576SERBSF10,633

576SERBSF10,633

Site Name (Subject):	TRI-COUNTY AIRPORT
Site ID (Document ID):	NCN000407205
Document Name (DocType):	Removal (RMVL)
Report Segment:	
Description:	Immediate Removal Evaluation Request
Date of Document:	12/10/2001
Date Received:	
Box: *Enter SF and # with no spaces*	SF10,633
Access Level:	PUBLIC
Division:	WASTE MANAGEMENT
Section:	SUPERFUND
Program (Document Group):	SERB (SERB)
Document Category:	FACILITY

Print Report for Record | **Go to New Blank Record** | **Go to New Record - (default to last record values)** | **Delete Record**

NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT

MICHAEL F. EASLEY, GOVERNOR
WILLIAM G. ROSS, JR., SECRETARY
DEXTER R. MATTHEWS, INTERIM DIRECTOR

NCDENR

December 10, 2001

Mr. Myron D. Lair, Chief
Emergency Response and Removal Branch
US EPA Region IV Waste Division
61 Forsyth Street, 11th Floor
Atlanta, Georgia 30303

Subject: Immediate Removal Evaluation Request
Tri-County Airport
EPA ID: NCN 000 407 205
Aulander, Hertford County, NC

Dear Mr. Lair:

The NC Superfund Section requests that the EPA evaluate the Tri-County Airport site for a possible removal action. The site is located approximately six miles east of the Town of Rich Square, along NC Highway 561 in Aulander, Hertford County, NC (Reference 1). The site is an area of approximately 25 feet by 100 feet located adjacent to the northernmost airport tarmac (Reference 2, Photo 1). A leaking 3,000 gallon above-ground storage tank is located in the middle of the site (Photos 2, 3). The tank contains approximately 200 hundred gallons of mixed pesticides. An undetermined amount of pesticides has leaked out or been displaced by rainwater. Seven empty barrels are located in the northwest corner of the site (Photos 4, 5). Evidence of burning was present on the eastern portion of the site (Reference 2).

The site is bounded to the north by palustrine scrub-shrub and palustrine emergent wetlands (Reference 3). The site is bounded to the south by the original airport tarmac (Photo 1). A drainage ditch intersects the northeast corner of the site (Photo 6). The site is bounded to the east by an open field and to the west by trees (Photo 7). The geographic coordinates of the site are 36°17'52.47" north latitude by 77°10'20.82" west longitude (Reference 4).

The site is located on the property of the Tri-County Airport. The airport is owned by the Tri-County Airport Authority, which is managed by Mr. Henry Joyner (252-345-9962). The site is unfenced and easily accessible from all sides. Evidence of current use was observed through the presence of empty fertilizer and oil containers left on the site (Photo 8, 9). Evidence of leakage was observed on the exterior of the tank, with an active drip due to rainwater occurring during the reconnaissance (Reference 2, Photos 10, 11). Stormwater from the site drains towards the northwest corner of the site, where upon it enters a drainage ditch. Flow in the ditch enters the wetlands located to the north of the site. During heavy rain events, flow also follows the drainage pathway to the east and runs north along the runway of the airport. The drainage ditch continues flowing north until it interconnects with Cutawhiskie Creek.

1646 MAIL SERVICE CENTER, RALEIGH, NORTH CAROLINA 27699-1646
401 OBERLIN ROAD, SUITE 150, RALEIGH, NC 27605
PHONE: 919-733-4996 \ FAX: 919-715-3605
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The NC Superfund Section completed a SI sampling event at the site on November 11, 2001 (Reference 5, 6). Analysis of the remaining liquid in the tank—approximately 200 gallons--revealed elevated levels of toxaphene (535,000 mg/kg), methyl parathion (82,000 mg/kg), ethyl benzene (55.5 mg/kg), xylenes (561.0 mg/kg), naphthalene (380 mg/kg), fluorene (165 mg/kg), phenanthrene (360 mg/kg), and 2-methylnaphthalene (2,700 mg/kg). Surface soils contained elevated levels of toxaphene (4,942 and 272,000 mg/kg), DDD (4,767 and 11,000 mg/kg), and DDT (3,470 and 7,276 mg/kg). DDE (13 mg/kg), DDD (1,363 mg/kg), and DDT (301 mg/kg) were all detected in the drainage ditch adjacent to the site, with trace amounts of DDE (0.003 to 0.004 mg/kg) and DDD (0.002 to 0.007 mg/kg) detected in the wetlands (Reference 7).

The Tri-County Airport is served by an on-site well. The well, which is located approximately 175 feet south of the site, had no detected contaminants in it per the SI sampling (Reference 7). However, previous sampling has indicated that DDT (3 ug/l) was present in the airport's drinking water well, and it was recommended that they switch to bottled water (Reference 8). The airport staff currently uses bottled water for drinking, though they use well water for all other uses, including to make coffee (Reference 2).

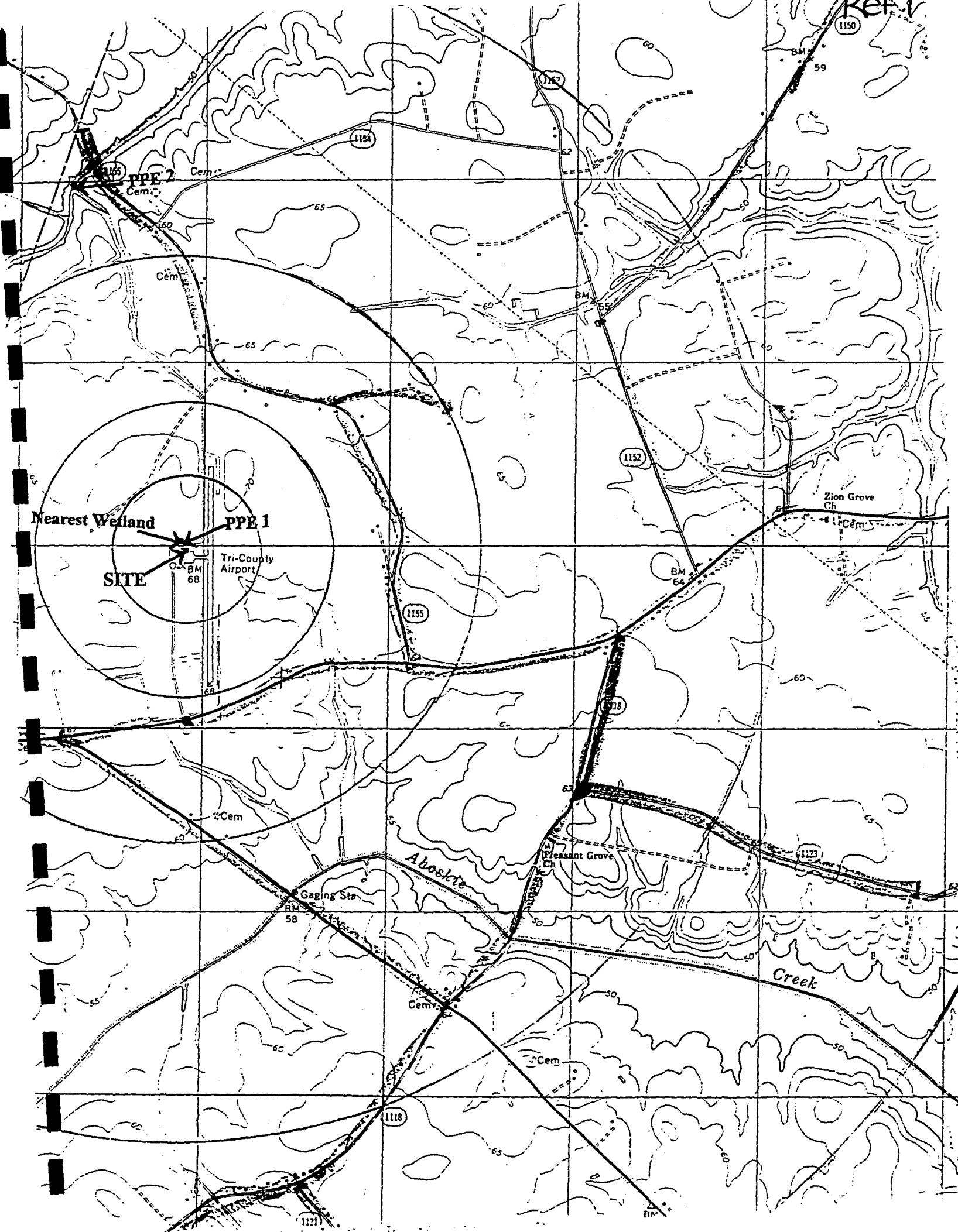
Due to the high levels of pesticides detected in the on-site tank and on-site soils, the location of the site to the airport's drinking water well, and the evidence of public exposure to and use of the site, the NC Superfund Section requests that EPA evaluate the Tri-County Airport site for a removal action.

State funds for this removal are not available at this time. Please let us know if and when a field evaluation can be conducted so we may coordinate your site visit with our staff. Please feel free to contact me at (919) 733-2801 ext. 316 or melanie.bryson@ncmail.net if you have any questions.

Sincerely,

Melanie Bryson
Environmental Engineer
NC Superfund Section

Jim Bateson, Head
Site Evaluation and Removal Branch
NC Superfund Section


PPE 2
Nearest Wetland
PPE 1
SITE
Tri-County Airport
BM 68
Zion Grove Ch
Cem
Pleasant Grove Ch
Gaging Sta
BM 58
Aboskie
Creek
1150
1154
1152
1155
1118
1123
1121

Ref. 2

Memorandum

Date: October 18, 2001

To: File

From: Melanie Bryson Melanie Bryson
Environmental Engineer
NC Superfund Section

Subject: Site Reconnaissance Trip Report

Tri-County Airport
Aulander, Hertford County, NC
EPA ID: NCN 000 407 205

On Tuesday, October 9, 2001, Melanie Bryson and Jeanette Stanley of the NC Superfund Section conducted an on-site and off-site reconnaissance at the Tri-County Airport located in rural Hertford County, north of Aulander, NC.

The reconnaissance began with an interview with Henry Joyner, manager of the Tri-County Airport. Mr. Joyner has been employed at the airport since 1973. Betty Joyner, wife of Henry Joyner, was also present during the interview.

Mr. Joyner indicated that the airport office had been housed in its current building since 1978. It was previously located in another building farther north on the property. He stated that there are only two full-time employees of the airport—himself and his wife. He also said the airport is serviced by an on-site well that is approximately 175 feet and has not treatment. According to Mr. Joyner, the water has a bad taste, so they drink bottled water. However, they do still use the well water for making coffee and all other uses at the airport. Mr. Joyner indicated that there is a county-wide water system though the airport is not currently on this system.

When asked about the airport history, Mr. Joyner said during the late 1960's, three spray groups were formed and operated out of the airport. The groups consisted of farmers from the Rich Square, Murfreesboro, and Woodland areas. All three groups had storage tanks on site, with each tank providing enough storage for 10 applications of pesticides for the farmers. All three groups disbanded around 1972-1973, and two of three groups have removed their tank from the airport property. The remaining storage tank has now rusted and is leaking pesticides mixed with rainwater onto the ground. This tank is currently about ¼ full. Mr. Joyner said that the area had previously been sampled and that arsenic, DDT, malathion, methyl parathion, and others were present in the first three or six inches of soil.

In more recent years, Robert Whitfiled and his sons have run a spray operation up until this year out at the airport. Forestry service is the only agricultural activity at the airport, fertilizer is currently the only product/activity going on at the airport. There have been several spills of fertilizer in the area of the site.

Mr. Joyner also spoke of problems that occurred when an irradication program for boll weevils was implemented during the 1970's. The Department of Agriculture brought in

many, many barrels of pesticides to help control the boll weevils. He said that no one monitored this program though it was understood that that would be happening with all of the barrels of pesticides. He also said there were spills on a quite frequent basis. Currently, seven rusted out barrels still remain on site.

Mr. Joyner then proceeded to take Ms. Bryson and Ms. Stanley to the site. Mr. Joyner first located the presence of the on-site well and showed where an available tap for sampling was located. He then took us to the site, where upon immediately arriving, a strong odor was detected coming from the remaining tank. A drip leak was also noted towards the bottom of the tank. The tank was estimated to be a 5 ½' by 18' cylinder. Seven rusted barrels were also noted just northwest of the rusted tank. The area was measured by pacing off, and dimensions were determined to be approximately 100' by 25'.

A ditch was found to border the northeast corner of the site. It was noted that where water entered the ditch was approximately 25 feet from where the ditch entered a shrub-scrub wetland.

Also present on the site was area where burning of something had been conducted on the ground. Beside the site was a cart with empty containers that had previously held liquids which contained ethephon, cyclanilide, and tributylphosphothionate.

Following the on-site reconnaissance, Ms. Bryson and Ms. Stanley received permission from Mr. Joyner to return on November 7, 2001 to conduct SI sampling. Mr. Joyner declined the offer to split samples. Ms. Bryson and Ms. Stanley then proceeded offsite to investigate Cutawhiskie Creek. The creek was observed from bridges on Fennel Road and Jim Hardy Road. There was no sign of fish or fishing present at either of the two bridges. Wetlands were present on both sides of the creek; however, they were not contiguous with the creek itself as steep backs (~3' high) separated the creek from the wetlands.

In the process of the checking out Cutawhiskie Creek, Ms. Stanley conducted a house count in the 1-mile radius around the site. Based on the house count, the results are as follows:

Distance Ring	# of Houses
0 – ¼ mile	0
¼ - ½ mile	1
½ - 1 mile	34

Following the housecount, Ms. Bryson and Ms. Stanley stopped by the home of Everett Bryant, 2301 NC Highway 561 W. Mr. Bryant granted permission to sample his well for background purposes. He stated that there was no treatment on the well and that is was 35-40' deep. He also stated that he would tie on to county lines within the month; however, he would still continue to use his well for irrigation and other outside purposes.

Tri-County Airport 10/9/01

CONTENTS

PAGE NO.	REFERENCE	DATE
	Photo Log	
1	tank-leaking	
2	tank-label	
3		
4	> general area	
5	9 drums under shed - Si Roofing - 6, Hy. Oil - 3	
6	barrels	
7	drainage ditch	
8	wetland-like area adjacent to mining area	
9	PEMIC wetland	
	~~[illegible]~~	

Tri-County Airport 10/9/01
NCN000407207

9:45 arrived on-site
Sunny 58°F

On-Site Recon Team
Melanie Bryson
Jeanette Stanley
Henry Joyner - w/ airport since 1973 (wife - Betty Joyner)
- in current building since 1978
on-well
175' deep - no treatment
- 2 workers on-site (Henry + Betty)
- water has bad taste
- drink bottled water, use well water for everything else (including making coffee)
- there is county wide water system through airport not currently on it
- Winton is county seat
- late 1960s - three spray groups
→ each had 1000 gall drums to store (10 applications)
→ Rich Square, Murfreesboro, Woodland
- all three groups disbanded 1972-73
- two of three groups have removed barrels

Melanie Bryson

Melanie Burpo 10/9/01

Tri-County Airport 10/9/01

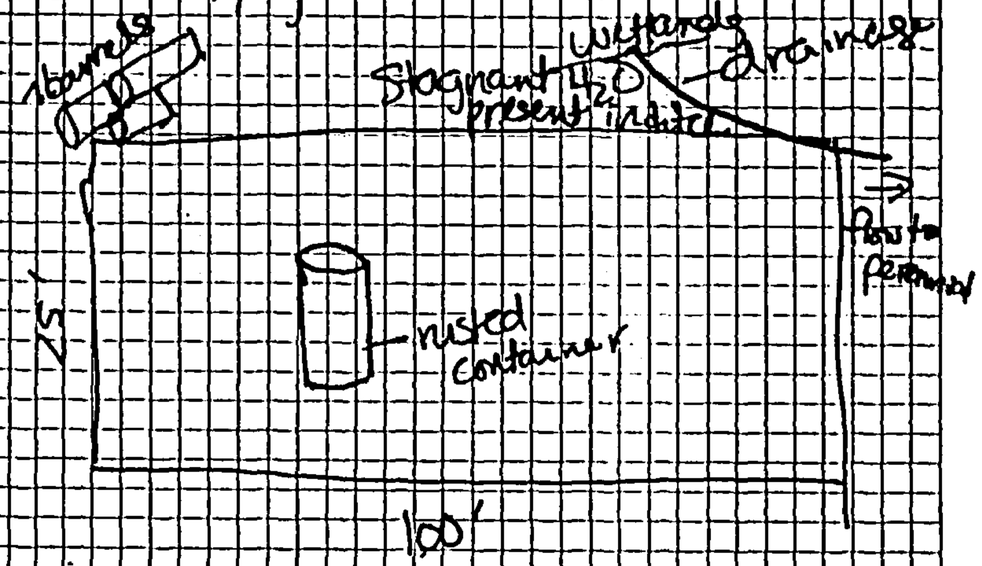
- Spray groups - farmers banded together to spray - spray every 2 weeks
- barrel left - top rusted out
  - 260 gallons rainwater + chemicals
- double wall container - rusted through almost - slow drip leak
- area has been previously sampled
  - ↳ arsenic, DDT, malathion, methyl parathion - present
  - ↳ located in first 3 or 6 inches of soil
- Robert Whitfield & sons run spray operation until this year (medical problems)
  - 2 sons - Timmy & Bobby
- forestry - only agricultural activity at airport
- fertilizer is currently only thing going on
  - ↳ current spillage - great grass growth
- problems occurred when implement irradication program
  - NCDA
  - USDA brought in pesticides to control boll weevil (many containers)
    - ↳ no one monitored, though were supposed to
    - ↳ very frequent spillages
- barrels (rusted out) still down there

Melanie Burpo

Melanie Bupp 10/9/01

Tri-County Airport 10/9/01

Odors present from leakage
- tank licensed in 1976
- water dripping from side and bottom of tank
Other empty containers from Whiffletree



poison ivy very dominant in woods beside site
Distance from pit into ditch to PSSIC approximately 25 feet

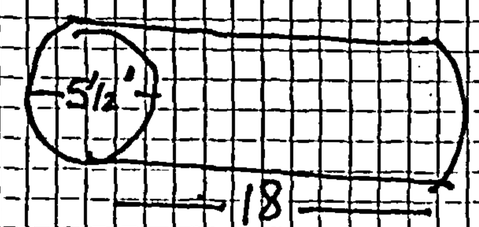
Cont w/ oil containers + others
Contained: Ethephon, cyclanilide, tributyl phosphotrithionate
Burning present on ground (PAHs?)
wetland plants present in PSSIC wetland
- ditch through PSSIC wetland, not PEM wetland

Melanie Bupp

Melanie Bupp 10/9/01

7

Tri-County Airport 10/9/01



tank

7 barrels present (55 gallon
waste quantity

Perennial Streams:
@ bridge just downstream of
entry into perennial
- 2 dead animals (chicken on one
side of bridge and dog on
downstream side)

Proceeded to Cutawhiskie/
Jim Hardy Rd. Bridge. No sign of
fishing. Trash, tires, TV in creek.

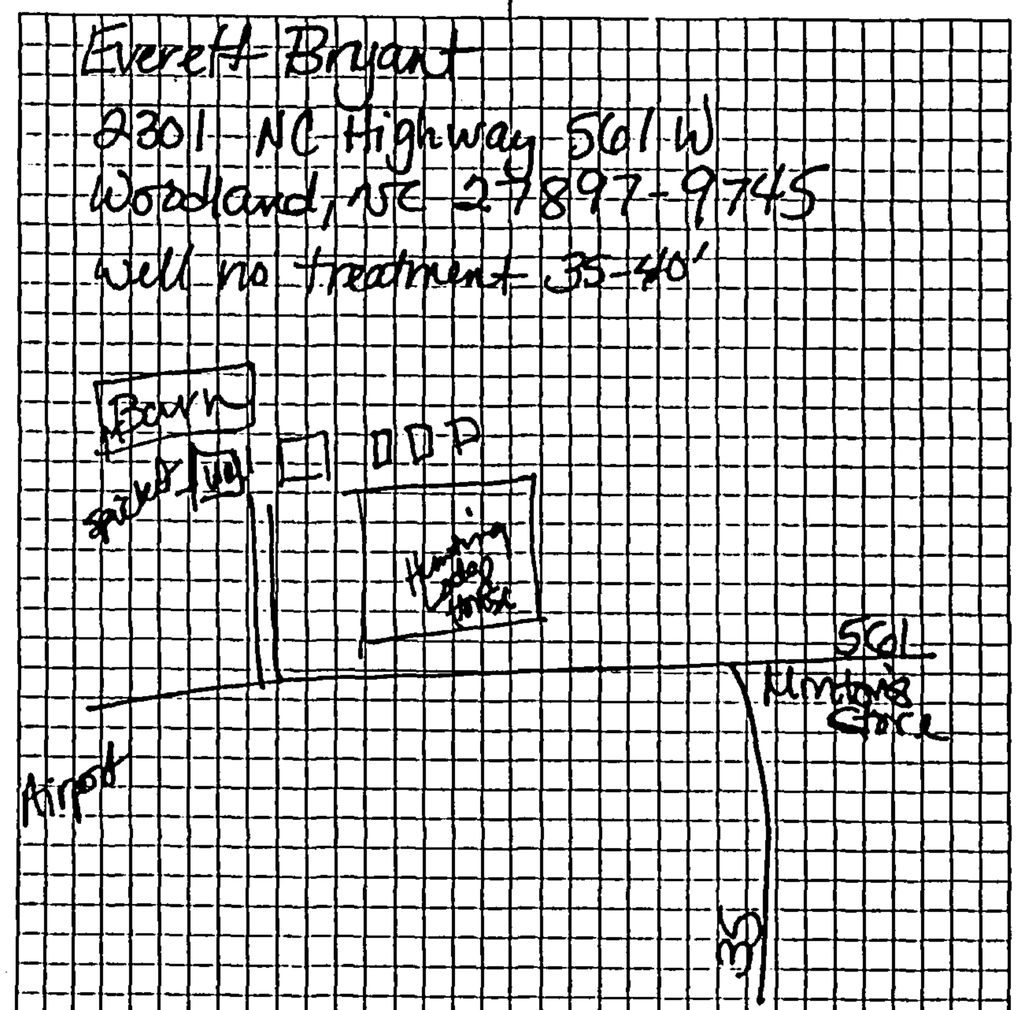
Melanie Bupp

8

Melanie Bryan 10/9/01

Tri-County Airport 10/9/01

Everett Bryant
2301 NC Highway 561 W
Woodland, NC 27897-9745
well no treatment 35-40'



13:00 Recon Complete

Melanie Bryan

Melanie Burpo 10/9/01

Tri-County Airport 10/9/01

House Count

0-1/4 mile Ø homes

1/4-1/2 mile 1 homes

1/2-1 mile 34 homes

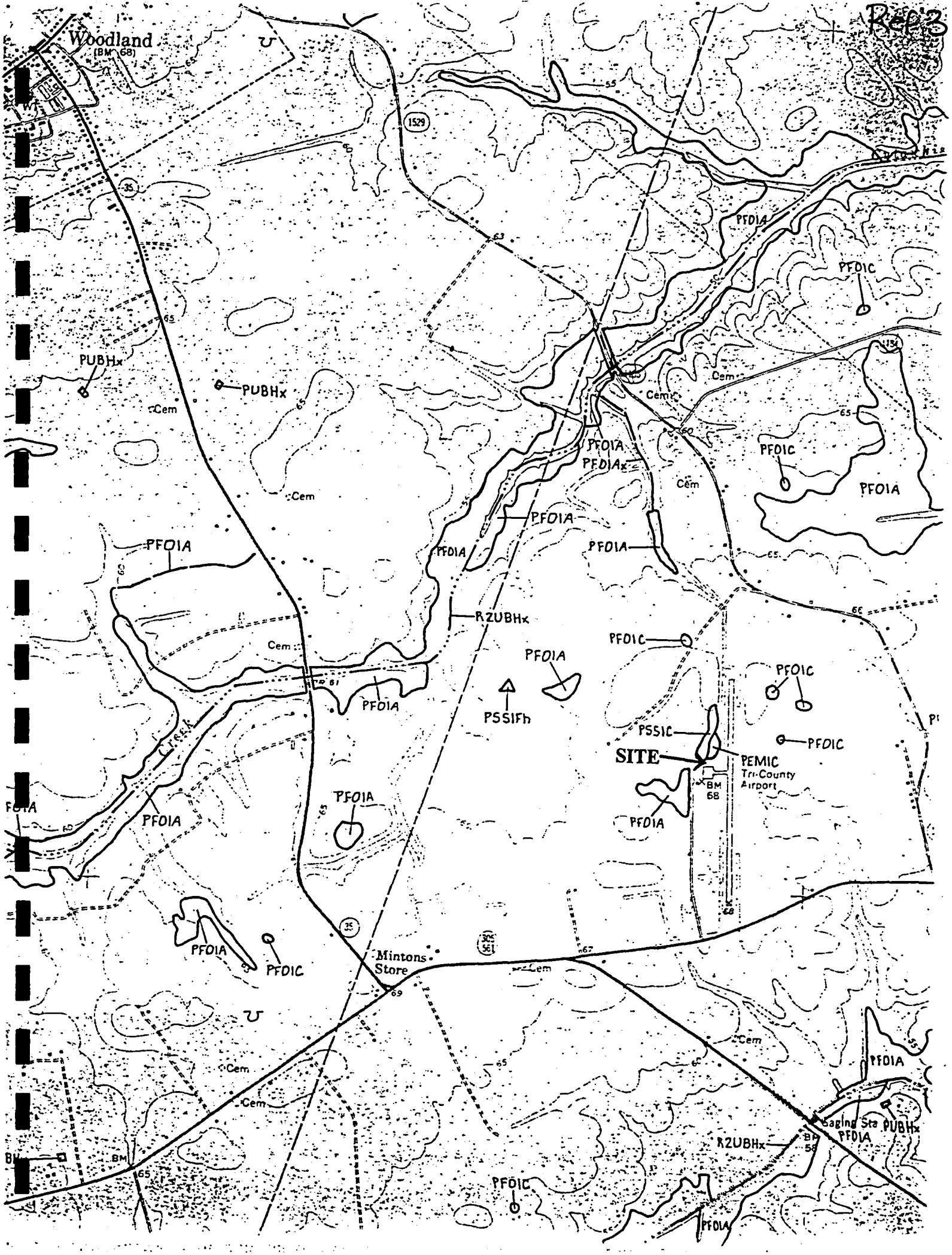
Nearest house

approximately 0.35 miles from site

Melanie Burpo

END

Ref 3


Woodland
(BM 68)
1529
35
PUBHx
PUBHx
Cem
Cem
PFO1A
PFO1C
PFO1A
PFO1Ax
PFO1C
PFO1A
PFO1A
PFO1A
PFO1A
R2UBHx
PFO1C
PFO1A
PFO1C
PSS1Fh
PSS1C
SITE
PEM1C
Tri-County
Airport
BM
68
PFO1C
PFO1A
PFO1A
PFO1A
PFO1A
PFO1C
Mintons
Store
305
561
Cem
Cem
Cem
PFO1A
Gaging Sta
PUBHx
PFO1A
R2UBHx
PFO1C
PFO1A

Ref.

LATITUDE AND LONGITUDE CALCULATION WORKSHEET #2

LI USING ENGINEER'S SCALE (1/60)

SITE NAME: Tri-County Airport CERCLIS #: NCN 000 407 205

AKA: n.a. SSID: N/A

ADDRESS: Hwy 561, 6 miles east of Rich Square

CITY: Aulander STATE: NC ZIP CODE: 27805

SITE REFERENCE POINT: Center of site

USGS QUAD MAP NAME: Woodland, nC TOWNSHIP: - N/S RANGE: - E/W

SCALE: 1 : 24,000 MAP DATE: 1977 SECTION: - 1/4 - 1/4 - 1/4

MAP DATUM [1927] 1983 (CIRCLE ONE) MERIDIAN: -

COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 7.5' MAP (attach photocopy)

LONGITUDE: 77 ° 7 ' 30.00 " LATITUDE: 36 ° 15 ' 0.00 "

COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 2.5' GRID CELL:

LONGITUDE: 77 ° 10 ' 0.00 " LATITUDE: 36 ° 17 ' 30.00 "

CALCULATIONS: LATITUDE (7.5' QUADRANGLE MAP)

A) NUMBER OF RULER GRADUATIONS FROM LATITUDE GRID LINE TO SITE REF POINT: 68

B) MULTIPLY (A) BY 0.3304 TO CONVERT TO SECONDS:

A X 0.3304 = 22.47 "

C) EXPRESS IN MINUTES AND SECONDS (1' = 60") : 0 ' 22.47 "

D) ADD TO STARTING LATITUDE: 36 ° 17 ' 30.00 " + 0 ' 22.47 "

SITE LATITUDE: 36 ° 17 ' 52.47 "

CALCULATIONS: LONGITUDE (7.5' QUADRANGLE MAP)

A) NUMBER OF RULER GRADUATIONS FROM RIGHT LONGITUDE LINE TO SITE REF POINT: 63

B) MULTIPLY (A) BY 0.3304 TO CONVERT TO SECONDS:

A X 0.3304 = 20.82 "

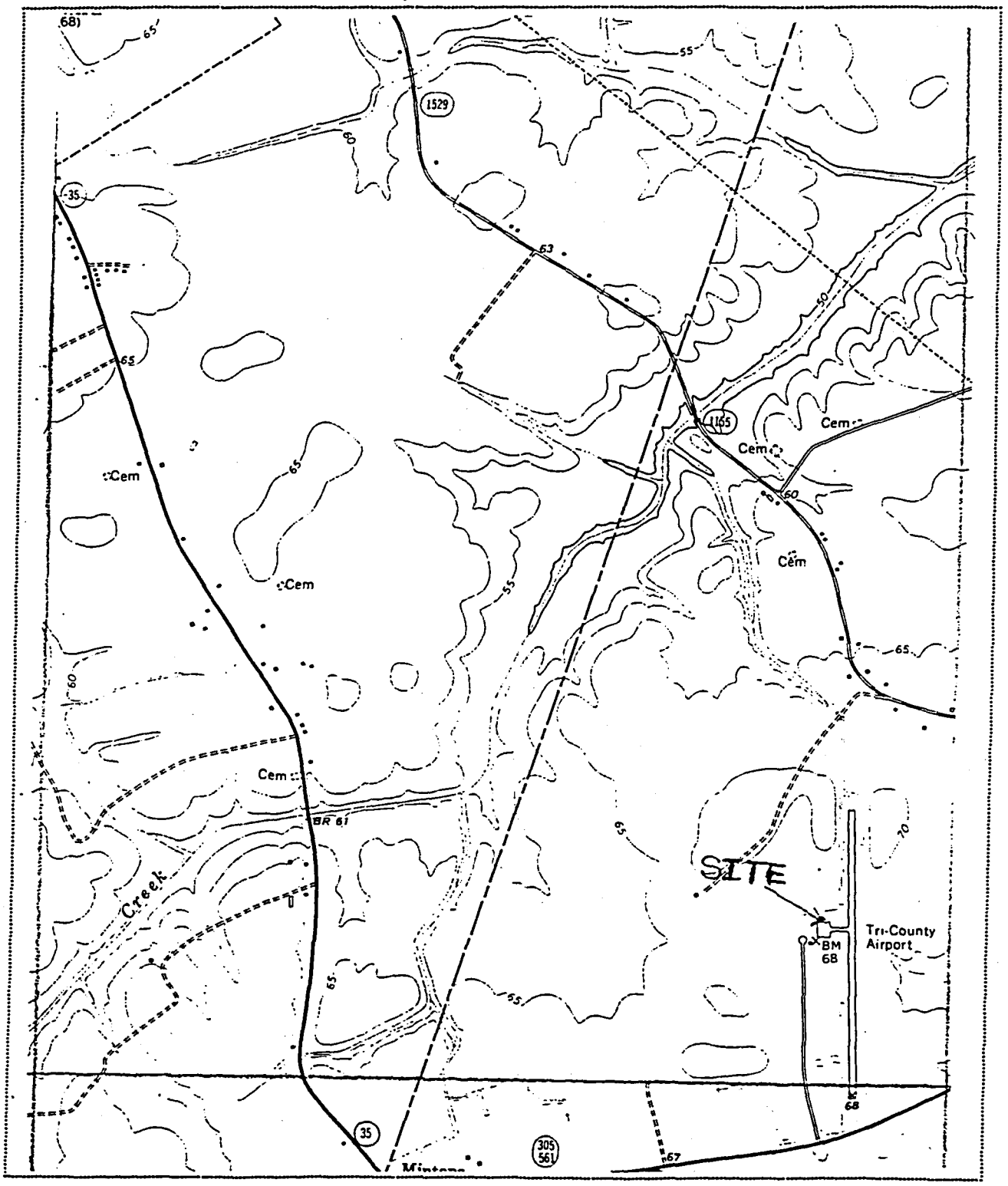
C) EXPRESS IN MINUTES AND SECONDS (1' = 60") : 0 ' 20.82 "

D) ADD TO STARTING LATITUDE: 77 ° 10 ' 0.00 " + 0 ' 20.82 "

SITE LONGITUDE: 77 ° 10 ' 20.82 "

INVESTIGATOR: Melanie Bupp DATE: 12/05/2001

SITE NAME: Tri-County Airport NUMBER: NCN000407205



TOPOGRAPHIC MAP QUADRANGLE NAME: Woodland, NC SCALE: 1:24,000

COORDINATES OF LOWER RIGHT-HAND CORNER OF 2.5-MINUTE GRID:

LATITUDE: 36 ° 17 ' 30 " LONGITUDE: 77 ° 10 ' 00 "

ORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT

MICHAEL F. EASLEY, GOVERNOR
WILLIAM G. ROSS, JR., SECRETARY
DEXTER R. MATTHEWS, INTERIM DIRECTOR

NCDENR

October 11, 2001

Ms. Jennifer Wendel
NC Site Management Section
US EPA Region IV Waste Division
61 Forsyth Street, 11th Floor
Atlanta, Georgia 30303

Subject: Sampling and Analysis Plan/Quality Assurance Project Plan
Tri-County Airport, NCN 000 407 205
Site Inspection (SI)
Aulander, Hertford County, North Carolina

Dear Ms. Wendel:

This letter contains the proposed Sampling and Analysis/Quality Assurance Project Plan (SAP/QAPP) for the Site Inspection (SI) on the Tri-County Airport site, tentatively scheduled for the week of November 5, 2001. The proposed samples include groundwater, surface water and sediments, background soils, and on-site soil samples.

The Tri-County Airport is located approximately eight miles northwest of Aulander, NC along Highway 561. The site is an isolated area – approximately 100ft x 25ft – north of the old terminal. The geographic coordinates for the site are 34° 10' 16.52" north latitude and 78° 49' 10.11" west longitude.

The Tri-County Airport, which serves as the municipal airport for Hertford, Northampton, and Gates counties, resides on an estimated 85 acres. The region surrounding the airport is primarily farming-based with interspersed marsh and woodlands. The site served as an area for mixing and loading of pesticides for aerial spraying, a practice that went unchecked for almost 20 years.

In September, 1988, responding to requests by local officials, representatives from the NC Department of Agriculture conducted a detailed assessment of the pesticide staging area. In addition to observing multiple abandoned above-ground tanks and a variety of rusted metal containers, particular consideration was given to the parcel's inability to support any vegetative cover. Corresponding analytical results confirmed the presence of DDT (856 mg/kg), ethyl parathion (1,939 mg/kg), methyl parathion (5,774 mg/kg), and toxaphene (15,835 mg/kg) in the surface soil. During this same period of time, the Hertford-Gates County Health Department also identified DDT (3 ug/kg) in an on-site supply well.

The Tri-County Airport, with two full-time employees, is currently supplied by the on-site well. The site is not fenced and is accessible to the public.

1646 MAIL SERVICE CENTER, RALEIGH, NORTH CAROLINA 27699-1646
401 OBERLIN ROAD, SUITE 150, RALEIGH, NC 27605
PHONE: 919-733-4996 \ FAX: 919-715-3605
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Runoff from the site is expected to flow into a drainage ditch bordering the site. The National Wetland Inventory Maps have identified a palustrine scrub-shrub wetland bordering the site to the north and a palustrine emergent wetland northeast of the site. During dry weather conditions, the drainage ditch flows north approximately 25 feet into the wetland. During storm events, flow from the drainage ditch also flows east approximately 300 feet into a second drainage ditch which borders the runway. The second drainage ditch flows north for approximately 1.3 miles, whereupon it enters Cutawhiskie Creek. Cutawhiskie Creek is bracketted by palustrine forested wetlands and becomes contiguous with a wetland 3.75 miles downstream of the probable point of entry (PPE).

On-site Sampling

A source sample will be collected from the remaining tank on site (TCA-001-SR). The tank has an opening on the top surface from which the sample can be collected. The opening and holes caused by rusting and degradation over the years has allowed rainwater to mix with any remaining contents in the tank. Three soil samples (TCA-002-SS through TCA-004-SS) will be collected from the site: one from around the rusted barrels, one from underneath the end of the tank where leakage is evident, and one from the area where other tanks were previously located. Two soil samples (TCA-005-SS and TCA-006-SS) will be collected from the drainage ditch that borders the site to the northwest and the drainage ditch that borders the runway east of the site.

Off-site Sampling

The off-site sampling will include surface water, sediment, groundwater, and background soil samples. There are two surface water pathways for the site. Duplicate surface water and sediment samples will be collected in the isolated palustrine shrub-scrub wetland bordering the site (TCA-011-SW/SD and TCA-012-SW/SD). Background surface water and sediment samples (TCA-013-SW/SD and TCA-014-SD) will be collected from a palustrine forested wetland located approximately 1000 feet west of the site. A probable point of entry (PPE) sample (TCA-015-SW/SD) will be collected from Cutawhiskie Creek at the intersection of the drainage ditch from the site. The PPE is upstream of a potential fishery and a qualifying wetland. Background surface water and sediment samples (TCA-016-SW/SD and TCA-017-SD) will be collected upstream along Cutawhiskie Creek. An on-site well (TCA-009-PW) will be sampled due to the immediate public health threat to the drinking water. A background sample (TCA-010-PW) will be collected from a private well upgradient of the site. In addition, two background surface soil samples (TCA-007-SS and TCA-008-SS) will be collected from an area of similar soil and cover not believed to be impacted by the site.

This SAP/QAPP has been developed and sampling will be conducted in accordance with the NC Superfund Section Quality Assurance Program Plan (QAPP) and Quality Assurance Standard Operating Procedures (QASOP). The QASOP adopts by reference the Environmental Investigations Standard Operating Procedures and Quality Assurance Manual, May 1996, U. S. Environmental Protection Agency, Region 4. The Program Plan is derived directly from the EPA-Approved NC Department of Environmental and Natural Resources QA Plan for Data, 1999.

If you have any questions regarding this SAP/QAPP, please contact me at melanie.bryson@ncmail.net or (919) 733-2801 ext. 316.

Sincerely,

Melanie Bryson
Environmental Engineer
NC Superfund Section

Jack Butler, P.E.
Chief
NC Superfund Section

Approved: Irene Williams, Date: 10-11-01
Irene Williams
Quality Assurance Officer
NC Superfund Section

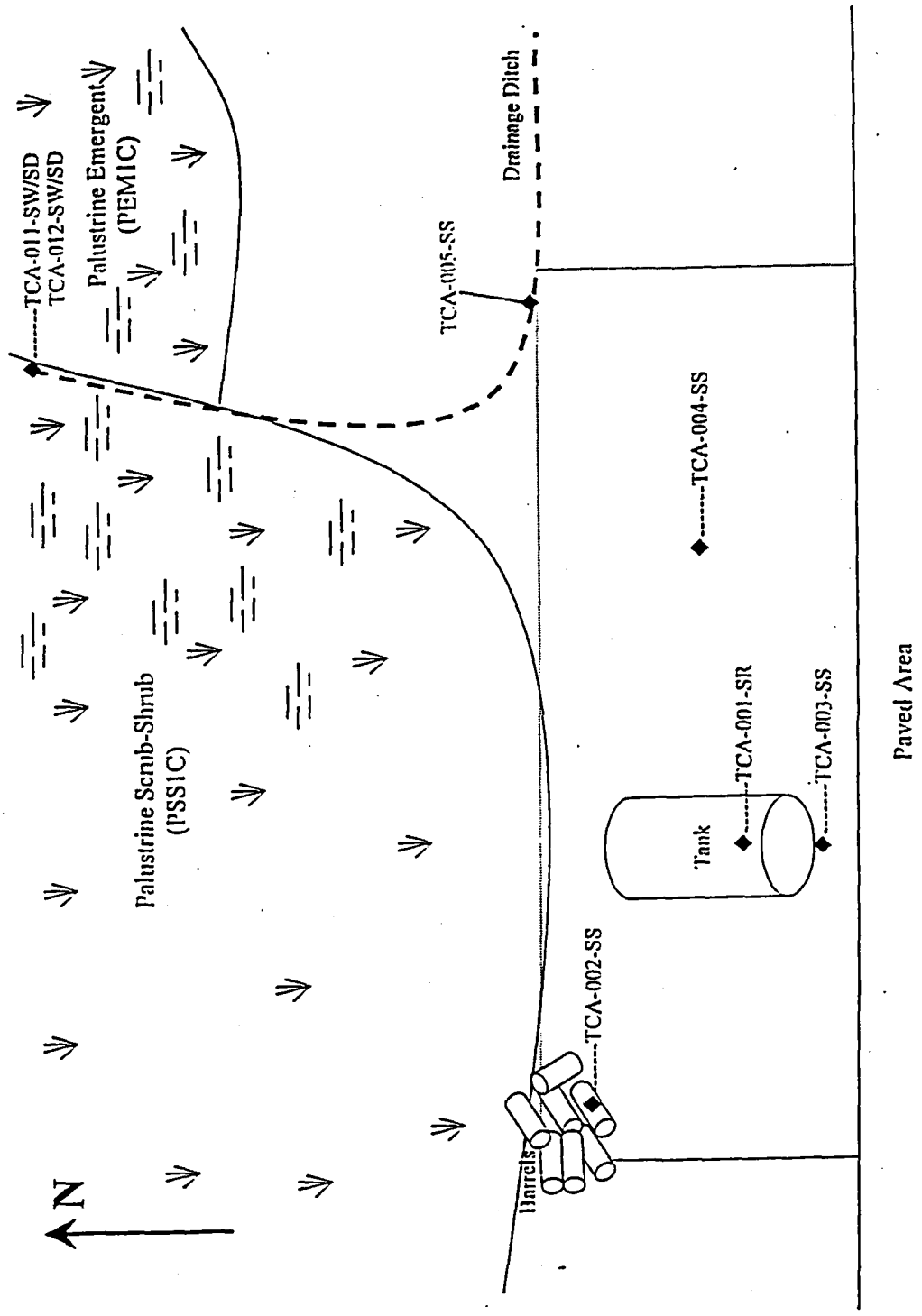
Approved: _____, Date: _____
Jennifer Wendel
NC Site Management Section
Region IV EPA

cc: File

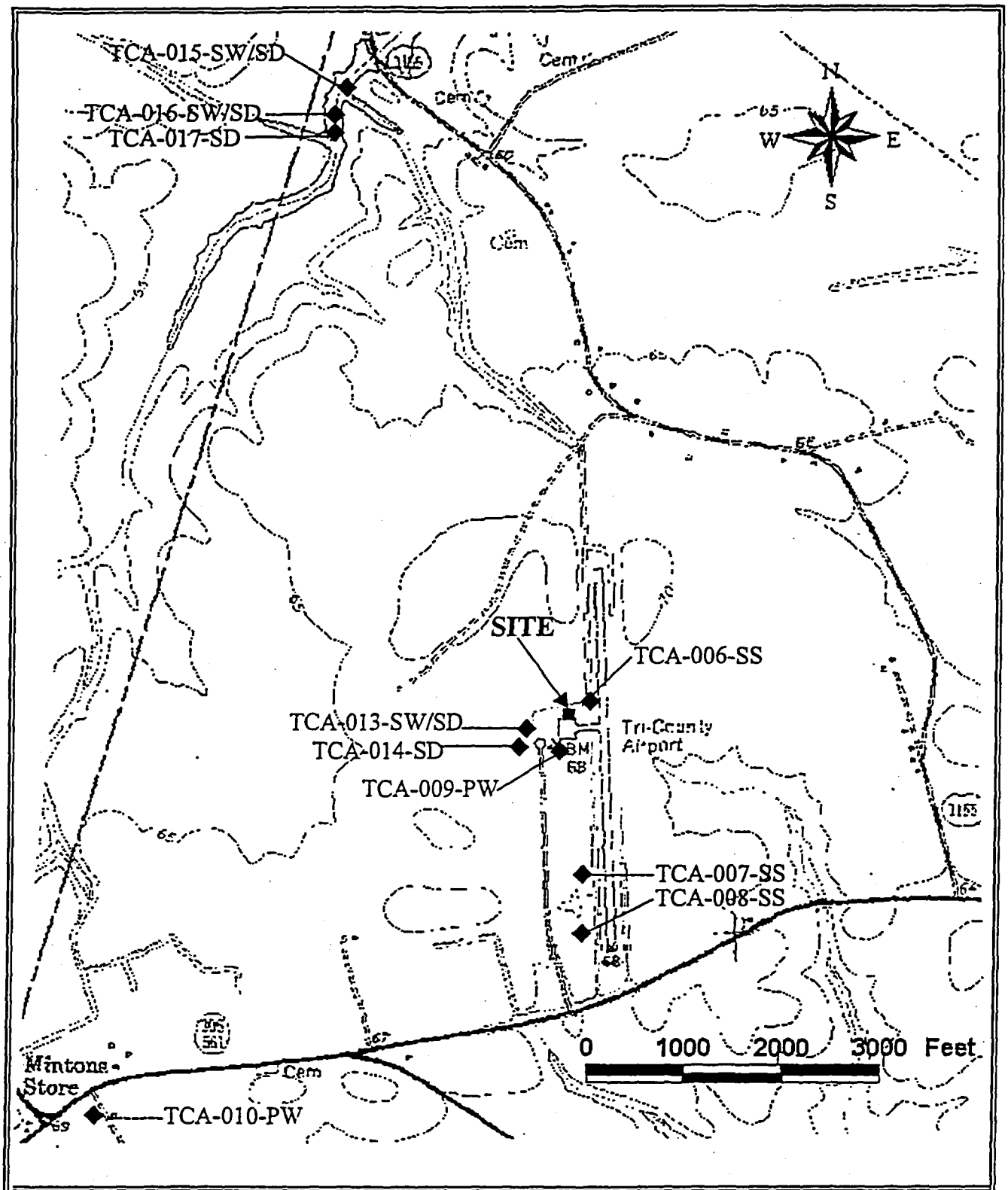
Table of Samples
Tri-County Airport PA/SI
NCN 000 407 205
Aulander, Hertford County, NC
October 11, 2001

Sample ID	Location and Rational	Analyses
TCA-001-SR	Source sample from tank. Document source contaminants.	V,S,I,Pest
TCA-002-SS	Composite surface soil sample near rusted barrels in northwest corner of site. Document source area of on-site soil, 0"-6" depth.	V,S,I,Pest
TCA-003-SS	Grab surface soil sample near rusted tank on site. Document source area of on-site soil, 0"-6" depth.	V,S,I,Pest
TCA-004-SS	Composite surface soil sample near location of previous tanks. Document source area of on-site soil, 0"-6" depth.	V,S,I,Pest
TCA-005-SS	Grab surface soil sample from drainage ditch adjacent to site. Document overland flow pathway.	V,S,I,Pest
TCA-006-SS	Grab surface soil sample from drainage ditch adjacent to runway. Document overland flow pathway.	V,S,I,Pest
TCA-007-SS	Background surface soil sample; grab sample 0"-6".	V,S,I,Pest
TCA-008-SS	Background surface soil sample; grab sample 0"-6".	V,S,I,Pest
TCA-009-PW	On-site well; public health concern.	V,S,I,Pest
TCA-010-PW	Background private well.	V,S,I,Pest
TCA-011-SW	Surface water and sediment sample in isolated wetland adjacent to site. Document observed release to a qualifying wetland.	V,S,I,Pest
TCA-011-SD		V,S,I,Pest
TCA-012-SW	Duplicate of TCA-011-SW/SD.	V,S,I,Pest
TCA-012-SD		V,S,I,Pest
TCA-013-SW	Background surface water and sediment sample, qualifying wetland.	V,S,I,Pest
TCA-013-SD		V,S,I,Pest
TCA-014-SD	Background sediment sample, qualifying wetland.	V,S,I,Pest
TCA-015-SW	Surface water and sediment sample in Cutawhiskie Creek at intersection with drainage ditch from airport. Document release to surface water pathway.	V,S,I,Pest
TCA-015-SD		V,S,I,Pest
TCA-016-SW	Background surface water and sediment sample, upstream in Cutawhiskie Creek.	V,S,I,Pest
TCA-016-SD		V,S,I,Pest
TCA-017-SD	Background sediment sample, upstream in Cutawhiskie Creek.	V,S,I,Pest
TCA-018-TB	Trip blank; QA/QC sample	V(water)
TCA-019-SB	Soil blank; QA/QC sample	V(soil)
TCA-020-PB	Post-preservative blank; QA/QC sample	I

V=Volatile organics; S=Semi-volatile organics; I=Inorganics; Pest=Pesticides



NCDENR	Site: Tri-County Airport	Sample Plan Map 1
	US EPA ID #: NCN000407205	Date: 10/11/01
	Aulander, Hertford County	Drawn By: MDB
	Approximate Scale: Not To Scale	



NCDENR	Site: Tri-County Airport	Sample Plan Map 2
	US EPA ID #: NCN000407205	Date: 10/11/01
	Aulander, Hertford County	Drawn By: MDB
	Approximate Scale: See Above	

Ref. 6

Memorandum

Date: November 14, 2001

To: File

From: Melanie Bryson
Environmental Engineer
NC Superfund Section

Subject: SI Sampling Trip Report

Tri-County Airport
Aulander, Hertford County, NC
EPA ID: NCN 000 407 205

On Wednesday, November 7, 2001, members of the NC Superfund Section conducted a SI sampling event at the Tri-County Airport. Team 1, which sampled Cutawhiskie Creek, the on-site tank, and background wetland and soil samples, consisted of Melanie Bryson (Project Manager) and Mike Deaton. Team 2, which sampled the isolated wetland, on-site soils and both potable wells, consisted of Jeanette Stanley and Stephanie Grubbs.

Waste Samples

Two waste samples were collected from the site: a liquid sample from an on-site tank and a sludge sample from the drip pan under the south end of the tank. The tank produced a very strong odor the entire time before, during, and after sampling. A peristaltic pump was used to collect the liquid sample from the tank. The liquid in the tank was a transparent brown/rusty/amber color with a slick texture to it, oily in nature. The tank's exact measurements were taken: 18" length and 5'4" diameter. The level of liquid in the tank was estimated to be approximately 6-8" deep. A sample was also collected from the drip pan beneath the tank. The material was a black, oily material with pure product and lots of pine needles. Drip pan had collected rusted through in parts of bottom.

Surface Water Pathway #1 (Isolated Wetland)

A set of duplicate water/sediment samples were collected from the isolated wetland bordering the site to the north. The distance from where runoff entered the ditch until the point it entered the wetland was measured to be 27'. Much less water was present in the wetland than was during the reconnaissance, specifically caused by lack of rain in the area. Sediments collected from the wetland were grey/tan fine clay (no sand) and some organic matter. Background wetland samples were completely dry (once again from lack of rain). These soil were tannish-brown/black sandy silts covered with organic matter, roots.

Surface Water Pathway #2 (Cutawhiskie Creek)

A total of two surface water and three sediment samples were collected from Cutawhiskie Creek. Water was shallow and not flowing in the creek due to lack of rain in the area. The PPE sediment sample was very sticky. The sample was collected from a bluish-gray sandy clay found below 1" of dark organic matter on the bottom of the creek. Both background sediments samples were a light tan sand. The water in the creek

appeared black due to the shallowness of the creek and the large amount of organic matter present in the creek.

Soil Pathway

Two composite soil samples were collected from on the site: one near the rusted barrels and one near the location of the previous two tanks. There were also two grab samples taken from the ditches beside and along the runway. Two background samples were collected for spatial variation. The sample collected from the drainage ditch adjacent to the site had a very strong organic, smoky, ashy odor. The soil had a green layer on top of some grey/tan clay. Some of the material on top of the clay was tarry and black. The second ditch sample collected near the runway was a mottled grey, predominantly tan with some red clay and some sand mixed in. The sample collected near the barrels was brown at the surface while the whole area was littered with asphalt-looking material, though it was a clumped, powdery substance similar to a filter cake on dried sludge. There was also a strong and disagreeable odor in the area. The sample collected in the area of the previous tanks consisted of a tan, fine-grained sand. The background sampled were dry, brown sandy silt collected below a layer of grass and other organic matter.

Groundwater Pathway

A total of two wells were sampled during the SI: an on-site well and a background well. No problems were encountered in collected samples from the wells. The on-site well was slightly more basic in pH than the background well, with the on-site well averaging a pH of 7.5 while the background well had an average pH of 5.27.

Tri-Co. Airport
NCN-00040726S
Photo Log

4/7/01

1- TCA-015-SW/SD
2- TCA-016-SW/SD
3- TCA-003-SS (Containment Basin near Tank)
4- Photo of "Pesticide Storage" sign
5- PFOA Wetland
TCA-013-SD
6- TCA-007/008-SS
7- Tri-County Airport
8- From terminal looking north
9- " to site
10- airport terrain
11- " "
12- " "
13 plane

Melanie Bunger

①

Tri-County Airport
NCN 00040726S

11/7/01

60°F Sunny Clear
9:50 arrived @ airport - checked in w/ Betty Joyner
9:55 arrived @ site
Team 1
Melanie Bunger
Mike Deaton
Team 2
Stephanie Gaylord
Jeanette Stanley
10:00 TCA-009-SB prepared by SG
TCA-018-SB } prepared by
TCA-008-SB } Mike Deaton
10:05 VOA bottles prepped by Mike Deaton
Mini Rae
Serial # 100053
10:10 calibrated to 49.4 by SG
10:15 pH calibrated w/ 7, 4
10:20 Conductivity calibrated w/ 1413
10:55 arrived @ TCA-015-SW/SD
10:57 TCA-015-SW collected by MB
Sediments 0-1" Dark organic matter
Below 1" olive-gray sandy clay
11:03 TCA-015-SD collected by MB
very sticky sediment

Melanie Bunger

②

~~TCA-016-SW/SD~~ 11/7/01

TW - County Airport NCN000407205

Sheen (only) observed in drainage ditch entering Cuttawhiskie Creek

TCA-016-SW/SD - approximately 50' upstream of TCA-015-SW/SD

11:13 TCA-016-SW collected (MD)

water appears very dark/black from organic matter

11:17 TCA-016-SD collected (MD)

sediment very sandy - light tan sand

TCA-017-~~SD~~/SD

- located approximately 20' upstream of TCA-016

- Same in color & texture as TCA016 SD

11:26 TCA-017-SD collected (MD)

Melanie Burpo

TW County Airport 11/7/01

NCN000407205

12:40 pm Melanie Burpo and Nikki Deaton began pumping liquid from the tank. The liquid is transparent brown/rust colored.

12:45 Sample TCA-001-SR was collected. 2 BNA bottles were collected 1st. Mr. Joyner stated Malathion and toxaphene were probably the main pesticides. He stated that toxaphene was gummy & probably was making the liquid thick. Very odorous.

MD

Min rae peak within breathing zone up to 3.1 units.

length of tank 18', diameter is 5'4". Tank is double walled.

Melanie Burpo

Tri Co Airport 11/7/01

NCN000407205

15:19 TCA-013-SD collected (MD)
- brown (tan) / black sandy silt Convered w/ organic matter, roots
Due to lack of rain no water currently in wetland
- ground/soil very dry
- 2-4" deep (below organic)

TCA-014-SD
- upgradient ~40 feet from TCA-013-SD
- Same as TCA-013-SD

15:30 TCA-14-SD collected (MD)
- 2-4" deep (below organic)

16:10 TCA-007-SS collected (MD)
- brown sandy silt
- dry
- in situ mixing

TCA-008-SS
- collected ~20 feet east of TCA-007-SS

16:15 TCA-008-SS collected
- same as TCA-007 (MD)

Melanie Bupp

11/7/01

TRI-COUNTY AIRPORT NCN000407205

Lot #'s	Sample Container
0279010	SOIL JAR W/O SEPTUM
8019010	SOIL JAR W/ SEPTUM
0279012	40mL VOA VIAL
9091010	2.5L BWR AMBER JUG
9294010	PLASTIC MOTACS 1/4

No Dome Pump

CURVE FORMULAS

$T = R \tan \frac{1}{2} I$	$R = T \cot. \frac{1}{2} I$	Chord def. $= \frac{\text{chord}^2}{R}$
$T = \frac{50 \tan \frac{1}{2} I}{\text{Sin.} \frac{1}{2} D}$	$R = \frac{50}{\text{Sin.} \frac{1}{2} D}$	No. chords $= \frac{I}{D}$
$\text{Sin.} \frac{1}{2} D = \frac{50}{R}$	$E = R \text{ ex. sec} \frac{1}{2} I$	
$\text{Sin.} \frac{1}{2} D = \frac{50 \tan \frac{1}{2} I}{T}$	$E = T \tan \frac{1}{2} I$	Tan. def. $= \frac{1}{2}$ chord def.

The square of any distance, divided by twice the radius, will equal the distance from tangent to curve, very nearly.

To find angle for a given distance and deflection.

Rule 1. Multiply the given distance by .01745 (def. for 1° for 1 ft.) and divide given deflection by the product.

Rule 2. Multiply given deflection by 57.3, and divide the product by the given distance.

To find deflection for a given angle and distance. Multiply the angle by .01745, and the product by the distance.

GENERAL DATA

Right Angle Triangles. Square the altitude, divide by twice the base. Add quotient to base for hypotenuse.

Given Base 100, Alt. $10.10^2 \div 200 = .5$. $100 + .5 = 100.5$ hyp.

Given Hyp. 100, Alt. $25.25^2 \div 200 = 3.125$; $100 - 3.125 = 96.875$ = Base.

Error in first example, .002; in last, .045.

To find Tons of Rail in one mile of track: multiply weight per yard by 11, and divide by 7.

Leveling. The correction for curvature and refraction, in feet and decimals of feet is equal to $0.574 d^2$, where d is the distance in miles. The correction for curvature alone is closely, $\frac{2}{3} d^2$. The combined correction is negative.

Probable Error. If d_1, d_2, d_3, etc. are the discrepancies of various results from the mean, and if Σd^2 = the sum of the squares of these differences and n = the number of observations, then the probable error of the mean $= \pm 0.6745 \sqrt{\frac{\Sigma d^2}{n(n-1)}}$

MINUTES IN DECIMALS OF A DEGREE

1'	.0167	11'	.1833	21'	.3500	31'	.5167	41'	.6833	51'	.8500
2	.0333	12	.2000	22	.3667	32	.5333	42	.7000	52	.8667
3	.0500	13	.2167	23	.3833	33	.5500	43	.7167	53	.8833
4	.0667	14	.2333	24	.4000	34	.5667	44	.7333	54	.9000
5	.0833	15	.2500	25	.4167	35	.5833	45	.7500	55	.9167
6	.1000	16	.2667	26	.4333	36	.6000	46	.7667	56	.9333
7	.1167	17	.2833	27	.4500	37	.6167	47	.7833	57	.9500
8	.1333	18	.3000	28	.4667	38	.6333	48	.8000	58	.9667
9	.1500	19	.3167	29	.4833	39	.6500	49	.8167	59	.9833
10	.1667	20	.3333	30	.5000	40	.6667	50	.8333	60	1.0000

INCHES IN DECIMALS OF A FOOT

1-16	3-32	1/8	3-16	1/4	5-16	3/8	7/16	1/2	9/16	5/8	11/16
.0052	.0078	.0104	.0156	.0208	.0260	.0313	.0417	.0521	.0625	.0729

1	2	3	4	5	6	7	8	9	10	11
.0833	.1667	.2500	.3333	.4167	.5000	.5833	.6667	.7500	.8333	.9167

11/07/01

Tri-County Airport NCN000 407205
Sunny, clear ~60°F
team —
Stephanie Grubbs (SG)
Jeanette Stanley (JS)

arrived site 10am
Stephanie & Mike Deaton
prepared trip blanks &
calibrated meters

Selected sample location,
SW/SD - 11+12 @ 185'
from beginning of PSS1C
wetland. Drawing on next page

Water in ditch ended @ ~190'
into wetland. Area generally
much drier than when we
were onsite in Oct.

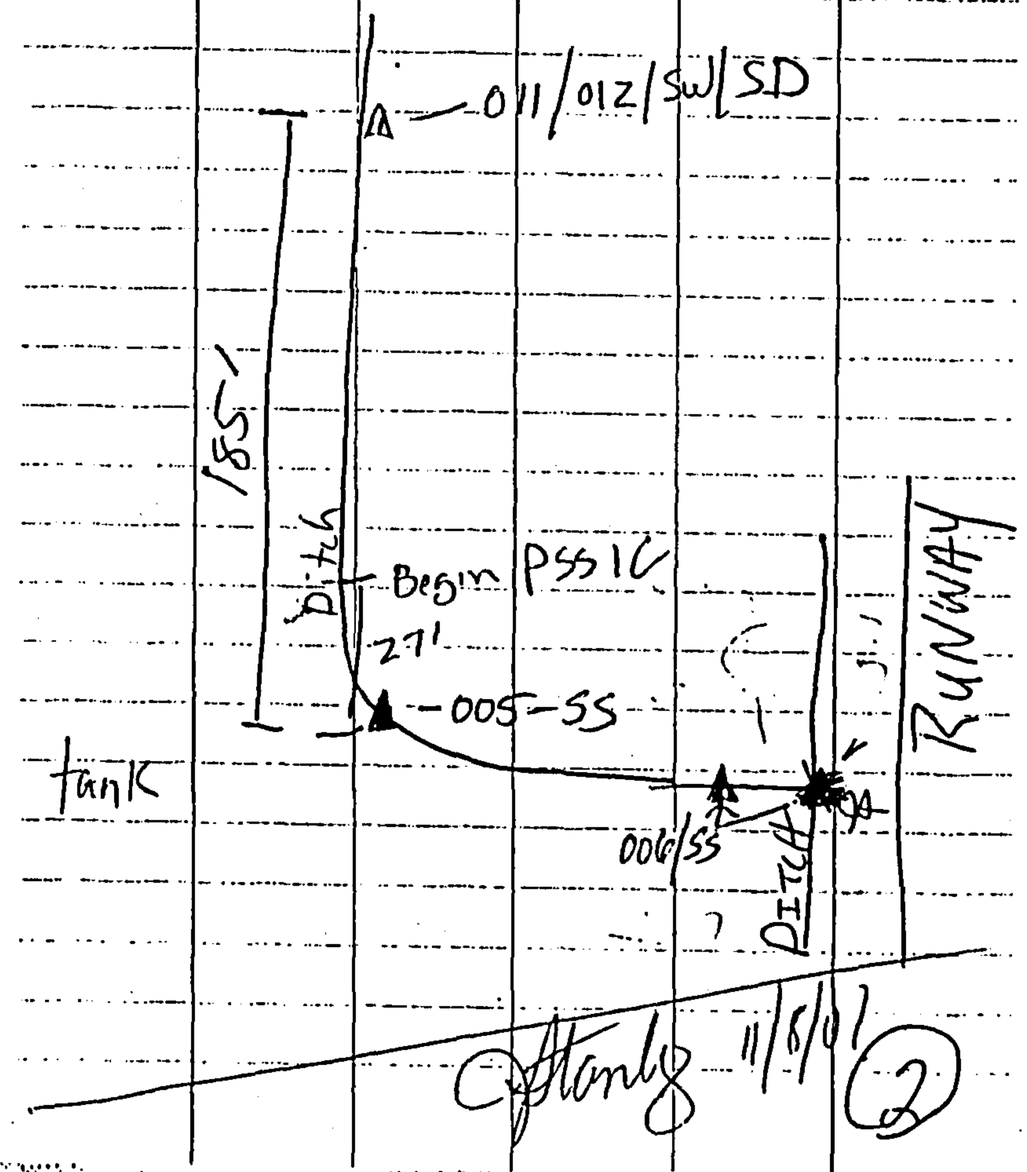
1040 TCA-011SW, collected by SG
-1050 + TCA-012SW

JStanley 11/8/01

1

11/8/01 TH County Airport

1155-1105 TCA-011/012-SD collated by SG
Sediment was a grey/tannish fine (no sand) clay w/ some organic matter (grass)
sediment mixed in pan



11/8/01

2

Photo 1, 2, 3 TCA-011-SW/SP
location

1125 hrs Jeanette Stanley began collecting
TCA-005-SS from the
drainage ditch
Very strong organic, smokey, ashy
odor. Green layer on top of
same gray/tan clay. Some
material on top of clay is tarry
& black.
Sample collected from 0-3'.
Soil + metal mixed in situ
Photo 4 TCA-005-SS location
Photo 5 TCA-006-SS
1145 arrived at TCA-006-SS location
ditch between source area
+ ditch alongside Runway
not well defined last 45'
before runway ditch.
Collected 006-SS in ditch 45' gradient
from Runway ditch.
1150 TCA-006-SS collected by SG
Soil + metal sample mixed in situ

Stanley 11/08/01

Tricounty airport 11/8/01

TCA-006-SS
mottled grey (predom) tan w/some Red
clay w/ some sand

12 noon Jeanette Stanley collected
sample TCA-003-SS.
Black, oily material, pure product, not
soil, lots of pine needles. Highly concentrated
Circa sample collected from surface.
Photo 6, 7, 8 taken of
sample TCA-003-SS

Bottom of collection pan at
003-SS location was rusted through

Mini rae reading in breathing zone
reached 3.4 units.

Photo 9 - From 002-SS area
toward lot.
Steph collected 3-pt composite
near drums.
Soil brown at surface, darker > 2"
Soil area littered with asphalt - looking

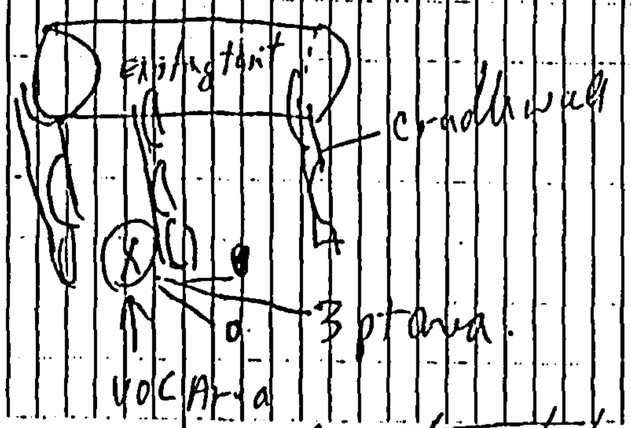
Stanley 11/08/01

material, but it was a clumped, powdery substance similar to a filter cake or dried sludge.

Photo 10 - 002-SS area

1230 TCA-002-SS collected by SG
general odor in area strong
but agreeable, but not able
to identify

Photo 11 - Melanie taking tank sample
3-point composite collected under
from tank location
VOC point shown below



Stanley 11/08/01

Tricounty Airport 11/8/01

1250-RSS TCA-004-SS collected by JS
soil tan, fine-grained sand

1345 - Melanie & Mike
completed their sampling.
left for lunch

1510 JS began ~~samp~~ purging well
TCA-009-PW

1520 1st parameters
16.9°C temp
7.3 pH
432 µS cond.

1523 photo 12 taken of well 009-PW
2nd parameter
16.5°C temp
7.5 pH
428 µS cond.

1525 3rd parameters 1530 JS collected
16.2°C temp TCA-009-PW
7.7 pH
428 µS cond.

Stanley 11/08/01

1610 arrived at background well location TCA-010-PW, Bryant residence

1612 started purging well

1615 1st parameter
5.65 pH
18.5°C temp
86.7 µS

1620 2nd parameters
5.11 pH
17.7°C temp
84.3 µS cond

1623 3rd parameters
5.04 pH
17.5°C temp
83.8 µS cond.

1627 Collected sample TCA-010-PW from spigot

1645 left site

11/08/01

END

NC Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington St.
Raleigh, North Carolina 27611-8047

Site Number NCN000407205 Sample ID Number/Name 21589

Name of Site Tri-County Airport Collected By Melanie Bryson ID#

Site Location Aulander, Hertford Co, NC Date Collected 11/7/01 Time 12:45

Agency: ___ Hazardous Waste ___ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground Water (1)	___ Solid (5)	TCA-001-SR
___ Surface Water (2)	✓ Liquid (6)	highly concentrated
___ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ arsenic	
___ barium	
___ cadmium	
___ chromium	
___ lead	
___ mercury	
___ selenium	
___ silver	

Organic Chemistry

Parameter	Results (mg/l)
___ P&T:GC/MS	
✓ Acid:B/N Ext.	
___ 2,4-D	
___ 2,4,5-TP(Silvex)	
___ chlordane	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ endrin	
___ lindane	
___ methoxychlor	
✓ toxaphene	
✓ Pesticides	
✓ Malathion	

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ antimony	
___ arsenic	
___ barium	
___ beryllium	
___ cadmium	
___ chloride	
___ chromium	
___ cobalt	
___ copper	
___ fluoride	
___ iron	
___ lead	
___ manganese	
___ mercury	
___ nickel	
___ nitrate	
___ selenium	
___ silver	
___ sulfates	
___ thallium	
___ vanadium	
___ zinc	
___ pH	
___ conductivity	
___ TDS	
___ flash point	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dichloroethylene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

FOR LAB USE ONLY

Date Received NOV 08 2001

Date Extracted BNA 11-16-01 BO

Date Analyzed BNA 11-16-01 BO

Reported By

Date Reported

Lab Number 016293

DHS 3191 (Revised 12/93)

Health, & Natural Resources
Solid Waste Management Division

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington St.
Raleigh, North Carolina 27611-8047

Site Number NCN000407205 Sample ID Number/Name 21588

Name of Site Tri-County Airport Collected By Melanie Bryson ID#

Site Location Aulander, Hertford Co., NC Date Collected 11/7/01 Time 12:45

Agency: ___ Hazardous Waste ___ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground Water (1)	___ Solid (5)	TCA-001-SR
___ Surface Water (2)	✓ Liquid (6)	Highly Concentrated!!!
___ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ arsenic	
___ barium	
___ cadmium	
___ chromium	
___ lead	
___ mercury	
___ selenium	
___ silver	

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Organic Chemistry

Parameter	Results (mg/l)
✓ P&T:GC/MS	
___ Acid:B/N Ext.	
___ 2,4-D	
___ 2,4,5-TP(Silvex)	
___ chlordane	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ antimony	
___ arsenic	
___ barium	
___ beryllium	
___ cadmium	
___ chloride	
___ chromium	
___ cobalt	
___ copper	
___ fluoride	
___ iron	
___ lead	
___ manganese	
___ mercury	
___ nickel	
___ nitrate	
___ selenium	
___ silver	
___ sulfates	
___ thallium	
___ vanadium	
___ zinc	
___ pH	
___ conductivity	
___ TDS	
___ flash point	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dichloroethylene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

FOR LAB USE ONLY

Date Received NOV 08 2001

Date Extracted

Date Analyzed 11-20-01

Reported By

Date Reported NOV 30 2001

Lab Number 016292

DHS 3191 (Revised 12/93)

016292 - 016336

epartment of Environment,
Health, & Natural Resources
Solid Waste Management Division

AN LYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington St.
Raleigh, North Carolina 27611-8047

Site Number NCSD040720S Sample ID Number/Name 21591

Name of Site Tri-County Airport Collected By Melanie Bryson ID#

Site Location Aulander, Hertford Co, NC Date Collected 11/7/01 Time 12:00

Agency: ___ Hazardous Waste ___ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground Water (1)	___ Solid (5)	TCA-003-SS
___ Surface Water (2)	___ Liquid (6)	[redacted]
___ Soil (3)	✓ Sludge (7)	
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ arsenic	
___ barium	
___ cadmium	
___ chromium	
___ lead	
___ mercury	
___ selenium	
___ silver	

Organic Chemistry

Parameter	Results (mg/l)
___ P&T:GC/MS	
✓ Acid:B/N Ext.	
___ 2,4-D	
___ 2,4,5-TP(Silvex)	
___ chlordane	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
✓ Pesticides	
✓ Malathion	

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ antimony	
___ arsenic	
___ barium	
___ beryllium	
___ cadmium	
___ chloride	
___ chromium	
___ cobalt	
___ copper	
___ fluoride	
___ iron	
___ lead	
___ manganese	
___ mercury	
___ nickel	
___ nitrate	
___ selenium	
___ silver	
___ sulfates	
___ thallium	
___ vanadium	
___ zinc	
___ pH	
___ conductivity	
___ TDS	
___ flash point	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dichloroethylene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

FOR LAB USE ONLY

Date Received NOV 08 2001

Date Extracted BNA 11-16-01 BO

Date Analyzed BNA 11-16-01 BO

Reported By

Date Reported

Lab Number 016295

DHS 3191 (Revised 12/93)

Environment,
Health, & Natural Resources
Solid Waste Management Division

S REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington St.
Raleigh, North Carolina 27611-8047

Site Number NCN000407205 Sample ID Number/Name 21590

Name of Site Tri-County Airport Collected By Melanie Bryson ID #

Site Location Aulander, Hertford Co., NC Date Collected 11/7/01 Time 12:00

Agency: ___ Hazardous Waste ___ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground Water (1)	___ Solid (5)	TCA-003-SS
___ Surface Water (2)	___ Liquid (6)	~~Highly Concentrated!!!~~
___ Soil (3)	✓ Sludge (7)	
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ arsenic	
___ barium	
___ cadmium	
___ chromium	
___ lead	
___ mercury	
___ selenium	
___ silver	

Organic Chemistry

Parameter	Results (mg/l)
✓ P&T:GC/MS	
___ Acid:B/N Ext.	
___ 2,4-D	
___ 2,4,5-TP(Silvex)	
___ chlordane	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ antimony	
___ arsenic	
___ barium	
___ beryllium	
___ cadmium	
___ chloride	
___ chromium	
___ cobalt	
___ copper	
___ fluoride	
___ iron	
___ lead	
___ manganese	
___ mercury	
___ nickel	
___ nitrate	
___ selenium	
___ silver	
___ sulfates	
___ thallium	
___ vanadium	
___ zinc	
___ pH	
___ conductivity	
___ TDS	
___ flash point	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dichloroethylene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

FOR LAB USE ONLY

Date Received NOV 08 2001

Date Extracted

Date Analyzed 11-21-01 ng

Reported By

Date Reported

Lab Number 016294

DHS 3191 (Revised 12/93)

Department of Environment, Health, & Natural Resources
Solid Waste Management Division

LE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington St.
Raleigh, North Carolina 27611-8047

Site Number NCN000407205 Sample ID Number/Name 21606

Name of Site Tri-County Airport Collected By Melanie Bryson ID#

Site Location Aulander, Hertford Co, NC Date Collected 11/7/01 Time 12:30

Agency: ___ Hazardous Waste ___ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground Water (1)	___ Solid (5)	TCA-002-SS
___ Surface Water (2)	___ Liquid (6)	
✓ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ arsenic	
___ barium	
___ cadmium	
___ chromium	
___ lead	
___ mercury	
___ selenium	
___ silver	

Organic Chemistry

Parameter	Results (mg/l)
___ P&T:GC/MS	
✓ Acid:B/N Ext.	
___ 2,4-D	
___ 2,4,5-TP(Silvex)	
___ chlordane	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ endrin	
___ lindane	
___ methoxychlor	
✓ toxaphene	
✓ Pesticides	
✓ Malathion	

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ antimony	
___ arsenic	
___ barium	
___ beryllium	
___ cadmium	
___ chloride	
___ chromium	
___ cobalt	
___ copper	
___ fluoride	
___ iron	
___ lead	
___ manganese	
___ mercury	
___ nickel	
___ nitrate	
___ selenium	
___ silver	
___ sulfates	
___ thallium	
___ vanadium	
___ zinc	
___ pH	
___ conductivity	
___ TDS	
___ flash point	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dichloroethylene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

FOR LAB USE ONLY

Date Received NOV 08 2001
BNA 11-9-01 KM
Date Extracted PEST 11-14-01 KM
PEST 11-28-01 VP
Date Analyzed BNA 11-15-01 RD
Reported By
Date Reported
Lab Number 016310

DHS 3191 (Revised 12/93)

NC Department of Environment, Health, & Natural Resources
Solid Waste Management Division

LE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington St.
Raleigh, North Carolina 27611-8047

Site Number NCN000407205 Sample ID Number/Name 21607

Name of Site Tri-County Airport Collected By Melanie Bryson ID#

Site Location Aulander, Hertford Co, NC Date Collected 11/7/01 Time 12:50

Agency: ___ Hazardous Waste ___ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground Water (1)	___ Solid (5)	TCA-004-SS
___ Surface Water (2)	___ Liquid (6)	
✓ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ arsenic	
___ barium	
___ cadmium	
___ chromium	
___ lead	
___ mercury	
___ selenium	
___ silver	

Organic Chemistry

Parameter	Results (mg/l)
___ P&T:GC/MS	
✓ Acid:B/N Ext.	
___ 2,4-D	
___ 2,4,5-TP(Silvex)	
___ chlordane	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ endrin	
___ lindane	
___ methoxychlor	
✓ toxaphene	
✓ Pesticides	
✓ Malathion	

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ antimony	
___ arsenic	
___ barium	
___ beryllium	
___ cadmium	
___ chloride	
___ chromium	
___ cobalt	
___ copper	
___ fluoride	
___ iron	
___ lead	
___ manganese	
___ mercury	
___ nickel	
___ nitrate	
___ selenium	
___ silver	
___ sulfates	
___ thallium	
___ vanadium	
___ zinc	
___ pH	
___ conductivity	
___ TDS	
___ flash point	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dichloroethylene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

FOR LAB USE ONLY

Date Received NOV 08 2001
BNA 11-9-01 KM

Date Extracted PEST 11-14-01 KM
PEST 11-28-01 VP

Date Analyzed BNA 11-15-01 BO

Reported By

Date Reported

Lab Number 016311

DHS 3191 (Revised 12/93)

epartment of Environment,
Health, & Natural Resources
Solid Waste Management Division

LE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington St.
Raleigh, North Carolina 27611-8047

Site Number NCN000407205 Sample ID Number/Name 21608

Name of Site Tri-County Airport Collected By Melanie Bryson ID#

Site Location Aulander, Hertford Co, NC Date Collected 11/7/01 Time 11:25

Agency: ___ Hazardous Waste ___ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground Water (1)	___ Solid (5)	TCA-005-SS
___ Surface Water (2)	___ Liquid (6)	
✓ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ arsenic	
___ barium	
___ cadmium	
___ chromium	
___ lead	
___ mercury	
___ selenium	
___ silver	

Organic Chemistry

Parameter	Results (mg/l)
___ P&T:GC/MS	
✓ Acid:B/N Ext.	
___ 2,4-D	
___ 2,4,5-TP(Silvex)	
___ chlordane	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ endrin	
___ lindane	
___ methoxychlor	
✓ toxaphene	
✓ Pesticides	
✓ Malathion	

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ antimony	
___ arsenic	
___ barium	
___ beryllium	
___ cadmium	
___ chloride	
___ chromium	
___ cobalt	
___ copper	
___ fluoride	
___ iron	
___ lead	
___ manganese	
___ mercury	
___ nickel	
___ nitrate	
___ selenium	
___ silver	
___ sulfates	
___ thallium	
___ vanadium	
___ zinc	
___ pH	
___ conductivity	
___ TDS	
___ flash point	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dichloroethylene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

FOR LAB USE ONLY

Date Received NOV 08 2001
BNA 11-9-01 km
Date Extracted PEST 11-14-01 km
PEST 11-28-01 VP
Date Analyzed BNA 11-15-01 BD
Reported By
Date Reported
Lab Number 016312

DHS 3191 (Revised 12/93)

NC Department of Environment, Health, & Natural Resources
Solid Waste Management Division

LE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington St.
Raleigh, North Carolina 27611-8047

Site Number NCN000407205 Sample ID Number/Name 21612

Name of Site Tri-County Airport Collected By Melanie Bryson ID#

Site Location Aulander, Hertford Co, NC Date Collected 11/7/01 Time 10:55

Agency: ___ Hazardous Waste ___ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground Water (1)	___ Solid (5)	TCA-011-SD
___ Surface Water (2)	___ Liquid (6)	
✓ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ arsenic	
___ barium	
___ cadmium	
___ chromium	
___ lead	
___ mercury	
___ selenium	
___ silver	

Organic Chemistry

Parameter	Results (mg/l)
___ P&T:GC/MS	
✓ Acid:B/N Ext.	
___ 2,4-D	
___ 2,4,5-TP(Silvex)	
___ chlordane	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ endrin	
___ lindane	
___ methoxychlor	
✓ toxaphene	
✓ Pesticides	
✓ Malathion	

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ antimony	
___ arsenic	
___ barium	
___ beryllium	
___ cadmium	
___ chloride	
___ chromium	
___ cobalt	
___ copper	
___ fluoride	
___ iron	
___ lead	
___ manganese	
___ mercury	
___ nickel	
___ nitrate	
___ selenium	
___ silver	
___ sulfates	
___ thallium	
___ vanadium	
___ zinc	
___ pH	
___ conductivity	
___ TDS	
___ flash point	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dichloroethylene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

FOR LAB USE ONLY

Date Received NOV 08 2001

Date Extracted BNA 11-13-01 KM
PEST 11-15-01 KM
PEST 11-27-01 VP

Date Analyzed BNA 11-14-01 BD

Reported By

Date Reported

Lab Number 016316

DHS 3191 (Revised 12/93)

epartmen o Environment,
Health, & Natural Resources
Solid Waste Management Division

REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington St.
Raleigh, North Carolina 27611-8047

Site Number NCN000407205 Sample ID Number/Name 216613

Name of Site Tri-County Airport Collected By Melanie Bryson ID#

Site Location Aulander, Hertford Co, NC Date Collected 11/7/01 Time 11:05

Agency: ___ Hazardous Waste ___ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground Water (1)	___ Solid (5)	TCA-012-SD
___ Surface Water (2)	___ Liquid (6)	
✓ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ arsenic	
___ barium	
___ cadmium	
___ chromium	
___ lead	
___ mercury	
___ selenium	
___ silver	

Organic Chemistry

Parameter	Results (mg/l)
___ P&T:GC/MS	
✓ Acid:B/N Ext.	
___ 2,4-D	
___ 2,4,5-TP(Silvex)	
___ chlordane	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ endrin	
___ lindane	
___ methoxychlor	
✓ toxaphene	
✓ Pesticides	
✓ Malathion	

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ antimony	
___ arsenic	
___ barium	
___ beryllium	
___ cadmium	
___ chloride	
___ chromium	
___ cobalt	
___ copper	
___ fluoride	
___ iron	
___ lead	
___ manganese	
___ mercury	
___ nickel	
___ nitrate	
___ selenium	
___ silver	
___ sulfates	
___ thallium	
✓ vanadium	
___ zinc	
___ pH	
___ conductivity	
___ TDS	
___ flash point	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dichloroethylene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

FOR LAB USE ONLY

Date Received NOV 08 2001

BNA 11-13-01 km

Date Extracted PEST 11-15-01 km

PEST 11-27-01 VP

Date Analyzed BNA 11-14-01 BD

Reported By

Date Reported

Lab Number 016317

DHS 3191 (Revised 12/93)

epartment of Environment,
Health, & Natural Resources
Solid Waste Management Division

IS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington St.
Raleigh, North Carolina 27611-8047

Site Number NCN000407205 Sample ID Number/Name 21627

Name of Site Tri-County Airport Collected By Melanie Bryson ID #

Site Location Aulander, Hertford Co, NC Date Collected 11/7/01 Time 15:25

Agency: ___ Hazardous Waste ___ Solid Waste ✓ Superfund

Sample Type

Environmental	Concentrate	Comments
✓ Ground Water (1)	___ Solid (5)	TCA-009-PW
___ Surface Water (2)	___ Liquid (6)	
___ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ arsenic	
___ barium	
___ cadmium	
___ chromium	
___ lead	
___ mercury	
___ selenium	
___ silver	

Organic Chemistry

Parameter	Results (mg/l)
___ P&T:GC/MS	
✓ Acid:B/N Ext.	
___ 2,4-D	
___ 2,4,5-TP(Silvex)	
___ chlordane	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ endrin	
___ lindane	
___ methoxychlor	
✓ toxaphene	
✓ Pesticides	
✓ Malathion	

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ antimony	
___ arsenic	
___ barium	
___ beryllium	
___ cadmium	
___ chloride	
___ chromium	
___ cobalt	
___ copper	
___ fluoride	
___ iron	
___ lead	
___ manganese	
___ mercury	
___ nickel	
___ nitrate	
___ selenium	
___ silver	
___ sulfates	
___ thallium	
___ vanadium	
___ zinc	
___ pH	
___ conductivity	
___ TDS	
___ flash point	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dichloroethylene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

FOR LAB USE ONLY

Date Received NOV 08 2001 BNA 11-8-01 VM

Date Extracted PEST 11-13-01 VP
PEST 11-13-01 VP

Date Analyzed BNA 11-13-01 BQ

Reported By

Date Reported

Lab Number 016331

DHS 3191 (Revised 12/93)

N.C. DEPARTMENT OF HEALTH AND HUMAN SERVICES
STATE LABORATORY OF PUBLIC HEALTH
P.O.BOX 28047, RALEIGH, N.C. 27611
GAS-LIQUID CHROMATOGRAPHY REPORT SHEET

PROJECT: TRI-COUNTY AIRPORT DATE OF ANALYSIS: 11/13-16/2001

Results in PPM

SAMPLE #	Type	Toxaphene	Methyl Parathion	DDE	DDD	DDT	Permethrin	Cypermethrin	Fenvalerate
016293	Concentrate	535,000	82,000	ND	ND	ND	ND	ND	ND
016295	Sludge	ND	125	ND	ND	ND	ND	ND	ND
016310	Soil	272,000	ND	64	11,000	7,276	ND	ND	ND
016311	Soil	4,943	ND	34	4,767	3,470	0.003[1/]	0.910	1.137
016312	Soil	ND	ND	13	1,363	301	0.016[1/]	ND	0.040[1/]
016313	Soil	ND	ND	0.015[1/]	0.078[1/]	ND	ND	ND	ND
016314	Soil	ND	ND	ND	ND	ND	ND	ND	ND
016315	Soil	ND	ND	0.003[1/]	0.010[1/]	ND	ND	ND	ND
016316	Soil	ND	ND	0.004[1/]	0.002[1/]	ND	ND	ND	ND
016317	Soil	ND	ND	0.003[1/]	0.007[1/]	ND	ND	ND	ND
016318	Soil	ND	ND	ND	ND	ND	ND	ND	ND
016319	Soil	ND	ND	ND	ND	ND	ND	ND	ND
016320	Soil	ND	ND	ND	ND	ND	ND	ND	ND
016321	Soil	ND	ND	ND	ND	ND	ND	ND	ND
016322	Soil	ND	ND	ND	ND	ND	ND	ND	ND

Comments: 30 grams soil extracted, analyzed by GC/MS Analysis. Estimated Detection Limits (EDL) =0.100 ppm based on lowest standard injected.
[1/] Levels below EDL/MDL detected. Concentrate prepared by waste dilution method.

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N.C. DEPARTMENT OF HEALTH AND HUMAN SERVICES
STATE LABORATORY OF PUBLIC HEALTH
P.O.BOX 28047, RALEIGH, N.C. 27611
GAS-LIQUID CHROMATOGRAPHY REPORT SHEET

PROJECT: TRI-COUNTY AIRPORT **DATE OF ANALYSIS:** 11/13-16/2001

Results in PPM

SAMPLE #	Type	Toxaphene	Methyl Parathion	DDE	DDD	DDT	Permethrin	Cypermethrin	Fenvalerate
016331	Water	ND	ND	ND	ND	ND	ND	ND	ND
016332 [2/]	Water	ND	ND	ND	ND	ND	ND	ND	ND
016333 [3/]	Water	ND	ND	<0.0001[1/]	<0.0001[1/]	ND	ND	ND	ND
016334 [3/]	Water	ND	ND	<0.0001[1/]	<0.0001[1/]	ND	ND	ND	ND
016335	Water	ND	ND	ND	ND	ND	ND	ND	ND
016336	Water	ND	ND	ND	ND	ND	ND	ND	ND

Comments: 1000 mls water extracted, analyzed by GC/MS Analysis. Estimated Detection Limits (EDL) =0.0001 ppm based on lowest standard injected.
[1/] Levels below EDL/MDL detected. [2/] Heptachlor Epoxide below EDL/MDL detected. [3/] Hydrocarbons possible.

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DIVISION OF HEALTH AND HUMAN SERVICES
STATE LABORATORY OF PUBLIC HEALTH
PO BOX 28047 - 306 N. WILMINGTON ST., RALEIGH, NC 27611

ORGANIC CHEMICAL ANALYSIS / PURGEABLE COMPOUNDS

LABORATORY # 016292

COMPOUND	MDL ppm	~~ug/l~~ ppm	COMPOUND	~~MDL~~ ppm	~~ug/l~~ ppm
Chloromethane	100	u	1,2-Dichloropropane	25	u
Vinyl Chloride			Dibromomethane		
Bromomethane			Bromodichloromethane		
Chloroethane			Cis-1,3-Dichloropropene		
Trichlorofluoromethane			4-Methyl-2-Pentanone		
1,1-Dichloroethene	25		Toluene		
Acetone	100		Trans-1,3-Dichloropropene		
Iodomethane	25		1,1,2-Trichloroethane		
Carbon Disulfide			Tetrachloroethene		
Methylene Chloride			2-Hexanone		
Acrylonitrile			Dibromochloromethane		
Trans-1,2-Dichloroethene			Ethylene Dibromide		
Methyl-t-Butyl-Ether			Chlorobenzene		
1,1-Dichloroethane			1,1,1,2-Tetrachloroethane		
Isopropyl Ether			Ethyl Benzene		55.5
Cis-1,2-Dichloroethene			Xylenes		561.0
2-Butanone	100		Styrene		u
Tetrahydrofuran	100		Bromoform		
Chloroform	25		1,1,2,2-Tetrachloroethane		
1,1,1-Trichloroethane			1,2,3-Trichloropropane		
Carbon Tetrachloride			1,4-Dichlorobenzene		11.0 J
Benzene			1,2-Dichlorobenzene		9.5 J
1,2-Dichloroethane			1,2-Dibromo-3-Chloropropane	100	u
Trichloroethene			Substituted benzenes	(+) (−)	(+)

C - Possible lab contamination or background
J - Estimated Value
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected. The number is the Minimum Detection Limit.
I/ - Tentative identification.
D - Sample diluted. MDL's do not apply.

MDL's approximate - based on methanol dilution

:\nancy.frm (3/98)

DIVISION OF HEALTH AND HUMAN SERVICES
STATE LABORATORY OF PUBLIC HEALTH
PO BOX 28047 - 306 N. WILMINGTON ST., RALEIGH, NC 27611

ORGANIC CHEMICAL ANALYSIS / PURGEABLE COMPOUNDS

LABORATORY # 016294

COMPOUND	MDL ppm	~~ug/l~~ ppm	COMPOUND	MDL ppm	~~ug/l~~ ppm
Chloromethane	100	U	1,2-Dichloropropane	25	U
Vinyl Chloride	↓	↓	Dibromomethane	↓	↓
Bromomethane	↓	↓	Bromodichloromethane	↓	↓
Chloroethane	↓	↓	Cis-1,3-Dichloropropene	↓	↓
Trichlorofluoromethane	↓	↓	4-Methyl-2-Pentanone	↓	↓
1,1-Dichloroethene	25	↓	Toluene	↓	↓
Acetone	100	↓	Trans-1,3-Dichloropropene	↓	↓
Iodomethane	25	↓	1,1,2-Trichloroethane	↓	↓
Carbon Disulfide	↓	↓	Tetrachloroethene	↓	↓
Methylene Chloride	↓	↓	2-Hexanone	↓	↓
Acrylonitrile	↓	↓	Dibromochloromethane	↓	↓
Trans-1,2-Dichloroethene	↓	↓	Ethylene Dibromide	↓	↓
Methyl-t-Butyl-Ether	↓	↓	Chlorobenzene	↓	↓
1,1-Dichloroethane	↓	↓	1,1,1,2-Tetrachloroethane	↓	↓
Isopropyl Ether	↓	↓	Ethyl Benzene	↓	24.5
Cis-1,2-Dichloroethene	↓	↓	Xylenes	↓	165.0
2-Butanone	100	↓	Styrene	↓	U
Tetrahydrofuran	100	↓	Bromoform	↓	↓
Chloroform	25	↓	1,1,2,2-Tetrachloroethane	↓	↓
1,1,1-Trichloroethane	↓	↓	1,2,3-Trichloropropane	↓	↓
Carbon Tetrachloride	↓	↓	1,4-Dichlorobenzene	↓	↓
Benzene	↓	↓	1,2-Dichlorobenzene	↓	↓
1,2-Dichloroethane	↓	↓	1,2-Dibromo-3-Chloropropane	200	↓
Trichloroethene	↓	↓	Substituted benzenes	⊕ ⊖	⊕

MDL's approximate - based on methanol dilution

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I/ - Tentative identification.
D - Sample diluted. MDL's do not apply.

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(1)

STATE LABORATORY OF PUBLIC HEALTH

P.O. BOX 28047 - 306 N. WILMINGTON, ST., RALEIGH, N.C. 27611

ORGANIC CHEMICAL ANALYSIS

BASE/NEUTRAL AND ACID EXTRACTABLES	LAB NO	016293	016295	016310	016311	016312	016313
	FIELD #	21589	21591	21606	21607	21608	21609
COMPOUND	TYPE	(6)	(7)	(3)	(3)	(3)	(3)
	UNITS	~~mg/l~~ µg/g	~~mg/l~~ µg/g	~~mg/l~~ µg/kg	~~mg/l~~ µg/kg	~~mg/l~~ µg/kg	~~mg/l~~ µg/kg
N-nitrosodimethylamine	10/330	u	u	u	u	u	u
bis(2-chloroethyl)ether							
2-chlorophenol							
phenol							
1,3-dichlorobenzene							
1,4-dichlorobenzene							
1,2-dichlorobenzene							
bis(2-chloroisopropyl)ether							
hexachloroethane							
N-nitroso-di-n-propylamine							
nitrobenzene							
isophorone							
2-nitrophenol							
2,4-dimethylphenol							
bis(2-chloroethoxy)methane							
2,4-dichlorophenol							
1,2,4-trichlorobenzene							
naphthalene		380					
hexachlorobutadiene		u					
4-chloro-m-cresol							
hexachlorocyclopentadiene							
2,4,6-trichlorophenol							
2-chloronaphthalene							
acenaphthylene							
dimethyl phthalate							
2,6-dinitrotoluene							
acenaphthene							
2,4-dinitrophenol	50/1650						
2,4-dinitrotoluene	10/330						
4-nitrophenol	50/1650						
fluorene	10/330	165					
4-chlorophenylphenylether		u					
diethyl phthalate							
4,6-dinitro-o-cresol	50/1650						
diphenylamine	10/330						
azobenzene							
4-bromophenylphenylether							
hexachlorobenzene							
pentachlorophenol	50/1650						
phenanthrene	10/330	360					
anthracene		u					
dibutyl phthalate							
fluoranthene							

MDL
H_2O/50/L

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected. The number is the Minimum Detection Limit. MDL
NA - Not analyzed.
1/ - Tentative identification.
2/ - On NRDC List of Priority Pollutants.

(2)

STATE LABORATORY OF PUBLIC HEALTH

P.O. BOX 28047 - 306 N. WILMINGTON, ST., RALEIGH, N.C. 27611

ORGANIC CHEMICAL ANALYSIS

BASE/NEUTRAL AND ACID EXTRACTABLES	LAB NO	016293	016295	016310	016311	016312	016313
	FIELD #	21589	21591	21606	21607	21608	21609
COMPOUND	TYPE	(6)	(7)	(3)	(3)	(3)	(3)
	UNITS	~~µg/l~~ µg/g	~~µg/l~~ µg/g	~~µg/l~~ µg/kg	~~µg/l~~ µg/kg	~~µg/l~~ µg/kg	~~µg/l~~ µg/kg
pyrene	10/330	U	U	U	U	U	U
benzidine	50/1650						
butyl benzyl phthalate	10/330						
benz(a)anthracene							
chrysene							
3,3-dichlorobenzidine	50/1650						
bis(2-ethylhexyl)phthalate	10/330						
di-n-octyl phthalate	10/330						
benzo(b)fluoranthene	50/1650						
benzo(k)fluoranthene							
benzo(a)pyrene							
indeno(1,2,3-cd)pyrene							
dibenzo(a,h)anthracene							
benzo(g,h,i)perylene							
aniline	50/1650						
benzoic acid							
benzyl alcohol							
4-chloroaniline							
dibenzofuran	10/330						
2-methylnaphthalene		2,700					
2-methylphenol		U					
4-methylphenol							
2-nitroaniline	50/1650						
3-nitroaniline							
4-nitroaniline							
2,4,5-trichlorophenol							

MDL

H_2O/501L

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected. The number is the Minimum Detection Limit. MDL
NA - Not analyzed.
1/ - Tentative identification.
2/ - On NRDC List of Priority Pollutants.

Ref. 8

22 February 1989

MEMORANDUM

TO: File

FROM: Stan Atwood SA

RE: Tri-County Airport
Sampling Results

I called Henry Joyner, Airport Manager, to report that 3 ppb DDT was identified in the airport's well. I also told him that I would contact Mr. Chuck Boyette, Hertford-Gates Health Department, and arrange for resampling. Although the level of DDT detected does not pose an immediate threat (due to intermittent use by the public and low use by the airport staff), I told Mr. Joyner that it would be prudent to discontinue use as a drinking water source. Bottled water could be used pending further investigation.

SA/acr

NORTH CAROLINA
DEPARTMENT OF HUMAN RESOURCES
INTER OFFICE MEMORANDUM

DATE 22 Feb 89

TO

FROM

John Neal Tri-Cty Airport

2 samples 1 gw + 1 sw

Sample 4221 - on site drinking well

[3 ppb DDT] resample

Surface water.

77 ppb DDT
58 ppb DDD
495 ppb Tox

DHR Form 2 (8/75)

Photo 1:
From original tarmac, looking north
towards site

Photo 2:
3,000 gallon tank remaining on site;
Blue tarp covering top where it has
completed rusted through

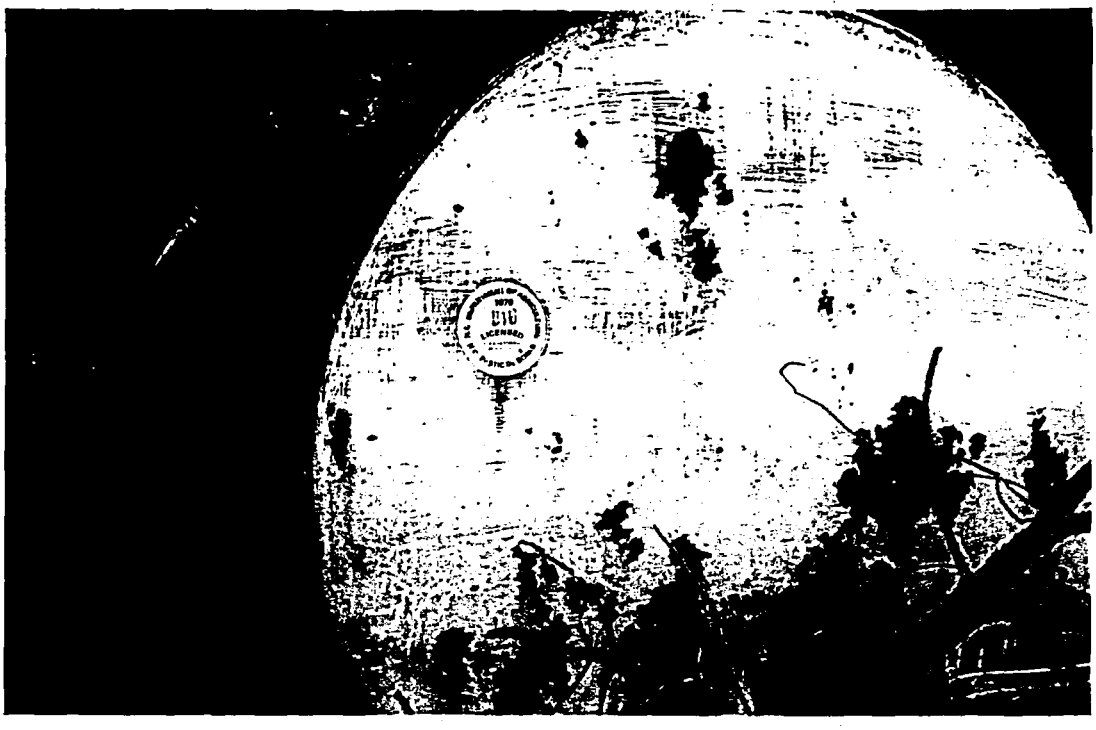

Photo 3:
View of tank's south side

Photo 4:
Empty, rusted barrels located in
northwest corner of site

Photo 5:
Empty, rusted barrels located in
northwest corner of site

Photo 6:
Intersection of site and drainage
ditch at northeast corner of site;
Notice presence of bucket on site

Photo 7:
Drainage pattern east of site,
looking west towards site

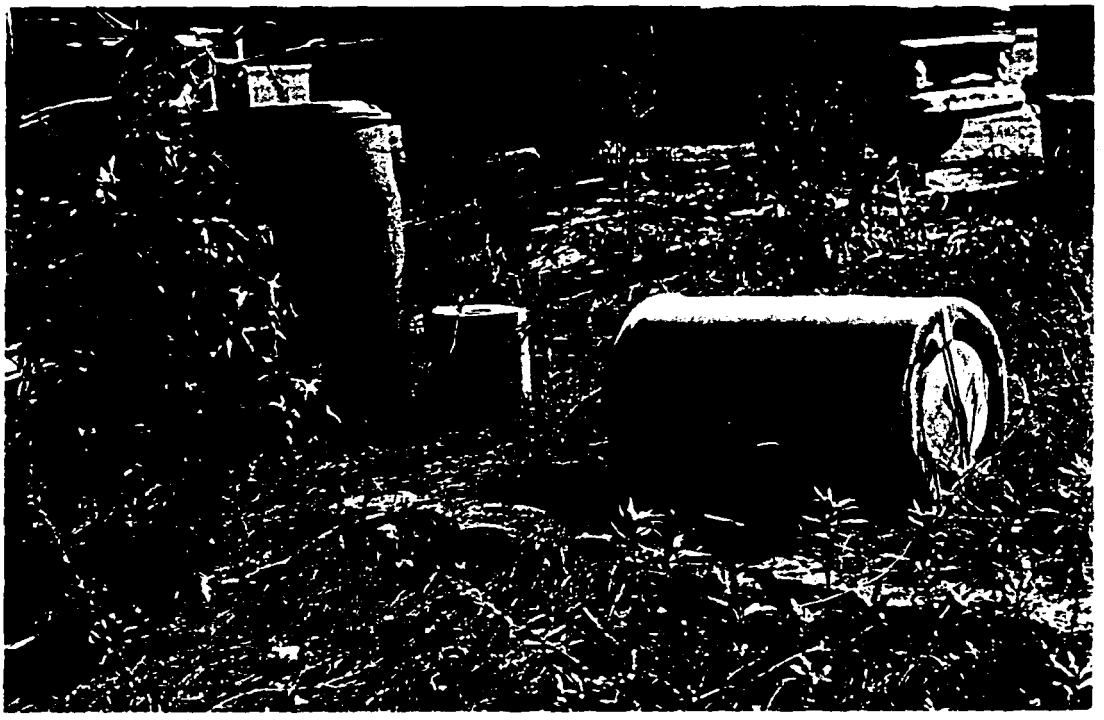

Photo 8:
Empty containers from current
operations located on-site

Photo 9:
Warning sign on truck located
adjacent to site

Photo 10:
Drip pan, bottom of south side of
tank; Notice evidence of leakage
from the tank

Photo 11:
Bottom of south side of tank; Notice evidence of leakage from the tank