.13	-	0.12	-	0.09	*+
-	0.13	-	0.13	-	0.11	*
-	0.15	-	0.13	-	0.11	*

DATE: 10/18/96 TIME: 13:14:08

-	0.13	-	0.13	-	0.12	*
-	0.15	-	0.13	-	0.11	*
-	0.15	-	0.13	-	0.11	*
-	0.15	-	0.13	-	0.12	*
-	0.15	-	0.13	-	0.11	*
-	0.15	-	0.12	-	0.05	-+
-	0.13	-	0.13	-	0.11	-
-	0.13	-	0.13	-	0.09	-
-	0.15	-	0.13	-	0.11	*
-	0.12	-	0.11	-	0.09	*+
-	0.12	-	0.12	-	0.09	*+
-	0.12	-	0.12	-	0.09	*+
	0.12	-	0.12	-	0.09	*+
	0.13	-	0.12	-	[illegible]	*-
-	0.13	-	0.12	-	0.05	*
-	0.13	-	0.11	-	0.11	-
-	0.13	-	0.12	-	0.09	*+
-	0.11	-	0.11	-	0.09	*+
-	0.15	-	0.13	-	0.11	*
@-	0.15	-	0.13	-	0.12	*

DATE: 10/18/96 TIME: 14:18:05

-	0.09	-	0.07	-	0.03	*+
-	[illegible]	-	[illegible]	-	0.01	*+
-	0.11	-	0.09	-	0.05	-*+
-	0.09	-	0.05	-	0.03	*+
-	0.12	-	0.09	-	0.04	-*+
-	0.09	-	0.08	-	0.05	*+
-	0.13	-	0.11	-	0.07	*+
-	0.12	-	0.11	-	0.07	*+
-	0.12	-	0.11	-	0.09	*+
-	0.13	-	0.12	-	0.11	*
-	0.12	-	0.12	-	0.09	*+
-	0.13	-	0.11	-	0.09	*+
@-	0.13	-	0.12	-	0.11	*

DATE: 10/18/96 TIME: 15:43:34

-	0.07	-	0.03		0.04	-+ +
-	0.0[illegible]	-	0.04		0.03	-*+
	0.0[illegible]	-	0.04		0.02	-*+
	0.01	-	0.04		0.02	*+
-	0.07	-	0.05		0.00	-*+
-	0.08	-	0.05	-	0.01	-*+
-	0.08	-	0.05		0.00	-*+
-	0.07	-	0.07	-	0.03	*+
-	0.08	-	0.05	-	0.01	-*+
-	0.09	-	0.07	-	0.03	*+
	0.09		0.06	-	0.03	*+

1055

-	0.07	-	0.05	-	0.0	*+
-	0.11	-	0.08	-	0.04	-*+
-	0.11	-	0.09	-	0.05	-*+
-	0.09	-	0.08	-	0.05	*+
-	0.09	-	0.08	-	0.04	*+
-	0.09	-	0.07	-	0.03	*+
	0.09	-	0.08	-	0.04	*+
	0.11	-	0.09	-	0.05	-*+
-	0.05	-	0.04		0.04	-* +

DATE: 10/18/96 TIME: 16:03:34

-	0.08	-	0.03		0.08	-* +
-	0.04	-	0.01		0.05	-*+
-	0.03		0.00		0.08	-* +
-	0.08	-	0.05	-	0.01	-*+
-	0.08	-	0.05		0.00	-*+
-	0.01	-	0.07	-	0.01	* +
	0.03	-	0.07	-	0.04	*+
-	0.09	-	0.07	-	0.04	*+
-	0.09	-	0.09	-	0.03	*+
-	0.05	-	0.01		0.12	-* +
-	0.07	-	0.01		0.05	- *+
-	0.01	-	0.04	-	0.01	-*+
-	0.01	-	0.07	-	0.03	*+
-	0.01		[illegible]		[illegible]	*+
-	0.07	-	0.02	-	0.03	*+
-	0.09	-	0.07	-	0.03	*+

7101 W [illegible]on Avenue, Suite 700
Bethesda, Maryland 20814-4870
(301) 652-2215 FAX (301) 656-8059

Normal Turn-Around

1-8990

438

CHAIN-OF-CUSTODY RECORD

№ ~~1731~~

JOB NO:

PROJECT NAME-CLIENT: Ft. Drum - Bldg T-4002

SAMPLER (Signature): Steph C. L

~~SAMPLE NO~~	~~Date~~	~~Time~~	Comp	Grab	Matrix	SAMPLE #	Total No. of Containers	NIOSH 7300 (Lead by ICP)	NIOSH 5001 (2,4-D and 2,4,5-T)	NIOSH 5274/5 (DDD, DDE, and DDT)								Volume (Liters)
						FD-101896-PH2-A-001	1	✓										675.48
						-A-002		✓										671.44
						-A-003		✓										680.45
						-A-004		✓										671.84
						-B-001			✓									190.52
						-B-002			✓									226.72
						-B-003			✓									201.94
						-B-004			✓									221.00
						-C-001				✓								199.18
						-C-002				✓								239.80
						-C-003				✓								206.30
						-C-004				✓								212.16

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Report Results To:
				Phone: 301-652-2215 (ext. 271) Fax: 301-656-8059

DISTRIBUTION
White Accompanies Shipment
Yellow Project Files
Pink Field Log
Gold QA Files

Dames & Moore

1057

1059

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 10-22-96 Start Time: 0915 Completion Time: 0930

Location: Building T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Site Survey

Protective Clothing/Equipment: Level D + overboots

Chemical Hazards: Pesticides

Physical Hazards: Slips, trips, falls

Control Methods: PPE, site hygiene

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
Rick Dufore	[signature]
Robert Korzec	[signature]

1061

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 11-19-96 Start Time: 7:30AM Completion Time: 7:45AM

Location: Bldg T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Continuing soil excavation

Protective Clothing/Equipment: Level D + overboots

Chemical Hazards: Pesticides

Physical Hazards: Slips, trips, falls, equipment, cold weather

Control Methods: PPE, site hygiene, equip. clearance, frequent warming breaks

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
Gary Ray	
Rick Bailey	
Donald Truslow	
M. Husain	
Pete Weilersbacher	

1063

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 11-19-96

Inspector: Stephen Lanham

Site Conditions, Weather: Over cast, rainy, 35-40 °F

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?			
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?	✓		
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

Site activities began late in day; Perimeter + personnel air sampling not warranted.

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?	✓		
Air monitoring log available and current?	✓		
Does monitoring log reflect excursions above action levels?			
Has personal sampling been performed?		✓	
Have any exposure symptoms been reported?		✓	
HEAT STRESS MONITORING			
Has heat stress monitoring been implemented?			✓
Are work/rest regimens established/followed?			✓
Are pulse rate and oral temperature taken?			✓
Monitoring log available and current?			✓
Any heat stress incidents?		✓	
Are personnel aware of symptoms/first aid?	✓		
Are ambient temperature readings logged?			✓
Are emergency medical treatment and first aid available to personnel?	✓		
PERSONAL PROTECTIVE EQUIPMENT			
All PPE called for in HSP available?	✓		
Is there sufficient PPE available for the personnel involved in the performance of site operations?	✓		
Is PPE used in accordance with SHP?	✓		
Has PPE been upgraded or downgraded?		✓	
Is the PPE in place adequate for the chemical and physical hazards on-site?	✓		
Is there a need to modify the PPE requirements?		✓	
All personnel appropriately taped-up?			✓

Additional Information

_____

_____

_____

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?	✓		
All drums and containers inspected for structural integrity before moving?	✓		
Personnel warned of the potential hazards associated with the contents of containers prior to movement?	✓		
Containers moved using appropriate mechanical devices to avoid injury?	✓		
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?	✓		
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?	✓		
SSHP decontamination procedures observed?	✓		
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?	✓		
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?	✓		
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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1069

INSTRUMENT CALIBRATION CHECK SHEET
Building T4002
Fort Drum, New York

November 19, 1996

Instrument(s): PID

Serial No.(s):

Technician's Signature: Stephen C. Tanner

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
1330	—	Ambient	Zero	G	SCL	SN: 101238
	—	100 ppm → 57 ppm	—	"	"	"
1630	—	100 ppm → 57 ppm	—	"	"	"

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 11-19-96

Field Activities: Soil excavation

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Tanha

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
111996-001	1400	1	Adjacent to soil excav.	0.	~~ppm~~ PID (ppm)
-002	1430	1	" " " "	0	P
-003	1500	1	" " " "	0	P
-004	1600	1	" " " "	0	P
-005	1630	1	" " " "	0	P

1071

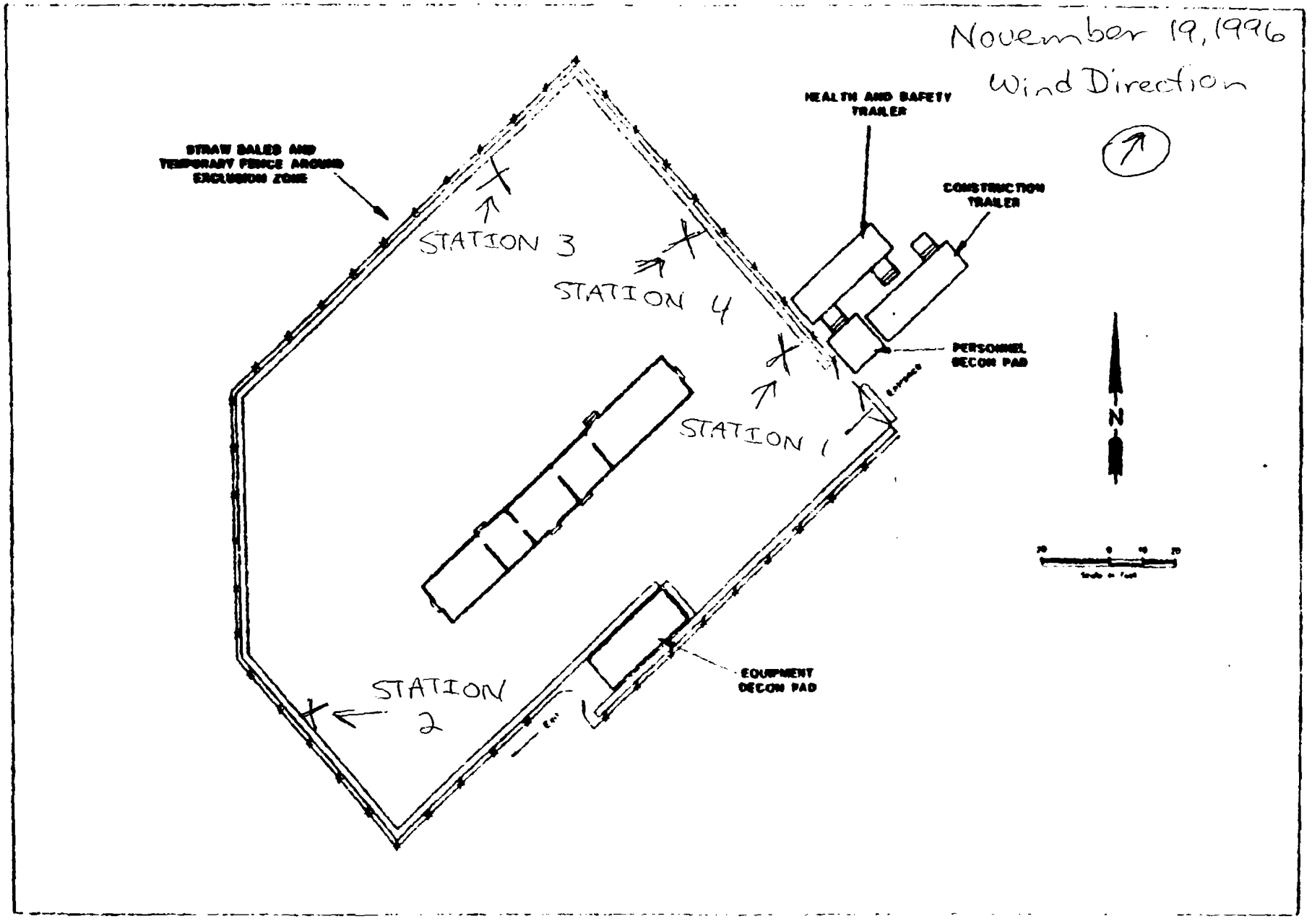

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

1073

1075

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 11-20-96 Start Time: 7:00 AM Completion Time: 7:15 AM

Location: Bldg T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Soil excavation

Protective Clothing/Equipment: Level D + overboots

Chemical Hazards: Pesticides

Physical Hazards: Slips, trips, falls, equipment, cold weather

Control Methods: PPE, clearance

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
Dennis Troslow	[illegible]
Rick Bailey	[illegible]
Gary Ray	[illegible]
P. Weilersbacher	[illegible]

1077

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 11-20-96 Start Time: 0905 Completion Time: 0915

Location: Bldg T-4002 Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Excavation survey

Protective Clothing/Equipment: Level D + over boots

Chemical Hazards: Pesticides

Physical Hazards: Slips, trips, falls, equip.

Control Methods: PPE

Special Equipment/Techniques: ~

Other:

Print Name	Sign Name
RICK DUFORE	[illegible]
Robert [illegible]	[illegible]

1079

INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York

November 20, 1996

Instrument(s): PID

Serial No.(s):

Technician's Signature: Steph C. Yal

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0850	—	Ambient	Zero	G	SCL	SN: 101238
	—	100 ppm → 57 ppm	—	"	"	"
1640	—	Ambient	Zero	—	—	—
	—	100 ppm → 57 ppm	—	—	—	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

1071

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 11-20-96

Inspector: Stephen Lanham

Site Conditions, Weather: 30-35°F, Partly Sunny, wind slight W→E

Soil excavation

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?	✓		
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?	✓		
All drums and containers inspected for structural integrity before moving?	✓		
Personnel warned of the potential hazards associated with the contents of containers prior to movement?	✓		
Containers moved using appropriate mechanical devices to avoid injury?	✓		
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?	✓		
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?	✓		
SSHP decontamination procedures observed?	✓		
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?	✓		
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?	✓		
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are unauthorized personnel denied access to decontamination areas, decontamination equipment and change rooms?	✓		
Are washing facilities away from hazardous substances and adequate to permit personnel to remove hazardous substances from their bodies?	✓		
Are decontamination solution(s), equipment and clothing properly marked and left on-site or disposed of?	✓		
DRILLING			
Have proper underground utility clearances been obtained?			✓
Have overhead utility clearances been considered?			
Flammable liquids in approved containers?			
Emergency rig shutoff within reach of the operator?			
Appropriate fire shutoff within reach of the operator?			
Drilling platform properly stabilized?			
Ropes and chains in good condition?			✓
EXCAVATION			
Have proper utility clearances been obtained?	✓		
Has the On-site Competent Person been identified and is present?	✓		
Are daily trench inspections being conducted (or more frequently, as conditions warrant)?	✓		
Support systems (piling, cribbing, shoring) appropriate for the job?	✓		
Is there suitable access by stairs, ladders, ramps, hoists?	✓		
Appropriate guardrails, fences, barricades and warning lights?	✓		
MISCELLANEOUS SAFETY PROCEDURES			
If site work is anticipated in dimly lighted areas, is additional lighting provided?			✓
Is potable water labeled as safe for drinking?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 11-20-96
Phase: Phase II
Activity: Soil excavation
Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Sunny, wind W→E, 30-35°F

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FO-112096 IH2-A-001	Station 1	10050	0845	1530	405	1.37	1.37	1.37	554.85	
-B-001	"	03812	"	1610	445	0.43	0.43	0.43	191.35	
-C-001	"	"	"	1610	445	0.44	0.44	0.44	195.80	
-A-002	Station 2	5589	0850	1549	419	~~0.46~~ 1.39	1.39	1.39	582.41	
-B-002	"	03811	"	"	"	0.46	0.46	0.44	184.36	
-C-002	"	"	"	"	"	0.44	0.47	0.44	184.36	
-A-003	Station 3	5538	0900	1620	440	~~1.39~~ 1.48	1.66	1.48	651.20	
-B-003	"	03673	"	"	"	0.44	0.43	0.43	189.20	
-C-003	"	"	"	"	"	0.43	0.44	0.43	189.20	
-A-004	Station 4	5587	0905	1617	432	1.48	1.47	1.47	635.04	
-B-004	"	5	"	"	"	0.44	0.44	0.44	190.08	
-C-004	"	"	"	"	"	0.44	0.43	0.43	185.76	

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 11-20-96

Phase: Phase II

Activity: Soil excavation

Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
Sunny, wind W→E, 30-35°F

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-112096-AH2-A-0040	Station 4 (COE Duplicate)	10049	0905	1540	395	1.48	1.70	1.48	584.60	
-B-0040	"	03807	"	1615	430	0.43	0.47	0.43	184.90	
-C-0040	"	"	"	1615	"	0.46	0.44	0.44	189.20	

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REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 11-20-96

Field Activities: Soil excavation

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Steph C. Fa

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
112096-001	0900	1	At excavation area	0	PID (ppm)
-002	0902	1	Station 2	0	P
-003	0903	1	" 3	0	P
-004	0905	1	" 4	0	P
-005	0907	1	" 1	0	P
-006	1010	1	At excavation	0	P
-007	1012	1	Station 2	0	P
-008	1013	1	" 3	0	P
-009	1015	1	" 4	0	P
-010	1017	1	" 1	0	P
-011	1255	1	At excavation	0	P
-012	1257	1	Station 3	0	P
-013	1259	1	" 2	0	P
-014	1302	1	" 1	0	P
-015	1304	1	" 4	0	P
-016	1535	1	Station 3	0	P
-017					

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 11-20-96

Field Activities: Soil excavation

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Tomlin

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
112096-017	1337	1	Station 2	0	PID (ppm)
-018	1340	1	" 1	0	P
-019	1342	1	" 4	0	P
-020	1344	1	At excavation	0	P

1089

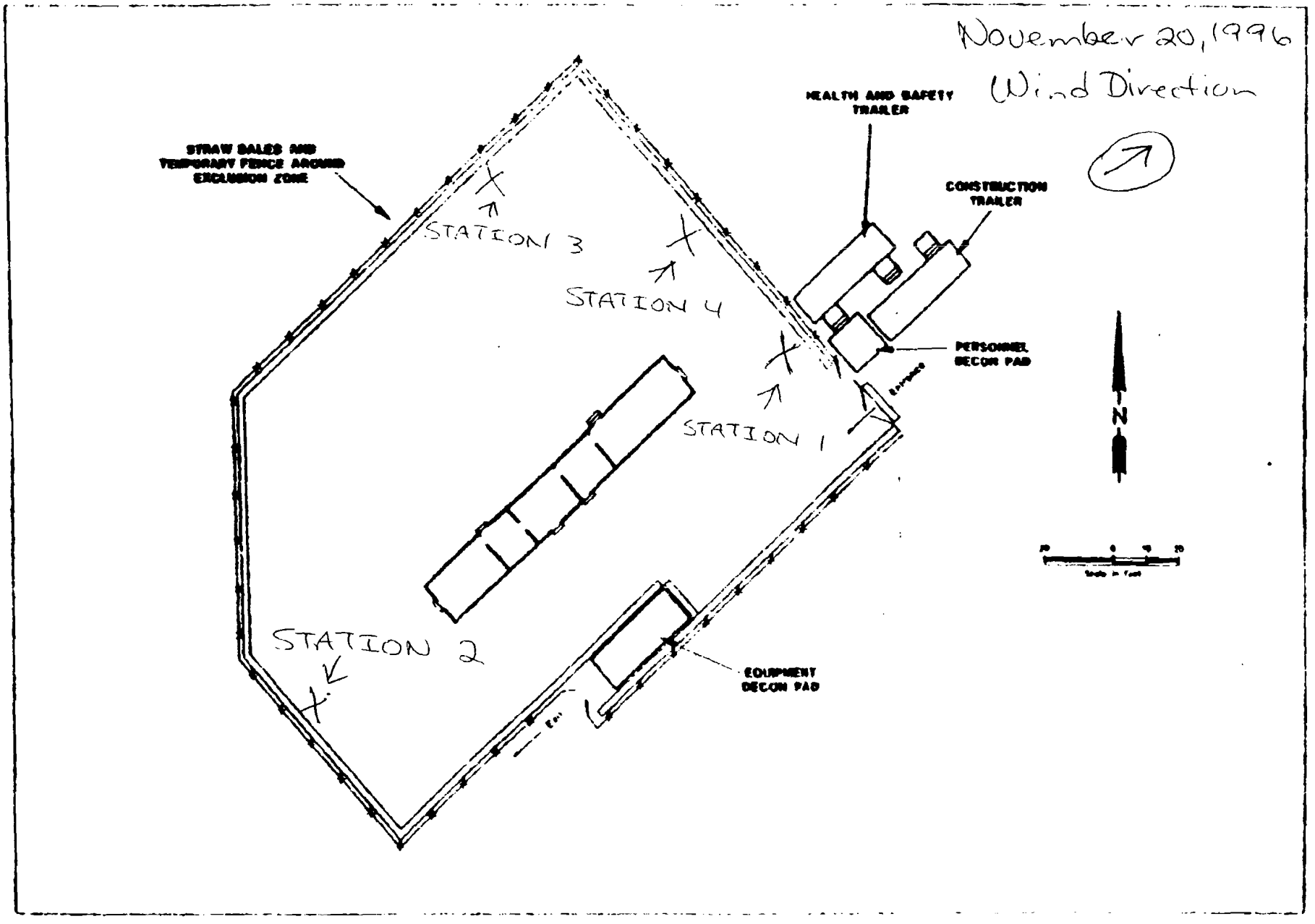

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

1085

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SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 11-21-96 Start Time: Completion Time:

Location: Bldg T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Soil excavation

Protective Clothing/Equipment: Level D + overboots

Chemical Hazards: Pesticides

Physical Hazards: Slips, trips, falls, equipment, ice

Control Methods: PPE, clearance, cautious work

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
Gary Ray	[signature]
Rick Bailey	[signature]
Donnie Truslow	[signature]
P Weilersbacher	[signature]

1089

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 11-21-96

Inspector: Stephen Lanham

Site Conditions, Weather: Overcast, wind W→E, 30-35°F, No precip.

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?	✓		
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?	✓		
Air monitoring log available and current?	✓		
Does monitoring log reflect excursions above action levels?		✓	
Has personal sampling been performed?	✓		
Have any exposure symptoms been reported?		✓	
HEAT STRESS MONITORING			
Has heat stress monitoring been implemented?			✓
Are work/rest regimens established/followed?			✓
Are pulse rate and oral temperature taken?			✓
Monitoring log available and current?			✓
Any heat stress incidents?		✓	
Are personnel aware of symptoms/first aid?	✓		
Are ambient temperature readings logged?			✓
Are emergency medical treatment and first aid available to personnel?	✓		
PERSONAL PROTECTIVE EQUIPMENT			
All PPE called for in HSP available?	✓		
Is there sufficient PPE available for the personnel involved in the performance of site operations?	✓		
Is PPE used in accordance with SHP?	✓		
Has PPE been upgraded or downgraded?		✓	
Is the PPE in place adequate for the chemical and physical hazards on-site?	✓		
Is there a need to modify the PPE requirements?		✓	
All personnel appropriately taped-up?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?	✓		
All drums and containers inspected for structural integrity before moving?	✓		
Personnel warned of the potential hazards associated with the contents of containers prior to movement?	✓		
Containers moved using appropriate mechanical devices to avoid injury?	✓		
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?	✓		
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?	✓		
SSHP decontamination procedures observed?	✓		
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?	✓		
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?	✓		
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York

November 21, 1996

Instrument(s): PID, Dust

Serial No.(s).

Technician's Signature: Stephen C. Tanham

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0910	PID	Ambient	Zero	G	SCL	SN: 101238
	"	100 ppm → 57 ppm	—	"	"	"
	Dust	Factory →		"	"	SN: 4017
	"	Zero →		"	"	"
1630	PID	100 ppm → 57 ppm	—	—	—	—
	Dust	Factory →		—	—	—
	"	Zero →		—	—	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 11-21-96
Phase: Phase II
Activity: Soil Excavation
Industrial Hygienist: Stephen C. Lanham

Comments: (Weather, wind condition, etc.)
overcast, snow fall, 30-35 °F

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-112196-PM2 A-001	Station 1	10050	0855	1600	425	1.38	1.39	1.39	590.75	
-B-001	"	03673	"	"	"	0.43	0.43	0.43	182.75	
-C-001	"	"	"	"	"	0.44	0.44	0.44	187.00	
-A-002	Station 2	10049	0840	1550	430	1.51	1.50	1.50	645.00	
-B-002	"	5	"	"	"	0.45	0.43	0.43	184.90	
-C-002	"	"	"	"	"	0.43	0.44	0.43	184.90	
-A-003	Station 3	5587	0843	1553	430	1.52	1.50	1.50	645.00	
-B-003	"	03807	"	"	"	0.48	0.48	0.48	206.40	
-C-003	"	"	"	"	"	0.43	0.43	0.43	184.90	
-A-004	Station 4	5538	0847	1556	429	1.49	1.46	1.46	626.34	
-B-004	"	03812	"	"	"	0.43	0.43	0.43	184.47	
-C-004	"	"	"	"	"	0.44	0.43	0.43	184.47	

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INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 11-21-96
Phase: Phase II
Activity: Soil Excavation
Industrial Hygienist: Stephen C. Fanton

Comments: (Weather, wind condition, etc.)
Overcast, Snowfall, 30-35°F

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-112196-PH2-A-004D	Station 4 (COE Dump)	5589	0847	1556	429	1.40	1.41	1.40	600.60	
-B-004D	"	03811	"	"	"	0.45	0.44	0.44	188.76	
-C-004D	"	"	"	"	"	0.47	0.46	0.46	197.34	
-A-005	Personnel sample	5536	0905	1400	295	1.51	1.51	1.51	445.45	
-B-005	"	03813	"	"	"	0.53	0.52	0.52	153.40	
-C-006	"	"	"	"	"	0.52	0.52	0.52	153.40	

1099

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 11-21-96

Field Activities: Soil excavation

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Farnham

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
112196-001	0920	1	At excavation	0	PID (ppm)
112196-002	0922		Station 3	0	
-003	0924		" 4	0	
-004	0926		" 1	0	
-005	0930		" 2	0	
-006	1030		At excavation	0	P
"	"		"	0.03	Dust
-007	1032		Station 4	0	P
"	"		"	0.05	D
-008	1034		Station 3	0	P
"	"		"	0.03	D
-009	1036		Station 2	0	P
"	"		"	0.03	D
-010	1039		Station 1	0	P
"	"		"	0.03	D
-011	1130		At excavation	0	P
"	"		"	0.05	D

Data Logger not operational

1101

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 11-21-96

Field Activities: Soil excavation

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Zanke

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
112196-012	1133	1	Station 4	0	P
"	"		"	0.03	D
-013	1135		Station 3	0	P
"	"		"	0.07	D
-014	1137		Station 2	0	P
"	"		"	0.03	D
-015	1140		Station 1	0	P
"	"		"	0.03	D
-016	1250		At excavation	0	P
"	"		"	0.05	D
-017	1252		Station 4	0	P
"	"		"	0.03	D
-018	1254		Station 3	0	P
"	"		"	0.03	D
-019	1257		Station 2	0	P
"	"		"	0.05	D

1103

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 11-21-96

Field Activities: Soil excavation

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Tanton

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
112196-021	1300	1	Station 1	0	PID
"	"		"	0.05	Dust

1105

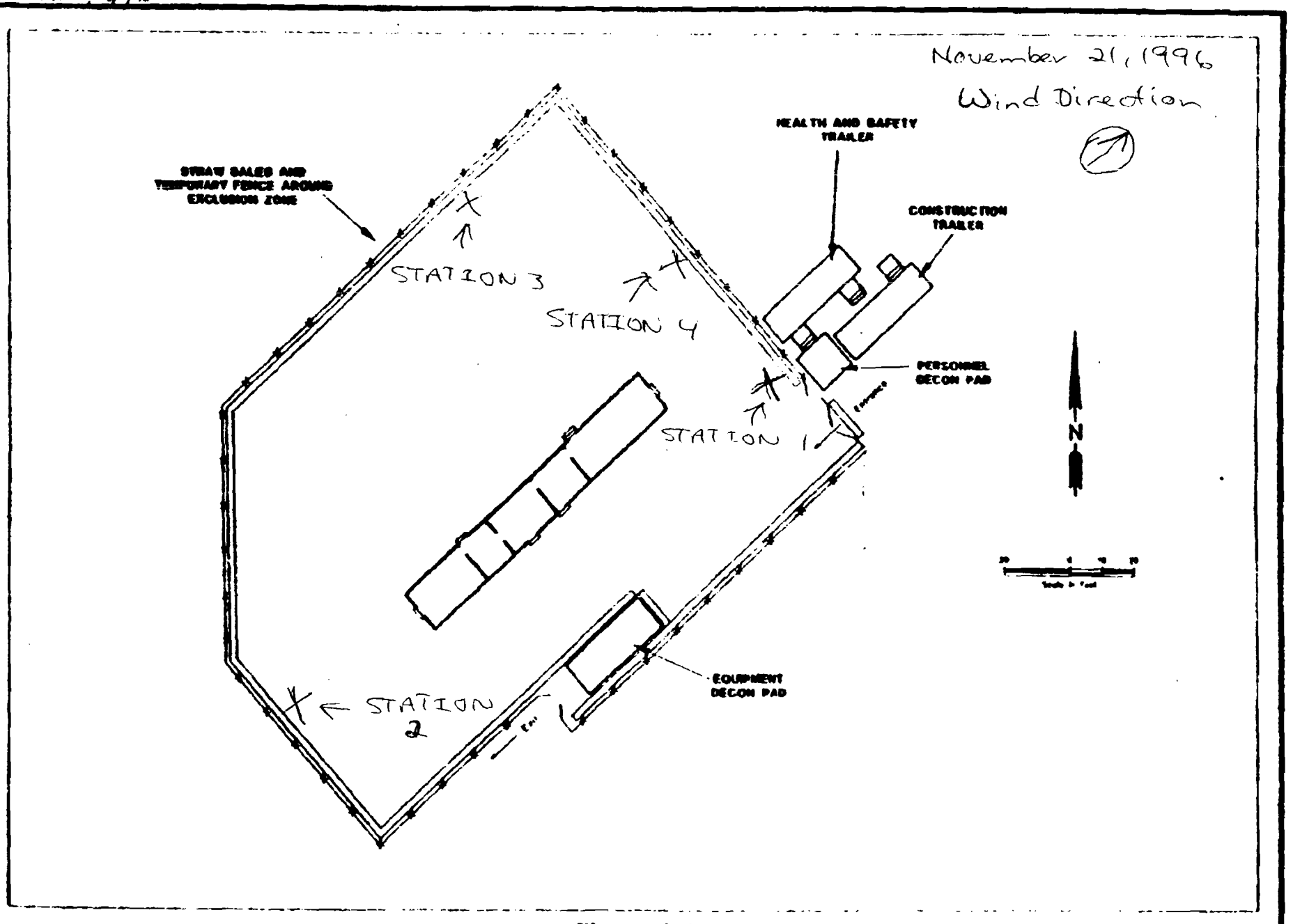

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

1107

DAMES & MOORE
7101 Wis[illegible] Avenue, Suite 700
Bethesda, Maryland 20814-4870
(301) 652-2215 FAX (301) 656-8059

Normal Turn-around per P.O.# WA 790

CHAIN-OF-CUSTODY RECORD

№ ~~1734~~ 440

JOB NO:

PROJECT NAME-CLIENT: Ft. Drum - Bldg T-4002

SAMPLER (Signature): Stephen C. Tanham

SAMPLE NO	Date	Time	Comp.	Grab	Matrix	SAMPLE # ~~Station Number and Location~~	Total No. of Containers	NIOSH 7300 (Lead by ICP)	NIOSH 5001 (2,4-D and 2,4,5-T)	NIOSH 5274M (DDD, DDE, and DDT)								REMARKS Volume (Liters)
						FD-112196-PH2-A-001	1	✓										590.75
						-A-002		✓										645.00
						-A-003		✓										645.00
						-A-004		✓										626.34
						-B-001			✓									182.75
						-B-002			✓									184.90
						-B-003			✓									206.40
						-B-004			✓									184.47
						-C-001				✓								189.00
						-C-002				✓								184.90
						-C-003				✓								184.90
						-C-004				✓								184.47

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Stephen C. Tanham	11-21-96 5:00 PM				
Relinquished by: (Signature)	**Date/Time**	**Received for Laboratory by (Signature)**	**Date/Time**	**Report Results To:** Phone: 301-652-2215 FAX: 301-656-8059	

DISTRIBUTION
White Accompanies Shipment
Yellow Project File
Pink Field Log
Gold QA Files

Dames & Moore

1169

7101 W sin Avenue Suite 700
Bethesd Maryland 20814-4870
(301) 652-2215 FAX (301) 656-8059

4Y 24 turn-around per P.O # 5170

CHAIN-OF-CUSTODY RECORD

№ 441 ~~1734~~

JOB NO:

PROJECT NAME-CLIENT: Ft. Drum - Bldg T-4002

SAMPLER (Signature): Stephen C. Lamb

SAMPLE NO.	Date	Time	Comp	Grab	Matrix	SAMPLE ID ~~Station Number and Location~~	Total No of Containers	NIOSH 7300 (Lead by ICP)	NIOSH 5001 (2,4-D and 2,4,5-T)	NIOSH 5274M (DDD, DDE and DDT)							REMARKS Volume (Liters)
						FD-112196-PH2-A-005	1	✓									445.45
						-B-005	1		✓								153.40
						-C-005	1			✓							153.40

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Stephen C. Lamb	11-21-96 5:00 PM				

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Report Results To:
				Phone: 301-652-2215 FAX: 301-656-8059

DISTRIBUTION
White: Accompanies Shipment
Yellow: Project Files
Pink: Field Log
Gold: QA Files

Dames & Moore

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 11-22-96 Start Time: 9:30 Completion Time: 9:45

Location: Bldg T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Backfilling in excavation

Protective Clothing/Equipment: Level D

Chemical Hazards: None

Physical Hazards: Slips, trips, falls, cold, equipment

Control Methods: Carefull/cautious use of equipment

Special Equipment/Techniques: —

Other:

Print Name	Sign Name

1115

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 11-22-96

Inspector: Stephen Lanham

Site Conditions, Weather: Snow, cloudy, wind slight, W→E

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?	✓		
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		X

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?			✓
All drums and containers inspected for structural integrity before moving?			✓
Personnel warned of the potential hazards associated with the contents of containers prior to movement?			✓
Containers moved using appropriate mechanical devices to avoid injury?			✓
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?			✓
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?			✓
Site safety and health supervisor monitor decontamination procedures?			✓
SSHP decontamination procedures observed?			✓
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?			✓
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?			✓
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?			✓
Is the proper order to PPE removal observed?			✓
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are unauthorized personnel denied access to decontamination areas, decontamination equipment and change rooms?	✓		
Are washing facilities away from hazardous substances and adequate to permit personnel to remove hazardous substances from their bodies?			✓
Are decontamination solution(s), equipment and clothing properly marked and left on-site or disposed of?			✓
DRILLING			
Have proper underground utility clearances been obtained?			✓
Have overhead utility clearances been considered?			✓
Flammable liquids in approved containers?			✓
Emergency rig shutoff within reach of the operator?			
Appropriate fire shutoff within reach of the operator?			
Drilling platform properly stabilized?			
Ropes and chains in good condition?			✓
EXCAVATION			
Have proper utility clearances been obtained?			✓
Has the On-site Competent Person been identified and is present?			✓
Are daily trench inspections being conducted (or more frequently, as conditions warrant)?			✓
Support systems (piling, cribbing, shoring) appropriate for the job?			✓
Is there suitable access by stairs, ladders, ramps, hoists?			✓
Appropriate guardrails, fences, barricades and warning lights?			✓
MISCELLANEOUS SAFETY PROCEDURES			
If site work is anticipated in dimly lighted areas, is additional lighting provided?			✓
Is potable water labeled as safe for drinking?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York November 22, 1996

Instrument(s): Dust

Serial No.(s): 4017

Technician's Signature: Stephen C. Fank

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0900	Dust	Factory →		G	SCL	-
	"	Zero →		"	"	—
1100	"	Zero →		-	-	-
	—					

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 11-22-96

Field Activities: Backfilling

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Tanner

Background Level:

Datalogger not functioning

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
112296-001	0930	1	At compaction area	0.03	Dust
-002	0933	1	Station 3	0.01	D
-003	0935	1	" 2	0.00	D
-004	0938	1	" 4	0.03	D
-005	0940	1	" 1	0.03	D
-006	1040	1	At compaction area	0.03	
-007	1042	1	Station 3	0.04	
-008	1044	1	" 2	0.02	
-009	1047	1	" 1	0.01	
-010	1049	1	" 4	0.01	

1123

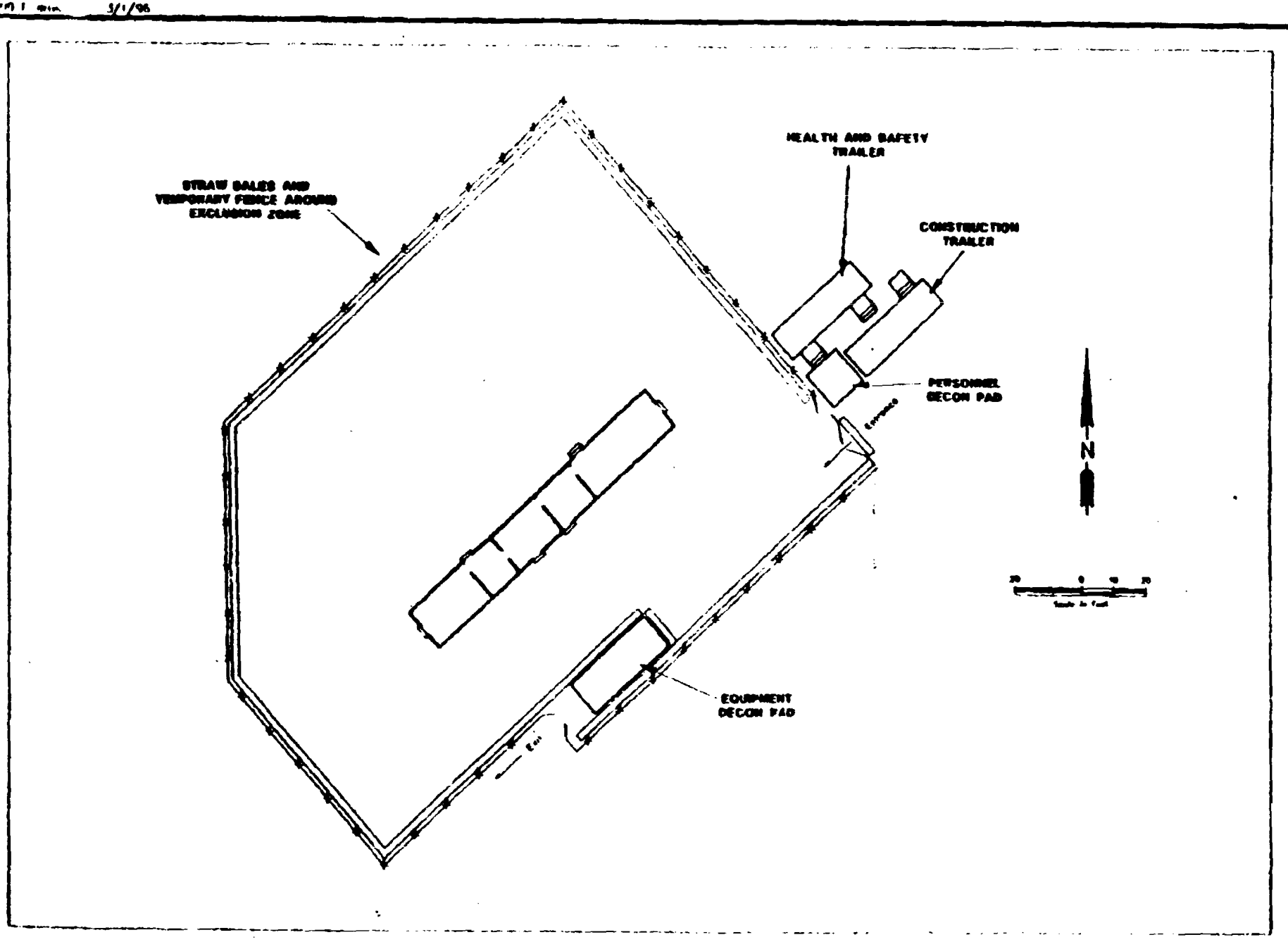

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

1125

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 11-25-96 Start Time: 0830 Completion Time: 0840

Location: Bldg T-4002, Site Safety Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Backfilling, compaction

Protective Clothing/Equipment: Level D

Chemical Hazards: None

Physical Hazards: Slips, trips, falls

Control Methods: Careful/Cautious walking + working, freq. breaks

Special Equipment/Techniques: —

Other: —

Print Name	Sign Name
Rick Bailey	[illegible]
Ronnie Tarlton	[illegible]
Gary Ray	Gary Ray

1129

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 11-25-96

Inspector: Stephen Lanham

Site Conditions, Weather: Snow, cloudy, still wind

Backfilling/compaction

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?	✓		
Air monitoring log available and current?	✓		
Does monitoring log reflect excursions above action levels?		✓	
Has personal sampling been performed?		✓	
Have any exposure symptoms been reported?		✓	
HEAT STRESS MONITORING			
Has heat stress monitoring been implemented?			✓
Are work/rest regimens established/followed?			✓
Are pulse rate and oral temperature taken?			✓
Monitoring log available and current?			✓
Any heat stress incidents?		✓	
Are personnel aware of symptoms/first aid?	✓		
Are ambient temperature readings logged?		X	✓
Are emergency medical treatment and first aid available to personnel?	✓		
PERSONAL PROTECTIVE EQUIPMENT			
All PPE called for in HSP available?	✓		
Is there sufficient PPE available for the personnel involved in the performance of site operations?	✓		
Is PPE used in accordance with SHP?	✓		
Has PPE been upgraded or downgraded?		✓	
Is the PPE in place adequate for the chemical and physical hazards on-site?	✓		
Is there a need to modify the PPE requirements?		✓	
All personnel appropriately taped-up?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?			✓
All drums and containers inspected for structural integrity before moving?			✓
Personnel warned of the potential hazards associated with the contents of containers prior to movement?			✓
Containers moved using appropriate mechanical devices to avoid injury?			✓
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?			✓
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?			✓
Site safety and health supervisor monitor decontamination procedures?			✓
SSHP decontamination procedures observed?			✓
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?			✓
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?			✓
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?			✓
Is the proper order to PPE removal observed?			✓
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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1135

INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York November 25, 1996

Instrument(s): Dust

Serial No.(s): 4017

Technician's Signature: Stephen C. Tanha

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0900	Dust	Factory →		G	SCL	—
	—	Zero →		"	"	—
1615	Dust	Zero →		"	"	—

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 11-25-96

Field Activities: Backfilling/compaction

Wind Direction: Still

Instrument, Model & Serial No.: —

Estimated Wind Speed: —

Technician Signature: Stephen C. Fanlon

Background Level: —

Datalogger not operational

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
112596-001	0930	1	At compaction area	0.03	Dust
-002	0933	1	Station 4	0.03	D
-003	0935		" 3	0.01	D
-004	0937		" 2	0.03	D
-005	0940		" 1	0.03	D
-006	1100		At compaction area	0.04	D
-007	1103		Station 1	0.03	D
-008	1105		" 4	0.03	D
-009	1108		" 3	0.01	D
-010	1111		" 2	0.01	D
-011	1330		At compaction area	0.03	D
-012	1333		Station 4	0.03	D
-013	1335		" 3	0.04	D
-014	1339		" 2	0.04	D
-015	1341		" 1	0.01	D
-016	1540		At compaction area	0.01	D
-017	1544		Station 4	0.03	D

1137

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 11-25-96

Field Activities: Backfilling/compaction

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Farnham

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
112596-018	1550	1	Station 3	0.04	Dust
-019	1553	1	" 2	0.03	D
-020	1555	1	" 1	0.03	D

1139

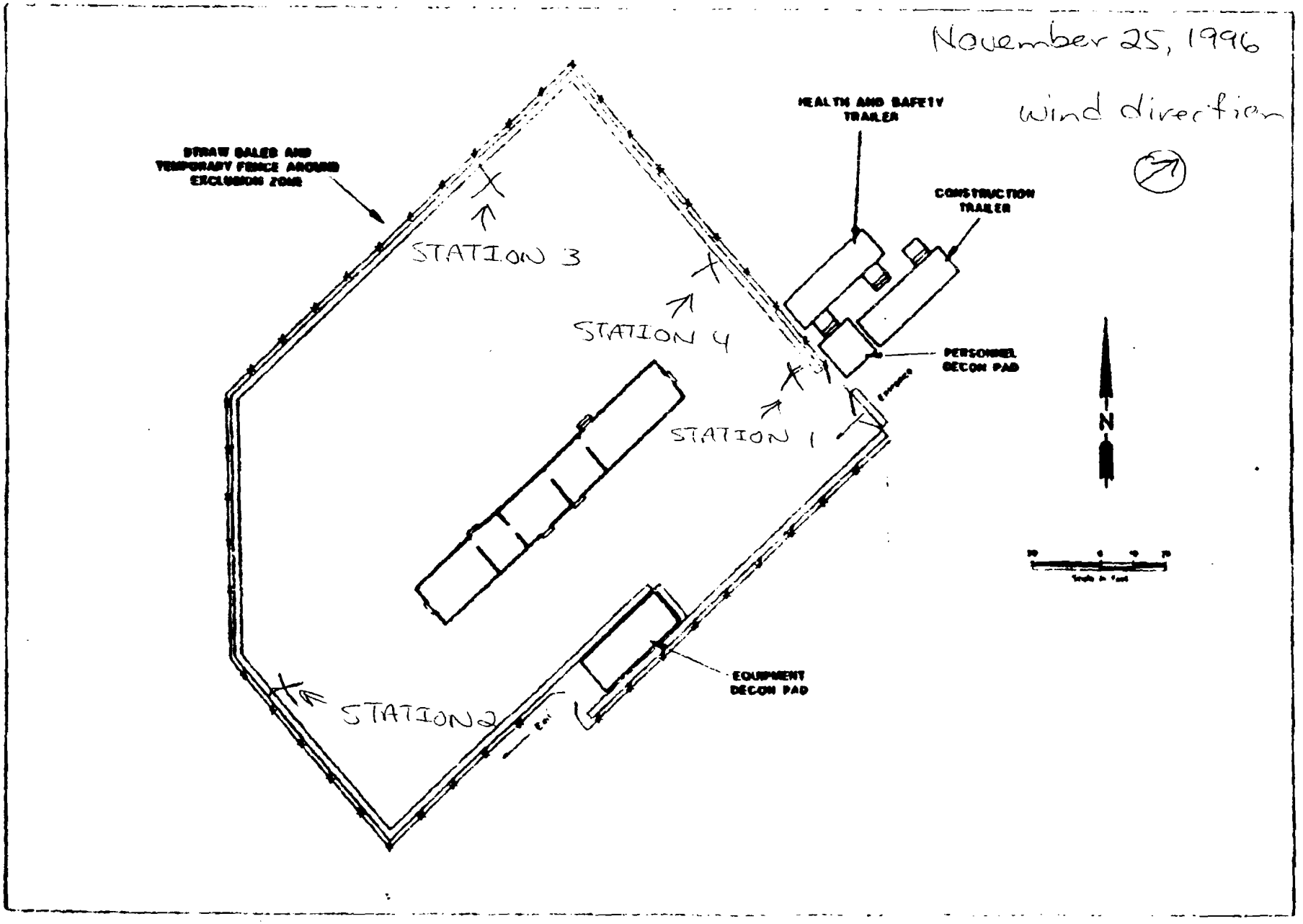

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

1141

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 11-26-96 **Start Time:** 0715 **Completion Time:** 0725

Location: Bldg T-4002, Site Trailer

Meeting Conducted by: Steve Lanham

SAFETY ISSUES

Tasks: Backfilling and ~~ex~~ compaction

Work halted at 10:30 AM

Protective Clothing/Equipment: Level D

Chemical Hazards: none

Physical Hazards: Cold, equipment, slips, trips

Control Methods: Freq. breaks, caution around equipment

Special Equipment/Techniques: —

Other: —

Print Name	Sign Name
[illegible]	[illegible]
BAILEY	[illegible]
GARY RAY	[illegible]

1145

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 11-26-96

Inspector: Steve Lanham

Site Conditions, Weather: Snow, clouds, 25-30°F

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?		✓	✓
Air monitoring log available and current?			✓
Does monitoring log reflect excursions above action levels?			✓
Has personal sampling been performed?			✓
Have any exposure symptoms been reported?		✓	
HEAT STRESS MONITORING			
Has heat stress monitoring been implemented?			✓
Are work/rest regimens established/followed?			✓
Are pulse rate and oral temperature taken?			✓
Monitoring log available and current?			✓
Any heat stress incidents?		✓	
Are personnel aware of symptoms/first aid?	✓		
Are ambient temperature readings logged?			✓
Are emergency medical treatment and first aid available to personnel?	✓		
PERSONAL PROTECTIVE EQUIPMENT			
All PPE called for in HSP available?	✓		
Is there sufficient PPE available for the personnel involved in the performance of site operations?	✓		
Is PPE used in accordance with SHP?	✓		
Has PPE been upgraded or downgraded?		✓	
Is the PPE in place adequate for the chemical and physical hazards on-site?	✓		
Is there a need to modify the PPE requirements?		✓	
All personnel appropriately taped-up?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?			✓
All drums and containers inspected for structural integrity before moving?			✓
Personnel warned of the potential hazards associated with the contents of containers prior to movement?			✓
Containers moved using appropriate mechanical devices to avoid injury?			✓
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?			✓
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?			✓
Site safety and health supervisor monitor decontamination procedures?			✓
SSHP decontamination procedures observed?			✓
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?			✓
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?			✓
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?			✓
Is the proper order to PPE removal observed?			✓
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 12-3-96 **Start Time:** 0715 **Completion Time:** 0730

Location: Bldg T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Backfilling and compaction

Protective Clothing/Equipment: Level D

Chemical Hazards: none

Physical Hazards: Slips, trips, falls, equipment

Control Methods: PPE, clearance

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
Gary Ray	
Rick Bailey	
Dennis Truslow	
Mohammad Husain	

1153

INSTRUMENT CALIBRATION CHECK SHEET
Building T4002
Fort Drum, New York

Instrument(s): Dust Monitor (PDM-3)

Serial No.(s):

Technician's Signature: Stephen C. Fowler

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0820	–	Factory →		G	SCL	SN: 4017
	–	Zero →		"	"	"
1630	–	Factory →		–	–	–

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 12-3-96

Field Activities: Backfilling and compaction

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Lanham

Background Level: –

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
120396-001	0835	1	Excavation	0.03	Dust
-002	0839		Station 3	0.04	D
-003	0841		" 4	0.03	D
-004	0845		" 1	0.03	D
-005	0850		" 2	0.04	D
-006	1030		Excavation	0.07	D
-007	1032		Station 1	0.04	D
-008	1037		" 4	0.04	D
-009	1041		" 3	0.07	D
-010	1043		" 2	0.03	D
-011	1440		Excavation	0.01	D
-012	1443		Station 1	0.03	D
-013	1445		" 4	0.03	D
-014	1450		" 3	0.04	D
-015	1452		" 2	0.04	D

1155

1157

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 12-3-96

Inspector: Stephen Lanham

Site Conditions, Weather: 30-35 °F, cloudy, limited snowfall, wind slight W→E

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?	✓		
Air monitoring log available and current?	✓		
Does monitoring log reflect excursions above action levels?		✓	
Has personal sampling been performed?		✗	✓
Have any exposure symptoms been reported?		✓	
HEAT STRESS MONITORING			
Has heat stress monitoring been implemented?			✓
Are work/rest regimens established/followed?			✓
Are pulse rate and oral temperature taken?			✓
Monitoring log available and current?			✓
Any heat stress incidents?		✓	✗
Are personnel aware of symptoms/first aid?	✓		
Are ambient temperature readings logged?			✓
Are emergency medical treatment and first aid available to personnel?	✓		
PERSONAL PROTECTIVE EQUIPMENT			
All PPE called for in HSP available?	✓		
Is there sufficient PPE available for the personnel involved in the performance of site operations?	✓		
Is PPE used in accordance with SHP?	✓		
Has PPE been upgraded or downgraded?		✓	
Is the PPE in place adequate for the chemical and physical hazards on-site?	✓		
Is there a need to modify the PPE requirements?		✓	
All personnel appropriately taped-up?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?			✓
All drums and containers inspected for structural integrity before moving?			✓
Personnel warned of the potential hazards associated with the contents of containers prior to movement?			✓
Containers moved using appropriate mechanical devices to avoid injury?			✓
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?			✓
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?			✓
Site safety and health supervisor monitor decontamination procedures?			✓
SSHP decontamination procedures observed?			✓
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?			✓
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?			✓
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?			✓
Is the proper order to PPE removal observed?			✓
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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12-3-96

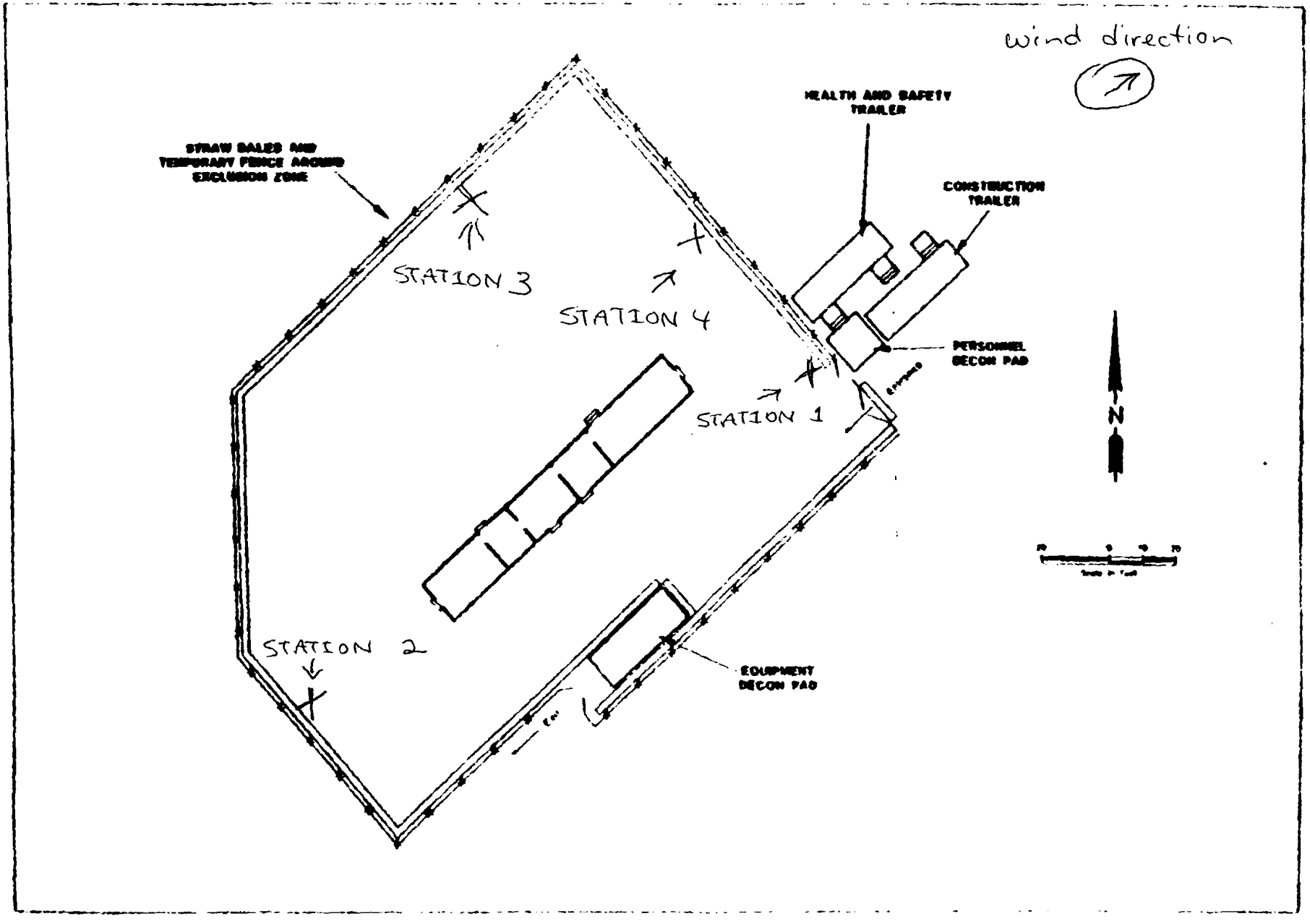

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

1165

MIE INC. Model PDL-10 SN 2291 V5.2 4/89

‹RENT DATE: 12/09/96
CURRENT TIME: 11:43:00

CALIBRATION
- 0.019 V = 0.00 mg/m3
- 0.209 V = 14.10 mg/m3

LOWER ALARM: - 1.41 mg/m3
UPPER ALARM: - 1.41 mg/m3

UNITS: mg/m3

TIME HISTORY
PERIOD LENGTH: 0:10:00
OF PERIODS COMBINED: 1

	MIN	AVG	MAX	HIO
DATE: 12/03/96 TIME: 8:34:25				
-	0.03	0.01	0.06	-*
-	0.03	0.00	0.04	*+
	0.03	0.00	0.12	* +
	0.03	0.00	0.04	*+
@-	0.04	0.01	0.09	-*+
DATE: 12/03/96 TIME: 10:34:42				
-	0.03	0.01	0.07	-*+
-	0.01	0.01	0.06	-*
-	0.01	0.01	0.06	-*
@-	0.01	0.07	0.21	- * +
DATE: 12/03/96 TIME: 14:07:46				
-	0.04	0.00	0.03	*+
-	0.03	0.01	0.04	-*
-	0.03	0.00	0.06	*+
-	0.03	0.00	0.03	*+
-	0.03	0.00	0.03	*+
@	0.00	0.03	0.07	-*+
DATE: 12/04/96 TIME: 9:51:15				
	0.00	0.07	0.53	- * +
@	0.01	0.10	0.36	-* +
DATE: 12/04/96 TIME: 13:04:27				
-	0.03	0.00	0.01	*+
@-	0.04 -	0.01	0.00	*
DATE: 12/04/96 TIME: 15:06:15				
	0.03	0.00	0.07	* +
	0.03	0.01	0.09	-*+
@	0.00	0.03	0.12	-*+
DATE: 12/05/96 TIME: 9:18:45				
-	0.01	0.03	0.10	-*+
-	0.01	0.03	0.15	-* +
-	0.01	0.03	0.07	-*+
@-	0.01	0.01	0.06	-*

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 12-4-96 **Start Time:** 0715 **Completion Time:** 0725

Location: Bldg T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Backfilling and compaction

Protective Clothing/Equipment: Level D

Chemical Hazards: none

Physical Hazards: Slips, trips, falls, equipment

Control Methods: PPE, clearance

Special Equipment/Techniques: –

Other:

Print Name	Sign Name
GARY RAY	[illegible]
Donnie [illegible]	[illegible]
R BAILEY	[illegible]
M. HUSAIN	[illegible]

1169

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 12-4-96

Inspector: Stephen Lanham

Site Conditions, Weather: 30-35°F, Cloudy, Wind W→E, slight

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?	✓		
Air monitoring log available and current?	✓		
Does monitoring log reflect excursions above action levels?		✓	
Has personal sampling been performed?			✓
Have any exposure symptoms been reported?		✓	
HEAT STRESS MONITORING			
Has heat stress monitoring been implemented?			✓
Are work/rest regimens established/followed?			✓
Are pulse rate and oral temperature taken?			✓
Monitoring log available and current?			✓
Any heat stress incidents?		✓	
Are personnel aware of symptoms/first aid?	✓		
Are ambient temperature readings logged?			✓
Are emergency medical treatment and first aid available to personnel?	✓		
PERSONAL PROTECTIVE EQUIPMENT			
All PPE called for in HSP available?	✓		
Is there sufficient PPE available for the personnel involved in the performance of site operations?	✓		
Is PPE used in accordance with SHP?	✓		
Has PPE been upgraded or downgraded?		✓	
Is the PPE in place adequate for the chemical and physical hazards on-site?	✓		
Is there a need to modify the PPE requirements?		✓	
All personnel appropriately taped-up?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?			✓
All drums and containers inspected for structural integrity before moving?			✓
Personnel warned of the potential hazards associated with the contents of containers prior to movement?			✓
Containers moved using appropriate mechanical devices to avoid injury?			✓
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?			✓
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?			✓
Site safety and health supervisor monitor decontamination procedures?			✓
SSHP decontamination procedures observed?			✓
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?			✓
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?			✓
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?			✓
Is the proper order to PPE removal observed?			✓
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			✓

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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1175

INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York

December 4, 1996

Instrument(s): Dust (PDM-3)

Serial No.(s):

Technician's Signature: Stephen C. Tanha

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0800	—	Factory →	G	SCL	SN 4017	
	—	Zero →	"	"	"	
1630	—	Factory →	—	"	"	

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 12-4-96

Field Activities: Backfilling and compaction

Wind Direction: W → E

Instrument, Model & Serial No.: —

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Lanher

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
120496-001	0950	1	Excavation	0.01	Dust
-002	0952		Station 4	0.01	D
-003	0955		" 3	0.00	D
-004	0957		" 2	0.02	D
-005	1000		" 1	0.01	D
-006	1300		Excavation	0.04	D
-007	1305		Station 4	0.03	D
-008	1307		" 3	0.04	D
-009	1309		" 2	0.01	D
-010	1311		" 1	0.01	D
-011	1510		Exavation	0.03	D
-012	1512		Station 4	0.02	D
-013	1515		" 3	0.03	D
-014	1518		" 2	0.03	D
-015	1521		" 1	0.03	D

1177

12-4-96

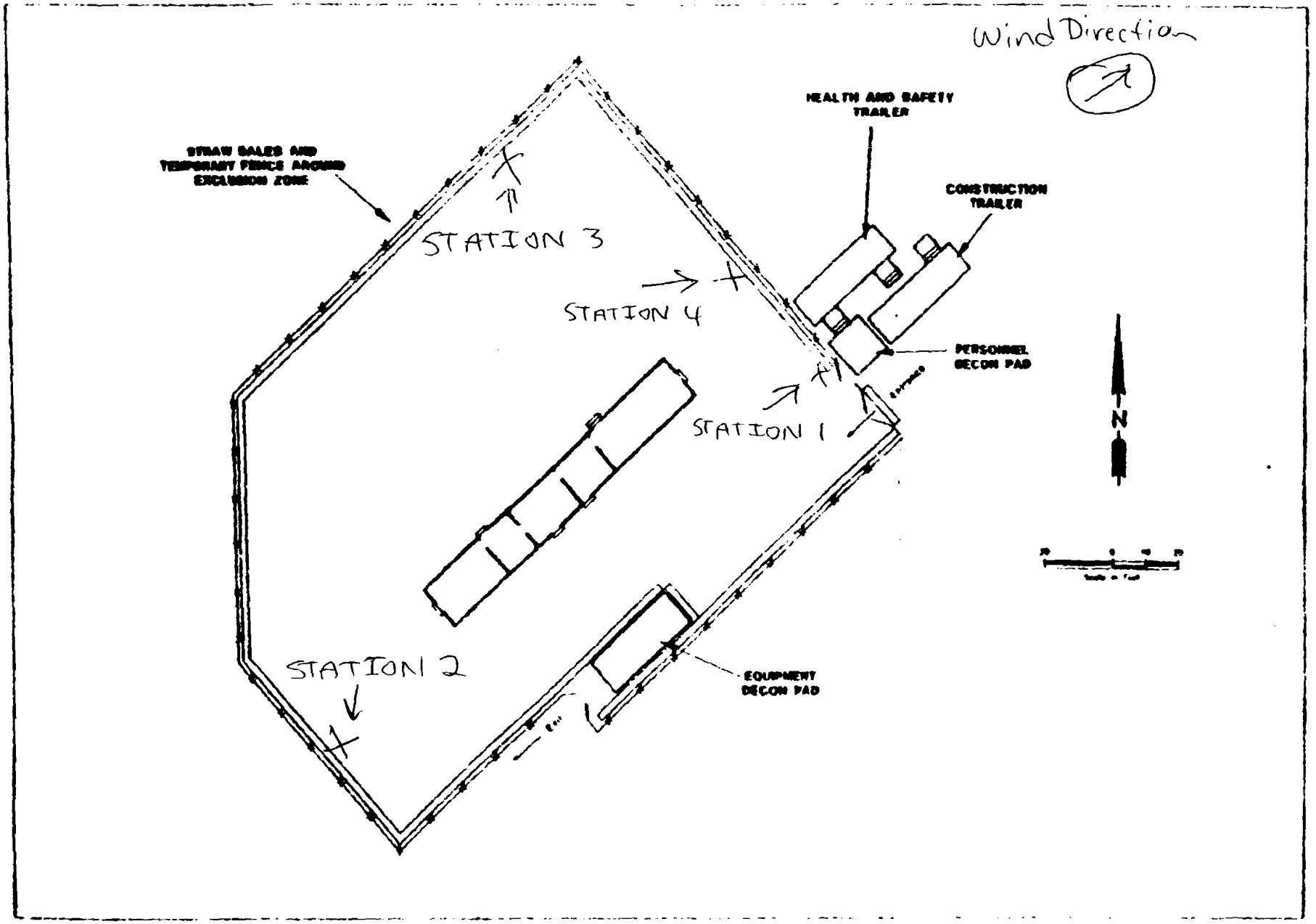

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

1179

1181

MIE INC. Model PDL-10 SN 2291 V5.2 4/89

CURRENT DATE: 12/09/96
CURRENT TIME: 11:43:00

CALIBRATION
- 0.019 V = 0.00 mg/m3
- 0.209 V = 14.10 mg/m3

LOWER ALARM: - 1.41 mg/m3
UPPER ALARM: - 1.41 mg/m3

UNITS: mg/m3

TIME HISTORY
PERIOD LENGTH: 0:10:00
OF PERIODS COMBINED: 1

	MIN	AVG	MAX	HIO
DATE: 12/03/96 TIME: 8:34:25				
-	0.03	0.01	0.06	-*
-	0.03	0.00	0.04	*+
	0.03	0.00	0.12	* +
	0.03	0.00	0.04	*+
@-	0.04	0.01	0.09	-*+
DATE: 12/03/96 TIME: 10:34:42				
-	0.03	0.01	0.07	-*+
-	0.01	0.01	0.06	-*
-	0.01	0.01	0.06	-*
@-	0.01	0.07	0.21	- * +
DATE: 12/03/96 TIME: 14:07:46				
-	0.04	0.00	0.03	*+
-	0.03	0.01	0.04	-*
-	0.03	0.00	0.06	*+
-	0.03	0.00	0.03	*+
-	0.03	0.00	0.03	*+
@	0.00	0.03	0.07	-*+
DATE: 12/04/96 TIME: 9:51:15				
	0.00	0.07	0.53	- * +
@	0.01	0.10	0.36	-* +
DATE: 12/04/96 TIME: 13:04:27				
-	0.03	0.00	0.01	*+
@-	0.04 -	0.01	0.00	*
DATE: 12/04/96 TIME: 15:06:15				
	0.03	0.00	0.07	* +
-	0.03	0.01	0.09	-*+
@	0.00	0.03	0.12	-*+
DATE: 12/05/96 TIME: 9:18:45				
-	0.01	0.03	0.10	-*+
-	0.01	0.03	0.15	-* +
-	0.01	0.03	0.07	-*+
@-	0.01	0.01	0.06	-*

12/4/96

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 12-5-96 **Start Time:** 0715 **Completion Time:** 0725

Location: Bldg T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Backfilling and excavation

Protective Clothing/Equipment: Level D

Chemical Hazards:

Physical Hazards: Slips, trips, falls, equipment

Control Methods: PPE, equipment

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
Rick Bailey	
Donald Truslow	
Gary Ray	
Mohammad Husain	

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 12-5-96 **Start Time:** **Completion Time:**

Location: Bldg T-4002, Site Trailer

Meeting Conducted by: Stephen Lainham

SAFETY ISSUES

Tasks: Truck Drivers hauling soil

Protective Clothing/Equipment: Level D (when out of vehicles)

Chemical Hazards: none (advised of Pesticide contamination)

Physical Hazards: Slips, trips, falls

Control Methods: PPE, stay with vehicles

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
Robert Jenkins	[illegible]
Ronnie Tell	[illegible]

1187

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 12-5-96

Inspector: Stephen Lanham

Site Conditions, Weather: 30-35°F, Cloudy, Wind W→E, slight

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?	✓		✗
All drums and containers inspected for structural integrity before moving?	✓		✗
Personnel warned of the potential hazards associated with the contents of containers prior to movement?	✓		
Containers moved using appropriate mechanical devices to avoid injury?	✓		
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?	✓		
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?	✓		
Site safety and health supervisor monitor decontamination procedures?	✓		
SSHP decontamination procedures observed?	✓		
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?	✓		
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?	✓		
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?	✓		
Is the proper order to PPE removal observed?	✓		
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are unauthorized personnel denied access to decontamination areas, decontamination equipment and change rooms?	✓		
Are washing facilities away from hazardous substances and adequate to permit personnel to remove hazardous substances from their bodies?	✓		
Are decontamination solution(s), equipment and clothing properly marked and left on-site or disposed of?	✓		
DRILLING			
Have proper underground utility clearances been obtained?			✓
Have overhead utility clearances been considered?			✓
Flammable liquids in approved containers?			✓
Emergency rig shutoff within reach of the operator?			✓
Appropriate fire shutoff within reach of the operator?			✓
Drilling platform properly stabilized?			
Ropes and chains in good condition?			✓
EXCAVATION			
Have proper utility clearances been obtained?	✓		
Has the On-site Competent Person been identified and is present?	✓		
Are daily trench inspections being conducted (or more frequently, as conditions warrant)?	✓		
Support systems (piling, cribbing, shoring) appropriate for the job?	✓		
Is there suitable access by stairs, ladders, ramps, hoists?	✓		
Appropriate guardrails, fences, barricades and warning lights?	✓		
MISCELLANEOUS SAFETY PROCEDURES			
If site work is anticipated in dimly lighted areas, is additional lighting provided?			✓
Is potable water labeled as safe for drinking?	✓		

Additional Information

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1191

HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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1193

INSTRUMENT CALIBRATION CHECK SHEET
Building T4002
Fort Drum, New York

Instrument(s): Dust (PDM 3)

Serial No.(s):

Technician's Signature: Steph C. Fank

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0815	—	Factory →		G	SCL	SN: 4017
	—	Zero →		"	"	"
1615	—	Factory →		"	"	"

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 12-5-96

Field Activities: Backfilling / Excavation

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Yanham

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
120596-001	0950	1	Excavation	0.02	Dust
-002	0953		Station 4	0.03	D
-003	0955		" 3	0.04	D
-004	0958		" 2	0.03	D
-005	1000		" 1	0.02	D
-006	1055		At truck loading	0.04	D
-007	1058		Station 2	0.04	D
-008	1001		" 3	0.03	D
-009	1103		" 4	0.05	D
-010	1107		" 1	0.06	D
-011	1535		At excavation	0.02	D
-012	1538		Station 2	0.03	D
-013	1541		" 3	0.04	D
-014	1545		" 4	0.05	D
-015	1555		" 1	0.03	D

1195

12-5-96

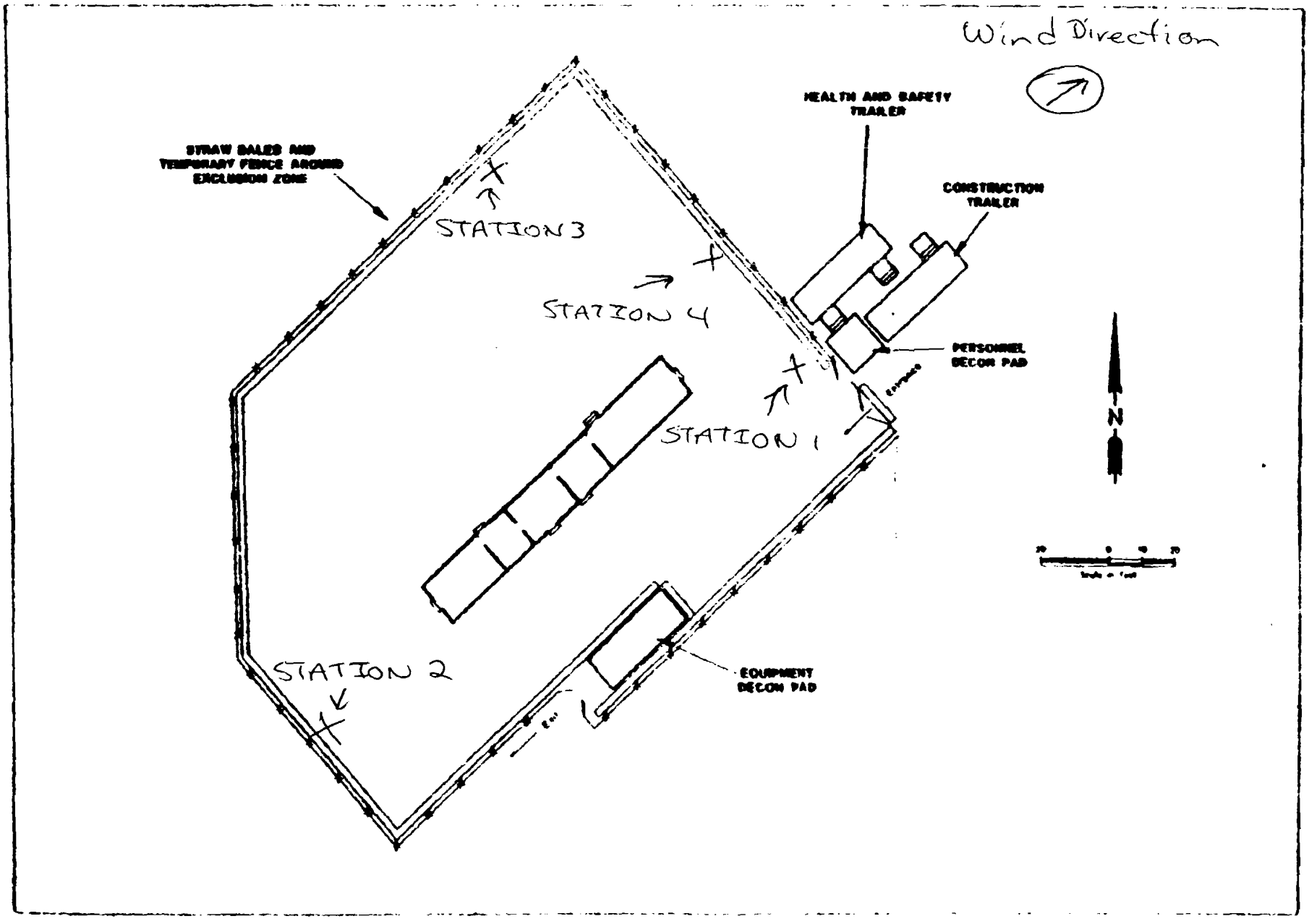

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

1197

1199

MIE INC. Model PDL-10 SN 2291 V5.2 4/89

CURRENT DATE: 12/09/96
CURRENT TIME: 11:43:00

CALIBRATION
- 0.019 V = 0.00 mg/m3
- 0.209 V = 14.10 mg/m3

LOWER ALARM: - 1.41 mg/m3
UPPER ALARM: - 1.41 mg/m3

UNITS: mg/m3

TIME HISTORY
PERIOD LENGTH: 0:10:00
OF PERIODS COMBINED: 1

	MIN	AVG	MAX	HIO
DATE: 12/03/96 TIME: 8:34:25				
-	0.03	0.01	0.06	-*
-	0.03	0.00	0.04	*+
	0.03	0.00	0.12	* +
	0.03	0.00	0.04	*+
@-	0.04	0.01	0.09	-*+
DATE: 12/03/96 TIME: 10:34:42				
-	0.03	0.01	0.07	-*+
-	0.01	0.01	0.06	-*
-	0.01	0.01	0.06	-*
@-	0.01	0.07	0.21	- * +
DATE: 12/03/96 TIME: 14:07:46				
-	0.04	0.00	0.03	*+
-	0.03	0.01	0.04	-*
-	0.03	0.00	0.06	*+
-	0.03	0.00	0.03	*+
-	0.03	0.00	0.03	*+
@	0.00	0.03	0.07	-*+
DATE: 12/04/96 TIME: 9:51:15				
	0.00	0.07	0.53	- * +
@	0.01	0.10	0.36	-* +
DATE: 12/04/96 TIME: 13:04:27				
-	0.03	0.00	0.01	*+
@-	0.04 -	0.01	0.00	*
DATE: 12/04/96 TIME: 15:06:15				
	0.03	0.00	0.07	* +
	0.03	0.01	0.09	-*+
@	0.00	0.03	0.12	-*+
DATE: 12/05/96 TIME: 9:18:45				
-	0.01	0.03	0.10	-*+
-	0.01	0.03	0.15	-* +
-	0.01	0.03	0.07	-*+
@	0.01	0.01	0.06	-*

12/5/96

1201

```
DATE: 12/05/96  TIME: 11:01:39
 -  0.01        0.03        0.09      |                          -*+
@-  0.01        0.01        0.07      |                          -*+

DATE: 12/05/96  TIME: 15:33:37
    0.01        0.01        0.10      |                          -*+
    0.01        0.03        0.13      |                          -* +
    0.00        0.03        0.12      |                          -*+
 -  0.01        0.01        0.04      |                          -*
@-  0.01        0.01        0.04      |                          -*

DATE: 12/06/96  TIME: 10:46:34
 -  0.04        0.01        0.09      |                          -*+
 -  0.03        0.00        0.09      |                          * +
 -  0.03        0.00        0.12      |                          * +
@-  0.03        0.00        0.01      |                          *+

DATE: 12/06/96  TIME: 15:28:26
 -  0.03        0.01        0.09      |                          -*+
 -  0.01        0.01        0.07      |                          -*+
 -  1.31     -  0.15        0.82      | -                      *                  +
@-  1.42     -  1.40     -  1.31     -* +

DATE: 12/07/96  TIME:  9:52:30
 -  0.01        0.01        0.06      |                          -*
@-  0.01        0.01        0.06      |                          -*
```

1203

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 12-~~5~~-96 **Start Time:** 0715 **Completion Time:** 0725

Location: Bldg T-4002, Site Trailer

Meeting Conducted by:

SAFETY ISSUES

Tasks: Backfilling and Excavation.

Protective Clothing/Equipment: Level D

Chemical Hazards: none (Pesticides)

Physical Hazards: Slips, trips, falls, equipment

Control Methods: PPE, clearance from equipment

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
GARY RAY	[signature]
[signature]	DONNIE [signature]

1205

INSTRUMENT CALIBRATION CHECK SHEET

Building T4002
Fort Drum, New York 12-6-96

Instrument(s): Dust (PDM-3)

Serial No.(s):

Technician's Signature: Stephen C. Ian

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0830	—	Factory →		G	SCL	SN: 4017
	—	Zero →		"	"	"
1615	—	Factory →		—	"	"

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 12-6-96

Field Activities: Soil backfill + compaction

Wind Direction: W → E

Instrument, Model & Serial No.:

Estimated Wind Speed: Slight

Technician Signature: Stephen C. Tanha

Background Level:

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
120696-001	1050	1	Excavation area	0.04	Dust
-002	1055		Station 2	0.03	D
-003	1058		" 3	0.03	D
-004	1100		" 4	0.04	D
-005	1105		" 1	0.02	D
-006	1330		Excavation area	0.04	D
-007	1332		Station 2	0.06	D
-008	1335		" 1	0.02	D
-009	1339		" 4	0.01	D
-010	1342		" 3	0.02	D
-011	1530		Excavation area	0.02	D
-012	1533		Station 2	0.03	D
-013	1535		" 3	0.04	D
-014	1537		" 4	0.04	D
-015	1539		" 1	0.03	D

1207

1209

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 12-6-96

Inspector: Stephen Lanham

Site Conditions, Weather: Clouds, 30-35°F, Wind W→E, Slight

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		✓
Have accident reports been properly completed in a timely fashion?	✓		✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

HEALTH & SAFETY INSPECTION FORM (cont'd)

Air monitoring instrumentation maintenance and calibration logs available and current?	✓		
Air monitoring log available and current?	✓		
Does monitoring log reflect excursions above action levels?		✓	
Has personal sampling been performed?		✓	
Have any exposure symptoms been reported?		✓	
HEAT STRESS MONITORING			
Has heat stress monitoring been implemented?			✓
Are work/rest regimens established/followed?			✓
Are pulse rate and oral temperature taken?			✓
Monitoring log available and current?			✓
Any heat stress incidents?		✓	
Are personnel aware of symptoms/first aid?	✓		
Are ambient temperature readings logged?		✓	✓
Are emergency medical treatment and first aid available to personnel?	✓		
PERSONAL PROTECTIVE EQUIPMENT			
All PPE called for in HSP available?	✓		
Is there sufficient PPE available for the personnel involved in the performance of site operations?	✓		
Is PPE used in accordance with SHP?	✓		
Has PPE been upgraded or downgraded?		✓	
Is the PPE in place adequate for the chemical and physical hazards on-site?	✓		
Is there a need to modify the PPE requirements?		✓	
All personnel appropriately taped-up?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?	✓		✗
All drums and containers inspected for structural integrity before moving?	✓		✗
Personnel warned of the potential hazards associated with the contents of containers prior to movement?	✓		
Containers moved using appropriate mechanical devices to avoid injury?	✓		
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?	✓		
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?			✓
Site safety and health supervisor monitor decontamination procedures?			✓
SSHP decontamination procedures observed?			✓
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?			✓
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?			✓
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?			✓
Is the proper order to PPE removal observed?			✓
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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_____

12-6-96

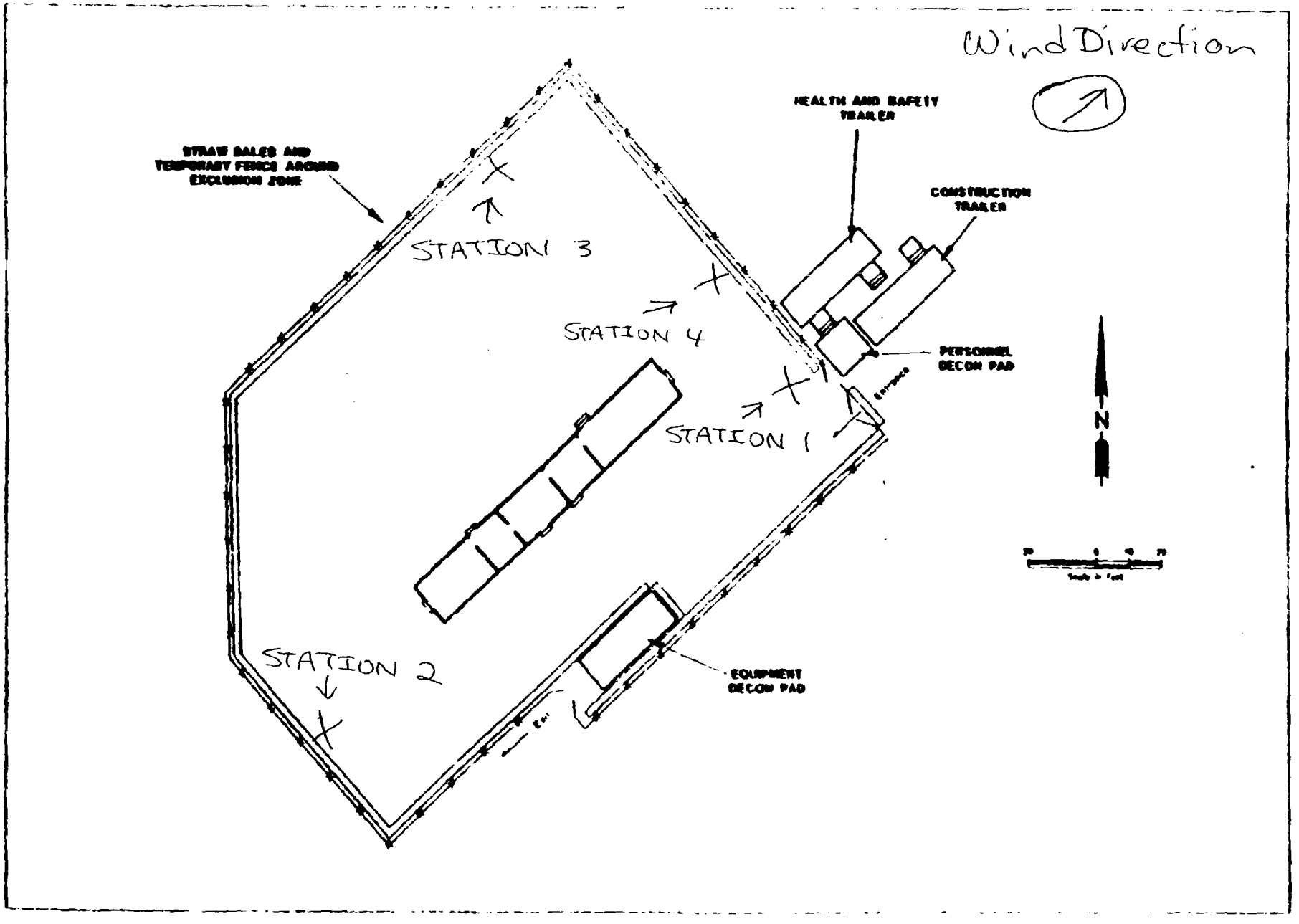

Figure 3-1
Build T4002 Remediation Site Plan
Ft. Drum, New York

1215

INDUSTRIAL HYGIENE SAMPLING DATA SHEET
Building T4002
Fort Drum, New York

Date: 12-~~5~~ 6-96

Phase: Soil Excavation - Phase II

Activity:

Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
30-35 °F, clouds, snow cover, wind W→E, slight

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD START TIME	TEST PERIOD STOP TIME	TEST PERIOD TOTAL MIN.	FLOW RATE (L/MIN) START	FLOW RATE (L/MIN) STOP	FLOW RATE (L/MIN) RECORDED	TOTAL VOLUME (L)	COMMENTS
FD-120596-PH2-A-001	Station 1	5587	0845	1400	315	1.52	1.50	1.50	472.50	
-B-001	"	03812	"	1400	"	0.44	0.44	0.44	138.60	
-C-001	"	"	"	"	"	0.43	0.45	0.43	135.45	
-A-002	Station 2	10049	0842	1355	313	1.51	1.51	1.51	472.63	
-B-002	"	03811	"	"	"	0.48	0.47	0.47	147.11	
-C-002	"	"	"	"	"	0.48	0.46	0.46	143.98	
-A-003	Station 3	5589	0840	1407	327	1.38	1.38	1.38	451.26	
-B-003	"	03673	"	1407	"	0.46	0.44	0.44	143.88	
-C-003	"	"	"	"	"	0.44	0.46	0.44	143.88	
-A-004	Station 4	10050	0835	1405	330	1.34	1.32	1.32	435.60	
-B-004	"	03807	"	"	"	0.44	0.43	0.43	141.90	
-C-004	"	"	"	"	"	0.47	0.46	0.46	151.80	

1217

INDUSTRIAL HYGIENE SAMPLING DATA SHEET

Building T4002
Fort Drum, New York

Date: 12-5-96

Phase: Soil Excavation - Phase II

Activity:

Industrial Hygienist: Stephen Lanham

Comments: (Weather, wind condition, etc.)
30-35°F, clouds, snow cover,
wind W → E, slight

SAMPLE NUMBER	SAMPLE LOCATION	PUMP #	TEST PERIOD			FLOW RATE (L/MIN)			TOTAL VOLUME (L)	COMMENTS
			START TIME	STOP TIME	TOTAL MIN.	START	STOP	RECORDED		
FD-120596-PH2-A-005	Station 4 (COE Dupl.)	5538	0835	1405	330	1.52	1.50	1.50	495.00	
-B-005	"	5	"	"	"	0.45	0.47	0.45	148.50	
-C-005	"	"	"	"	"	0.47	0.47	0.47	155.10	

1219

```
DATE: 12/05/96  TIME: 11:01:39
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@-  0.01        0.01        0.07     |                          -*+

DATE: 12/05/96  TIME: 15:33:37
    0.01        0.01        0.10     |                          -*+
    0.01        0.03        0.13     |                          -* +
    0.00        0.03        0.12     |                          -*+
 -  0.01        0.01        0.04     |                          -*
@-  0.01        0.01        0.04     |                          -*

DATE: 12/06/96  TIME: 10:46:34
 -  0.04        0.01        0.09     |                          -*+
 -  0.03        0.00        0.09     |                          * +
 -  0.03        0.00        0.12     |                          * +
@-  0.03        0.00        0.01     |                          *+

DATE: 12/06/96  TIME: 15:28:26
 -  0.03        0.01        0.09     |                          -*+
 -  0.01        0.01        0.07     |                          -*+
 -  1.31     -  0.15        0.82     | -                     *                +
@-  1.42     -  1.40     -  1.31    -* +

DATE: 12/07/96  TIME:  9:52:30
 -  0.01        0.01        0.06     |                          -*
@-  0.01        0.01        0.06     |                          -*
```

1221

12/6/96

7101 Wi[illegible]n Avenue [illegible]
Bethesda, Maryland 20814 [illegible]
(301) 652-2215 FAX (301) 656-8059

Per P.I. WA 8440

CHAIN-OF-CUSTODY RECORD

№ ~~1734~~ 468

JOB NO:

PROJECT NAME-CLIENT: Ft. Drum - Bldg T-4002

SAMPLER (Signature): Stephen C. Lamb[illegible]

~~SAMPLE NO~~	~~Date~~	~~Time~~	~~Comp~~	~~Grab~~	~~Matrix~~	SAMPLE #	Total No. of Containers	ANALYSES REQUIRED: Lead (NIOSH 7300, ICP)	2,4-D, and 2,4,5-T (NIOSH 5001)	DDD, and DDE, and DDT (NIOSH 5274M)						REMARKS: Volume (Liters)
						FO-120696-PH2-A-001	1	✓								472.50
						-A-002		✓								472.63
						-A-003		✓								451.26
						-A-004		✓								435.60
						-B-001			✓							138.60
						-B-002			✓							147.11
						-B-003			✓							143.88
						-B-004			✓							141.90
						-C-001				✓						135.45
						-C-002				✓						143.98
						-C-003				✓						143.88
						-C-004				✓						~~1.5~~ 151.80

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Stephen C. Lamb	12-6-96 5:00 pm				

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Report Results To:
				Phone: 301-652-2215 FAX: 301-656-8059

DISTRIBUTION:
White: Accompanies Shipment
Yellow: Project Files
Pink: Field Log
Gold: QA Files

1223

Dames & Moore

SITE SAFETY BRIEFING

Building T4002 Demolition, USACE Contract DACW41-94-9009 D.O. 0002

Date: 12-7-96 **Start Time:** 0715 **Completion Time:** 0725

Location: Bldg T-4002, Site Trailer

Meeting Conducted by: Stephen Lanham

SAFETY ISSUES

Tasks: Backfilling

Protective Clothing/Equipment: Level D

Chemical Hazards: none

Physical Hazards: Slips, trips, falls, equipment

Control Methods: PPE, site caution, clearance

Special Equipment/Techniques: —

Other:

Print Name	Sign Name
GARY RAY	
Dennis Traylor	

1227

HEALTH & SAFETY INSPECTION FORM

Project/Number: Building T4002, Fort Drum, New York Date: 12-7-96

Inspector: Stephen Lanham

Site Conditions, Weather: Overcast, 25-30°F, Wind slight W→E

	YES	NO	NA
ADMINISTRATIVE			
Site Control			
Site map available to personnel?	✓		
Site security and control measures evident in the field?	✓		
Site work zones clearly defined on-site?	✓		
Communication systems (walkie talkies, air horns) to alert personnel in the event of a site evacuation?	✓		
Site perimeter marked (existing fenceline, boundary markings) and labeled appropriately with warning signs to alert nearby residents of the potential on-site hazards?	✓		
Emergency phone numbers conspicuously posted at site?	✓		
Informational Programs			
Site health and safety briefings held and documented?	✓		
OSHA poster (where required)	✓		
Have accident reports been properly completed in a timely fashion?			✓
Is OSHA 200 log posted (as applicable) and does it match accident reports?			✓
Does written inventory of chemicals match those that are present?	✓		
Are MSDSs available for every chemical listed/used?	✓		
EXPOSURE MONITORING			
Health and safety instrumentation available and in use per HSP?	✓		

Additional Information

1229

HEALTH & SAFETY INSPECTION FORM (cont'd)

If ambient noise levels may be greater than or equal to 86 dBA, are ear muffs or ear plugs worn by personnel on-site?	✓		
If there are overhead hazards on-site, do personnel war hard hat in these work areas?	✓		
CONTAINER HANDLING PROCEDURES			
Drums and containers used for the clean-up on-site? If yes, do they meet appropriate OSHA regulations for the wastes they contain?			✓
All drums and containers inspected for structural integrity before moving?			✓
Personnel warned of the potential hazards associated with the contents of containers prior to movement?			✓
Containers moved using appropriate mechanical devices to avoid injury?			✓
Is there a potential for a major spill during transfer of drums or containers? If yes, is there a spill containment program in place to contain and isolate the entire volume of the spill?			✓
DECONTAMINATION PROCEDURES			
Decontamination areas situated to minimize contamination potential of uncontaminated personnel or equipment?			✓
Site safety and health supervisor monitor decontamination procedures?			✓
SSHP decontamination procedures observed?			✓
Do established equipment drop-off decontamination and protective clothing doffing procedures minimize personnel exposures?			✓
Are personnel, clothing, and equipment decontaminated properly prior to leaving a contaminated area?			✓
Protective clothing and equipment decontaminated, cleaned, laundered, maintained or replaced as needed to maintain effectiveness?			✓
Is the proper order to PPE removal observed?			✓
Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available?			✓

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are unauthorized personnel denied access to decontamination areas, decontamination equipment and change rooms?			✓
Are washing facilities away from hazardous substances and adequate to permit personnel to remove hazardous substances from their bodies?			✓
Are decontamination solution(s), equipment and clothing properly marked and left on-site or disposed of?			✓
DRILLING			
Have proper underground utility clearances been obtained?			✓
Have overhead utility clearances been considered?			✓
Flammable liquids in approved containers?			✓
Emergency rig shutoff within reach of the operator?			✓
Appropriate fire shutoff within reach of the operator?			✓
Drilling platform properly stabilized?			✓
Ropes and chains in good condition?			✓
EXCAVATION			
Have proper utility clearances been obtained?			✓
Has the On-site Competent Person been identified and is present?			✓
Are daily trench inspections being conducted (or more frequently, as conditions warrant)?			✓
Support systems (piling, cribbing, shoring) appropriate for the job?			✓
Is there suitable access by stairs, ladders, ramps, hoists?			✓
Appropriate guardrails, fences, barricades and warning lights?			✓
MISCELLANEOUS SAFETY PROCEDURES			
If site work is anticipated in dimly lighted areas, is additional lighting provided?			✓
Is potable water labeled as safe for drinking?	✓		

Additional Information

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HEALTH & SAFETY INSPECTION FORM (cont'd)

Are nonpotable water sources labeled as unfit for drinking, washing and cooking?			✓
If there are fewer than 20 people on-site, is there a minimum of one toilet available?	✓		
If there are greater than 20 people on-site, have additional toilets and urinals been provided for each additional 40 people?			✓
Is food handled in accordance with local food handling regulations?			✓
If temporary sleeping quarters are present, are they heated, ventilated and lighted?			✓
Compressed gas cylinders in safe condition?			✓
Electrical equipment intrinsically safe? (for potential explosive atmospheres)	✓		
OVERALL			
Any gross unsafe activities observed?		✓	
Any unsafe deviations from SSHP? If yes, have they been properly documented and investigated?		✓	

Additional Information

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1233

INSTRUMENT CALIBRATION CHECK SHEET

Building T4002 12-7-96

Fort Drum, New York

Instrument(s): Dust (PDM-3)

Serial No.(s):

Technician's Signature: Stephen C. Lamb

Time	Date	Pure Air (Y/N)	Calibration Gas (ppm)	Battery Check (Good/Bad)	Calibrated by	Remarks
0900	—	Factory →		G	SCL	SN: 4017
	—	Zero →		"	"	"
1130	—	Factory →		"	"	"

Proper calibration of instruments shall be conducted immediately prior to site activities.

REAL TIME AIR MONITORING DATA SHEET
Building T4002
Fort Drum, New York

Date: 12-7-96

Field Activities: Backfilling + Site Grading

Wind Direction: W → E

Instrument, Model & Serial No.: —

Estimated Wind Speed: Slight

Technician Signature: Steph C. Yar

Background Level: —

Sample No.	Time	Duration (minutes)	Sample Location	Result/ Units	Comments/Recommendations
120796-001	1010	1	West side of site	0.02	Dust
-002	1012	1	East side of site	0.01	D
-003	1014	1	"	0.01	D
-004	1016	1	"	0.02	D
~~-005~~					

1235

1237

```
DATE: 12/05/96  TIME: 11:01:39
 -  0.01        0.03        0.09      |                          -*+
@-  0.01        0.01        0.07      |                          -*+

DATE: 12/05/96  TIME: 15:33:37
 -  0.01        0.01        0.10      |                          -*+
    0.01        0.03        0.13      |                          -* +
    0.00        0.03        0.12      |                          -*+
 -  0.01        0.01        0.04      |                          -*
@-  0.01        0.01        0.04      |                          -*

DATE: 12/06/96  TIME: 10:46:34
 -  0.04        0.01        0.09      |                          -*+
 -  0.03        0.00        0.09      |                          * +
 -  0.03        0.00        0.12      |                          * +
@-  0.03        0.00        0.01      |                          *+

DATE: 12/06/96  TIME: 15:28:26
 -  0.03        0.01        0.09      |                          -*+
 -  0.01        0.01        0.07      |                          -*+
 -  1.31     -  0.15        0.82      | -                     *                +
@-  1.42     -  1.40     -  1.31     -* +

DATE: 12/07/96  TIME:  9:52:30
 -  0.01        0.01        0.06      |                          -*
@-  0.01        0.01        0.06      |                          -*
```

12/7/96

1239

Appendix E

Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

1241

August 16, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA, MD 20814-4870

Company #: 3946

NO 0298
PROJ FT DRUM T4002

The results for the samples received by the lab on 08/15/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
593158	FDPH1A001	<=1.3	<=0.002	Lead, Inorganic Fume & Mists
593159	FDPH1A002	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists
593160	FDPH1A003	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists
593161	FDPH1A004	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists
593162	FDPH1A005	<=1.3	<=0.003	Lead, Inorganic Fume & Mists

Comments: Result(s) are not blank corrected.

If you have any questions about these results, please call the lab at (800) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

Douglas R. Smieja

Doug Smieja

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ICAP METAL SAMPLE RESULTS

Samples were analyzed by WOHL in-house method based on NIOSH 7300 and OSHA ID-125G.

The air samples were collected on MCEF filters and digested in an appropriate mixture of acids. An aliquot of the sample was analyzed for various elements using an Inductively Coupled Argon Plasma (ICAP) Atomic Emission Spectrometer.

The results are expressed as milligrams per cubic meter of air if the air collection volume was provided; otherwise, as micrograms per filter. All results are blank corrected if a blank was provided unless otherwise noted in the comments section of the report. A less than symbol before the result means the result is less than our Limits of Quantitation. The notation N.D. which follows some of the result values indicates that these values are below our Limits of Detection. Our Limits of Quantitation and detection are available upon request.

Doug Smieja Analyst

Lyle Reichmann, CIH Chemist Supervisor

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Wisconsin State Laboratory of Hygiene

University of Wisconsin

LABORATORY QUALITY CONTROL REPORT

Chemist Initials: DS Date of Report: 08 - 16 - 96 Equipment Code: 775
Equipment Description: JARREL ASH ICP

The following samples were analyzed for QUALITY COMPLIANCE along with normal FIELD samples.

These results meet WOHL Lab Quality Control criteria.

---------- CORRECT ----------

REPORTED VALUES ARE CORRECT FOR SAMPLES: 56087 AND 56088
Results are within 1 standard deviation.

Q-C Sample#	Reported Value(R)	Actual Value(A)	Units	Ratio (R/A)	Std Dev	S-Code	Substance Name
56087	25.265	25.200	ug/fil	1.0026	1	490	Cadmium by ICP
56087	39.137	37.700	ug/fil	1.0381	1	690	Chromium by ICP
56087	51.440	50.300	ug/fil	1.0227	1	730	Copper by ICP
56087	48.790	50.300	ug/fil	.9700	1	1591	Lead by ICP
56087	38.819	37.700	ug/fil	1.0297	1	1620	Manganese by ICP
56087	39.076	37.700	ug/fil	1.0365	1	1840	Nickel by ICP
56087	101.960	100.600	ug/fil	1.0135	1	I200	Iron by ICP
56087	50.815	50.300	ug/fil	1.0102	1	Z100	Zinc by ICP
56088	18.527	18.600	ug/fil	.9961	1	490	Cadmium by ICP
56088	56.795	55.700	ug/fil	1.0197	1	690	Chromium by ICP
56088	56.205	55.700	ug/fil	1.0091	1	730	Copper by ICP
56088	71.825	74.200	ug/fil	.9680	1	1591	Lead by ICP
56088	36.741	37.100	ug/fil	.9903	1	1620	Manganese by ICP
56088	18.556	18.600	ug/fil	.9976	1	1840	Nickel by ICP
56088	149.550	148.400	ug/fil	1.0077	1	I200	Iron by ICP
56088	130.820	129.900	ug/fil	1.0071	1	Z100	Zinc by ICP

The Quality Control limits are calculated based on 1, 2, and 3 STANDARD DEVIATIONS derived from historical data for a particular analyte. The MEAN values are adjusted to 1 in order to avoid any positive or negative bias.

KEY : COLUMN HEADINGS

Q-C Sample# : Laboratory prepared Quality Control sample number.
Reported Value : Analyst's results.
Actual Value : Amount of analyte applied to the QC sample.
Ratio : Ratio of Reported/Actual.
Std Dev : Number of Standard Deviations from the MEAN value.
S-Code : Substance (analyte) code.

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Company #: 3946

NO 0298
PROJ FT DRUM T4002

The results for the samples received by the lab on 08/15/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
593163	FDPH1B001	ND <2.0	ND <0.009	2,4,5-T
		ND <2.0	ND <0.009	2,4-D
593164	FDPH1B002	ND <2.0	ND <0.012	2,4,5-T
		ND <2.0	ND <0.012	2,4-D
593165	FDPH1B003	ND <2.0	ND <0.012	2,4,5-T
		ND <2.0	ND <0.012	2,4-D
593166	FDPH1B004	ND <2.0	ND <0.013	2,4,5-T
		ND <2.0	ND <0.013	2,4-D
593167	FDPH1B005	ND <2.0	ND <0.012	2,4,5-T
		ND <2.0	ND <0.012	2,4-D

If you have any questions about these results, please call the lab at (800) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

Terry Spennetta

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August 16, 1996 3946

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2,4-D and 2,4,5,-T, MCPA

Samples were analyzed using method pest27.mth based on NIOSH method 5001.

Air samples are collected by drawing known volumes of air through OVS-2 tubes (OSHA versitile samples). Samples are desorbed with methanol and analyzed by high performance liquid chromatography with UV detection.

The results are expressed as milligrams of 2,4-D or 2,4,5-T per cubic meter if the air collection volume is provided, otherwise as micrograms per sample. All results are blank corrected if a blank was provided or otherwise noted in the report.

Minimum Detection Level = 1 ug/tube

Terry Spennetta	Analyst
Lyle Reichmann, CIH	Chemist Supervisor

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Company #: 3946

NO 0298
PROJ FT DRUM T4002

The results for the samples received by the lab on 08/15/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
593153	FDPH1C001	<=.40	<=0.002	DDT
		<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
593154	FDPH1C002	<=.40	<=0.002	DDT
		<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
593155	FDPH1C003	<=.40	<=0.002	DDT
		<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
593156	FDPH1C004	<=.40	<=0.002	DDT
		<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
593157	FDPH1C005	<=.40	<=0.002	DDT
		<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE

If you have any questions about these results, please call the lab at (800) 446-0403

Steve Strebel, Organic Supervisor

Mark Hudziak

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Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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Pesticide Analysis
Dames & Moore
August 16, 1996

Five glass fiber filters were submitted to WOHL for DDT, DDE, and DDD analysis. The samples were desorbed in isooctane and analyzed by gas chromatography with electron capture detection (GC-ECD). This is an in-house developed method, a copy of which is included with the report.

Analysis results showed non-detectable amounts of the above listed pesticides in all samples. All isomers of the compounds were analyzed, but none were found in detectable amounts.

Three spike samples of 4,4-DDT were analyzed in the same manner as the samples to check recovery. The average recovery was 109%. The value to the right of the "<=" sign on the report is the minimum quantitation limit for that pesticide based on the sample extraction and air volume for the sample. The "<=" sign stands for "less than or equal to".

If you have any questions about the results, please call the lab at (608) 263-6550.

Mark Hudziak
(analyst)

Steve Strebel
(supervisor)

GC-ECD Analytical Method for DDT, DDE, and DDD

IMIS: 847 (DDT); D906 (DDE); D119 (DDD)
CAS: 50-29-3 (DDT); 72-55-9 (DDE); 72-54-8 (DDD)

Collection: Glass fiber filters
MDL: 0.05 *u*g per ml of solvent used (0.2 *u*g per sample for 4 ml desorption)

Principle of method: Samples are collected on glass fiber filters, desorbed with isooctane, and analyzed by gas chromatograph equipped with electron-capture detection (GC-ECD).

Apparatus: Gas chromatograph: Hewlett Packard 5890 or equivalent. Detector: Electron Capture.

Reagents: DDT, DDE, DDD stock solutions; isooctane.

Procedure: Filters are transferred to screw capped vials, and 4 milliliters of isooctane are added. Samples are allowed to desorb for 1 hour. Standards are prepared in isooctane. Samples and standards are injected onto the GC column by either using an autosampler or by manual injection.

GC Conditions:

Primary column: SPB-608 60 m X 0.25 mm ID Capillary 0.25 *u*m film thickness
Injector temperature: 325 degrees C.
Detector Temperature: 325 degrees C.
Oven temperature program: Initial temperature 250 degrees C, initial time 10 minutes, rate 5 degrees C per minute, final temperature 275 degrees C, final time 8 minutes.

Confirmation column: SPB-5 60 m X 0.25 mm ID Capillary 0.25 *u*m film thickness
Same conditions as above.

References: Modified NIOSH method S274

DAMI MOORE
7101 Wisconsin Avenue, Suite 700
Bethesda, Maryland 20814-4870
(301) 652-2215 FAX (301) 656-8059

24 Hour Turn-Around

NO. 0397 M1591

CHAIN OF CUSTODY RECORD

Project No.:

Project Name: Ft. Drum - Bldg T4002

Samplers: (signature) Stephen C. Tanka

Sta. No.	Date	Time	Comp	Grab	Sample # ~~Station Location~~	Number of Containers	NIOSH 7300 (Lead by ICP)		NIOSH 5001 (2,4-D and 2,4,5-T)				Remarks Volume (Liters)
			[illegible]		FD-81496-PH1-A-001	1	✓						673.46
			[illegible]		FD-81496-PH1-A-002	1	✓						508.08
			[illegible]		FD-81496-PH1-A-003	1	✓						532.44
			[illegible]		FD-81496-PH1-A-004	1	✓						505.16
			[illegible]		FD-81496-PH1-A-005	1	✓						482.80
					FD-81496-PH1-B-001	1			✓				223.00
					FD-81496-PH1-B-002	1			✓				160.08
					FD-81496-PH1-B-003	1			✓				160.08
					FD-81496-PH1-B-004	1			✓				152.24
					FD-81496-PH1-B-005	1			✓				166.58

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Stephen C. Tanka	8/14/96 5:30PM		1
Relinquished by: (signature)	**Date/Time**	**Received for Laboratory by: (signature)**	**Date/Time**
	1	A McGary	8-15-96

Remarks:
FAX Results to:
315-773-2873
Phone Results to:
301-652-2215 (ext. 271)
Leave Message

Dames & Moore

Distribution: White Copy (Laboratory Copy)
Yellow Copy (Job File)
Pink Copy (Field Geologist Files)

1257

DAMES MOORE
7101 W Jensin Avenue, Suite 700
Bethesda, Maryland 20814-4870
(301) 652-2215 FAX (301) 656-8059

24 Hour Turn-Around

NO. 0397

CHAIN OF CUSTODY RECORD

$9985

Project No.:

Project Name: Ft. Drum - Bldg T4002

Samplers: (signature) Stephen C. Tanka

Sta. No.	Date	Time	Comp	Grab	Sample # ~~Station Location~~	Number of Containers	NIOSH 7300 (Lead by ICP)		NIOSH 5001 (2,4-D and 2,4,5-T)				Remarks Volume (Liters)
					FD-81496-PH1-A-001	1	✓						673.46
					FD-81496-PH1-A-002	1	✓						508.08
					FD-81496-PH1-A-003	1	✓						532.44
					FD-81496-PH1-A-004	1	✓						505.16
					FD-81496-PH1-A-005	1	✓						482.80
					FD-81496-PH1-B-001	1			✓				223.00
					FD-81496-PH1-B-002	1			✓				160.08
					FD-81496-PH1-B-003	1			✓				160.08
					FD-81496-PH1-B-004	1			✓				152.24
					FD-81496-PH1-B-005	1			✓				166.58

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Stephen C Tanka	8/14/96 5:30PM		
Relinquished by: (signature)	**Date/Time**	**Received for Laboratory by: (signature)**	**Date/Time**
		A McGary	8-15-96

Remarks:
FAX Results to:
315-773-2873
Phone Results to:
301-652-2215 (ext. 271)
Leave Message

Dames & Moore

Distribution: White Copy (Laboratory Copy)
Yellow Copy (Job File)
Pink Copy (Field Geologist Files)

1259

DAME MOORE
7101 Wisconsin Avenue, Suite 700
Bethesda, Maryland 20814-4870
(301) 652-2215 FAX (301) 656-8059

2 hour Turn-around

#3946R

S9985

NO. 0398

CHAIN OF CUSTODY RECORD

Project No.:	Project Name: Ft. Drum - Bldg T4002
Samplers: (signature) Steph C. Jan	

Sta. No.	Date	Time	Comp	Grab	Station Location	Number of Containers	NIOSH 5274M (DBD, DDE, and DDT)	Remarks Volume (Liters)
					FD-81496-PH1-C-001	1	✓	218.54
					FD-81496-PH1-C-002	1	✓	167.04
					FD-81496-PH1-C-003	1	✓	170.52
					FD-81496-PH1-C-004	1	✓	162.62
					FD-81496-PH1-C-005	1	✓	173.95

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Steph C. Jan	8/14/96 5:30 p.m.		
Relinquished by: (signature)	**Date/Time**	**Received for Laboratory by: (signature)**	**Date/Time**
		A McGary	8-15-96

Remarks: FAX Results to: 315-773-2873
Phone Results to: 301-652-2215 (ext. 271)
Leave Message

Dames & Moore

Distribution: White Copy (Laboratory Copy)
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WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
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Wisconsin State Laboratory of Hygiene

University of Wisconsin

September 9, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA, MD 20814-4870

Company #: 3946

JOB 039
PROJ FT DRUM T4002

The results for the samples received by the lab on 09/06/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
596891	FD9596A001	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists

If you have any questions about these results, please call the lab at (800) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

Susan Percy

Susan Percy

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Company #: 3946

JOB 039
PROJ FT DRUM T4002

The results for the samples received by the lab on 09/06/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
596894	FD9596A002	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists
596895	FD9596A003	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists
596896	FD9596A004	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists
596897	FD9596A005	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists

If you have any questions about these results, please call the lab at (800) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

Susan Percy

Susan Percy

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September 9, 1996 3946

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ICAP METAL SAMPLE RESULTS

Samples were analyzed by WOHL in-house method based on NIOSH 7300 and OSHA ID-125G.

The air samples were collected on MCEF filters and digested in an appropriate mixture of acids. An aliquot of the sample was analyzed for various elements using an Inductively Coupled Argon Plasma (ICAP) Atomic Emission Spectrometer.

The results are expressed as milligrams per cubic meter of air if the air collection volume was provided; otherwise, as micrograms per filter. All results are blank corrected if a blank was provided unless otherwise noted in the comments section of the report. A less than symbol before the result means the result is less than our Limits of Quantitation. The notation N.D. which follows some of the result values indicates that these values are below our Limits of Detection. Our Limits of Quantitation and detection are available upon request.

Susan Percy Analyst

Lyle Reichmann, CIH Chemist Supervisor

1269

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University of Wisconsin

LABORATORY QUALITY CONTROL REPORT

Chemist Initials: SP Date of Report: 09 - 09 - 96 Equipment Code: 775
Equipment Description: JARREL ASH ICP

The following samples were analyzed for QUALITY COMPLIANCE along with normal FIELD samples.

These results meet WOHL Lab Quality Control criteria.

---------- CORRECT ----------

REPORTED VALUES ARE CORRECT FOR SAMPLES: 56315 AND 56316
Results are within 2 standard deviation.

Q-C Sample#	Reported Value(R)	Actual Value(A)	Units	Ratio (R/A)	Std Dev	S-Code	Substance Name
56315	16.250	15.800	ug/fil	1.0285	1	490	Cadmium by ICP
56315	25.420	23.700	ug/fil	1.0726	2	690	Chromium by ICP
56315	32.630	31.600	ug/fil	1.0326	2	730	Copper by ICP
56315	31.230	31.600	ug/fil	.9883	1	1591	Lead by ICP
56315	24.270	23.700	ug/fil	1.0241	1	1620	Manganese by ICP
56315	25.050	23.700	ug/fil	1.0570	2	1840	Nickel by ICP
56315	64.460	63.200	ug/fil	1.0199	1	I200	Iron by ICP
56315	32.110	31.600	ug/fil	1.0161	1	Z100	Zinc by ICP
56316	38.520	38.100	ug/fil	1.0110	1	490	Cadmium by ICP
56316	59.440	57.100	ug/fil	1.0410	2	690	Chromium by ICP
56316	77.030	76.100	ug/fil	1.0122	1	730	Copper by ICP
56316	74.520	76.100	ug/fil	.9792	1	1591	Lead by ICP
56316	57.570	57.100	ug/fil	1.0082	1	1620	Manganese by ICP
56316	59.410	57.100	ug/fil	1.0405	2	1840	Nickel by ICP
56316	152.900	152.300	ug/fil	1.0039	1	I200	Iron by ICP
56316	72.500	76.100	ug/fil	.9527	2	Z100	Zinc by ICP

The Quality Control limits are calculated based on 1, 2, and 3 STANDARD DEVIATIONS derived from historical data for a particular analyte. The MEAN values are adjusted to 1 in order to avoid any positive or negative bias.

KEY : COLUMN HEADINGS

Q-C Sample# : Laboratory prepared Quality Control sample number.
Reported Value : Analyst's results.
Actual Value : Amount of analyte applied to the QC sample.
Ratio : Ratio of Reported/Actual.
Std Dev : Number of Standard Deviations from the MEAN value.
S-Code : Substance (analyte) code.

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Company #: 3946

JOB 039
PROJ FT DRUM T4002

The results for the samples received by the lab on 09/06/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
596892	FD9596B001	ND <2.0	ND <0.010	2,4-D
		ND <2.0	ND <0.010	2,4,5-T

If you have any questions about these results, please call the lab at (800) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

Terry Spennetta

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Company #: 3946

JOB 039
PROJ FT DRUM T4002

The results for the samples received by the lab on 09/06/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
596898	FD9596B002	ND <2.0	ND <0.009	2,4-D
		ND <2.0	ND <0.009	2,4,5-T
596899	FD9596B003	ND <2.0	ND <0.008	2,4-D
		ND <2.0	ND <0.008	2,4,5-T
596900	FD9596B004	ND <2.0	ND <0.010	2,4-D
		ND <2.0	ND <0.010	2,4,5-T
596901	FD9596B005	ND <2.0	ND <0.010	2,4-D
		ND <2.0	ND <0.010	2,4,5-T

If you have any questions about these results, please call the lab at (800) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

Terry Spennetta

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2,4-D and 2,4,5,-T, MCPA

Samples were analyzed using method pest27.mth based on NIOSH method 5001.

Air samples are collected by drawing known volumes of air through OVS-2 tubes (OSHA versitile samples). Samples are desorbed with methanol and analyzed by high performance liquid chromatography with UV detection.

The results are expressed as milligrams of 2,4-D or 2,4,5-T per cubic meter if the air collection volume is provided, otherwise as micrograms per sample. All results are blank corrected if a blank was provided or otherwise noted in the report.

Minimum Detection Level = 1 ug/tube

Analyst

Lyle Reichmann, CIH Chemist Supervisor

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WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

September 9, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA, MD 20814-4870

Company #: 3946

JOB 039
PROJ FT DRUM T4002

The results for the samples received by the lab on 09/06/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
596893	FD9596C001	<=.40	<=0.002	DDT
		<=.40	<=0.002	DDD (4,4-)
		<=.40	<=0.002	DDE (4,4-)

If you have any questions about these results, please call the lab at (800) 446-0403

Terry Burk, CIH, WOHL Lab Director

Mark Hudzak

1279

Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

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Pesticide Analysis
Dames & Moore
September 9, 1996

One fiberglass filter was submitted to WOHL for rush analysis of DDT, DDE, and DDD. The sample was desorbed in isooctane and analyzed by gas chromatography with electron capture detection (GC-ECD). This is an in-house developed method, a copy of which is included with the report.

Analysis results showed non-detectable amounts of the above listed pesticides. All isomers of the compounds were analyzed, but none were found in detectable amounts.

Three spike samples of 4,4-DDT were analyzed in the same manner as the samples to check recovery. The average recovery was 95%. The value to the right of the "<=" sign on the report is the minimum quantitation limit for that pesticide based on the sample extraction and air volume for the sample. The "<=" sign stands for "less than or equal to."

If you have questions about the results, please call the lab at (608) 263-6550.

Mark Hudziak _____
(analyst)

Steve Strebel _____
(supervisor)

1281

Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
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Wisconsin State Laboratory of Hygiene

University of Wisconsin

September 9, 1996

STEPHEN LANHAM
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SUITE 700
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BETHESDA, MD 20814-4870

Company #: 3946

JOB 039
PROJ FT DRUM T4002

The results for the samples received by the lab on 09/06/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
596902	FD9596C002	<=.40	<=0.002	DDT
		<=.40	<=0.002	DDD (4,4-)
		<=.40	<=0.002	DDE (4,4-)
596903	FD9596C003	<=.40	<=0.002	DDT
		<=.40	<=0.002	DDD (4,4-)
		<=.40	<=0.002	DDE (4,4-)
596904	FD9596C004	<=.40	<=0.002	DDT
		<=.40	<=0.002	DDD (4,4-)
		<=.40	<=0.002	DDE (4,4-)
596905	FD9596C005	<=.40	<=0.002	DDT
		<=.40	<=0.002	DDD (4,4-)
		<=.40	<=0.002	DDE (4,4-)

If you have any questions about these results, please call the lab at (800) 446-0403

Steve Strebel, Organic Supervisor

Mark Hudziak

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WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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Pesticide Analysis
Dames & Moore
September 9, 1996

Four fiberglass filters were submitted to WOHL for analysis of DDT, DDE, and DDD. The samples were desorbed in isooctane and analyzed by gas chromatography with electron capture detection (GC-ECD). This is an in-house developed method, a copy of which is included with the report.

Analysis results showed non-detectable amounts of the above listed pesticides in all samples. All isomers of the compounds were analyzed, but none were found in detectable amounts.

Three spike samples of 4,4-DDT were analyzed in the same manner as the samples to check recovery. The average recovery was 95%. The value to the right of the "<=" sign on the report is the minimum quantitation limit for that pesticide based on the sample extraction and air volume for the sample. The "<=" sign stands for "less than or equal to."

If you have questions about the results, please call the lab at (608) 263-6550.

Mark Hudziak _____
(analyst)

Steve Strebel _____
(supervisor)

GC-ECD Analytical Method for DDT, DDE, and DDD

IMIS: 847 (DDT); D906 (DDE); D119 (DDD)
CAS: 50-29-3 (DDT); 72-55-9 (DDE); 72-54-8 (DDD)

Collection: Glass fiber filters
MDL: 0.05 *u*g per ml of solvent used (0.2 *u*g per sample for 4 ml desorption)

Principle of method: Samples are collected on glass fiber filters, desorbed with isooctane, and analyzed by gas chromatograph equipped with electron-capture detection (GC-ECD).

Apparatus: Gas chromatograph: Hewlett Packard 5890 or equivalent. Detector: Electron Capture.

Reagents: DDT, DDE, DDD stock solutions; isooctane.

Procedure: Filters are transferred to screw capped vials, and 4 milliliters of isooctane are added. Samples are allowed to desorb for 1 hour. Standards are prepared in isooctane. Samples and standards are injected onto the GC column by either using an autosampler or by manual injection.

GC Conditions:

Primary column: SPB-608 60 m X 0.25 mm ID Capillary 0.25 *u*m film thickness
Injector temperature: 325 degrees C.
Detector Temperature: 325 degrees C.
Oven temperature program: Initial temperature 250 degrees C, initial time 10 minutes, rate 5 degrees C per minute, final temperature 275 degrees C, final time 8 minutes.

Confirmation column: SPB-5 60 m X 0.25 mm ID Capillary 0.25 *u*m film thickness
Same conditions as above.

References: Modified NIOSH method S274

DAMES & MOORE
7101 Wisconsin Avenue, Suite 700
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(301) 652-2215 FAX (301) 656-8059

3946R

24 Hour Turnaround

CHAIN-OF-CUSTODY RECORD

JOB NO: 0394

PROJECT NAME-CLIENT: Ft. Drum - Bldg T4002

SAMPLER (Signature): Stephen C. Yee

~~SAMPLE NO~~	~~Date~~	~~Time~~	Comp.	Grab	Matrix	SAMPLE ~~Station Number and Location~~ M1591	Total No. of Containers	NIOSH 7300 (Lead by ICP)	NIOSH 5001 (2,4-D; and 2,4,5-T)	NIOSH 5274M (DDD; DDE; and DDT)	REMARKS Volume (Liters)
						FD-9596-PH1-A-001	1	✓			640.80
						FD-9596-PH1-A-002	1	✓			~~472.~~ 682.95
						FD-9596-PH1-A-003	1	✓			661.64
						FD-9596-PH1-A-004	1	✓			649.35
						FD-9596-PH1-A-005	1	✓			677.44
						FD-9596-PH1-B-001	1		✓		191.35
						FD-9596-PH1-B-002	1		✓		216.66
						FD-9596-PH1-B-003	1		✓		242.76
						FD-9596-PH1-B-004	1		✓		206.83
						FD-9596-PH1-B-005	1		✓		204.16
						FD-9596-PH1-C-001	1			✓	191.35
						FD-9596-PH1-C-002	1			✓	226.08
						FD-9596-PH1-C-003	1			✓	242.76
						FD-9596-PH1-C-004	1			✓	221.26
						FD-9596-PH1-C-005	1			✓	194.88

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Stephen C. Yee	9-5-96 5:00pm				
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Report Results To: Steve Lanham FAX: 315-773-2873 Phone: 301-652-2215 (ext. 271) - Leave Message -	
		D. McCarty	9-6-96		

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Pink: Field Log
Gold: QA Files

Dames & Moore

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39461

24 Hour Turnaround

CHAIN-OF-CUSTODY RECORD

JOB NO: 0394

PROJECT NAME-CLIENT: Ft. Drum - Bldg T4002

SAMPLER (Signature): Steph C. Ye

~~SAMPLE NO~~	~~Date~~	~~Time~~	~~Comp.~~	~~Grab~~	~~Matrix~~	SAMPLE ~~Station~~ Number ~~and Location~~ S 9985	Total No. of Containers	NIOSH 7300 (Lead by ICP)	NIOSH 5001 (2,4-D; and 2,4,5-T)	NIOSH 5274M (DDD; DDE; and DDT)	REMARKS Volume (Liters)
						FD-9596-PH1-A-001	1	✓			640.80
						FD-9596-PH1-A-002	1	✓			~~472.~~ 682.95
						FD-9596-PH1-A-003	1	✓			661.64
						FD-9596-PH1-A-004	1	✓			649.35
						FD-9596-PH1-A-005	1	✓			677.44
						FD-9596-PH1-B-001	1		✓		191.35
						FD-9596-PH1-B-002	1		✓		216.66
						FD-9596-PH1-B-003	1		✓		242.76
						FD-9596-PH1-B-004	1		✓		206.83
						FD-9596-PH1-B-005	1		✓		204.16
						FD-9596-PH1-C-001	[illegible]			✓	191.35
						FD-9596-PH1-C-002	1			✓	226.08
						FD-9596-PH1-C-003	1			✓	242.76
						FD-9596-PH1-C-004	1			✓	221.26
						FD-9596-PH1-C-005	1			✓	194.88

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Steph C. Ye	9-5-96 5:00 pm				

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Report Results To:
		M McCarty	9-6-96	Steve Lanham FAX: 315-773-2873 Phone: 301-652-2215 (ext. 271) - Leave Message -

DISTRIBUTION
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24 Hour Turnaround

CHAIN-OF-CUSTODY RECORD

JOB NO: 0394

PROJECT NAME-CLIENT: Ft. Drum - Bldg T4002

SAMPLER (Signature): Stephen C. Yeh

~~SAMPLE NO~~	~~Date~~	~~Time~~	~~Comp~~	~~Grab~~	~~Matrix~~	SAMPLE ~~Station~~ Number ~~and Location~~ S 9985	Total No. of Containers	NIOSH 7300 (Lead by ICP)	NIOSH 5001 (2,4-D and 2,4,5-T)	NIOSH 5274M (DDD, DDE, and DDT)	REMARKS Volume (Liters)
						FD-9596-PH1-A-001	1	✓			640.80
						FD-9596-PH1-A-002	1	✓			~~472.~~ 682.95
						FD-9596-PH1-A-003	1	✓			661.64
						FD-9596-PH1-A-004	1	✓			649.35
						FD-9596-PH1-A-005	1	✓			677.44
						FD-9596-PH1-B-001	1		✓		191.35
						FD-9596-PH1-B-002	1		✓		216.66
						FD-9596-PH1-B-003	1		✓		242.76
						FD-9596-PH1-B-004	1		✓		206.83
						FD-9596-PH1-B-005	1		✓		204.16
						FD-9596-PH1-C-001	1			✓	191.35
						FD-9596-PH1-C-002	1			✓	226.08
						FD-9596-PH1-C-003	1			✓	242.76
						FD-9596-PH1-C-004	1			✓	221.26
						FD-9596-PH1-C-005	1			✓	194.88

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Stephen C. Yeh	9-5-96 5:00pm				

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Report Results To:
		M McCrary	9-6-96	Steve Lanham FAX: 315-773-2873 Phone: 301-652-2215 (ext. 271) - Leave message -

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September 16, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA, MD 20814-4870

Company #: 3946

PROJ FT DRUM 54002

The results for the samples received by the lab on 09/13/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
598327	FD91196A001	<=1.3	<=0.002	Lead, Inorganic Fume & Mists

Comments: Result(s) are not blank corrected.

If you have any questions about these results, please call the lab at (800) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

Shakker Amer

1295

Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA, MD 20814-4870

Company #: 3946

PROJ FT DRUM 54002

The results for the samples received by the lab on 09/13/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
598338	FD91196A002	<=1.3	<=0.002	Lead, Inorganic Fume & Mists
598339	FD91196A003	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists
598340	FD91196A004	<=1.3	<=0.002	Lead, Inorganic Fume & Mists
598341	FD91196A005	<=1.3	<=0.002	Lead, Inorganic Fume & Mists

Comments: Result(s) are not blank corrected.

If you have any questions about these results, please call the lab at (800) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

Shakker Amer

1297

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

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STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA, MD 20814-4870

ICAP METAL SAMPLE RESULTS

Samples were analyzed by WOHL in-house method based on NIOSH 7300 and OSHA ID-125G.

The air samples were collected on MCEF filters and digested in an appropriate mixture of acids. An aliquot of the sample was analyzed for various elements using an Inductively Coupled Argon Plasma (ICAP) Atomic Emission Spectrometer.

The results are expressed as milligrams per cubic meter of air if the air collection volume was provided; otherwise, as micrograms per filter. All results are blank corrected if a blank was provided unless otherwise noted in the comments section of the report. A less than symbol before the result means the result is less than our Limits of Quantitation. The notation N.D. which follows some of the result values indicates that these values are below our Limits of Detection. Our Limits of Quantitation and detection are available upon request.

Shakker Amer	Analyst
Lyle Reichmann, CIH	Chemist Supervisor

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WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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LABORATORY QUALITY CONTROL REPORT

Chemist Initials: SA Date of Report: 09 - 16 - 96 Equipment Code: 775
Equipment Description: JARREL ASH ICP

The following samples were analyzed for QUALITY COMPLIANCE along with normal FIELD samples.

These results meet WOHL Lab Quality Control criteria.

---------- CORRECT ----------
REPORTED VALUES ARE CORRECT FOR SAMPLES: 56579 AND 56580
Results are within 2 standard deviation.

Q-C Sample#	Reported Value(R)	Actual Value(A)	Units	Ratio (R/A)	Std Dev	S-Code	Substance Name
56579	16.230	15.800	ug/fil	1.0272	1	490	Cadmium by ICP
56579	25.590	23.700	ug/fil	1.0797	2	690	Chromium by ICP
56579	33.310	31.600	ug/fil	1.0541	2	730	Copper by ICP
56579	32.750	31.600	ug/fil	1.0364	1	1591	Lead by ICP
56579	25.037	23.700	ug/fil	1.0564	2	1620	Manganese by ICP
56579	25.360	23.700	ug/fil	1.0700	2	1840	Nickel by ICP
56579	66.206	63.200	ug/fil	1.0476	2	I200	Iron by ICP
56579	33.626	31.600	ug/fil	1.0641	2	Z100	Zinc by ICP
56580	25.353	25.200	ug/fil	1.0061	1	490	Cadmium by ICP
56580	39.285	37.700	ug/fil	1.0420	2	690	Chromium by ICP
56580	51.737	50.300	ug/fil	1.0286	1	730	Copper by ICP
56580	51.005	50.300	ug/fil	1.0140	1	1591	Lead by ICP
56580	38.715	37.700	ug/fil	1.0269	1	1620	Manganese by ICP
56580	39.610	37.700	ug/fil	1.0507	2	1840	Nickel by ICP
56580	102.550	100.600	ug/fil	1.0194	1	I200	Iron by ICP
56580	52.211	50.300	ug/fil	1.0380	1	Z100	Zinc by ICP

The Quality Control limits are calculated based on 1, 2, and 3 STANDARD DEVIATIONS derived from historical data for a particular analyte. The MEAN values are adjusted to 1 in order to avoid any positive or negative bias.

KEY : COLUMN HEADINGS

Q-C Sample# : Laboratory prepared Quality Control sample number.
Reported Value : Analyst's results.
Actual Value : Amount of analyte applied to the QC sample.
Ratio : Ratio of Reported/Actual.
Std Dev : Number of Standard Deviations from the MEAN value.
S-Code : Substance (analyte) code.

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Madison, WI 53713-3226
Phone: (608) 263-6550
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September 17, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA, MD 20814-4870

Company #: 3946

PROJ FT DRUM 54002

The results for the samples received by the lab on 09/13/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
598328	FD91196B001	10	0.046	2,4-D
		ND <2.0	ND <0.009	2,4,5-T

If you have any questions about these results, please call the lab at (800) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

LeRoy Dobson

1303

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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September 17, 1996

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DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA, MD 20814-4870

Company #: 3946

PROJ FT DRUM 54002

The results for the samples received by the lab on 09/13/96 are as follows:

Lab#	Field#	uq/sample	MG/M3	Analyte
598334	FD91196B002	ND <2.0	ND <0.009	2,4-D
		ND <2.0	ND <0.009	2,4,5-T
598335	FD91196B003	ND <2.0	ND <0.007	2,4-D
		<=8.0	<=0.030	2,4,5-T
598336	FD91196B004	ND <2.0	ND <0.008	2,4-D
		ND <2.0	ND <0.008	2,4,5-T
598337	FD91196B005	ND <2.0	ND <0.008	2,4-D
		ND <2.0	ND <0.008	2,4,5-T

If you have any questions about these results, please call the lab at (800) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

LeRoy Dobson

1305

Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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September 17, 1996 3946

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA, MD 20814-4870

2,4-D and 2,4,5,-T, MCPA

Samples were analyzed using method pest27.mth based on NIOSH method 5001.

Air samples are collected by drawing known volumes of air through OVS-2 tubes (OSHA versitile samples). Samples are desorbed with methanol and analyzed by high performance liquid chromatography with UV detection.

The results are expressed as milligrams of 2,4-D or 2,4,5-T per cubic meter if the air collection volume is provided, otherwise as micrograms per sample. All results are blank corrected if a blank was provided or otherwise noted in the report.

Minimum Detection Level = 1 ug/tube

LeRoy Dobson	Analyst
Lyle Reichmann, CIH	Chemist Supervisor

1307

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979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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9/16/96

DDD,DDE,DDT
DAMES & MOORE

DDD, DDE, DDT ANALYSIS FINAL RESULTS

One filter was submitted to WOHL for DDD, DDE and DDT analysis. The filter was desorbed in iso-octane and analyzed by gas chromatography with electron capture detection (GC-ECD). A modified NIOSH S274 was used as a reference.

Analysis Results:

WOHL Sample ID	Dames & Moore Sample ID	Analyte	Concentration
598329	FD-91196-PH1-C001	DDD	< 0.002 MG/M3
		DDE	< 0.002 MG/M3
		DDT	< 0.002 MG/M3

Basically, there were non-detectable amounts of DDD, DDE and DDT in the sample.

One filter was spiked with DDT at a concentration of 10 ug. Results yielded a 95 % recovery.

The minimum quantitation limit (MQL) was 0.4 ug /sample or 0.002 mg/m3 for a 224.48 liter air volume.

ou have any questions about the results, please call the lab at (800) 446-0403.

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Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

Date sample received: 9/13/96

Date reported: 9/16/96

Dan Healy (analyst): Dan Healy

Steve Strebel (supervisor):

1311

Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
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University of Wisconsin

9/16/96

DDD,DDE,DDT
DAMES & MOORE

Four filters were submitted to WOHL for DDD, DDE and DDT analysis. The filters were desorbed in iso-octane and analyzed by gas chromatography with electron capture detection (GC-ECD). A modified NIOSH S274 was used as a reference.

Analysis Results:

WOHL Sample	Dames & Moore Sample ID	Analyte	Concentration
598330	FD-91196-PH1-C-002	DDD	< 0.002 MG/M3
		DDE	< 0.002 MG/M3
		DDT	< 0.002 MG/M3
598331	FD-91196-PH1-C-003	DDD	< 0.001 MG/M3
		DDE	< 0.001 MG/M3
		DDT	< 0.001 MG/M3
598332	FD-91196-PH1-C-004	DDD	< 0.002 MG/M3
		DDE	< 0.002 MG/M3
		DDT	< 0.002 MG/M3
598333	FD-91196-PH1-C-005	DDD	< 0.002 MG/M3
		DDE	< 0.002 MG/M3
		DDT	< 0.002 MG/M3

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Basically, there were non-detectable amounts of DDD, DDE and DDT in the samples.

One filter was spiked with DDT at a concentration of 10 ug. Results yielded a 95 % recovery.

The minimum quantitation limit (MQL) was 0.4 ug /sample or 0.002 mg/m3 for a 233.12 liter air volume.

If you have any questions about the results, please call the lab at (800) 446-0403.

Date sample received: 9/13/96

Date reported: 9/16/96

Dan Healy (analyst): _____

Steve Strebel (supervisor): _____

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Bethesda, Maryland 20814-4870
(301) 652-2215 FAX (301) 656-8059

72 Hr
Turn around

CHAIN OF CUSTODY RECORD

NO. 0402

M/591

Project No.:

Project Name: Ft. Drum - Bldg T4002

Samplers: (signature) Stephen C. Lark

Sta. No.	Date	Time	Comp	Grab	SAMPLE # ~~Station Location~~	Number of Containers	NIOSH 7300 (Lead by ICP)	NIOSH 5001 (2,4-D; and 2,4,5-T)					Remarks Volume (Liters)
					FD-91196-PH1-A-002	509834	✓						748.96
					-A-003	509834	✓						764.06
					-A-004	509834	✓						762.00
					-A-005	509834	✓						737.28
					-B-002	[illegible]			✓				223.20
					-B-003	[illegible]			✓				268.18
					-B-004	[illegible]			✓				243.84
					-B-005	[illegible]			✓				245.76

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Relinquished by: (signature)	Date/Time	Received for Laboratory by: (signature)	Date/Time	Dames & Moore

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24 Hour Turn around

#3946R

NO. 0401

CHAIN OF CUSTODY RECORD

Project No.:

Project Name: Ft. Drum - Bldg T4002

Samplers: (signature) Stephen C. Yan

Sta. No.	Date	Time	Comp	Grab	SAMPLE # ~~Station Location~~	Number of Containers	NIOSH 7300 (Lead by ICP)	NIOSH 5001 (2,4-D; and 2,4,5-T)	NIOSH 5274M (DDD; DDE; and DDT)	Remarks Volume (Liters)
					FD-91196-PH1-A-001	1	✓			732.00
					-B-001			✓		219.60
					-C-001	1			✓	224.48

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	Remarks:
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72 Hou. Turn around

CHAIN OF CUSTODY RECORD

NO. 0402

Project No.:

Project Name: Ft. Drum - Bldg T4002

Samplers: (signature) Steph C. Lan

Sta. No.	Date	Time	Comp	Grab	SAMPLE # ~~Station Location~~	Number of Containers	NIOSH 7300D (Lead by ICP)	NIOSH 5001 (2,4-D and 2,4,5-T)	Remarks Volume (Liters)
					FD-91196-PH1-A-002	1	✓		748.96
					-A-003		✓		764.06
					-A-004		✓		762.00
					-A-005		✓		737.28
					-B-002			✓	223.20
					-B-003			✓	268.18
					-B-004			✓	243.84
					-B-005			✓	245.76

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received for Laboratory by: (signature)	Date/Time

Remarks:

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3946.F

72 Hour Turn around.

CHAIN OF CUSTODY RECORD

NO. 0403

Project No.:

Project Name: Ft. Drum - Bldg T4002

Samplers: (signature) Stephen C. Yeh

Sta. No.	Date	Time	Comp.	Grab	SAMPLE # ~~Station Location~~	Number of Containers	NIOSH 5274M (DDD, DDE, and DDT)						Remarks Volume (Liters)
					F0A1196-PH1-C-002	[illegible]	✓						233.12
					-C-003	[illegible]	✓						268.18
					-C-004	[illegible]	✓						233.68
					-C-005	[illegible]	✓						256.00

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	Remarks:
Relinquished by: (signature)	Date/Time	Received for Laboratory by: (signature)	Date/Time	Dames & Moore

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24 Hour Turn around

#3946R

59985

NO. 0401

CHAIN OF CUSTODY RECORD

Project No.:

Project Name: Ft. Drum - Bldg T4002

Samplers: (signature) [illegible] C. [illegible]

Sta. No.	Date	Time	Comp	Grab	SAMPLE # ~~Station Location~~	Number of Containers	NIOSH 7300 (Lead by ICP)	NIOSH 5001 (2,4-D; and 2,4,5-T)	NIOSH 5274M (DDD; DDE; and DDT)	Remarks Volume (Liters)
					FD-91196-PH1-A-001	1	✓			732.00
					-B-001	1		✓		219.60
					-C-001	[illegible]			✓	224.48

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	Remarks:
Relinquished by: (signature)	Date/Time	Received for Laboratory by: (signature)	Date/Time	

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WOHL Wisconsin Occupational Health Laboratory

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Wisconsin State Laboratory of Hygiene

University of Wisconsin

September 23, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM T4002
PO WA8990

The results for the samples received by the lab on 09/20/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
599661	FD91996A001	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists
599662	FD91996A002	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists
599663	FD91996A003	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists
599664	FD91996A004	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists
599665	FD91996A005	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists

If you have any questions about these results, please call the lab at (800) 446-0403

Terry Burk, CIH, WOHL Lab Director

Shakker Amer

1327

Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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University of Wisconsin

LABORATORY QUALITY CONTROL REPORT

Chemist Initials: SP Date of Report: 09 - 23 - 96 Equipment Code: 775
Equipment Description: JARREL ASH ICP

The following samples were analyzed for QUALITY COMPLIANCE along with normal FIELD samples.

These results meet WOHL Lab Quality Control criteria.

---------- CORRECT ----------

REPORTED VALUES ARE CORRECT FOR SAMPLES: 56587 AND 56588
Results are within 2 standard deviation.

Q-C Sample#	Reported Value(R)	Actual Value(A)	Units	Ratio (R/A)	Std Dev	S-Code	Substance Name
56587	25.470	25.200	ug/fil	1.0107	1	490	Cadmium by ICP
56587	39.760	37.700	ug/fil	1.0546	2	690	Chromium by ICP
56587	50.480	50.300	ug/fil	1.0036	1	730	Copper by ICP
56587	49.960	50.300	ug/fil	.9932	1	1591	Lead by ICP
56587	38.110	37.700	ug/fil	1.0109	1	1620	Manganese by ICP
56587	39.420	37.700	ug/fil	1.0456	2	1840	Nickel by ICP
56587	103.200	100.600	ug/fil	1.0258	1	I200	Iron by ICP
56587	50.930	50.300	ug/fil	1.0125	1	Z100	Zinc by ICP
56588	39.070	38.100	ug/fil	1.0255	1	490	Cadmium by ICP
56588	60.330	57.100	ug/fil	1.0566	2	690	Chromium by ICP
56588	77.300	76.100	ug/fil	1.0158	1	730	Copper by ICP
56588	76.480	76.100	ug/fil	1.0050	1	1591	Lead by ICP
56588	58.360	57.100	ug/fil	1.0221	1	1620	Manganese by ICP
56588	59.850	57.100	ug/fil	1.0482	2	1840	Nickel by ICP
56588	156.000	152.300	ug/fil	1.0243	1	I200	Iron by ICP
56588	78.000	76.100	ug/fil	1.0250	1	Z100	Zinc by ICP

The Quality Control limits are calculated based on 1, 2, and 3 STANDARD DEVIATIONS derived from historical data for a particular analyte. The MEAN values are adjusted to 1 in order to avoid any positive or negative bias.

KEY : COLUMN HEADINGS

Q-C Sample# : Laboratory prepared Quality Control sample number.
Reported Value : Analyst's results.
Actual Value : Amount of analyte applied to the QC sample.
Ratio : Ratio of Reported/Actual.
Std Dev : Number of Standard Deviations from the MEAN value.
S-Code : Substance (analyte) code.

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979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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September 23, 1996 3946

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BETHESDA MD 20814-4870

ICAP METAL SAMPLE RESULTS

Samples were analyzed by WOHL in-house method based on NIOSH 7300 and OSHA ID-125G.

The air samples were collected on MCEF filters and digested in an appropriate mixture of acids. An aliquot of the sample was analyzed for various elements using an Inductively Coupled Argon Plasma (ICAP) Atomic Emission Spectrometer.

The results are expressed as milligrams per cubic meter of air if the air collection volume was provided; otherwise, as micrograms per filter. All results are blank corrected if a blank was provided unless otherwise noted in the comments section of the report. A less than symbol before the result means the result is less than our Limits of Quantitation. The notation N.D. which follows some of the result values indicates that these values are below our Limits of Detection. Our Limits of Quantitation and detection are available upon request.

Shakker Amer	Analyst
Terry Burk, CIH	WOHL Lab Director

1331

Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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September 27, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM T4002
PO WA8990

The results for the samples received by the lab on 09/20/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
599668	FD91996B001	ND <2.0	ND <0.009	2,4,5-T
		ND <2.0	ND <0.009	2,4-D
599669	FD91996B002	ND <2.0	ND <0.009	2,4,5-T
		ND <2.0	ND <0.009	2,4-D
599670	FD91996B003	ND <2.0	ND <0.009	2,4,5-T
		ND <2.0	ND <0.009	2,4-D
599671	FD91996B004	ND <2.0	ND <0.008	2,4,5-T
		ND <2.0	ND <0.008	2,4-D

If you have any questions about these results, please call the lab at (800) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

Terry Spennetta

1333

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
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Company #: 3946

PROJ FT DRUM T4002
PO WA8990

The results for the samples received by the lab on 09/20/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
599666	FD91996B005	ND <2.0	ND <0.011	2,4,5-T
		ND <2.0	ND <0.011	2,4-D

If you have any questions about these results, please call the lab at (800) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

Terry Spennetta

1335

Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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BETHESDA MD 20814-4870

2,4-D and 2,4,5,-T, MCPA

Samples were analyzed using method pest27.mth based on NIOSH method 5001.

Air samples are collected by drawing known volumes of air through OVS-2 tubes (OSHA versitile samples). Samples are desorbed with methanol and analyzed by high performance liquid chromatography with UV detection.

The results are expressed as milligrams of 2,4-D or 2,4,5-T per cubic meter if the air collection volume is provided, otherwise as micrograms per sample. All results are blank corrected if a blank was provided or otherwise noted in the report.

Minimum Detection Level = 1 ug/tube

Terry Spennetta	Analyst
Lyle Reichmann, CIH	Chemist Supervisor

1337

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Phone: (608) 263-6550
FAX: (608) 263-6551

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September 23, 1996

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DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM T4002
PO WA8990

The results for the samples received by the lab on 09/20/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
599667	FD91996C005	<=.40	<=0.002	DDT
		<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
599672	FD91996C001	<=.40	<=0.002	DDT
		<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
599673	FD91996C002	<=.40	<=0.002	DDT
		<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
599674	FD91996C003	<=.40	<=0.002	DDT
		<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
599675	FD91996C004	<=.40	<=0.002	DDT
		<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE

If you have any questions about these results, please call the lab at (800) 446-0403

Steve Strebel, Organic Supervisor

Mark Huaziak

1339

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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Pesticide Analysis
Dames & Moore
September 23, 1996

Five fiberglass filters were submitted to WOHL for analysis of DDT, DDE, and DDD. The samples were desorbed in isooctane and analyzed by gas chromatography with electron capture detection (GC-ECD). This is an in-house developed method, a copy of which is included with the report.

Analysis results showed non-detectable amounts of the above listed pesticides in all samples. All isomers of the compounds were analyzed, but none were found in detectable amounts.

Three spike samples of 4,4-DDT were analyzed in the same manner as the samples to check recovery. The average recovery was 97%. The value to the right of the "<=" sign on the report is the minimum quantitation limit for that pesticide based on the sample extraction and air volume for the sample. The "<=" sign stands for "less than or equal to".

If you have questions about the results, please call the lab at (608) 263-6550.

Mark Hudziak Mark Hudziak
(analyst)

Steve Strebel
(supervisor)

GC-ECD Analytical Method for DDT, DDE, and DDD

IMIS: 847 (DDT); D906 (DDE); D119 (DDD)
CAS: 50-29-3 (DDT); 72-55-9 (DDE); 72-54-8 (DDD)

Collection: Glass fiber filters
MDL: 0.05 *u*g per ml of solvent used (0.2 *u*g per sample for 4 ml desorption)

Principle of method: Samples are collected on glass fiber filters, desorbed with isooctane, and analyzed by gas chromatograph equipped with electron-capture detection (GC-ECD).

Apparatus: Gas chromatograph: Hewlett Packard 5890 or equivalent. Detector: Electron Capture.

Reagents: DDT, DDE, DDD stock solutions; isooctane.

Procedure: Filters are transferred to screw capped vials, and 4 milliliters of isooctane are added. Samples are allowed to desorb for 1 hour. Standards are prepared in isooctane. Samples and standards are injected onto the GC column by either using an autosampler or by manual injection.

GC Conditions:

Primary column: SPB-608 60 m X 0.25 mm ID Capillary 0.25 *u*m film thickness
Injector temperature: 325 degrees C.
Detector Temperature: 325 degrees C.
Oven temperature program: Initial temperature 250 degrees C, initial time 10 minutes, rate 5 degrees C per minute, final temperature 275 degrees C, final time 8 minutes.

Confirmation column: SPB-5 60 m X 0.25 mm ID Capillary 0.25 *u*m film thickness
Same conditions as above.

References: Modified NIOSH method S274

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12 Hour Turn around

#39460P

Reference
P.O. #WA-8990

CHAIN OF CUSTODY RECORD

NO. 0413

Project No.:

Project Name: Ft. Drum - Bldg T-4002

Samplers: (signature) Steve C. S

Sta. No.	Date	Time	Comp	Grab	SAMPLE # ~~Station Location~~ M1591	Number of Containers	NIOSH 7300 (Lead by Ice)	NIOSH 5001 (2,4-D, and 2,4,5-T)	Remarks Volume (Liters)
					FD-91996-PH1-A-001	1	✓		723.84
					-A-002		✓		705.12
					-A-003		✓		685.44
					-A-004		✓		682.50
					-B-001			✓	222.72
					-B-002			✓	221.48
					-B-003			✓	215.04
					-B-004			✓	245.70

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Steve C. S	9-19-96 1720		
Relinquished by: (signature)	Date/Time	Received for Laboratory by: (signature)	Date/Time
		J McGary	9-20-96

Remarks:
FAX Results: (315) 773-2873
Phone Results:
(301) 652-2215 (ext. 271)
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CHAIN OF CUSTODY RECORD

NO. 0412

Project No.:

Project Name: Ft. Drum -Bldg T-4002

Samplers: (signature) Steph C. Ta

Sta. No.	Date	Time	Comp	Grab	SAMPLE # ~~Station Location~~	Number of Containers	NIOSH 7300 (Lead by ICP)		NIOSH 5001 (2,4-D; and 2,4,5-T)		NIOSH 5274M (DDD; DDE; and DDT)		Remarks Volume (Liters)
					FD-91996-PH1-A-005	1	✓						596.45
					F -B-005	↓			✓				185.65
					-C-005	↓					✓		197.50

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Steph C. Tan	9-19-96 5:20PM		
Relinquished by: (signature)	Date/Time	Received for Laboratory by: (signature)	Date/Time
		H McCrary	9-24-96

Remarks:
FAx Results (315) 773-2873
Phone Results
(301) 652-2215 (ext. 271)
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24 Hour Turnaround

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Ret.
P.O. # WA-8990

NO. 0412

CHAIN OF CUSTODY RECORD

L9985

Project No.:	Project Name: Ft. Drum - Bldg T-4002
Samplers: (signature) Steph C. Ta	

Sta. No.	Date	Time	Comp	Grab	SAMPLE # ~~Station Location~~	Number of Containers	NIOSH 7300 (Lead by ICP)		NIOSH 5001 (2,4-D; and 2,4,5-T)		NIOSH 5274M (DDD; DDE; and DDT)		Remarks Volume (Liters)
					FD-91996-PHI-A-005	1	✓						596.45
					F -B-005				✓				185.65
					-C-005						✓		197.50

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Steph C. Tan	9-19-96 5:20PM		
Relinquished by: (signature)	Date/Time	Received for Laboratory by: (signature)	Date/Time
		H. McCrary	9-29-96

Remarks:
FAX Results (315) 773-2873
Phone Results
(301) 652-2215 (ext. 271)
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72 Hour Turn around

#3946P

Reference
P.O. #WA-8990

CHAIN OF CUSTODY RECORD

NO. 0413

Project No.:

Project Name: Ft. Drum - Bldg T-4002

Samplers: (signature) [signature]

Sta. No.	Date	Time	Comp	Grab	SAMPLE # ~~Station Location~~	Number of Containers	NIOSH 7300 (Lead by ICP)	NIOSH 5001 (2,4-D and 2,4,5-T)				Remarks Volume (Liters)
					FD-91996-PH1-A-001	1	✓					723.84
					-A-002		✓					705.12
					-A-003		✓					685.44
					-A-004		✓					682.50
					-B-001			✓				222.72
					-B-002			✓				221.48
					-B-003			✓				215.04
					-B-004			✓				245.70

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	9-19-96 1720		
Relinquished by: (signature)	Date/Time	Received for Laboratory by: (signature)	Date/Time
		[signature]	9-20-96

Remarks:
FAX Results: (315) 773-2873
Phone Results:
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979 Jonathon Drive
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University of Wisconsin

September 30, 1996

STEPHEN LANHAM
DAMES & MOORE
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

FT DRUM BLDG T4002

The results for the samples received by the lab on 09/27/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
600749	92696PH2A001	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists
600750	92696PH2A002	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists
600751	92696PH2A003	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists
600752	92696PH2A004	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists

If you have any questions about these results, please call the lab at (800) 446-0403

Steve Strebel, Organic Supervisor

Shakker Amer

1353

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

September 30, 1996

STEPHEN LANHAM
DAMES & MOORE
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

FT DRUM BLDG T4002

The results for the samples received by the lab on 09/27/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
600746	FD92696PH2A0	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists

If you have any questions about these results, please call the lab at (800) 446-0403

Steve Strebel, Organic Supervisor

Shakker Amer

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979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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University of Wisconsin

September 30, 1996 3946

STEPHEN LANHAM
DAMES & MOORE
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

ICAP METAL SAMPLE RESULTS

Samples were analyzed by WOHL in-house method based on NIOSH 7300 and OSHA ID-125G.

The air samples were collected on MCEF filters and digested in an appropriate mixture of acids. An aliquot of the sample was analyzed for various elements using an Inductively Coupled Argon Plasma (ICAP) Atomic Emission Spectrometer.

The results are expressed as milligrams per cubic meter of air if the air collection volume was provided; otherwise, as micrograms per filter. All results are blank corrected if a blank was provided unless otherwise noted in the comments section of the report. A less than symbol before the result means the result is less than our Limits of Quantitation. The notation N.D. which follows some of the result values indicates that these values are below our Limits of Detection. Our Limits of Quantitation and detection are available upon request.

Shakker Amer	Analyst
Steve Strebel	Organic Supervisor

1357

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

LABORATORY QUALITY CONTROL REPORT

Chemist Initials: SA Date of Report: 09 - 30 - 96 Equipment Code: 775
Equipment Description: JARREL ASH ICP

The following samples were analyzed for QUALITY COMPLIANCE along with normal FIELD samples.

These results meet WOHL Lab Quality Control criteria.

---------- CORRECT ----------

REPORTED VALUES ARE CORRECT FOR SAMPLES: 56807 AND 56808
Results are within 2 standard deviation.

Q-C Sample#	Reported Value(R)	Actual Value(A)	Units	Ratio (R/A)	Std Dev	S-Code	Substance Name
56807	25.618	25.200	ug/fil	1.0166	1	490	Cadmium by ICP
56807	39.758	37.700	ug/fil	1.0546	2	690	Chromium by ICP
56807	51.240	50.300	ug/fil	1.0187	1	730	Copper by ICP
56807	50.564	50.300	ug/fil	1.0052	1	1591	Lead by ICP
56807	38.150	37.700	ug/fil	1.0119	1	1620	Manganese by ICP
56807	39.431	37.700	ug/fil	1.0459	2	1840	Nickel by ICP
56807	101.700	100.600	ug/fil	1.0109	1	I200	Iron by ICP
56807	51.226	50.300	ug/fil	1.0184	1	Z100	Zinc by ICP
56808	38.575	38.100	ug/fil	1.0125	1	490	Cadmium by ICP
56808	59.005	57.100	ug/fil	1.0334	1	690	Chromium by ICP
56808	76.545	76.100	ug/fil	1.0058	1	730	Copper by ICP
56808	75.104	76.100	ug/fil	.9869	1	1591	Lead by ICP
56808	57.136	57.100	ug/fil	1.0006	1	1620	Manganese by ICP
56808	59.081	57.100	ug/fil	1.0347	1	1840	Nickel by ICP
56808	152.080	152.300	ug/fil	.9986	1	I200	Iron by ICP
56808	76.848	76.100	ug/fil	1.0098	1	Z100	Zinc by ICP

The Quality Control limits are calculated based on 1, 2, and 3 STANDARD DEVIATIONS derived from historical data for a particular analyte. The MEAN values are adjusted to 1 in order to avoid any positive or negative bias.

KEY : COLUMN HEADINGS

Q-C Sample# : Laboratory prepared Quality Control sample number.
Reported Value : Analyst's results.
Actual Value : Amount of analyte applied to the QC sample.
Ratio : Ratio of Reported/Actual.
Std Dev : Number of Standard Deviations from the MEAN value.
S-Code : Substance (analyte) code.

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Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

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October 2, 1996

STEPHEN LANHAM
DAMES & MOORE
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

FT DRUM BLDG T4002

The results for the samples received by the lab on 09/27/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
600753	92696PH2B001	ND <2.0	ND <0.009	2,4,5-T
		ND <2.0	ND <0.009	2,4-D
600754	92696PH2B002	ND <2.0	ND <0.010	2,4,5-T
		ND <2.0	ND <0.010	2,4-D
600755	92696PH2B003	ND <2.0	ND <0.009	2,4,5-T
		ND <2.0	ND <0.009	2,4-D
600756	92696PH2B004	ND <2.0	ND <0.010	2,4,5-T
		ND <2.0	ND <0.010	2,4-D

If you have any questions about these results, please call the lab at (800) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

Terry Spennetta

1361

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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University of Wisconsin

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STEPHEN LANHAM
DAMES & MOORE
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

FT DRUM BLDG T4002

The results for the samples received by the lab on 09/27/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
600747	FD92696PHB05	ND <2.0	ND <0.010	2,4,5-T
		ND <2.0	ND <0.010	2,4-D

If you have any questions about these results, please call the lab at (800) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

Terry Spennetta

1363

Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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STEPHEN LANHAM
DAMES & MOORE
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

2,4-D and 2,4,5,-T, MCPA

Samples were analyzed using method pest27.mth based on NIOSH method 5001.

Air samples are collected by drawing known volumes of air through OVS-2 tubes (OSHA versitile samples). Samples are desorbed with methanol and analyzed by high performance liquid chromatography with UV detection.

The results are expressed as milligrams of 2,4-D or 2,4,5-T per cubic meter if the air collection volume is provided, otherwise as micrograms per sample. All results are blank corrected if a blank was provided or otherwise noted in the report.

Minimum Detection Level = 1 ug/tube

Terry Spennetta	Analyst
Lyle Reichmann, CIH	Chemist Supervisor

1365

Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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September 30, 1996

STEPHEN LANHAM
DAMES & MOORE
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

FT DRUM BLDG T4002

The results for the samples received by the lab on 09/27/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
600757	92696PH2C001	<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
		<=.40	<=0.002	DDT
600758	92696PH2C002	<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
		<=.40	<=0.002	DDT
600759	92696PH2C003	<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
		<=.40	<=0.002	DDT
600760	92696PH2C004	<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
		<=.40	<=0.002	DDT

If you have any questions about these results, please call the lab at (800) 446-0403

Steve Strebel, Organic Supervisor

Mark Hudziak

1367

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

September 30, 1996

STEPHEN LANHAM
DAMES & MOORE
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

FT DRUM BLDG T4002

The results for the samples received by the lab on 09/27/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
600748	92696PH2C005	<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
		<=.40	<=0.002	DDT

If you have any questions about these results, please call the lab at (800) 446-0403

Steve Strebel, Organic Supervisor

Mark Hudziak

1369

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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University of Wisconsin

Pesticide Analysis
Dames & Moore
September 30, 1996

Five fiberglass filters were submitted to WOHL for analysis of DDT, DDE, and DDD. The samples were desorbed in isooctane and analyzed be gas chromatography with electron capture detection (GC-ECD). This is an in-house developed method, which is a modification of NIOSH method S274.

Analysis results showed non-detectable amounts of the above listed pesticides in all samples. All isomers of the compounds were analyzed, but none were found in detectable amounts.

Three spike samples of 4,4-DDT were analyzed in the same manner as the samples to check recovery. The average recovery was 92 %. The value to the right of the "<=" sign on the report is the minimum quantitation limit for that pesticide based on the sample extraction and air volume for the sample. The "<=" sign stands for "less than or equal to".

If you have questions about the results, please call the lab at (608) 263-6550.

Mark Hudziak
(analyst)

Steve Strebel
(supervisor)

1371

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene University of Wisconsin

LABORATORY QUALITY CONTROL REPORT

Chemist Initials: MH Date of Report: 09 - 27 - 96 Equipment Code: 105F
Equipment Description: HP GAS CHROM (F-FRONT)

The following samples were analyzed for QUALITY COMPLIANCE along with normal FIELD samples.

These results meet WOHL Lab Quality Control criteria.

---------- CORRECT ----------
REPORTED VALUES ARE CORRECT FOR SAMPLES: 56609 AND 56610
Results are within 1 standard deviation.

Q-C Sample#	Reported Value(R)	Actual Value(A)	Units	Ratio (R/A)	Std Dev	S-Code	Substance Name
56609	134.900	131.100	ug/samp	1.0290	1	320	Benzene
56610	180.500	174.800	ug/samp	1.0326	1	320	Benzene

The Quality Control limits are calculated based on 1, 2, and 3 STANDARD DEVIATIONS derived from historical data for a particular analyte. The MEAN values are adjusted to 1 in order to avoid any positive or negative bias.

KEY : COLUMN HEADINGS

Q-C Sample# : Laboratory prepared Quality Control sample number.
Reported Value : Analyst's results.
Actual Value : Amount of analyte applied to the QC sample.
Ratio : Ratio of Reported/Actual.
Std Dev : Number of Standard Deviations from the MEAN value.
S-Code : Substance (analyte) code.

Dan : + Moore
7101 Wisconsin Ave., Suite 700
Bethesda, MD 20814
(301) 652-2215 FAX 656-8059

3946

NO. 421

CHAIN OF CUSTODY RECORD

Project No.:	Project Name: Ft. Drum - Bldg T-4002
Samplers: (signature)	

Sta. No.	Date	Time	Comp	Grab	SAMPLE # ~~Station Location~~	Number of Containers	NIOSH 7300 (Lead by ICP)	NIOSH 5001 (2,4-D and 2,4,5-T)	Volume (Liters)	Remarks
					FD-92696-PH2-A-001	1	✓		697.13	600749
					-A-002		✓		657.90	600750
					-A-003		✓		648.00	600751
					-A-004		✓		632.10	600752
					-B-001			✓	216.50	600753
					-B-002			✓	197.80	600754
					-B-003			✓	233.28	600755
					-B-004			✓	197.80	600756

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
	9-26-96 1700		
Relinquished by: (signature)	**Date/Time**	**Received for Laboratory by: (signature)**	**Date/Time**
			9-27-96

Remarks: Phone Results: 301-652-2215
FAX: 315-773-2873

Dames & Moore

Distribution: White Copy (Laboratory Copy)
Yellow Copy (Job File)
Pink Copy (Field Geologist Files)

1373

Dames Moore
7101 Wisconsin Ave., Suite 700
Bethesda, MD 20814
(301) 652-2215 FAX 656-8059

#3946

NO. 422

CHAIN OF CUSTODY RECORD

Project No.:

Project Name: Ft. Drum - Bldg T-4002

Samplers: (signature) Steph C. Yan

Sta. No.	Date	Time	Comp	Grab	SAMPLE # ~~Station Location~~	Number of Containers	NIOSH 5274 M (DDD, DDE, and DDT)						Remarks Volume (Liters)	
					FD-92696-PH2-C-001	1	✓						199.18	600757
					-C-002		✓						202.10	600758
					-C-003		✓						228.96	600759
					-C-004		✓						202.10	600760

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Steph C. Y	9-26-96 1700		
Relinquished by: (signature)	**Date/Time**	**Received for Laboratory by: (signature)**	**Date/Time**

Remarks: Phone Results: 301-652-2215
FAX: 315-773-2873

Dames & Moore

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1375

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(301) 652-2215 FAX 656-8059

? ~~Hour~~ Turn Around

3946R

CHAIN OF CUSTODY RECORD

NO. 423

Project No.:	Project Name: Ft. Drum - Bldg T-4002					Number of Containers	NIOSH 7300 (Lead by ICP)		NIOSH 5001 (2,4-D; and 2,4,5-T)		NIOSH 5274M (DDD; DDE; and DDT)		Remarks M1591 ~~M9731~~ Volume (Liters)	
Samplers: (signature) Steve C. Z														
Sta. No.	Date	Time	Comp	Grab	SAMPLE # ~~Station Location~~									
—	—	—	—	—	FD-92696-PH2-A-005	1	✓	—	—	—	—	—	600.00	600746
—	—	—	—	—	-B-005	1	—	—	✓	—	—	—	192.00	600747
—	—	—	—	—	-C-005	1	—	—	—	—	✓	—	184.00	600748

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Steve C. Z	9-26-96 5:00pm		1
Relinquished by: (signature)	**Date/Time**	**Received for Laboratory by: (signature)**	**Date/Time**
	1	A McCleary	9-27-96

Remarks:
Phone Results: 301-652-2215 (ext. 271)
FAX Results: 315-773-2873

Dames & Moore

Distribution: White Copy (Laboratory Copy)
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Dam S+ Moore
7101 Wisconsin Ave., Suite 700
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2" Hose Turn Around

3946R

CHAIN OF CUSTODY RECORD

NO. 423

Project No.:

Project Name: [redacted] Bldg T-4002

Samplers: (signature) [signature]

Sta. No.	Date	Time	Comp	Grab	SAMPLE # ~~Station Location~~	Number of Containers	NIOSH 7300 (Lead by ICP)		NIOSH 5001 (2,4-D; and 2,4,5-T)		NIOSH 5274M (DDD; DDE; and DDT)		Volume (Liters)	Remarks
					FD-92696-PH2-A-005	1	✓						600.00	600746
					-B-005	1			✓				192.00	600747
					-C-005	1					✓		184.00	600748

S 9985

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	9-26-96 5:00pm		1
Relinquished by: (signature)	Date/Time	Received for Laboratory by: (signature)	Date/Time
	1	[signature]	9-27-96

Remarks:
Phone Results: 301-652-2215 (ext. 271)
FAX Results: 315-773-2873

Dames & Moore

Distribution: White Copy (Laboratory Copy)
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1379

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WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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October 2, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM T4002

The results for the samples received by the lab on 10/01/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
601347	93096PH2A005	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists

If you have any questions about these results, please call the lab at (800) 446-0403

Doug Smieja

Doug Smieja,

Susan Percy

Susan Percy

1383

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

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STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

ICAP METAL SAMPLE RESULTS

Samples were analyzed by WOHL in-house method based on NIOSH 7300 and OSHA ID-125G.

The air samples were collected on MCEF filters and digested in an appropriate mixture of acids. An aliquot of the sample was analyzed for various elements using an Inductively Coupled Argon Plasma (ICAP) Atomic Emission Spectrometer.

The results are expressed as milligrams per cubic meter of air if the air collection volume was provided; otherwise, as micrograms per filter. All results are blank corrected if a blank was provided unless otherwise noted in the comments section of the report. A less than symbol before the result means the result is less than our Limits of Quantitation. The notation N.D. which follows some of the result values indicates that these values are below our Limits of Detection. Our Limits of Quantitation and detection are available upon request.

Susan Percy Analyst

Doug Smieja

1385

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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University of Wisconsin

LABORATORY QUALITY CONTROL REPORT

Chemist Initials: SP Date of Report: 10 - 02 - 96 Equipment Code: 775
Equipment Description: JARREL ASH ICP

The following samples were analyzed for QUALITY COMPLIANCE along with normal FIELD samples.

These results meet WOHL Lab Quality Control criteria.

---------- CORRECT ----------

REPORTED VALUES ARE CORRECT FOR SAMPLES: 56889 AND 56890
Results are within 2 standard deviation.

Q-C Sample#	Reported Value(R)	Actual Value(A)	Units	Ratio (R/A)	Std Dev	S-Code	Substance Name
56889	38.880	38.100	ug/fil	1.0205	1	490	Cadmium by ICP
56889	59.360	57.100	ug/fil	1.0396	1	690	Chromium by ICP
56889	78.020	76.100	ug/fil	1.0252	1	730	Copper by ICP
56889	75.280	76.100	ug/fil	.9892	1	1591	Lead by ICP
56889	57.460	57.100	ug/fil	1.0063	1	1620	Manganese by ICP
56889	59.420	57.100	ug/fil	1.0406	2	1840	Nickel by ICP
56889	153.200	152.300	ug/fil	1.0059	1	I200	Iron by ICP
56889	77.370	76.100	ug/fil	1.0167	1	Z100	Zinc by ICP
56890	16.370	15.800	ug/fil	1.0361	2	490	Cadmium by ICP
56890	25.520	23.700	ug/fil	1.0768	2	690	Chromium by ICP
56890	32.840	31.600	ug/fil	1.0392	2	730	Copper by ICP
56890	32.230	31.600	ug/fil	1.0199	1	1591	Lead by ICP
56890	24.250	23.700	ug/fil	1.0232	1	1620	Manganese by ICP
56890	25.330	23.700	ug/fil	1.0688	2	1840	Nickel by ICP
56890	65.520	63.200	ug/fil	1.0367	2	I200	Iron by ICP
56890	32.470	31.600	ug/fil	1.0275	1	Z100	Zinc by ICP

The Quality Control limits are calculated based on 1, 2, and 3 STANDARD DEVIATIONS derived from historical data for a particular analyte. The MEAN values are adjusted to 1 in order to avoid any positive or negative bias.

KEY : COLUMN HEADINGS

Q-C Sample# : Laboratory prepared Quality Control sample number.
Reported Value : Analyst's results.
Actual Value : Amount of analyte applied to the QC sample.
Ratio : Ratio of Reported/Actual.
Std Dev : Number of Standard Deviations from the MEAN value.
S-Code : Substance (analyte) code.

1387

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

October 4, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM T4002

The results for the samples received by the lab on 10/01/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
601348	93096PH2B005	ND <2.0	ND <0.011	2,4,5-T
		ND <2.0	ND <0.011	2,4-D

If you have any questions about these results, please call the lab at (800) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

Terry Spennetta

1389

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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University of Wisconsin

October 4, 1996 3946

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

2,4-D and 2,4,5,-T, MCPA

Samples were analyzed using method pest27.mth based on NIOSH method 5001.

Air samples are collected by drawing known volumes of air through OVS-2 tubes (OSHA versitile samples). Samples are desorbed with methanol and analyzed by high performance liquid chromatography with UV detection.

The results are expressed as milligrams of 2,4-D or 2,4,5-T per cubic meter if the air collection volume is provided, otherwise as micrograms per sample. All results are blank corrected if a blank was provided or otherwise noted in the report.

Minimum Detection Level = 1 ug/tube

Terry Spennetta	Analyst
Lyle Reichmann, CIH	Chemist Supervisor

1391

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

October 2, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM T4002

The results for the samples received by the lab on 10/01/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
601349	93096PH2C005	<=.40	<=0.002	DDT
		<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE

If you have any questions about these results, please call the lab at (800) 446-0403

Steve Strebel, Organic Supervisor

Mark Hudziak

1393

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

Pesticide Analysis
Dames & Moore
October 2, 1996

One fiberglass filter was submitted to WOHL for analysis of DDT, DDE, and DDD. The sample was desorbed in isooctane and analyzed by gas chromatography with electron capture detection (GC-ECD). This is an in-house developed method, which is a modification of NIOSH method S274.

Analysis results showed non-detectable amounts of the above listed pesticides in the sample. All isomers of the compounds were analyzed, but none were found in detectable amounts.

Three spike samples of 4,4-DDT were analyzed in the same manner as the sample to check recovery. The average recovery was 106 %. The value to the right of the "<=" sign on the report is the minimum quantitation limit for that pesticide based on the sample extraction and air volume for the sample. The "<=" sign stands for "less than or equal to".

If you have questions about the results, please call the lab at (608) 263-6550.

Mark Hudziak
(analyst)

Steve Strebel
(supervisor)

Dam + Moore
7101 Wisconsin Ave., Suite 700
Bethesda, MD 20814
(301) 652-2215 FAX 656-8059

24 H , Turn-around

3940 K

CHAIN OF CUSTODY RECORD

NO. 426

Project No.:

Project Name: Ft. Drum - Bldg T-4002

Samplers: (signature) Stephen C. Lane

Sta. No.	Date	Time	Comp	Grab	SAMPLE # ~~Station Location~~	Number of Containers	NIOSH 7300 (Lead by ICP)		NIOSH 5001 (2,4-D; and 2,4,5-T)		NIOSH 5274M (DDD; DDE; and DDT)		Remarks Volume (Liters)
9901 M					FD-93096-PH2-A-005	1	✓						576.70
					-B-005	1			✓				181.70
					-C-005	1					✓		189.60

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Stephen C. Lane	9-30-96 1700		
Relinquished by: (signature)	**Date/Time**	**Received for Laboratory by: (signature)**	**Date/Time**
		M. Schuman	10/1 X 10:00

Remarks:
Phone Results: 301-652-2215 (ext. 271) Leave Message
Fax Results: 315-773-2873

Dames & Moore

Distribution: White Copy (Laboratory Copy)
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1395

1397

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979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

October 7, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM BLDG T
PO WA8990

The results for the samples received by the lab on 10/04/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
601953	PH2A001	ND <1.5	ND<0.002	Lead, Inorganic Fume & Mists
601954	PH2A002	ND <1.5	ND <0.002	Lead, Inorganic Fume & Mists
601955	PH2A003	ND <1.5	ND <0.002	Lead, Inorganic Fume & Mists
601956	PH2A004	ND <1.5	ND <0.002	Lead, Inorganic Fume & Mists

If you have any questions about these results, please call the lab at (800) 446-0403

Doug Smieja

Susan Percy

1399

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

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STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

FLAME AA LEAD RESULTS

Samples were analyzed by WOHL in-house method based on NIOSH 7082. The air samples were collected on MCEF filters and digested in an appropriate mixture of acids. An aliquot of the sample was analyzed using Flame Atomic Absorption Spectrometry.

The results are expressed as milligrams per cubic meter of air if the air collection volume was provided; otherwise, as micrograms per filter. All results are blank corrected if a blank was provided unless otherwise noted in the comments section of the report. A less than symbol before the result means the result is less than our Limits of Quantitation. The notation N.D. which follows some of the result values indicates that these values are below our Limits of Detection. Our Limits of Quantitation and detection are available upon request.

Susan Percy Analyst

Doug Smieja

1401

Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

LABORATORY QUALITY CONTROL REPORT

Chemist Initials: SP Date of Report: 10 - 07 - 96 Equipment Code: 730
Equipment Description: PE AA SPECTROMETER

The following samples were analyzed for QUALITY COMPLIANCE along with normal FIELD samples.

These results meet WOHL Lab Quality Control criteria.

---------- CORRECT ----------
REPORTED VALUES ARE CORRECT FOR SAMPLES: 56943 AND 56944
Results are within 1 standard deviation.

Q-C Sample#	Reported Value(R)	Actual Value(A)	Units	Ratio (R/A)	Std Dev	S-Code	Substance Name
56943	1475.000	1410.000	ug/samp	1.0461	1	1591	Lead wipe sample
56944	2105.000	2090.000	ug/samp	1.0072	1	1591	Lead wipe sample

The Quality Control limits are calculated based on 1, 2, and 3 STANDARD DEVIATIONS derived from historical data for a particular analyte. The MEAN values are adjusted to 1 in order to avoid any positive or negative bias.

KEY : COLUMN HEADINGS

Q-C Sample# : Laboratory prepared Quality Control sample number.
Reported Value : Analyst's results.
Actual Value : Amount of analyte applied to the QC sample.
Ratio : Ratio of Reported/Actual.
Std Dev : Number of Standard Deviations from the MEAN value.
S-Code : Substance (analyte) code.

1403

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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October 11, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM BLDG T
PO WA8990

The results for the samples received by the lab on 10/04/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
601949	PH2B001	ND <2.0	ND <0.008	2,4,5-T
		ND <2.0	ND <0.008	2,4-D
601950	PH2B002	ND <2.0	ND <0.009	2,4,5-T
		ND <2.0	ND <0.009	2,4-D
601951	PH2B003	ND <2.0	ND <0.008	2,4,5-T
		ND <2.0	ND <0.008	2,4-D
601952	PH2B004	ND <2.0	ND <0.008	2,4,5-T
		ND <2.0	ND <0.008	2,4-D

If you have any questions about these results, please call the lab at (800) 446-0403

Terry Burk, CIH, WOHL Lab Director

Terry Spennetta

1405

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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October 11, 1996 3946

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

2,4-D and 2,4,5,-T, MCPA

Samples were analyzed using method pest27.mth based on NIOSH method 5001.

Air samples are collected by drawing known volumes of air through OVS-2 tubes (OSHA versitile samples). Samples are desorbed with methanol and analyzed by high performance liquid chromatography with UV detection.

The results are expressed as milligrams of 2,4-D or 2,4,5-T per cubic meter if the air collection volume is provided, otherwise as micrograms per sample. All results are blank corrected if a blank was provided or otherwise noted in the report.

Minimum Detection Level = 1 ug/tube

Terry Spennetta	Analyst
Terry Burk, CIH	WOHL Lab Director

1407

Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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October 8, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM BLDG T
PO WA8990

The results for the samples received by the lab on 10/04/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
601957	PH2C001	<=.40	<=0.002	DDT
		<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
601958	PH2C002	<=.40	<=0.002	DDT
		<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
601959	PH2C003	<=.40	<=0.001	DDT
		<=.40	<=0.001	DDD
		<=.40	<=0.001	DDE
601960	PH2C004	<=.40	<=0.002	DDT
		<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE

If you have any questions about these results, please call the lab at (800) 446-0403

Steve Strebel, Organic Supervisor

Mark Hudziak

1409

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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University of Wisconsin

Pesticide Analysis
Dames & Moore
October 8, 1996

Four fiberglass filters were submitted to WOHL for analysis of DDT, DDE, and DDD. The samples were desorbed in isooctane and analyzed by gas chromatography with electron capture detection (GC-ECD). This is an in-house developed method, which is a modification of NIOSH method S274.

Analysis results showed non-detectable amounts of the above listed pesticides in all samples. All isomers of the compounds were analyzed, but none were found in detectable amounts.

Three spike samples of 4,4-DDT were analyzed in the same manner as the samples to check recovery. The average recovery was 81 %. The value to the right of the "<=" sign on the report is the minimum quantitation limit for that pesticide based on the sample extraction and air volume for the sample. The "<=" sign stands for "less than or equal to".

If you have questions about the results, please call the lab at (608) 263-6550.

Mark Hudziak _____
(analyst)

Steve Strebel _____
(supervisor)

Dames + Moore
7101 Wisconsin Ave., Suite 700
Bethesda, MD 20814
(301) 652-2215 FAX 656-8059

72H
TA

Re: P.O. #WA-8990

NO. 427

CHAIN OF CUSTODY RECORD

Project No.:	Project Name: Ft. Drum - Bldg T-4002
Samplers: (signature)	

Sta. No.	Date	Time	Comp	Grab	SAMPLE # Station Location	Number of Containers	NIOSH 7300 (Lead by ICP)	NIOSH 5001 (2,4-D and 2,4,5-T)					Remarks Volume (Liters)
					FD-100196-PH2-A-001	1	✓						721.16
					-A-002		✓						746.90
					-A-003		✓						732.06
					-A-004		✓						762.55
					-B-001			✓					256.52
					-B-002			✓					213.40
					-B-003			✓					258.96
					-B-004			✓					257.55

Relinquished by: (signature)	Date/Time 10-3-96 15:00 pm	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received for Laboratory by: (signature)	Date/Time

Remarks: FAX Results 315-773-2873

Dames & Moore

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1411

Dan & Moore
7101 Wisconsin Ave., Suite 700
Bethesda, MD 20814
(301) 652-2215 FAX 656-8059

72 Hour TA

Re: P.O. # WA-8990

NO. 428

CHAIN OF CUSTODY RECORD

Project No.:	Project Name: Ft. Drum - Bldg T-4002
Samplers: (signature)	

Sta. No.	Date	Time	Comp.	Grab	SAMPLE # ~~Station Location~~	Number of Containers	NIOSH 5274M (DDD, DDE, and DDT)						Remarks Volume (Liters)
					FD-100196-PH2-C-001		✓						261.36
					-C-002		✓						227.95
					-C-003		✓						268.92
					-C-004		✓						237.55

Relinquished by: (signature)	Date/Time 10-3-96 5:00 pm	Received by: (signature)	Date/Time	Remarks: FAX Results 315-773-2873
Relinquished by: (signature)	Date/Time	Received for Laboratory by: (signature)	Date/Time 10-4-96	

Dames & Moore

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1413

1415

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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University of Wisconsin

October 14, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM 54002
PO WA8990

The results for the samples received by the lab on 10/11/96 are as follows:

Lab#	Field#	uq/sample	MG/M3	Analyte
603307	FD1008A001	ND <1.5	ND <0.002	Lead, Inorganic fume & dusts
603308	FD1008A002	ND <1.5	ND <0.002	Lead, Inorganic fume & dusts
603309	FD1008A003	ND <1.5	ND <0.002	Lead, Inorganic fume & dusts
603310	FD1008A004	ND <1.5	ND <0.002	Lead, Inorganic fume & dusts

If you have any questions about these results, please call the lab at (800) 446-0403

Terry Burk, CIH, WOHL Lab Director

Shakker Amer

1417

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

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STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM T4002

The results for the samples received by the lab on 10/09/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
602857	FD1008A005	ND <1.5	ND <0.003	Lead, Inorganic Fume & Mists

If you have any questions about these results, please call the lab at (800) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

Doug Smieja

1419

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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University of Wisconsin

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STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

FLAME AA LEAD RESULTS

Samples were analyzed by WOHL in-house method based on NIOSH 7082. The air samples were collected on MCEF filters and digested in an appropriate mixture of acids. An aliquot of the sample was analyzed using Flame Atomic Absorption Spectrometry.

The results are expressed as milligrams per cubic meter of air if the air collection volume was provided; otherwise, as micrograms per filter. All results are blank corrected if a blank was provided unless otherwise noted in the comments section of the report. A less than symbol before the result means the result is less than our Limits of Quantitation. The notation N.D. which follows some of the result values indicates that these values are below our Limits of Detection. Our Limits of Quantitation and detection are available upon request.

Doug Smieja Analyst

Lyle Reichmann, CIH Chemist Supervisor

1421

Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

LABORATORY QUALITY CONTROL REPORT

Chemist Initials: DS Date of Report: 10 - 10 - 96 Equipment Code: 730
Equipment Description: PE AA SPECTROMETER

The following samples were analyzed for QUALITY COMPLIANCE along with normal FIELD samples.

These results meet WOHL Lab Quality Control criteria.

---------- CORRECT ----------
REPORTED VALUES ARE CORRECT FOR SAMPLES: 56941 AND 56942
Results are within 2 standard deviation.

Q-C Sample#	Reported Value(R)	Actual Value(A)	Units	Ratio (R/A)	Std Dev	S-Code	Substance Name
56941	1876.000	2000.000	ug/samp	.9380	2	1591	Lead wipe sample
56942	3672.000	4000.000	ug/samp	.9180	2	1591	Lead wipe sample

The Quality Control limits are calculated based on 1, 2, and 3 STANDARD DEVIATIONS derived from historical data for a particular analyte. The MEAN values are adjusted to 1 in order to avoid any positive or negative bias.

KEY : COLUMN HEADINGS

Q-C Sample# : Laboratory prepared Quality Control sample number.
Reported Value : Analyst's results.
Actual Value : Amount of analyte applied to the QC sample.
Ratio : Ratio of Reported/Actual.
Std Dev : Number of Standard Deviations from the MEAN value.
S-Code : Substance (analyte) code.

1423

Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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October 14, 1996 3946

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

FLAME AA LEAD RESULTS

Samples were analyzed by WOHL in-house method based on NIOSH 7082. The air samples were collected on MCEF filters and digested in an appropriate mixture of acids. An aliquot of the sample was analyzed using Flame Atomic Absorption Spectrometry.

The results are expressed as milligrams per cubic meter of air if the air collection volume was provided; otherwise, as micrograms per filter. All results are blank corrected if a blank was provided unless otherwise noted in the comments section of the report. A less than symbol before the result means the result is less than our Limits of Quantitation. The notation N.D. which follows some of the result values indicates that these values are below our Limits of Detection. Our Limits of Quantitation and detection are available upon request.

Shakker Amer Analyst

Terry Burk, CIH WOHL Lab Director

1425

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

ICAP METAL SAMPLE RESULTS

Samples were analyzed by WOHL in-house method based on NIOSH 7300 and OSHA ID-125G.

The air samples were collected on MCEF filters and digested in an appropriate mixture of acids. An aliquot of the sample was analyzed for various elements using an Inductively Coupled Argon Plasma (ICAP) Atomic Emission Spectrometer.

The results are expressed as milligrams per cubic meter of air if the air collection volume was provided; otherwise, as micrograms per filter. All results are blank corrected if a blank was provided unless otherwise noted in the comments section of the report. A less than symbol before the result means the result is less than our Limits of Quantitation. The notation N.D. which follows some of the result values indicates that these values are below our Limits of Detection. Our Limits of Quantitation and detection are available upon request.

Shakker Amer	Analyst
Terry Burk, CIH	WOHL Lab Director

1427

Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

LABORATORY QUALITY CONTROL REPORT

Chemist Initials: SP Date of Report: 10 - 14 - 96 Equipment Code: 730
Equipment Description: PE AA SPECTROMETER

The following samples were analyzed for QUALITY COMPLIANCE along with normal FIELD samples.

These results meet WOHL Lab Quality Control criteria.

---------- CORRECT ----------
REPORTED VALUES ARE CORRECT FOR SAMPLES: 56949 AND 56950
Results are within 1 standard deviation.

Q-C Sample#	Reported Value(R)	Actual Value(A)	Units	Ratio (R/A)	Std Dev	S-Code	Substance Name
56949	820.000	800.000	ug/samp	1.0250	1	1591	Lead wipe sample
56950	1294.000	1290.000	ug/samp	1.0031	1	1591	Lead wipe sample

The Quality Control limits are calculated based on 1, 2, and 3 STANDARD DEVIATIONS derived from historical data for a particular analyte. The MEAN values are adjusted to 1 in order to avoid any positive or negative bias.

KEY : COLUMN HEADINGS

Q-C Sample# : Laboratory prepared Quality Control sample number.
Reported Value : Analyst's results.
Actual Value : Amount of analyte applied to the QC sample.
Ratio : Ratio of Reported/Actual.
Std Dev : Number of Standard Deviations from the MEAN value.
S-Code : Substance (analyte) code.

1429

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979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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October 15, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM 54002
PO WA8990

The results for the samples received by the lab on 10/11/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
603311	FD1008B001	ND <2.0	ND <0.009	2,4,5-T
		ND <2.0	ND <0.009	2,4-D
603312	FD1008B002	ND <2.0	ND <0.008	2,4,5-T
		ND <2.0	ND <0.008	2,4-D
603313	FD1008B003	ND <2.0	ND <0.008	2,4,5-T
		ND <2.0	ND <0.008	2,4-D
603314	FD1008B004	ND <2.0	ND <0.010	2,4,5-T
		ND <2.0	ND <0.010	2,4-D

If you have any questions about these results, please call the lab at (800) 446-0403

Steve Strebel, Organic Supervisor

Terry Spennetta

1431

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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October 11, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM T4002

The results for the samples received by the lab on 10/09/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
602858	FD1008B005	ND <2.0	ND <0.011	2,4,5-T
		ND <2.0	ND <0.011	2,4-D

If you have any questions about these results, please call the lab at (800) 446-0403

Terry Burk, CIH, WOHL Lab Director

Terry Spennetta

1433

Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

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October 15, 1996 3946

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

2,4-D and 2,4,5,-T, MCPA

Samples were analyzed using method pest27.mth based on NIOSH method 5001.

Air samples are collected by drawing known volumes of air through OVS-2 tubes (OSHA versitile samples). Samples are desorbed with methanol and analyzed by high performance liquid chromatography with UV detection.

The results are expressed as milligrams of 2,4-D or 2,4,5-T per cubic meter if the air collection volume is provided, otherwise as micrograms per sample. All results are blank corrected if a blank was provided or otherwise noted in the report.

Minimum Detection Level = 1 ug/tube

Terry Spennetta	Analyst
Steve Strebel	Organic Supervisor

1435

Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

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STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

2,4-D and 2,4,5,-T, MCPA

Samples were analyzed using method pest27.mth based on NIOSH method 5001.

Air samples are collected by drawing known volumes of air through OVS-2 tubes (OSHA versitile samples). Samples are desorbed with methanol and analyzed by high performance liquid chromatography with UV detection.

The results are expressed as milligrams of 2,4-D or 2,4,5-T per cubic meter if the air collection volume is provided, otherwise as micrograms per sample. All results are blank corrected if a blank was provided or otherwise noted in the report.

Minimum Detection Level = 1 ug/tube

Terry Spennetta	Analyst
Terry Burk, CIH	WOHL Lab Director

1437

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

October 15, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM 54002
PO WA8990

The results for the samples received by the lab on 10/11/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
603315	FD1008C001	<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
		<=.40	<=0.002	DDT
603316	FD1008C002	<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
		<=.40	<=0.002	DDT
603317	FD1008C003	<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
		<=.40	<=0.002	DDT
603318	FD1008C004	<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
		<=.40	<=0.002	DDT

If you have any questions about these results, please call the lab at (800) 446-0403

Steve Strebel, Organic Supervisor

Mark Hudziak

1439

Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

October 10, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM T4002

The results for the samples received by the lab on 10/09/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
602859	FD1008C005	<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
		<=.40	<=0.002	DDT

If you have any questions about these results, please call the lab at (800) 446-0403

Steve Strebel, Organic Supervisor

Mark Hudziak

1441

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

Pesticide Analysis
Dames & Moore
October 9, 1996

One fiberglass filter was submitted to WOHL for analysis of DDT, DDE, and DDD. The sample was desorbed in isooctane and analyzed by gas chromatography with electron capture detection (GC-ECD). This is an in-house developed method, which is a modification of NIOSH method S274.

Analysis results showed non-detectable amounts of the above listed pesticides in the sample. All isomers of the compounds were analyzed, but none were found in detectable amounts.

Three spike samples of 4,4-DDT were analyzed in the same manner as the sample to check recovery. The average recovery was 89 %. The value to the right of the "<=" sign on the report is the minimum quantitation limit for that pesticide based on the sample extraction and air volume for the sample. The "<=" sign stands for "less than or equal to".

If you have questions about the results, please call the lab at (608) 263-6550.

Mark Hudziak Mark Hudziak
(analyst)

Steve Strebel
(supervisor)

1443

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

Pesticide Analysis
Dames & Moore
October 15, 1996

Four fiberglass filters were submitted to WOHL for analysis of DDT, DDE, and DDD. The samples were desorbed in isooctane and analyzed by gas chromatography with electron capture detection (GC-ECD). This is an in-house developed method, which is a modification of NIOSH method S274.

Analysis results showed non-detectable amounts of the above listed pesticides in all samples. All isomers of the compounds were analyzed, but none were found in detectable amounts.

Three spike samples of 4,4-DDT were analyzed in the same manner as the samples to check recovery. The average recovery was 113 %. The value to the right of the "<=" sign on the report is the minimum quantitation limit for that pesticide based on the sample extraction and air volume for the sample. The "<=" sign stands for "less than or equal to".

If you have questions about the results, please call the lab at (608) 263-6550.

Mark Hudziak
(analyst)

Steve Strebel
(supervisor)

DAMES & MOORE
7101 Wisconsin Avenue, Suite 700
Bethesda, Maryland 20814-4870
(301) 652-2215 FAX (301) 656-8059

3940P

CHAIN-OF-CUSTODY RECORD

№ 432 ~~2008~~

JOB NO:

PROJECT NAME-CLIENT: Ft. Drum - Bldg T-4002

SAMPLER (Signature): Steph C. Lam 11/5/91

SAMPLE NO.	Date	Time	Comp.	Grab	Matrix	SAMPLE # ~~Station Number and Location~~	Total No. of Containers	NIOSH 7300 (Lead by ICP)	NIOSH 5001 (2,4-D; and 2,4,5-T)	NIOSH 5274M (DDD; DDE; and DDT)								REMARKS Volume (Liters)
						FD-100896-PH2-A-001	1	✓										717.60
						-A-002		✓										694.54
						-A-003		✓										666.00
						-A-004		✓										664.24
						-B-001			✓									225.40
						-B-002			✓									239.03
						-B-003			✓									235.32
						-B-004			✓									209.76
						-C-001				✓								225.40
						-C-002				✓								243.54
						-C-003				✓								230.88
						-C-004				✓								205.36

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Steph C. Lam	10-9-96 1700				

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Report Results To:
		K. McCarty		FAX: 315-773-2873 Phone: 301-652-2215 (ext. 271)

DISTRIBUTION:
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Yellow: Project Files
Pink: Field Log
Gold: QA Files

Dames & Moore

1445

DAMES & M[illegible]RE
7101 Wisconsin Avenue, Suite 700
Bethesda, Maryland 20814-4870
(301) 652-2215 FAX (301) 656-8059

#3946R Mesh - p[illegible] & Call to Barb 10-7-96

433

CHAIN-OF-CUSTODY RECORD

№ ~~2008~~

JOB NO:

PROJECT NAME-CLIENT: Ft. Drum - Bldg T-4002

SAMPLER (Signature): Stephen C. Law 41591

ANALYSES REQUIRED: NIOSH 7300 (Lead by ICP); NIOSH 5001 (2,4-D, and 2,4,5-T); NIOSH 5274M (DDD; DDE; and DDT)

~~SAMPLE NO.~~	~~Date~~	~~Time~~	~~Comp.~~	~~Grab~~	~~Matrix~~	SAMPLE # ~~Station Number and Location~~	Total No. of Containers	NIOSH 7300 (Lead by ICP)	NIOSH 5001 (2,4-D, and 2,4,5-T)	NIOSH 5274M (DDD; DDE; and DDT)	REMARKS Volume (Liters)
						FD-100896-PH2-A-005	1	✓			583.20
						-B-005	1		✓		186.30
						-C-005	1			✓	194.40

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Steph C. Law	10-8-96 1700				

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Report Results To:
		A McGovern	10-9-96	FAX: 315-773-2873 Phone: 301-652-2215 (ext. 271)

DISTRIBUTION:
White: Accompanies Shipment
Yellow: Project Files
Pink: Field Log
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1447

Dames & Moore

1449

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

October 21, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM T4002
PO WA8990

The results for the samples received by the lab on 10/18/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
604344	FD101796A005	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists

If you have any questions about these results, please call the lab at (800) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

Susan Percy
Susan Percy

1451

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

October 21, 1996

3946

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

ICAP METAL SAMPLE RESULTS

Samples were analyzed by WOHL in-house method based on NIOSH 7300 and OSHA ID-125G.

The air samples were collected on MCEF filters and digested in an appropriate mixture of acids. An aliquot of the sample was analyzed for various elements using an Inductively Coupled Argon Plasma (ICAP) Atomic Emission Spectrometer.

The results are expressed as milligrams per cubic meter of air if the air collection volume was provided; otherwise, as micrograms per filter. All results are blank corrected if a blank was provided unless otherwise noted in the comments section of the report. A less than symbol before the result means the result is less than our Limits of Quantitation. The notation N.D. which follows some of the result values indicates that these values are below our Limits of Detection. Our Limits of Quantitation and detection are available upon request.

Susan Percy	Analyst
Lyle Reichmann, CIH	Chemist Supervisor

1453

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

LABORATORY QUALITY CONTROL REPORT

Chemist Initials: SP Date of Report: 10 - 21 - 96 Equipment Code: 775
Equipment Description: JARREL ASH ICP

The following samples were analyzed for QUALITY COMPLIANCE along with normal FIELD samples.

These results meet WOHL Lab Quality Control criteria.

---------- CORRECT ----------

REPORTED VALUES ARE CORRECT FOR SAMPLES: 56991 AND 56992
Results are within 2 standard deviation.

Q-C Sample#	Reported Value(R)	Actual Value(A)	Units	Ratio (R/A)	Std Dev	S-Code	Substance Name
56991	16.340	15.800	ug/fil	1.0342	2	490	Cadmium by ICP
56991	25.550	23.700	ug/fil	1.0781	2	690	Chromium by ICP
56991	32.530	31.600	ug/fil	1.0294	1	730	Copper by ICP
56991	31.900	31.600	ug/fil	1.0095	1	1591	Lead by ICP
56991	24.240	23.700	ug/fil	1.0228	1	1620	Manganese by ICP
56991	25.210	23.700	ug/fil	1.0637	2	1840	Nickel by ICP
56991	64.860	63.200	ug/fil	1.0263	1	I200	Iron by ICP
56991	32.440	31.600	ug/fil	1.0266	1	Z100	Zinc by ICP
56992	26.010	25.200	ug/fil	1.0321	2	490	Cadmium by ICP
56992	40.050	37.700	ug/fil	1.0623	2	690	Chromium by ICP
56992	51.870	50.300	ug/fil	1.0312	2	730	Copper by ICP
56992	50.670	50.300	ug/fil	1.0074	1	1591	Lead by ICP
56992	38.460	37.700	ug/fil	1.0202	1	1620	Manganese by ICP
56992	39.900	37.700	ug/fil	1.0584	2	1840	Nickel by ICP
56992	103.800	100.600	ug/fil	1.0318	2	I200	Iron by ICP
56992	51.640	50.300	ug/fil	1.0266	1	Z100	Zinc by ICP

The Quality Control limits are calculated based on 1, 2, and 3 STANDARD DEVIATIONS derived from historical data for a particular analyte. The MEAN values are adjusted to 1 in order to avoid any positive or negative bias.

KEY : COLUMN HEADINGS

Q-C Sample# : Laboratory prepared Quality Control sample number.
Reported Value : Analyst's results.
Actual Value : Amount of analyte applied to the QC sample.
Ratio : Ratio of Reported/Actual.
Std Dev : Number of Standard Deviations from the MEAN value.
S-Code : Substance (analyte) code.

1455

Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

November 7, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM T4002
PO WA8990

The results for the samples received by the lab on 10/18/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
604345	FD101796B005	ND <2.0	ND <0.010	2,4-D
		ND <2.0	ND <0.010	2,4,5-T

If you have any questions about these results, please call the lab at (800) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

Terry Spennetta

1457

Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

November 7, 1996 3946

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

2,4-D and 2,4,5,-T, MCPA

Samples were analyzed using method pest27.mth based on NIOSH method 5001.

Air samples are collected by drawing known volumes of air through OVS-2 tubes (OSHA versitile samples). Samples are desorbed with methanol and analyzed by high performance liquid chromatography with UV detection.

The results are expressed as milligrams of 2,4-D or 2,4,5-T per cubic meter if the air collection volume is provided, otherwise as micrograms per sample. All results are blank corrected if a blank was provided or otherwise noted in the report.

Minimum Detection Level = 1 ug/tube

Terry Spennetta	Analyst
Lyle Reichmann, CIH	Chemist Supervisor

1459

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

November 7, 1996

3946

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

2,4-D and 2,4,5,-T, MCPA

Samples were analyzed using method pest27.mth based on NIOSH method 5001.

Air samples are collected by drawing known volumes of air through OVS-2 tubes (OSHA versitile samples). Samples are desorbed with methanol and analyzed by high performance liquid chromatography with UV detection.

The results are expressed as milligrams of 2,4-D or 2,4,5-T per cubic meter if the air collection volume is provided, otherwise as micrograms per sample. All results are blank corrected if a blank was provided or otherwise noted in the report.

Minimum Detection Level = 1 ug/tube

Terry Spennetta	Analyst
Lyle Reichmann, CIH	Chemist Supervisor

1461

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

October 23, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM T4002
PO WA8990

The results for the samples received by the lab on 10/18/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
604346	FD101706C005	<=.40	<=0.002	DDD
		<=.40	<=0.002	DDT
		<=.40	<=0.002	DDE

If you have any questions about these results, please call the lab at (800) 446-0403

Dan Omilianowski, Senior Chemist

Mark Hudziak

1463

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

Pesticide Analysis
Dames & Moore
October 23, 1996

One fiberglass filter was submitted to WOHL for analysis of DDT, DDE, and DDD. The sample was desorbed in isooctane and analyzed by gas chromatography with electron capture detection (GC-ECD). This is an in-house developed method, which is a modification of NIOSH method S274.

Analysis results showed non-detectable amounts of the above listed pesticides in the sample. All isomers of the compounds were analyzed, but none were found in detectable amounts.

Spike samples of 4,4-DDT analyzed in the same manner as the sample have shown an average recovery of 108 %. The value to the right of the "<=" sign on the report is the minimum quantitation limit for that pesticide based on the sample extraction and air volume for the sample. The "<=" sign stands for "less than or equal to".

If you have questions about the results, please call the lab at (608) 263-6550.

Mark Hudziak _____
(analyst)

Steve Strebel _____
(supervisor)

Bethesda, Maryland 20814-4870
(301) 652-2215 FAX (301) 656-8059

#3946P

priority per phone call to Steve

437

CHAIN-OF-CUSTODY RECORD

№ ~~1734~~

JOB NO:

PROJECT NAME-CLIENT: Ft. Drum - Bldg T-4002

SAMPLER (Signature): Stephen C. Lanh M1591

ANALYSES REQUIRED

~~SAMPLE NO~~	~~Date~~	~~Time~~	~~Comp.~~	~~Grab~~	~~Matrix~~	SAMPLE # ~~Station Number and Location~~	Total No. of Containers	NIOSH 7300 (Lead by ICP)	NIOSH 5001 (2,4-D; and 2,4,5-T)	NIOSH S274M (DDD, DDE; and DDD)						REMARKS Volume (Liters)
						FD-101796-PH2-A-005	[illegible]	✓								663.05
						-B-005	↓		✓							204.70
						-C-005	↓			✓						213.60

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Stephen C. Lanh	10-17-96 1630				
Relinquished by: (Signature)	**Date/Time**	**Received for Laboratory by: (Signature)**	**Date/Time**	**Report Results To:** Steve Lanhan	
		D McCary	10-18-96	Phone results: 301-652-2215 (ext. 271) FAX Results: 315-773-2873	

1465

DISTRIBUTION:
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Dames & Moore

Bethesda, Maryland 20814-4870
(301) 652-2215 FAX (301) 656-8059

priority per phone call to Steve

CHAIN-OF-CUSTODY RECORD

№ 437 ~~1734~~

JOB NO:

PROJECT NAME-CLIENT: Ft. Drum - Bldg T-4002

SAMPLER (Signature): Steph C. Lank

~~SAMPLE NO~~	~~Date~~	~~Time~~	~~Comp~~	~~Grab~~	~~Matrix~~	SAMPLE # ~~Station Number and Location~~	Total No of Containers	NIOSH 7300 (Lead by ICP)	NIOSH 5001 (2,4-D and 2,4,5-T)	NIOSH 5274M (DDD, DDE, and DDT)							Volume (Liters)
						FD-101796-PH2-A-005	1	✓									663.05
						-B-005	↓			✓							204.70
						-C-005	↓					✓					213.60

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Steph C. Lank	10-17-96 1630				

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Report Results To: Steve Lanhan
		D McCary	10-18-96	Phone results: 301-652-2215 (ext. 271) FAX Results: 315-773-2873

DISTRIBUTION:
White Accompanies Shipment
Yellow Project Files
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Dames & Moore

1467

1469

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

October 30, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM T4002
PO WA8990

The results for the samples received by the lab on 10/22/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
604811	FD PH2 A001	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists
604812	FD PH2 A002	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists
604813	FD PH2 A003	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists
604814	FD PH2 A004	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists

Comments: Result(s) are not blank corrected.

If you have any questions about these results, please call the lab at (800) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

Shakker Amer

Shakker Amer

1471

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

October 30, 1996

3946

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

ICAP METAL SAMPLE RESULTS

Samples were analyzed by WOHL in-house method based on NIOSH 7300 and OSHA ID-125G.

The air samples were collected on MCEF filters and digested in an appropriate mixture of acids. An aliquot of the sample was analyzed for various elements using an Inductively Coupled Argon Plasma (ICAP) Atomic Emission Spectrometer.

The results are expressed as milligrams per cubic meter of air if the air collection volume was provided; otherwise, as micrograms per filter. All results are blank corrected if a blank was provided unless otherwise noted in the comments section of the report. A less than symbol before the result means the result is less than our Limits of Quantitation. The notation N.D. which follows some of the result values indicates that these values are below our Limits of Detection. Our Limits of Quantitation and detection are available upon request.

Shakker Amer	Analyst
Lyle Reichmann, CIH	Chemist Supervisor

1473

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

LABORATORY QUALITY CONTROL REPORT

Chemist Initials: DS Date of Report: 10 - 28 - 96 Equipment Code: 775
Equipment Description: JARREL ASH ICP

The following samples were analyzed for QUALITY COMPLIANCE along with normal FIELD samples.

These results meet WOHL Lab Quality Control criteria.

---------- CORRECT ----------
REPORTED VALUES ARE CORRECT FOR SAMPLES: 57195 AND 57196
Results are within 2 standard deviation.

Q-C Sample#	Reported Value(R)	Actual Value(A)	Units	Ratio (R/A)	Std Dev	S-Code	Substance Name
57195	16.330	15.800	ug/fil	1.0335	2	490	Cadmium by ICP
57195	25.475	23.700	ug/fil	1.0749	2	690	Chromium by ICP
57195	33.104	31.600	ug/fil	1.0476	2	730	Copper by ICP
57195	32.312	31.600	ug/fil	1.0225	1	1591	Lead by ICP
57195	24.125	23.700	ug/fil	1.0179	1	1620	Manganese by ICP
57195	25.134	23.700	ug/fil	1.0605	2	1840	Nickel by ICP
57195	65.372	63.200	ug/fil	1.0344	2	I200	Iron by ICP
57195	32.725	31.600	ug/fil	1.0356	1	Z100	Zinc by ICP
57196	39.406	38.100	ug/fil	1.0343	2	490	Cadmium by ICP
57196	60.572	57.100	ug/fil	1.0608	2	690	Chromium by ICP
57196	79.332	76.100	ug/fil	1.0425	2	730	Copper by ICP
57196	78.312	76.100	ug/fil	1.0291	1	1591	Lead by ICP
57196	58.202	57.100	ug/fil	1.0193	1	1620	Manganese by ICP
57196	61.082	57.100	ug/fil	1.0697	2	1840	Nickel by ICP
57196	157.040	152.300	ug/fil	1.0311	2	I200	Iron by ICP
57196	79.198	76.100	ug/fil	1.0407	2	Z100	Zinc by ICP

The Quality Control limits are calculated based on 1, 2, and 3 STANDARD DEVIATIONS derived from historical data for a particular analyte. The MEAN values are adjusted to 1 in order to avoid any positive or negative bias.

KEY : COLUMN HEADINGS

Q-C Sample# : Laboratory prepared Quality Control sample number.
Reported Value : Analyst's results.
Actual Value : Amount of analyte applied to the QC sample.
Ratio : Ratio of Reported/Actual.
Std Dev : Number of Standard Deviations from the MEAN value.
S-Code : Substance (analyte) code.

1475

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

November 7, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM T4002
PO WA8990

The results for the samples received by the lab on 10/22/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
604815	FD PH2 B001	ND <2.0	ND <0.010	2,4,5-T
		ND <2.0	ND <0.010	2,4-D
604816	FD PH2 B002	ND <2.0	ND <0.009	2,4,5-T
		ND <2.0	ND <0.009	2,4-D
604817	FD PH2 B003	ND <2.0	ND <0.010	2,4,5-T
		ND <2.0	ND <0.010	2,4-D
604818	FD PH2 B004	ND <2.0	ND <0.009	2,4,5-T
		ND <2.0	ND <0.009	2,4-D

Comments: SORRY ABOUT THE DELAY ON THESE SAMPLES. OUR STDANDARD DIED AND WE HAD TO ORDER NEW STANDARDS.

If you have any questions about these results, please call the lab at (800) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

Terry Spennetta

1477

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

October 29, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM T4002
PO WA8990

The results for the samples received by the lab on 10/22/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
604819	FD PH2 C001	<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
		<=.40	<=0.002	DDT
604820	FD PH2 C002	<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
		<=.40	<=0.002	DDT
604821	FD PH2 C003	<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
		<=.40	<=0.002	DDT
604822	FD PH2 C004	<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
		<=.40	<=0.002	DDT

If you have any questions about these results, please call the lab at (800) 446-0403

Steve Strebel, Organic Supervisor

Mark Hudziak

1479

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

Pesticide Analysis
Dames & Moore
October 29, 1996

Four fiberglass filters were submitted to WOHL for analysis of DDT, DDE, and DDD. The samples were desorbed in isooctane and analyzed by gas chromatography with electron capture detection (GC-ECD). This is an in-house developed method, which is a modification of NIOSH method S274.

Analysis results showed non-detectable amounts of the above listed pesticides in the samples. All isomers of the compounds were analyzed, but none were found in detectable amounts.

Spike samples of 4,4-DDT analyzed in the same manner as the sample have shown an average recovery of 108 %. The value to the right of the "<=" sign on the report is the minimum quantitation limit for that pesticide based on the sample extraction and air volume for the sample. The "<=" sign stands for "less than or equal to".

If you have questions about the results, please call the lab at (608) 263-6550.

Mark Hudziak _____
(analyst)

Steve Strebel _____
(supervisor)

(301) 652-2215 FAX (301) 656-8059

CHAIN-OF-CUSTODY RECORD

№ ~~1734~~ 438

JOB NO:

PROJECT NAME-CLIENT: Ft. ~~Dix~~ - Bldg T-4002

SAMPLER (Signature): Stephen C. L M1591

~~SAMPLE NO.~~	~~Date~~	~~Time~~	Comp.	Grab	Matrix	SAMPLE # ~~Station Number and Location~~	Total No. of Containers	ANALYSES REQUIRED: NIOSH 7300 (Lead by ICP)	NIOSH 5001 (2,4-D and 2,4,5-T)	NIOSH 5274M (DDD, DDE and DDT)	REMARKS: Volume (Liters)
						FD-101896-PH2-A-001	1	✓			675.48
						-A-002		✓			671.44
						-A-003		✓			680.45
						-A-004		✓			671.84
						-B-001			✓		190.52
						-B-002			✓		226.72
						-B-003			✓		201.94
						-B-004			✓		221.00
						-C-001				✓	199.18
						-C-002				✓	239.80
						-C-003				✓	206.30
						-C-004				✓	212.16

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Report Results To:
				Phone: 301-652-2215 (ext. 271) Fax: 301-656-8059

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Dames & Moore

1481

...ryland 20814-4870
(301) 652-2215 FAX (301) 656-8059

#5...

438

CHAIN-OF-CUSTODY RECORD

№ ~~1734~~

JOB NO:

PROJECT NAME-CLIENT: Ft. ~~Dr...~~ Bldg T-4002

SAMPLER (Signature): Steph C. L

~~SAMPLE NO~~	~~Date~~	~~Time~~	Comp.	Grab	Matrix	SAMPLE # ~~Station Number and Location~~	Total No. of Containers	ANALYSES REQUIRED: NIOSH 7300 (Lead by ICP)	NIOSH 5001 (2,4-D; and 2,4,5-T)	NIOSH 5274M (DDD; DDE; and DDT)						REMARKS: Volume (Liters)
						FD-101896-PH2-A-001	1	✓								675.48
						-A-002		✓								671.44
						-A-003		✓								680.45
						-A-004		✓								671.84
						-B-001			✓							190.52
						-B-002			✓							226.72
						-B-003			✓							201.94
						-B-004			✓							221.00
						-C-001				✓						199.18
						-C-002				✓						239.80
						-C-003				✓						206.30
						-C-004				✓						212.16

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Report Results To:
				Phone: 301-652-2215 (ext. 271) Fax: 301-656-8059

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1485

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

December 3, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM T4002
PO WA8990

The results for the samples received by the lab on 11/22/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
610741	FDPH2A001	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists
610742	FDPH2A002	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists
610743	FDPH2A003	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists
610744	FDPH2A004	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists

If you have any questions about these results, please call the lab at (800) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

Doug Smieja

1487

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

November 26, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM T4002
PO WA8990

The results for the samples received by the lab on 11/22/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
610753	FDPH2A005	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists

If you have any questions about these results, please call the lab at (800) 446-0403

Terry Burk, CIH, WOHL Lab Director

Shakker Amer

1489

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

December 3, 1996

3946

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

ICAP METAL SAMPLE RESULTS

Samples were analyzed by WOHL in-house method based on NIOSH 7300 and OSHA ID-125G.

The air samples were collected on MCEF filters and digested in an appropriate mixture of acids. An aliquot of the sample was analyzed for various elements using an Inductively Coupled Argon Plasma (ICAP) Atomic Emission Spectrometer.

The results are expressed as milligrams per cubic meter of air if the air collection volume was provided; otherwise, as micrograms per filter. All results are blank corrected if a blank was provided unless otherwise noted in the comments section of the report. A less than symbol before the result means the result is less than our Limits of Quantitation. The notation N.D. which follows some of the result values indicates that these values are below our Limits of Detection. Our Limits of Quantitation and detection are available upon request.

Doug Smieja Analyst

Lyle Reichmann, CIH Chemist Supervisor

1491

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

LABORATORY QUALITY CONTROL REPORT

Chemist Initials: DS Date of Report: 11 - 26 - 96 Equipment Code: 775
Equipment Description: JARREL ASH ICP

The following samples were analyzed for QUALITY COMPLIANCE along with normal FIELD samples.

These results meet WOHL Lab Quality Control criteria.

---------- Third Standard Deviation Reporting: CORRECT ----------
REPORTED VALUES ARE CORRECT FOR SAMPLES: 57663 AND 57664
Results are within 3 standard deviation.

Q-C Sample#	Reported Value(R)	Actual Value(A)	Units	Ratio (R/A)	Std Dev	S-Code	Substance Name
57663	22.261	21.200	ug/fil	1.0500	2	490	Cadmium by ICP
57663	51.478	49.600	ug/fil	1.0379	1	690	Chromium by ICP
57663	88.616	84.900	ug/fil	1.0438	2	730	Copper by ICP
57663	71.953	70.800	ug/fil	1.0163	1	1591	Lead by ICP
57663	85.784	84.900	ug/fil	1.0104	1	1620	Manganese by ICP
57663	36.926	35.400	ug/fil	1.0431	2	1840	Nickel by ICP
57663	108.300	106.200	ug/fil	1.0198	1	I200	Iron by ICP
57663	87.949	84.900	ug/fil	1.0359	1	Z100	Zinc by ICP
57664	10.990	11.600	ug/fil	.9474	2	490	Cadmium by ICP
57664	25.578	27.200	ug/fil	.9404	2	690	Chromium by ICP
57664	44.871	46.600	ug/fil	.9629	2	730	Copper by ICP
57664	35.466	38.800	ug/fil	.9141	3	1591	Lead by ICP
57664	42.184	46.600	ug/fil	.9052	2	1620	Manganese by ICP
57664	18.139	19.400	ug/fil	.9350	2	1840	Nickel by ICP
57664	53.314	58.200	ug/fil	.9160	3	I200	Iron by ICP
57664	43.272	46.600	ug/fil	.9286	2	Z100	Zinc by ICP

The Quality Control limits are calculated based on 1, 2, and 3 STANDARD DEVIATIONS derived from historical data for a particular analyte. The MEAN values are adjusted to 1 in order to avoid any positive or negative bias.

KEY : COLUMN HEADINGS

Q-C Sample# : Laboratory prepared Quality Control sample number.
Reported Value : Analyst's results.
Actual Value : Amount of analyte applied to the QC sample.
Ratio : Ratio of Reported/Actual.
Std Dev : Number of Standard Deviations from the MEAN value.
S-Code : Substance (analyte) code.

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WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

November 26, 1996 3946

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

ICAP METAL SAMPLE RESULTS

Samples were analyzed by WOHL in-house method based on NIOSH 7300 and OSHA ID-125G.

The air samples were collected on MCEF filters and digested in an appropriate mixture of acids. An aliquot of the sample was analyzed for various elements using an Inductively Coupled Argon Plasma (ICAP) Atomic Emission Spectrometer.

The results are expressed as milligrams per cubic meter of air if the air collection volume was provided; otherwise, as micrograms per filter. All results are blank corrected if a blank was provided unless otherwise noted in the comments section of the report. A less than symbol before the result means the result is less than our Limits of Quantitation. The notation N.D. which follows some of the result values indicates that these values are below our Limits of Detection. Our Limits of Quantitation and detection are available upon request.

Shakker Amer Analyst

Terry Burk, CIH WOHL Lab Director

1495

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene University of Wisconsin

LABORATORY QUALITY CONTROL REPORT

Chemist Initials: SA Date of Report: 11 - 25 - 96 Equipment Code: 775
Equipment Description: JARREL ASH ICP

The following samples were analyzed for QUALITY COMPLIANCE along with normal FIELD samples.

These results meet WOHL Lab Quality Control criteria.

---------- CORRECT ----------
REPORTED VALUES ARE CORRECT FOR SAMPLES: 57581 AND 57582
Results are within 2 standard deviation.

Q-C Sample#	Reported Value(R)	Actual Value(A)	Units	Ratio (R/A)	Std Dev	S-Code	Substance Name
57581	11.893	11.600	ug/fil	1.0253	1	490	Cadmium by ICP
57581	27.977	27.200	ug/fil	1.0286	1	690	Chromium by ICP
57581	47.455	46.600	ug/fil	1.0183	1	730	Copper by ICP
57581	38.934	38.800	ug/fil	1.0035	1	1591	Lead by ICP
57581	45.418	46.600	ug/fil	.9746	1	1620	Manganese by ICP
57581	19.856	19.400	ug/fil	1.0235	1	1840	Nickel by ICP
57581	58.997	58.200	ug/fil	1.0137	1	I200	Iron by ICP
57581	47.062	46.600	ug/fil	1.0099	1	Z100	Zinc by ICP
57582	22.301	21.200	ug/fil	1.0519	2	490	Cadmium by ICP
57582	52.317	49.600	ug/fil	1.0548	2	690	Chromium by ICP
57582	88.480	84.900	ug/fil	1.0422	2	730	Copper by ICP
57582	72.339	70.800	ug/fil	1.0217	1	1591	Lead by ICP
57582	87.578	84.900	ug/fil	1.0315	1	1620	Manganese by ICP
57582	37.189	35.400	ug/fil	1.0505	2	1840	Nickel by ICP
57582	110.840	106.200	ug/fil	1.0437	2	I200	Iron by ICP
57582	88.802	84.900	ug/fil	1.0460	2	Z100	Zinc by ICP

The Quality Control limits are calculated based on 1, 2, and 3 STANDARD DEVIATIONS derived from historical data for a particular analyte. The MEAN values are adjusted to 1 in order to avoid any positive or negative bias.

KEY : COLUMN HEADINGS

Q-C Sample# : Laboratory prepared Quality Control sample number.
Reported Value : Analyst's results.
Actual Value : Amount of analyte applied to the QC sample.
Ratio : Ratio of Reported/Actual.
Std Dev : Number of Standard Deviations from the MEAN value.
S-Code : Substance (analyte) code.

1497

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

December 6, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM T4002
PO WA8990

The results for the samples received by the lab on 11/22/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
10745	FDPH2B001	ND <2.0	ND <0.011	2,4-D
		ND <2.0	ND <0.011	2,4,5-T
10746	FDPH2B002	ND <2.0	ND <0.011	2,4-D
		ND <2.0	ND <0.011	2,4,5-T
10747	FDPH2B003	ND <2.0	ND <0.010	2,4-D
		ND <2.0	ND <0.010	2,4,5-T
.0748	FDPH2B004	ND <2.0	ND <0.011	2,4-D
		ND <2.0	ND <0.011	2,4,5-T

f you have any questions about these results, please call the lab at
00) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

Terry Spennetta

1501

Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

December 6, 1996 3946

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

2,4-D and 2,4,5,-T, MCPA

Samples were analyzed using method pest27.mth based on NIOSH method 5001.

Air samples are collected by drawing known volumes of air through OVS-2 tubes (OSHA versitile samples). Samples are desorbed with methanol and analyzed by high performance liquid chromatography with UV detection.

The results are expressed as milligrams of 2,4-D or 2,4,5-T per cubic meter if the air collection volume is provided, otherwise as micrograms per sample. All results are blank corrected if a blank was provided or otherwise noted in the report.

Minimum Detection Level = 1 ug/tube

Terry Spennetta	Analyst
Lyle Reichmann, CIH	Chemist Supervisor

1503

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

November 29, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM T4002
PO WA8990

The results for the samples received by the lab on 11/22/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
610749	FDPH2C001	<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
		<=.40	<=0.002	DDT
610750	FDPH2C002	<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
		<=.40	<=0.002	DDT
610751	FDPH2C003	<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
		<=.40	<=0.002	DDT
610752	FDPH2C004	<=.40	<=0.002	DDD
		<=.40	<=0.002	DDE
		<=.40	<=0.002	DDT

If you have any questions about these results, please call the lab at (800) 446-0403

Steve Strebel, Organic Supervisor

Mark Hudziak

1505

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

November 27, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM T4002
PO WA8990

The results for the samples received by the lab on 11/22/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
610755	FDPH2C005	<=.40	<=0.003	DDD
		<=.40	<=0.003	DDE
		<=.40	<=0.003	DDT

If you have any questions about these results, please call the lab at (800) 446-0403

Steve Strebel, Organic Supervisor

Mark Hudelak

1507

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

Pesticide Analysis
Dames & Moore
November 26, 1996

One fiberglass filter was submitted to WOHL for analysis of DDT, DDE, and DDD. The sample was desorbed in isooctane and analyzed by gas chromatography with electron capture detection (GC-ECD). This is an in-house method, which is a modification of NIOSH method S274.

Analysis results showed non-detectable amounts of the above listed pesticides in the sample. All isomers of the compounds were analyzed, but none were found in detectable amounts.

Three spike samples of 4,4-DDT were analyzed in the same manner as the sample to check recovery. The average recovery was 92 %. The value to the right of the "<=" sign on the report is the minimum quantitation limit for that pesticide based on the sample extraction and air volume for the sample. The "<=" sign stands for "less than or equal to".

If you have any questions about the results, please call the lab at (800) 446-0403.

Mark Hudziak
(analyst)

Steve Strebel
(supervisor)

1509

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

Pesticide Analysis
Dames & Moore
November 27, 1996

Four fiberglass filters were submitted to WOHL for analysis of DDT, DDE, and DDD. The samples were desorbed in isooctane and analyzed by gas chromatography with electron capture detection (GC-ECD). This is an in-house method, which is a modification of NIOSH method S274.

Analysis results showed non-detectable amounts of the above listed pesticides in the samples. All isomers of the compounds were analyzed, but none were found in detectable amounts.

Three spike samples of 4,4-DDT were analyzed in the same manner as the sample to check recovery. The average recovery was 92 %. The value to the right of the "<=" sign on the report is the minimum quantitation limit for that pesticide based on the sample extraction and air volume for the sample. The "<=" sign stands for "less than or equal to".

If you have any questions about the results, please call the lab at (800) 446-0403.

Mark Hudziak Mark Hudziak
(analyst)

Steve Strebel
(supervisor)

DAMES & MOORE
7101 Wisc Avenue, Suite 700
Bethesda, Maryland 20814-4870
(301) 652-2215 FAX (301) 656-8059

3916

CHAIN-OF-CUSTODY RECORD

№ ~~1734~~ 440

JOB NO:

PROJECT NAME-CLIENT: Ft. Drum - Bldg T-4002

SAMPLER (Signature): Stephen C. Tanham

ANALYSES REQUIRED

SAMPLE NO.	Date	Time	Comp.	Grab	Matrix	SAMPLE # ~~Station Number and Location~~	Total No. of Containers	NIOSH 7300 (Lead by ICP)	NIOSH 5001 (2,4-D, and 2,4,5-T)	NIOSH 5274M (DDD, DDE, and DDT)						REMARKS Volume (Liters)
						FD-112196-PH2-A-001		✓								590.75
						-A-002		✓								645.00
						-A-003		✓								645.00
						-A-004		✓								626.34
						-B-001			✓							182.75
						-B-002			✓							184.90
						-B-003			✓							206.40
						-B-004			✓							184.47
						-C-001				✓						187.00
						-C-002				✓						184.90
						-C-003				✓						184.90
						-C-004				✓						184.47

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Stephen C. Tanham	11-21-96 5:00 PM				

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Report Results To:
		A McGary	NOV 22 1996	Phone: 301-652-2215 FAX: 301-656-8059

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Dames & Moore

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(301) 652-2215 FAX (301) 656-8059

ormal turn-around per

3916

CHAIN-OF-CUSTODY RECORD

№ ~~1734~~ 440

JOB NO:

PROJECT NAME-CLIENT: Ft. Drum - Bldg T-4002

SAMPLER (Signature): Stephen C. Fanlan S

SAMPLE NO.	Date	Time	Comp.	Grab	Matrix	SAMPLE # ~~Station Number and Location~~	Total No. of Containers	NIOSH 7300 (Lead by ICP)	NIOSH 5001 (2,4-D and 2,4,5-T)	NIOSH 5274m (DDD, DDE, and DDT)								REMARKS Volume (Liters)
						FD-112196-PH2-A-001	1	✓										590.75
						-A-002		✓										645.00
						-A-003		✓										645.00
						-A-004		✓										626.34
						-B-001			✓									182.75
						-B-002			✓									184.90
						-B-003			✓									206.40
						-B-004			✓									184.47
						-C-001				✓								187.00
						-C-002				✓								184.90
						-C-003				✓								184.90
						-C-004				✓								184.47

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Stephen C. Fanlan	11-21-96 5:00 PM				

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Report Results To:
		A. McGary	NOV 22 1996	Phone: 301-652-2215 FAX: 301-656-8059

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Dames & Moore

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Bethesda, Maryland 20814-4870
(301) 652-2215 FAX (301) 656-8059

#3946R

CHAIN-OF-CUSTODY RECORD

№ ~~1734~~ 441

JOB NO:

PROJECT NAME-CLIENT: Ft. Drum - Bldg T-4002

SAMPLER (Signature): Stephen C. Lanham M1591

ANALYSES REQUIRED: NIOSH 7300 (Lead by ICP); NIOSH 5001 (2,4-D, and 2,4,5-T); NIOSH S274M (DDD, DDE, and DDT)

REMARKS

SAMPLE NO.	Date	Time	Comp.	Grab	Matrix	SAMPLE # ~~Station Number and Location~~	Total No. of Containers	NIOSH 7300	NIOSH 5001	NIOSH S274M						Volume (Liters)
						FD-112196-PH2-A-005	6/6753	✓								445.45
						-B-005	1		✓							153.40
						-C-005	1			✓						153.40

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Stephen C. Lanham	11-21-96 5:00 PM				

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Report Results To:
		A McCrary	NOV 22 1996	Phone: 301-652-2215 FAX: 301-656-8059

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Dames & Moore

1515

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Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

December 13, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM T4002

The results for the samples received by the lab on 12/10/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
613013	FDPH2A001	<=1.3	<=0.003	Lead, Inorganic Fume & Mists
613014	FDPH2A002	<=1.3	<=0.003	Lead, Inorganic Fume & Mists
613015	FDPH2A003	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists
613016	FDPH2A004	ND <0.38	ND <0.001	Lead, Inorganic Fume & Mists

Comments: Result(s) are not blank corrected.

If you have any questions about these results, please call the lab at (800) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

Susan Percy

Susan Percy

1519

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

December 13, 1996 3946

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

ICAP METAL SAMPLE RESULTS

Samples were analyzed by WOHL in-house method based on NIOSH 7300 and OSHA ID-125G.

The air samples were collected on MCEF filters and digested in an appropriate mixture of acids. An aliquot of the sample was analyzed for various elements using an Inductively Coupled Argon Plasma (ICAP) Atomic Emission Spectrometer.

The results are expressed as milligrams per cubic meter of air if the air collection volume was provided; otherwise, as micrograms per filter. All results are blank corrected if a blank was provided unless otherwise noted in the comments section of the report. A less than symbol before the result means the result is less than our Limits of Quantitation. The notation N.D. which follows some of the result values indicates that these values are below our Limits of Detection. Our Limits of Quantitation and detection are available upon request.

Susan Percy Analyst

Lyle Reichmann, CIH Chemist Supervisor

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WOHL Wisconsin Occupational Health Laboratory
979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene
University of Wisconsin

LABORATORY QUALITY CONTROL REPORT

Chemist Initials: SP Date of Report: 12 - 12 - 96 Equipment Code: 775
Equipment Description: JARREL ASH ICP

The following samples were analyzed for QUALITY COMPLIANCE along with normal FIELD samples.

These results meet WOHL Lab Quality Control criteria.

---------- CORRECT ----------
REPORTED VALUES ARE CORRECT FOR SAMPLES: 57915 AND 57916
Results are within 2 standard deviation.

Q-C Sample#	Reported Value(R)	Actual Value(A)	Units	Ratio (R/A)	Std Dev	S-Code	Substance Name
57915	17.970	17.400	ug/fil	1.0328	2	490	Cadmium by ICP
57915	41.830	40.500	ug/fil	1.0328	1	690	Chromium by ICP
57915	71.150	69.500	ug/fil	1.0237	1	730	Copper by ICP
57915	57.600	57.900	ug/fil	.9948	1	1591	Lead by ICP
57915	69.320	69.500	ug/fil	.9974	1	1620	Manganese by ICP
57915	29.480	28.900	ug/fil	1.0201	1	1840	Nickel by ICP
57915	87.780	86.800	ug/fil	1.0113	1	I200	Iron by ICP
57915	71.340	69.500	ug/fil	1.0265	1	Z100	Zinc by ICP
57916	22.170	21.200	ug/fil	1.0458	2	490	Cadmium by ICP
57916	51.320	49.600	ug/fil	1.0347	1	690	Chromium by ICP
57916	87.920	84.900	ug/fil	1.0356	2	730	Copper by ICP
57916	70.770	70.800	ug/fil	.9996	1	1591	Lead by ICP
57916	85.890	84.900	ug/fil	1.0117	1	1620	Manganese by ICP
57916	36.560	35.400	ug/fil	1.0328	1	1840	Nickel by ICP
57916	108.800	106.200	ug/fil	1.0245	1	I200	Iron by ICP
57916	88.260	84.900	ug/fil	1.0396	1	Z100	Zinc by ICP

The Quality Control limits are calculated based on 1, 2, and 3 STANDARD DEVIATIONS derived from historical data for a particular analyte. The MEAN values are adjusted to 1 in order to avoid any positive or negative bias.

KEY : COLUMN HEADINGS

Q-C Sample# : Laboratory prepared Quality Control sample number.
Reported Value : Analyst's results.
Actual Value : Amount of analyte applied to the QC sample.
Ratio : Ratio of Reported/Actual.
Std Dev : Number of Standard Deviations from the MEAN value.
S-Code : Substance (analyte) code.

S. Lanham NO. 996 P01

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WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3228
Phone: (608) 263-8550
FAX: (608) 263-8551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

January 24, 1997

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM T4002

The results for the samples received by the lab on 12/10/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
613017	FDPH2B001	ND <2.0	ND <0.014	2,4-D
		ND <2.0	ND <0.014	2,4,5-T
613018	FDPH2B002	ND <2.0	ND <0.014	2,4-D
		ND <2.0	ND <0.014	2,4,5-T
613019	FDPH2B003	ND <2.0	ND <0.014	2,4-D
		ND <2.0	ND <0.014	2,4,5-T
613020	FDPH2B004	ND <2.0	ND <0.014	2,4-D
		ND <2.0	ND <0.014	2,4,5-T

If you have any questions about these results, please call the lab at (800) 446-0403

Lyle Reichmann, CIH, Chemist Supervisor

Terry Spennetta

1525

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

Wisconsin State Laboratory of Hygiene

University of Wisconsin

December 16, 1996

STEPHEN LANHAM
DAMES & MOORE - BETHESDA
SUITE 700
7101 WISCONSIN AVE
BETHESDA MD 20814-4870

Company #: 3946

PROJ FT DRUM T4002

The results for the samples received by the lab on 12/10/96 are as follows:

Lab#	Field#	ug/sample	MG/M3	Analyte
613021	FDPH2C001	<=.40	<=0.003	DDT
		<=.40	<=0.003	DDE
		<=.40	<=0.003	DDD
613022	FDPH2C002	<=.40	<=0.003	DDT
		<=.40	<=0.003	DDE
		<=.40	<=0.003	DDD
613023	FDPH2C003	<=.40	<=0.003	DDT
		<=.40	<=0.003	DDE
		<=.40	<=0.003	DDD
613024	FDPH2C004	<=.40	<=0.003	DDT
		<=.40	<=0.003	DDE
		<=.40	<=0.003	DDD

If you have any questions about these results, please call the lab at (800) 446-0403

Steve Strebel, Organic Supervisor

Mark Hudziak

1527

WOHL Wisconsin Occupational Health Laboratory

979 Jonathon Drive
Madison, WI 53713-3226
Phone: (608) 263-6550
FAX: (608) 263-6551

nsin State Laboratory of Hygiene

University of Wisconsin

Pesticide Analysis
Dames & Moore
December 13, 1996

Four fiberglass filters were submitted to WOHL for analysis of DDT, DDE, and DDD. The samples were desorbed in isooctane and analyzed by gas chromatography with electron capture detection (GC-ECD). This is an in-house method, which is a modification of NIOSH method S274.

Analysis results showed non-detectable amounts of the above listed pesticides in the samples. All isomers of the compounds were analyzed, but none were found in detectable amounts.

Two spike samples of 4,4-DDT were analyzed in the same manner as the samples to check recovery. The average recovery was 99.8 %. The value to the right of the "<=" sign on the report is the minimum quantitation limit for that pesticide based on the sample extraction and air volume for the sample. The "<=" sign stands for "less than or equal to".

you have any questions about the results, please call the lab at (800) 446-0403.

rk Hudziak_____
lyst)

Strebel_____
isor)

CHAIN-OF-CUSTODY RECORD

№ ~~1734~~ 1700

PROJECT NAME-CLIENT: Ft. Drum - Bldg T-4002

SAMPLER (Signature): Stephen C. Tanham

ANALYSES REQUIRED: Lead (NIOSH 7300, ICP); 2,4-D; and 2,4,5-T (NIOSH 5...); DDD; and DDE; and DDT (NIO...

~~SAMPLE NO~~	~~Date~~	~~Time~~	~~Comp~~	~~Grab~~	~~Matrix~~	SAMPLE # ~~Station No/Person and Location~~ M1591	Total No. of Containers	Lead (NIOSH 7300, ICP)	2,4-D; and 2,4,5-T (NIOSH 5...)	DDD; and DDE; and DDT (NIO...)					REMARKS Volume (Liters)
						FO-120696-PH2-A-001		✓							472.50
						-A-002		✓							472.63
						-A-003		✓							451.26
						-A-004		✓							435.60
						-B-001			✓						138.60
						-B-002			✓						147.11
						-B-003			✓						143.88
						-B-004			✓						141.90
						-C-001				✓					135.45
						-C-002				✓					143.98
						-C-003				✓					143.88
						-C-004				✓					~~1.5~~ 151.80

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Stephen C. Tanham	12-6-96 5:00 pm				

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Report Results To:
		A. McGary	DEC 9 1996	Phone: 301-652-2215 FAX: 301-656-8059

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