National Human Exposure Assessment Survey (NHEXAS)

Arizona Study

Quality Systems and Implementation Plan for Human Exposure Assessment

The University of Arizona
Tucson, Arizona 85721

Cooperative Agreement CR 821560

Standard Operating Procedure **SOP-UA-D-37.0**

Title: Coding: Field Forms

Source: The University of Arizona

U.S. Environmental Protection Agency
Office of Research and Development
Human Exposure & Atmospheric Sciences Division
Human Exposure Research Branch

Notice: *The U.S. Environmental Protection Agency (EPA), through its Office of Research and Development (ORD), partially funded and collaborated in the research described here. This protocol is part of the Quality Systems Implementation Plan (QSIP) that was reviewed by the EPA and approved for use in this demonstration/scoping study. Mention of trade names or commercial products does not constitute endorsement or recommendation by EPA for use.*

Coding: Field Forms

1.0 Purpose and Applicability

This procedure defines the coding strategy for selected field forms. Forms addressed here will be scanned into databases; databases are created because the forms contain critical values needed to calculate pollutant concentrations. Other forms not addressed by this protocol are records of collection and accompany the sample to the lab where it will be analyzed. Such forms will be copied prior to shipment and filed as a reference copy at the HRP site. These data will not be entered into databases and are not included here. All these forms were developed for use by NHEXAS, the Border Study and other Health and Environment projects. These forms are located in Figures 1 through 7.

2.0 Definitions

2.1 BORDER STUDY : An alias for "Total Human Exposure Arizona: A comparison of the border communities and the state" conducted in Arizona by the University of Arizona/Battelle/Illinois Institute of Technology consortium.

2.2 CODE, GLOBAL: A set of standard codes used in data within the project designating the status of a data field in three cases: datum refused, datum non-applicable, and datum missing.

2.3 HEALTH AND ENVIRONMENT PROJECTS (or H & E) : An umbrella title for all projects funded to M. D. Lebowitz and/or M.K. O'Rourke (or their designees) which examine purported or real relationships among environmental factors and any aspect of human health.

2.4 HRP SITE: The **H**ealth **R**elated **P**rofessions building, located at 1435 North Fremont Avenue; Tucson, AZ 85719. This is an annex of the Arizona Prevention Center and the primary site of NHEXAS Arizona.

2.5 NHEXAS Arizona: Acronym for **N**ational **H**uman **EX**posure **A**ssessment **S**urvey, a research project conducted in Arizona by the University of Arizona/Battelle/Illinois Institute of Technology Consortium.

3.0 References

Teleform 5.0, Copyright 1991-1996 by Cardiff Software, Inc., San Marcos, CA.

4.0 Discussion

These field forms are all scanable. They were developed as primary data forms using the Teleform program package. This package has a dictionary feature and a feature that prints out the characteristics of each created form.

The overall coding scheme will follow SOP# UA-D-31.x: Global Coding for Scanned Forms. The data will be re-coded according to EPA's coding scheme when it is ready to be submitted to EPA.

The current Field Forms and a description of all fields and variables are presented in the attached Figures (1-7). Each figure contains the entire form.

Field Forms that are not scanned and accompany the samples include those for dermal samples, passive and active VOCs, water, food, beverage, blood and urine. A copy of the field form and chain of custody form will be retained and filed at the HRP site. Copies of the chain of custody forms will be mailed to EPA Cincinnati at the time of sample shipment.

Special Coding lists will be developed as needed to accommodate unanticipated responses. Such coding lists will be attached to each of the specified appendices as generated. At this time no special coding lists are needed.

5.0 Responsibilities

The Project Data Coordinator is responsible for creating the forms, defining the databases and writing the coding instructions for the Field forms.

6.0 Materials and Reagents

6.1 Codes are to be written with a black felt tip pen only.

6.2 Questionnaires are put into a batch once they are coded and recorded on the Batch Description and Custody Recorded.

6.3 Those coding lists that are not in the Coding Lists notebook can be found on line in the /rsc53/TrackNHEXAZ/codes/ directory.

6.4 Networked Computer Workstation that can access FoxPro.

6.5 Microsoft FoxPro Professional Edition version 2.6, Copyright 1989-1993 Microsoft Corporation.

6.6 Coding Program v1.0, developed in-house using FoxPro 2.6.

7.0 Procedural Steps for Coding of Field Forms

7.1 Criteria for Using Field-Dependent Global Codes

7.1.1 When to Code Data Field as Refused (Code = 055)

(a) Subject has crossed out question or field technician has indicated that subject refused the question.
(b) Other source(s) indicate(s) that the question, physical form, or questionnaire was refused.

7.1.2 When to Code Data Field as Non-Applicable (Code = 088)

(a) Field technician has written "N/A" on the question, physical form, or questionnaire.
(b) Sample cannot be taken due to the subject's particular situation. For example, no street name exists for a residence.

7.1.3 When to Code Data Field as Missing (Code = 099)

(a) The sampler, questionnaire, or datum should have been taken, administered, or gathered according to the standard operating procedure, but was no
(b) The sampler or questionnaire was lost prior to data entry.
(c) The sampling technique or question was determined to be irrevocably flawed.

7.2 Alpha-Numeric Fields

In all cases, the entire field on data entry screen is filled with X 's for refused, Y 's for non-applicable, or Z 's for missing.

7.3 Quality Control

The Project Data Coordinator ensures global coding consistency throughout all project working databases through the quality assurance checks outlined in SOP# UA-D-26.x.

7.4 Corrective Actions

Any discovered inconsistencies in global coding will be addressed and resolved by the Project Data Coordinator.

7.5 For coding lists that are computerized.
At this time no coding lists are needed.

8.0 Records

Include:

Figure 1. Floor Dust.
Figure 2. Soil Sampling.
Figure 3. P.I. D. Sampling (Photo-ionization Detector).
Figure 4. Sentinel Sampling Data Sheet.
Figure 5. PM Sampling (includes the URG).
Figure 6. Personal Air Sampling (includes Metals & Pesticides).
Figure 7. Surface Sampling.

Figure 1. Floor Dust.

Itemuse Study Stage

FLOOR DUST SAMPLING

Form Type: 105 — FORM UA-F-7.0-1.0

Study: ○ 1. NHEXAS ○ 2. Border ○ 3. ____ ○ 4. ____ ○ 5. ____

Stage # — collapse — Collapsed? Y ○ N ○ 8 ○

Collected By: ____ Init. Tech ID

QC r By: ____ Init. Tech ID

HHID NHID | F.S. | Visit NHIDFS Visit

Sampling Date MO Evntdate DAY / YR

QC: r [ ]

1. Vacuum ID: Vac-ID

2. Vacuum Inlet: Vacinlet

3. Sample ID#: 71 Sampid

4. QA Blank / Spike ID#: 71 ~~Sampid~~ Blnk-ID or N/A [ ]

QCr [ ]

ITEM	Loc. 1	Loc. 2	Loc. 3	Loc. 4	QC: r
Room	Room1	Room2	Room3	Room4	[ ]
RH%	Rh1 %	Rh2 %	Rh3 %	Rh4 %	[ ]
Dry Bulb	Drybulb1 ○ °C ○ °F Tunits-1	Drybulb2 ○ °C ○ °F Tunits-2	Drybulb3 ○ °C ○ °F Tunits-3	Drybulb4 ○ °C ○ °F Tunits-4	[ ]
Psy/Hyg ID	Hyg1	Hyg2	Hyg3	Hyg4	[ ]
Area Vacuumed	Areavac1 . M^2	Areavac2 . M^2	Areavac3 . M^2	Areavac4 . M^2	[ ]
Sample Time = 2 min/M^2	Smptim1 ○ Y ○ N ○ N/A	Smptim2 ○ Y ○ N ○ N/A	Smptim3 ○ Y ○ N ○ N/A	Smptim4 ○ Y ○ N ○ N/A	[ ]
Major Floor Type Surface Sampled	Floor1	Floor2	Floor3	Floor4	[ ]
Major Corner Surface Sampled	Corner1	Corner2 ~~Floor2~~	Corner3	Corner4	[ ]
Comments	Loc1-com	Loc2-com	Loc3-com	Loc4-com	[ ]
Total Area Vacuumed to Produce Sample	Tot-area . M^2	Comments:			[ ]

Formstat

Office Use Only

Form Status: ○ 1.Cmp ○ 2.N Cmp ○ 3.P Cmp ○ 4.Re-col ○ 5.Ref ○ 7.Dest ○ 8.N/A ○ 9.Miss

	Tech. ID	MO	DAY	YR
QC: Init.	QCBY	QCDATE	/	
QA: Init.	QABY	QADATE	/	

	Tech. ID	MO	DAY	YR
DE: Init.	DEBY	DEDATE	/	

DP Batch: JPBATCH QXV: FFLO1

Chain of custody initiated (sig.): ____

Consigned to packet on [ ]: ____/____/____ Box UA G4-2.0

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Figure 2. Soil Sampling.

Hemnum Study

SOIL SAMPLING

Form Type: 1 0 4 — FORM UA-F-5.0-1.0

Study: ○ 1. NHEXAS ○ 2. Border ○ 3. ____ ○ 4. ____ ○ 5. ____

Stage — Stage #

Collapse — Collapsed? Y ○ N ○ 8 ○

Team Leader: Tech_ID (Tech ID / Init.)

Collected by: Coll_by (Tech ID / Init.)

HHID: HHID — F.S. — Visit: VISIT

Sample Date: Smtdate / / (MO / DAY / YR) — QC: ✓ [ ]

1. Collection Start Time: St_time — 2. Collection Stop Time: End_time — QC: ✓ [ ]

Site #	Foundation Soil	qc:✓	Comments	Yard Soil	qc:✓	Comments
1	Found1 ○ Y ○ N ○ N/A	[ ]	Fdcmnt1	Yard1 ○ Y ○ N ○ N/A	[ ]	Ydcmnt1
2	Found2 ○ Y ○ N ○ N/A	[ ]	Fdcmnt2	Yard2 ○ Y ○ N ○ N/A	[ ]	Ydcmnt2
3	Found3 ○ Y ○ N ○ N/A	[ ]	Fdcmnt3	Yard3 ○ Y ○ N ○ N/A	[ ]	Ydcmnt3
4	Found4 ○ Y ○ N ○ N/A	[ ]	Fdcmnt4	Yard4 ○ Y ○ N ○ N/A	[ ]	Ydcmnt4
5	Found5 ○ Y ○ N ○ N/A	[ ]	Fdcmnt5	Yard5 ○ Y ○ N ○ N/A	[ ]	Ydcmnt5
6	Found6 ○ Y ○ N ○ N/A	[ ]	Fdcmnt6	Yard6 ○ Y ○ N ○ N/A	[ ]	Ydcmnt6
7	Found 1 ○ Y ○ N ○ N/A	[ ]	Fdcmnt7	Yard7 ○ Y ○ N ○ N/A	[ ]	Ydcmnt7
8	Found 8 ○ Y ○ N ○ N/A	[ ]	Fdcmnt8	Yard8 ○ Y ○ N ○ N/A	[ ]	Ydcmnt8
9	Found 9 ○ Y ○ N ○ N/A	[ ]	Fdcmnt9	Yard9 ○ Y ○ N ○ N/A	[ ]	Ydcmnt9
10	Found 10 ○ Y ○ N ○ N/A	[ ]	Fdcmnt10	Yard ○ Y ○ N ○ N/A	[ ]	Ydcmnt10

3. Foundation Soil Sample ID: 5 3 FdsamplD — qc:✓ [ ]

4. Yard Soil Sample ID: 5 1 YdsamplD — [ ]

QC ✓ By: Qcchk (Tech ID / Init.)

Comments: _____

Data Use Only:	0 1	2 3	4 5	6 7	8 9	A B	C D	E F	G H	I J
	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○

Figure 2 (Continued). Soil Sampling.

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Soil Sampling

5. Thin Film Loc.: ThinFilm ○ 1. curb ○ 2. drive ○ 3. mailbox ○ 4. outer window sill ○ N/A (def.)

6. Thin Film ID# : 5 9 TFsampID QC: r [ ]

Provide a rough birds-eye view of the residence and yards. Indicate sample sites by site #.

N

QC: r [ ]

Formstat

Office Use Only

Form Status: ○ 1.Cmp ○ 2.N Cmp ○ 3.P Cmp ○ 4.Re-col ○ 5.Ref ○ 7.Dest ○ 8.N/A ○ 9.Miss

	Tech. ID	MO	DAY	YR
QC: QCBY Init.		QCDATE	/	/
QA: QABY Init.		QADATE	/	/

	Tech. ID	MO	DAY	YR
DE: DEBY Init.		DEDATE	/	/

DP Batch: DPBATCH QXV: QXV F S O I 1

Chain of custody initiated (sig.): _____

Consigned to packet on: [ ] ___/___/___ Box UA G4-2.0

Comments: _____

Data Use Only:	0 1	2 3	4 5	6 7	8 9	A B	C D	E F	G H	I J
	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○

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Figure 3. P.I. D. Sampling (Photo-ionization Detector).

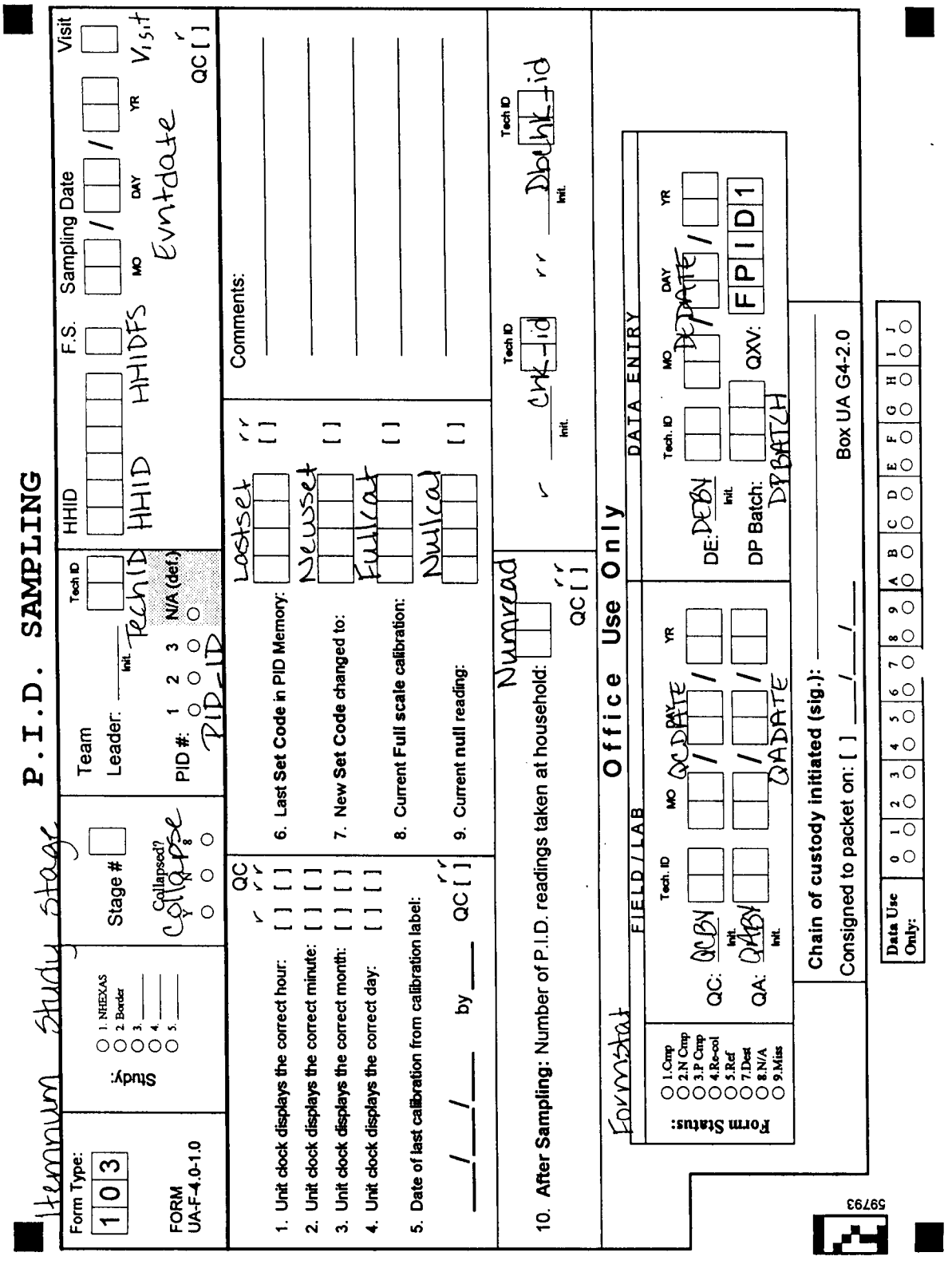
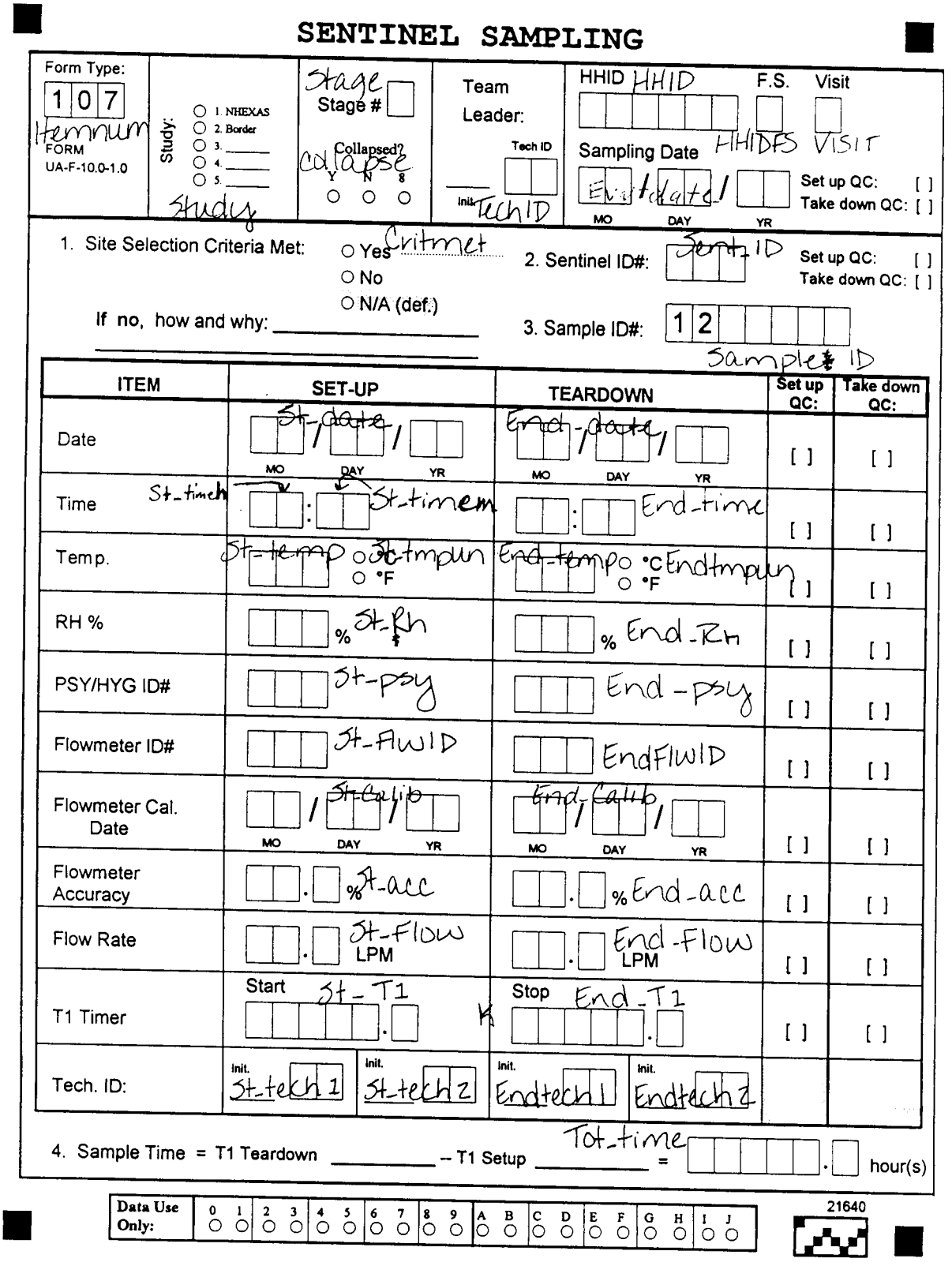


Figure 3 (Continued). P. I. D. Sampling (Photo-ionization Detector).

Figure 4. Sentinel Sampling Data Sheet.



SENTINEL SAMPLING

Form Type: 107 Itemnum FORM UA-F-10.0-1.0

Study: ○ 1. NHEXAS ○ 2. Border ○ 3. ____ ○ 4. ____ ○ 5. ____ Study

Stage Stage # ☐

Collapsed? Collapse Y ○ N ○ 8 ○

Team Leader: ____ Init. TechID Tech ID ☐☐

HHID HHID ☐☐☐☐☐☐ F.S. ☐ Visit ☐ VISIT

Sampling Date Evaldate / ☐☐ / ☐☐ MO DAY YR HHIDFS

Set up QC: [ ] Take down QC: [ ]

1. Site Selection Criteria Met: ○ Yes Critmet ○ No ○ N/A (def.)

If no, how and why: _____

2. Sentinel ID#: Sent_ID ☐☐☐ Set up QC: [ ] Take down QC: [ ]

3. Sample ID#: 1 2 ☐☐☐☐☐☐ Sample# ID

ITEM	SET-UP	TEARDOWN	Set up QC:	Take down QC:
Date	St_date ☐☐ / ☐☐ / ☐☐ MO DAY YR	End_date ☐☐ / ☐☐ / ☐☐ MO DAY YR	[ ]	[ ]
Time St_timeh	☐☐ : ☐☐ St_timem	☐☐ : ☐☐ End_time	[ ]	[ ]
Temp.	St_temp ☐☐☐ ○ °C St_tmpun ○ °F	End_temp ☐☐☐ ○ °C Endtmpun ○ °F	[ ]	[ ]
RH %	☐☐☐ % St_Rh	☐☐☐ % End_Rh	[ ]	[ ]
PSY/HYG ID#	☐☐☐ St_psy	☐☐☐ End_psy	[ ]	[ ]
Flowmeter ID#	☐☐☐ St_FlwID	☐☐☐ EndFlwID	[ ]	[ ]
Flowmeter Cal. Date	☐☐ / St_Calib ☐☐☐ / ☐☐ MO DAY YR	End_Calib ☐☐☐ / ☐☐ / ☐☐ MO DAY YR	[ ]	[ ]
Flowmeter Accuracy	☐☐.☐ % St_acc	☐☐.☐ % End_acc	[ ]	[ ]
Flow Rate	☐☐.☐ St_Flow LPM	☐☐.☐ End_Flow LPM	[ ]	[ ]
T1 Timer	Start St_T1 ☐☐☐☐☐.☐	Stop End_T1 ☐☐☐☐☐.☐	[ ]	[ ]
Tech. ID:	Init. St_tech1 ☐☐ / Init. St_tech2 ☐☐	Init. Endtech1 ☐☐ / Init. Endtech2 ☐☐		

4. Sample Time = T1 Teardown _____ -- T1 Setup _____ = Tot_time ☐☐☐☐☐.☐ hour(s)

Data Use Only: 0 1 ○ ○ | 2 3 ○ ○ | 4 5 ○ ○ | 6 7 ○ ○ | 8 9 ○ ○ | A B ○ ○ | C D ○ ○ | E F ○ ○ | G H ○ ○ | I J ○ ○

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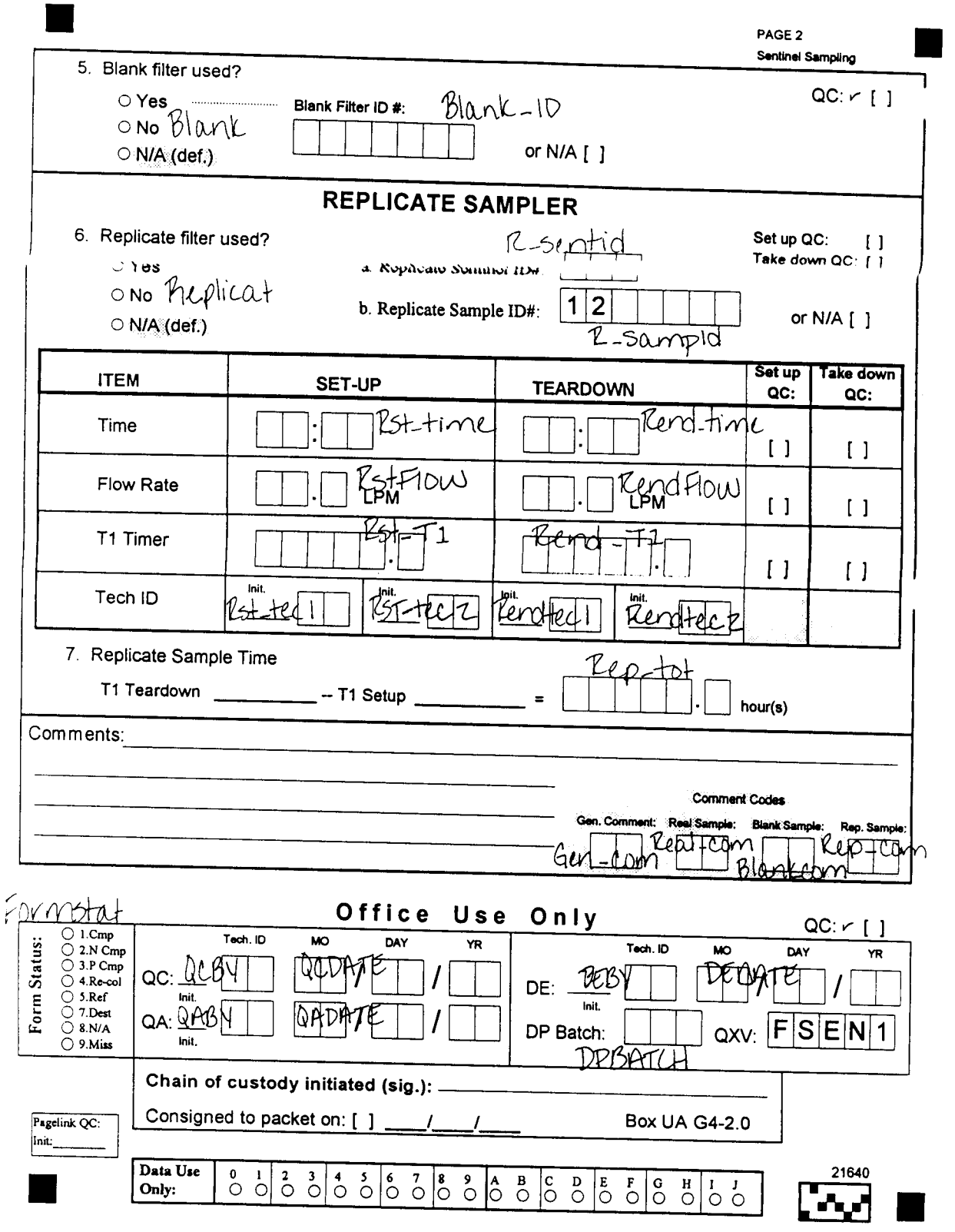
Figure 4 (Continued). Sentinel Sampling Data Sheet.



PAGE 2
Sentinel Sampling

5. Blank filter used?
○ Yes ..... Blank Filter ID #: Blank-ID
○ No Blank
○ N/A (def.)
or N/A [ ]
QC: r [ ]

REPLICATE SAMPLER

6. Replicate filter used?
○ Yes
○ No Replicat
○ N/A (def.)
a. Replicate Sampler ID# R-sentid
b. Replicate Sample ID#: 12 R-Sampld
or N/A [ ]
Set up QC: [ ]
Take down QC: [ ]

ITEM	SET-UP	TEARDOWN	Set up QC:	Take down QC:
Time	: Rst-time	: Rend-time	[ ]	[ ]
Flow Rate	. LPM RstFlow	. LPM RendFlow	[ ]	[ ]
T1 Timer	Rst-T1 .	Rend-T1 .	[ ]	[ ]
Tech ID	Init. Rst-tec1 / Init. RST-tec2	Init. Rendtec1 / Init. Rendtec2		

7. Replicate Sample Time
T1 Teardown _____ -- T1 Setup _____ = Rep-tot . hour(s)

Comments: _____

Comment Codes
Gen. Comment: Gen-Com
Real Sample: Real-Com
Blank Sample: Blankcom
Rep. Sample: Rep-Com

Formstat

Office Use Only

QC: r [ ]

Form Status: ○ 1.Cmp ○ 2.N Cmp ○ 3.P Cmp ○ 4.Re-col ○ 5.Ref ○ 7.Dest ○ 8.N/A ○ 9.Miss

	Tech. ID	MO	DAY	YR
QC: QCBY (Init.)		QCDATE	/	
QA: QABY (Init.)		QADATE	/	
DE: DEBY (Init.)		DEDATE	/	
DP Batch: DPBATCH		QXV: FSEN1		

Chain of custody initiated (sig.): _____
Consigned to packet on: [ ] ___/___/___ Box UA G4-2.0

Pagelink QC:
Init:_____

Data Use Only: 0 1 | 2 3 | 4 5 | 6 7 | 8 9 | A B | C D | E F | G H | I J

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Figure 5. PM Sampling (includes the URG).

Itemnum

PM SAMPLING

Form Type: 102
FORM UA-F-3.0-1.0

Study: Study
○ 1. NHEXAS ○ 2. Border ○ 3. ____ ○ 4. ____ ○ 5. ____

Stage #: Stage
Collapsed? Collapse ○ ○ ○

Team Leader: ____ Init.
Tech ID: Tech-ID

HHID: HHID F.S. Visit
HHIDFS Visit
Sampling Date: EvntDate MO DAY YR
Set up QC: [ ]
Take down QC: [ ]

1. Sample Type: ○ Real ○ Replicate ○ N/A Samptype
2. Site Criteria Met: ○ Yes ○ No ○ N/A Crit-met
If no, how and why: ____

3. Nearest Source = Source ft. Source Description: ____
4. PM Box Location: ○ Indoors ○ Outdoors ○ N/A Pmloc
5. PM Box #: Pmbox

ITEM	START	STOP	Set up QC:	Take down QC:
Date	Stdate MO / DAY / YR	Enddate MO / DAY / YR	[ ]	[ ]
Time	Sttime : /	Endtime :	[ ]	[ ]
Dial: Actual = Set	○ Yes ○ No Stdial ○ N/A	○ Yes ○ No Enddial ○ N/A	[ ]	[ ]
DVM ID #	Stdvm	Enddvm	[ ]	[ ]
Flowmeter ID #	STFlow	EndFlow	[ ]	[ ]
Flowmeter Cal. Date	Stcaldt MO / DAY / YR	Endcaldt MO / DAY / YR	[ ]	[ ]
Flowmeter Accuracy	. % Stacc	. % Endacc	[ ]	[ ]
PSY/HYG ID#	Stpsy	Endpsy	[ ]	[ ]
Temperature	Sttemp ○ °C ○ °F Stunit	Endtemp ○ °C ○ °F Endunit	[ ]	[ ]
RH%	% Strh	% Endrh	[ ]	[ ]

Comments: ____

Met. Sample: Met-com Pest. Sample: Pest-com Blank Sample: Blk-com

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Data Use Only: 0 1 | 2 3 | 4 5 | 6 7 | 8 9 | A B | C D | E F | G H | I J

Figure 5 (Continued). PM Sampling (includes the URG).

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PM Sampling

ITEM	START	STOP	Set up QC:	Take down QC:
METALS				
Impactor ID #	Mstimp	Mendimp	[ ]	[ ]
Filter ID #	31 MstFilt	31 MendFilt	[ ]	[ ]
DVM: Actual = Set	+/- 5% ○ Y ○ N ○ N/A	+/- 10% ○ Y ○ N ○ N/A	[ ]	[ ]
Flow	. MstFlow Lpm	. MendFlow Lpm	[ ]	[ ]
PESTICIDES				
Impactor ID #	Pstimp	Pendimp	[ ]	[ ]
Filter/PUF ID #	32 PstFilt	32 PendFilt	[ ]	[ ]
DVM: Actual = Set	+/- 5% ○ Y ○ N ○ N/A	+/- 10% ○ Y ○ N ○ N/A	[ ]	[ ]
Flow	. PstFlow Lpm	. PendFlow Lpm	[ ]	[ ]
T1 Timer	T1start .	T1end .	[ ]	[ ]
T2 Timer	T2start .	T2end .	[ ]	[ ]
Tech. ID	Sttech1 Sttech2	Endtech1 Endtech2		
A). T1 Stop - T1 Start =	Tot_time .	= Total Box Run Time	[ ]	[ ]
B). T2 Stop - T2 Start =	Pest_time .	= Pesticide Sample Time	[ ]	[ ]
C). A - B =	Met_time .	= Metals Sample Time	[ ]	[ ]
Blank or Spike Assigned: ○ Yes ○ No ○ N/A Blank	If yes: Impactor ID # Blkimp		[ ]	[ ]
	Filter ID # BlkFilt		[ ]	[ ]
	[ ] 25 microliter Vol. or [ ] N/A			

Formstat

Office Use Only

Form Status: ○ 1.Cmp ○ 2.N Cmp ○ 3.P Cmp ○ 4.Re-col ○ 5.Ref ○ 7.Dest ○ 8.N/A ○ 9.Miss

	Tech. ID	MO	DAY	YR
QC: QCBY Init.		QCDATE	/	/
QA: QABY Init.		QADATE	/	/
DE: DEBY Init.		DEDATE	/	
DP Batch: DPBATCH			QXV: FPMA1 QXV	

Chain of custody initiated
Consigned to packet on[ ]: ___/___/___ Box UA G4-2.0

Data Use Only:	0 1	2 3	4 5	6 7	8 9	A B	C D	E F	G H	I J
	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○

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Figure 6. Personal Air Sampling (includes Metals & Pesticides).

PERSONAL AIR SAMPLING

Form Type: 108 Itemnum
FORM UA-F-14.0-1.0

Study: ○ 1. NHEXAS ○ 2. Border ○ 3. ____ ○ 4. ____ ○ 5. ____ Study

Stage #: Stage
Collapsed? Y N 8: collapse

Team Leader: ____ Init. Tech ID: Tech-ID

HHID: HHID F.S.: HHIDFS IRN #: IRN Visit: Visit
IRN first name: ____
Set up QC: [ ]
Take down QC: [ ]

1. Smoking home Y Smoke N N/A ○ ○ ○ If Yes, pump period = 360 min. If No, pump period = 480 min.

2. ○ Metals or ~~Choice 13~~ ○ Pesticides Samptype

Item	Start	Stop	Set up QC:	Take down QC:
Date	St-date MO / DAY / YR	End-date MO / DAY / YR	[ ]	[ ]
Time	St-time :	End-time :	[ ]	[ ]
Pump ID#	Stpmpid	Endpmpid	[ ]	[ ]
Impactor ID#	St-imp	End-imp	[ ]	[ ]
Filter ID# or Filter/PUF ID#	St-Filt	End-Filt	[ ]	[ ]
Temperature	~~St-temp~~ Stetpmun ○ °C ○ °F	~~End-temp~~ ○ °C ○ °F Endtmpun	[ ]	[ ]
RH%	St-RH %	End-RH %	[ ]	[ ]
Flowmeter ID #	St-FlwID	EndFlwID	[ ]	[ ]
Flowmeter Cal. Date	St-calib MO / DAY / YR	endcalib MO / DAY / YR	[ ]	[ ]
Flowmeter Accuracy	St-acc %	End-ACC %	[ ]	[ ]

Comments:

Real Samp. Rep. Samp. Blank Samp. Blnk-com Spike Samp. Spik-com
Real-Com Rep-COM

Data Use Only: 0 1 | 2 3 | 4 5 | 6 7 | 8 9 | A B | C D | E F | G H | I J

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Figure 6 (Continued). Personal Air Sampling (includes Metals & Pesticides).

PAGE 2
Personal Air Sampling

ITEM	Start	Stop	Set up QC:	Take down QC:
Flow	[ ].[ ] St_Flow Lpm	[ ].[ ] End_Flow Lpm	[ ]	[ ]
Cal. Time	[ ][ ][ ] St_ctime mins	[ ][ ][ ] End ctime mins	[ ]	[ ]
Delayed Start	[ ][ ][ ][ ] St_delay mins		[ ]	
Sample Period	[ ][ ][ ][ ] St_samp mins	[ ][ ][ ][ ] End_samp mins	[ ]	[ ]
Pump Period	[ ][ ][ ][ ] St_pump mins	[ ][ ][ ][ ] End_pump mins	[ ]	[ ]
Total Sample Time		[ ][ ][ ][ ] Samptime mins		[ ]
Tech. ID	Tech ID St_tek1 [ ] Tech ID St_tek2 [ ]	Tech ID End_tek1 [ ] Tech ID End_tek2 [ ]		

Replicate or N/A [ ]

Sample ID#	[ ][ ][ ][ ][ ][ ] Rst_samp	[ ][ ][ ][ ][ ][ ] Rendsamp	[ ]	[ ]
Impactor ID#	[ ][ ][ ] Rst_imp	[ ][ ][ ] Rend_imp	[ ]	[ ]
Flow	[ ].[ ][ ] Rst_Flow Lpm	[ ].[ ][ ] Rend Flow Lpm	[ ]	[ ]

3. Blank Assigned? ○ Yes.... Continue ○ No..... Goto #4 Blank
Sample ID# [ ][ ][ ][ ][ ][ ][ ] or N/A [ ] Blnk_ID
Impactor ID# [ ][ ][ ] or N/A [ ] Blnk_imp

4. Spike Assigned? ○ Yes..... Continue ○ No ..... Stop Spike
Sample ID# [ ][ ][ ][ ][ ][ ][ ] or N/A [ ] Spike_ID
Impactor ID# [ ][ ][ ] or N/A [ ] Spik_imp
25 microliter Volume [ ]

Office Use Only

Formstat

Form Status: ○ 1.Cmp ○ 2.N Cmp ○ 3.P Cmp ○ 4.Re-col ○ 5.Ref ○ 7.Dest ○ 8.N/A ○ 9.Miss

	Tech. ID	MO	DAY	YR
QC: Init.	QCBY [ ]	QCDATE [ ]	/ [ ]	
QA: Init.	QABY [ ]	QADATE [ ]	/ [ ]	
DE: Init.	DEBY [ ]	DEDATE [ ]	/ [ ]	

DP Batch: [ ][ ][ ] DPBATCH QXV: FPER1

Chain of custody initiated (sig.): _____
Consigned to packet on[ ]: ___/___/___ Box UA G4-2.0

Data Use Only:	0 1	2 3	4 5	6 7	8 9	A B	C D	E F	G H	I J
	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○

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Figure 7. Surface Sampling.

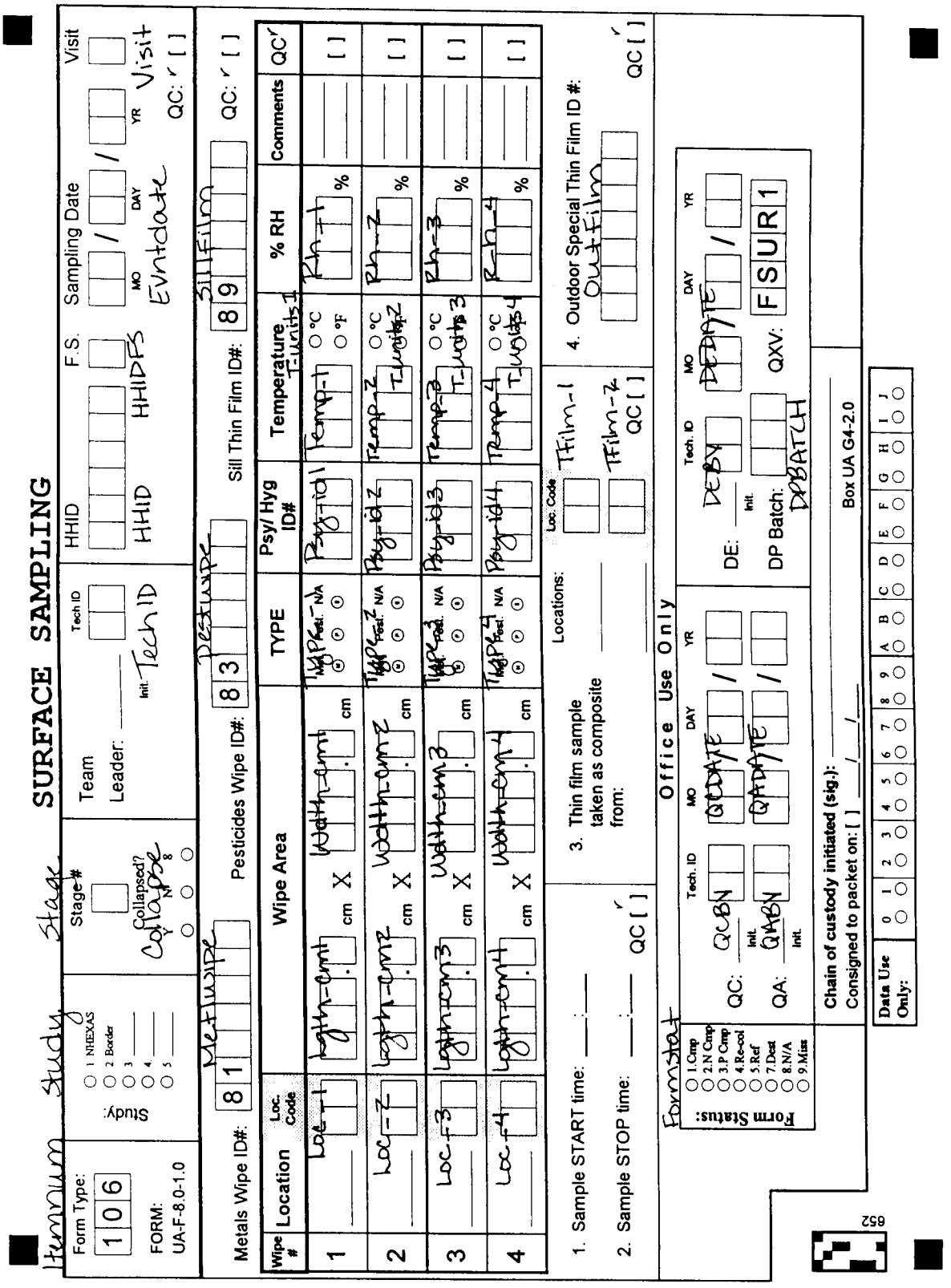

Figure 7 (Continued). Surface Sampling.