

GROUND SURVEYS -

AIR SAMPLES -

SHIFT SUMMARIES

3/30 - 4/8

(I&E)

50-320

135 081

222

7905190

P

4-8-78

1200-1600



FOR DETAILS REF. FIGURE 2.3-12

0.02 NR
- 0.03 NR

TOPOGRAPHY OF THREE MILE ISLAND AND SURROUNDING AREA

THREE MILE ISLAND NUCLEAR STATION UNIT 2

4/8/79 0800-1200

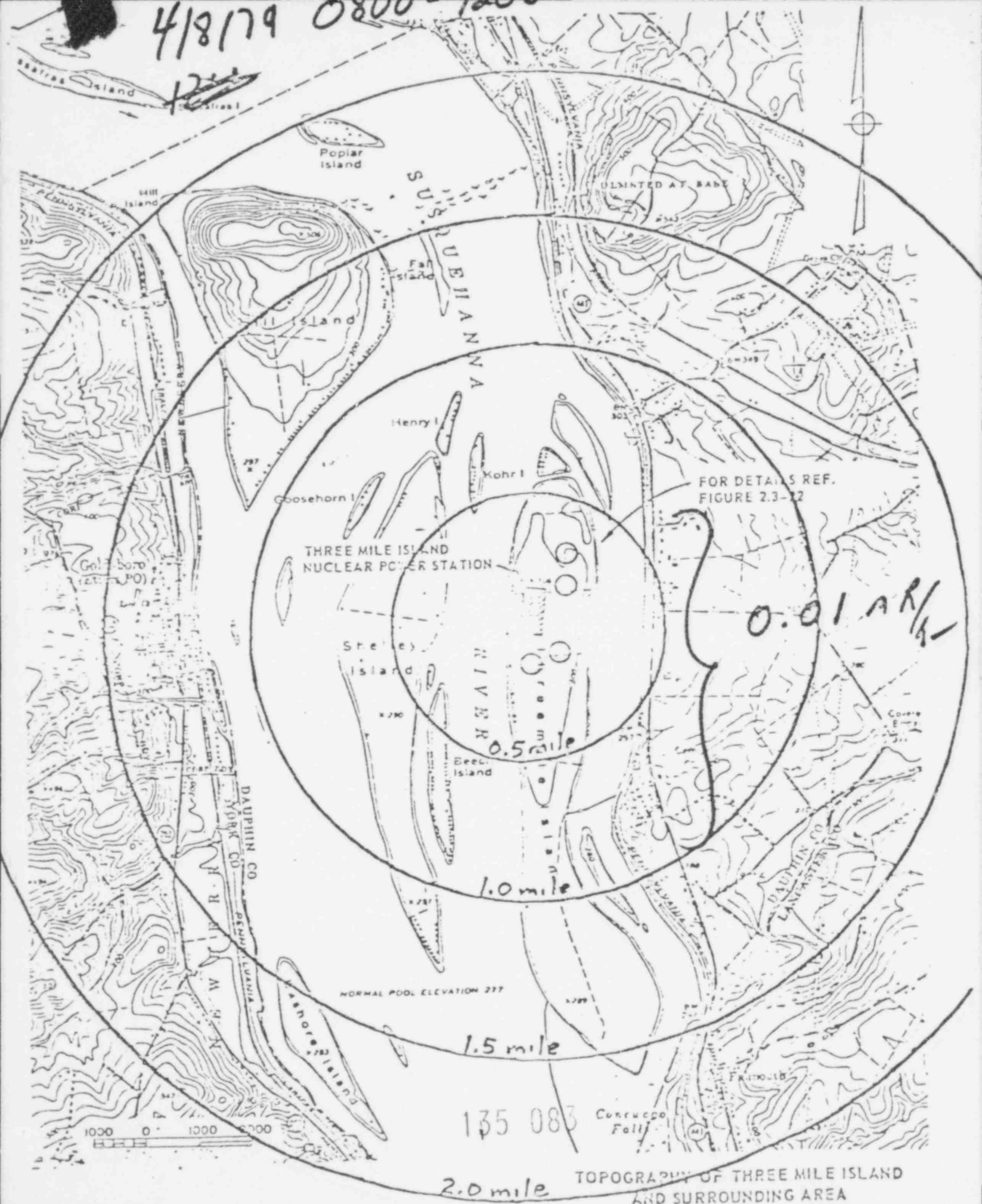


FIGURE 2.3-22A

AMS Helicopter Survey on 4/8/77
0900-0950

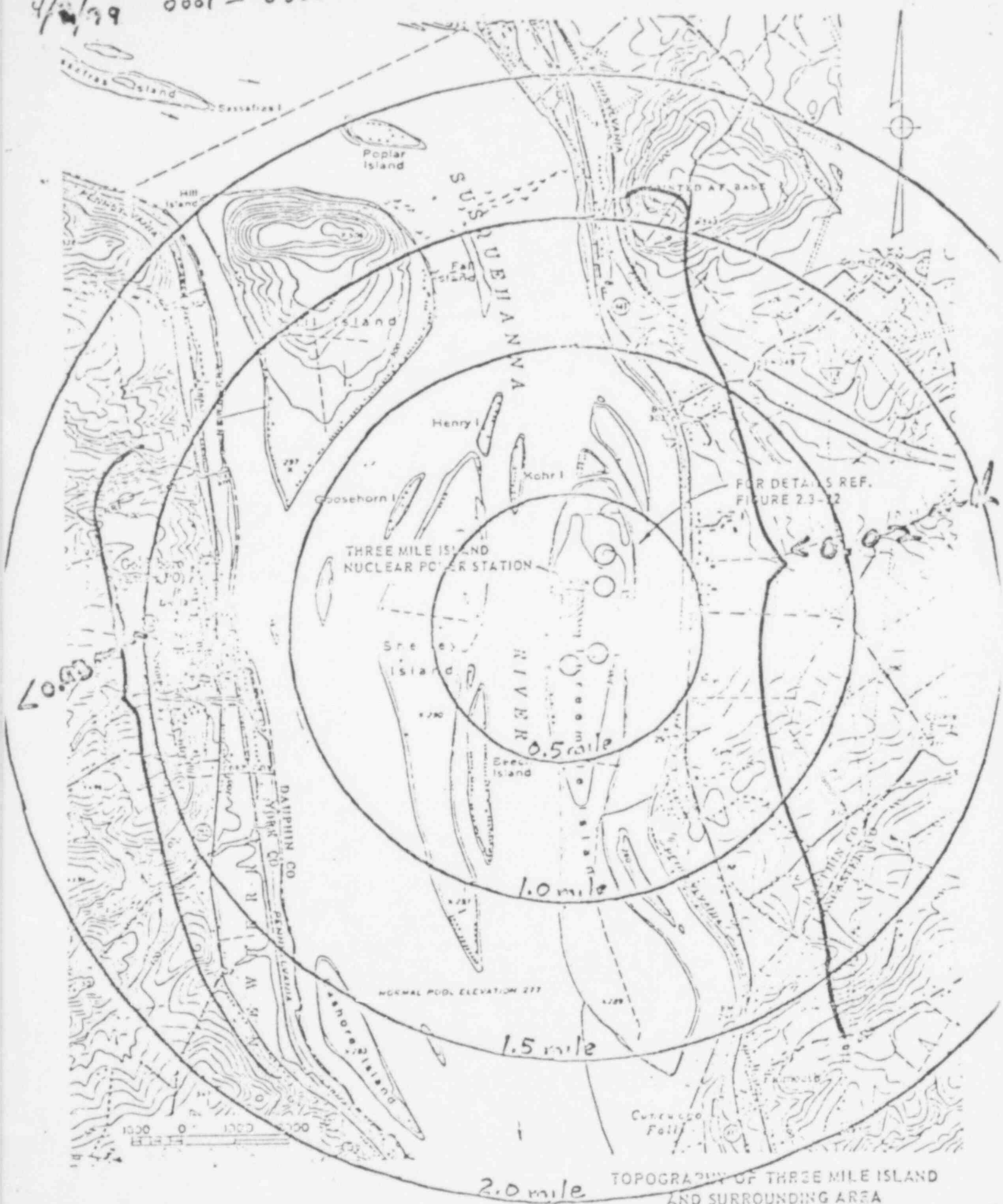
At 500 ft — @ 170°

Maximum Level d 0.03-0.04 mR/hr @ 1 mi

At 3 miles 0.013 mR/hr.

^{131}I Air Sample collected by NRC
team at 11:40 to 12:00, 20 to 30 on
Rt 441, ≈ 0.1 miles N of Geyers
Church Rd.

4/2/99 0001 - 0820



135 085

4/8/79

0000-0800

1)

METEOROLOGICAL DATA

<u>TIME</u>	<u>DIRECTION</u>	<u>SPEED</u>	<u>FUEL SIDE</u> <u>MINIMUM</u>
0015	360°	2	40
0045	20°	4	
0115	360	4	40
0145	20	6	
0245	33°	2	
0345	36°	2.5	30
0415	15°	8	
0445	360	5	
0505	350	6	30
0545	340	5	10
0645	60	4	10
0645	60	2	

2)

Plume survey

0031 NRC GROUND SURVEY TEAM ON WEST SIDE, SW OF PLANT
ALL READING < 0.01 m/hr

0536 NRC GROUND SURVEY ON EAST SIDE, 15 STANDARD POINTS < 0.02 m/hr. Air sample TAKEN

0030 ARMS FLF REPORTED MAX READING OF 1.0 m/hr at 1/2 - 1 mile down puff
all rest of reading BKGD

135 085

3/

MISC

IN PLANT RADIATION READINGS

PERSONNEL ACC @ ARM	2.5 m/hr
" " @ PORT	85 m/hr
EQUIPMENT HATCH	30 m/hr
FUEL BLEG VENT MONITOR	30 m/hr
DOME	50,000 c/hr

72
4/11/79

MILK RESULTS

ON FDA results received 4/6, positive ¹²¹ are continuing to be reported for milk samples collected in the Harrisburg Area.

However, results of analyses for milk samples collected in the Western Pa. area showed ¹²¹ positive results. The milk collected in this area is coming from a background of ¹²¹ cases for the positive incidence for milk from the same area (West Penn.) has not been detected.

A summary of analyses for milk samples collected in the Harrisburg Area through 4/1/79 is shown below:

	DER	FOA	EPA	WEST PA (CONTINUED)
	193	24	1	
NO. ANALYSES OF SAMPLES	15 p (1/2)	19 p (1/2)	17 p (1/2)	4.1 - C/E
RANGE OF VALUES	11 to 20	9 to 41	10 to 24	2.3 to 5.4
AVERAGE MCL	< 20	< 11	< 10	< 0.5

1. DER should never MCL to be consistently below the positive reported.
2. The FOA results are higher than the DER, EPA and West Pa.
3. The West Pa results are a factor of 4 to 5 times other samples from the West Pa. consistently over the MCL and positive results to residue ¹²¹ in milk.

135 088

Recommendations

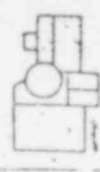
A representative number of the milk samples analyzed by DER and FOA which exhibit the highest positive should be re-analyzed using more sensitive techniques.

ALA BLD.
305 FL

TUCL HND.
305 FL

ALBND

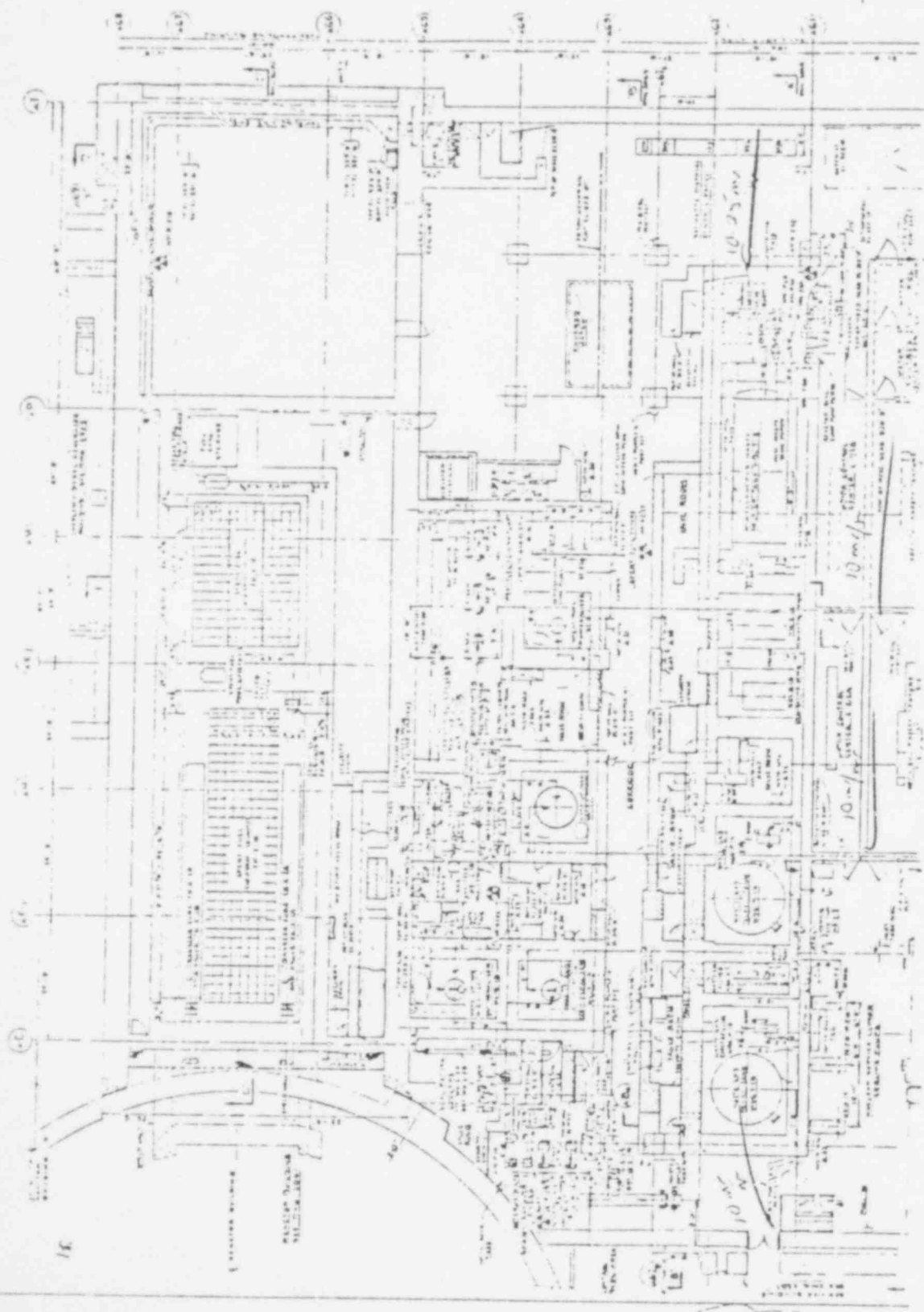
REST PLAN



REST PLAN

1/16

is Date
4-8-79 0600
Gyhus



135 091

Root Survey

general $H_{\text{ref}} < 1.0 \text{ mR}$

High Rendelney / H₂O AIR CONTACT
on coupling to left
side of unit vent
-8-79

4-8-79

@ 0020

Air Taken VRC Type
Sample Sampler

 $2.3 \times 10^{-8} \text{ uCi/cc}$ @ 0131

$< 1.0 m^2$ MDA

I-131

 $\angle 10 \text{ mR}$
$$R_{m1} > R_{m2}$$

$\nabla_{131} R$

Control
Bldg

 χ / mR $\angle mR$ $\angle m_2$

Tar Bone Bldg

R₃

 ≤ 1.0
$$\leq 1 mR$$

135 092

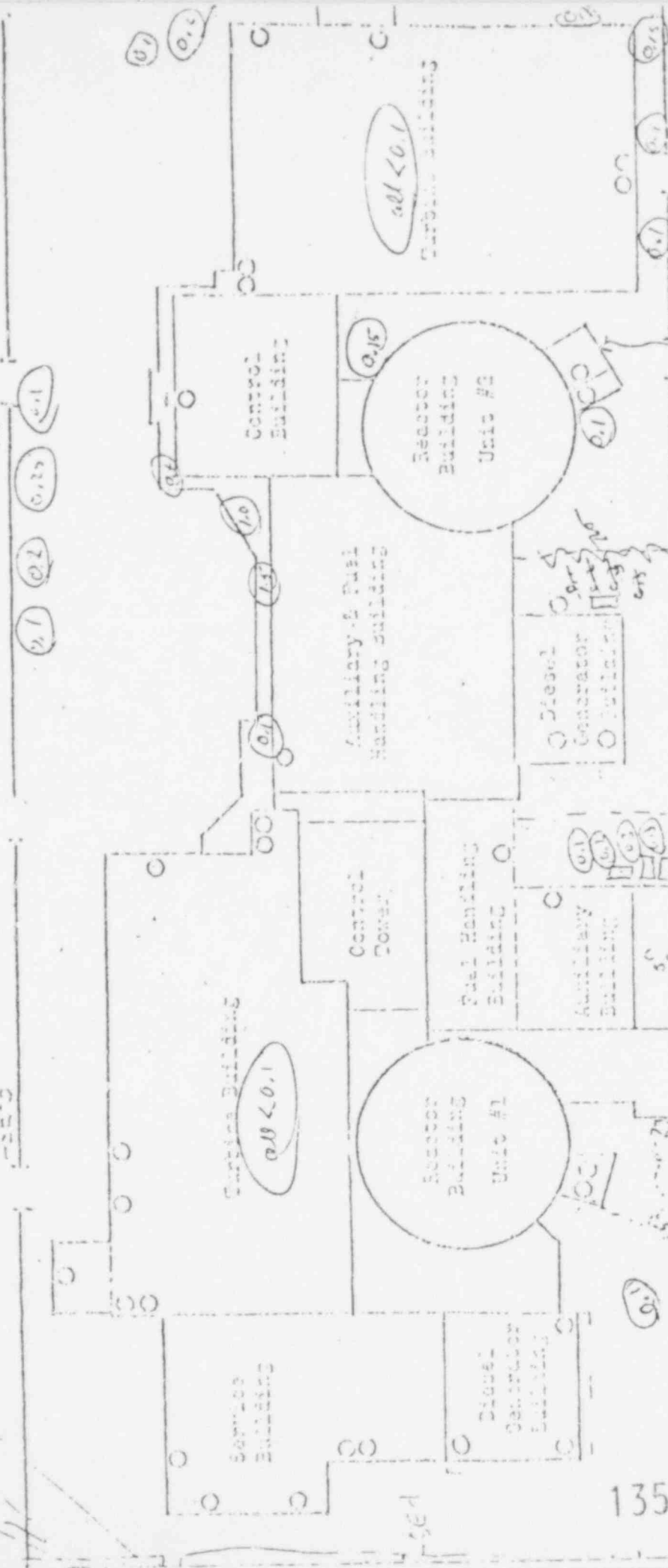
21x17

SE-2 Security Building

N

SE-4.7

SE-3



SE-3
2.5 m/s² after joint
w/ September 1984

Seismic conducted
between 0300 + 0500
- 4/6/84 w/ NTC 812
Serial 5517
Signature

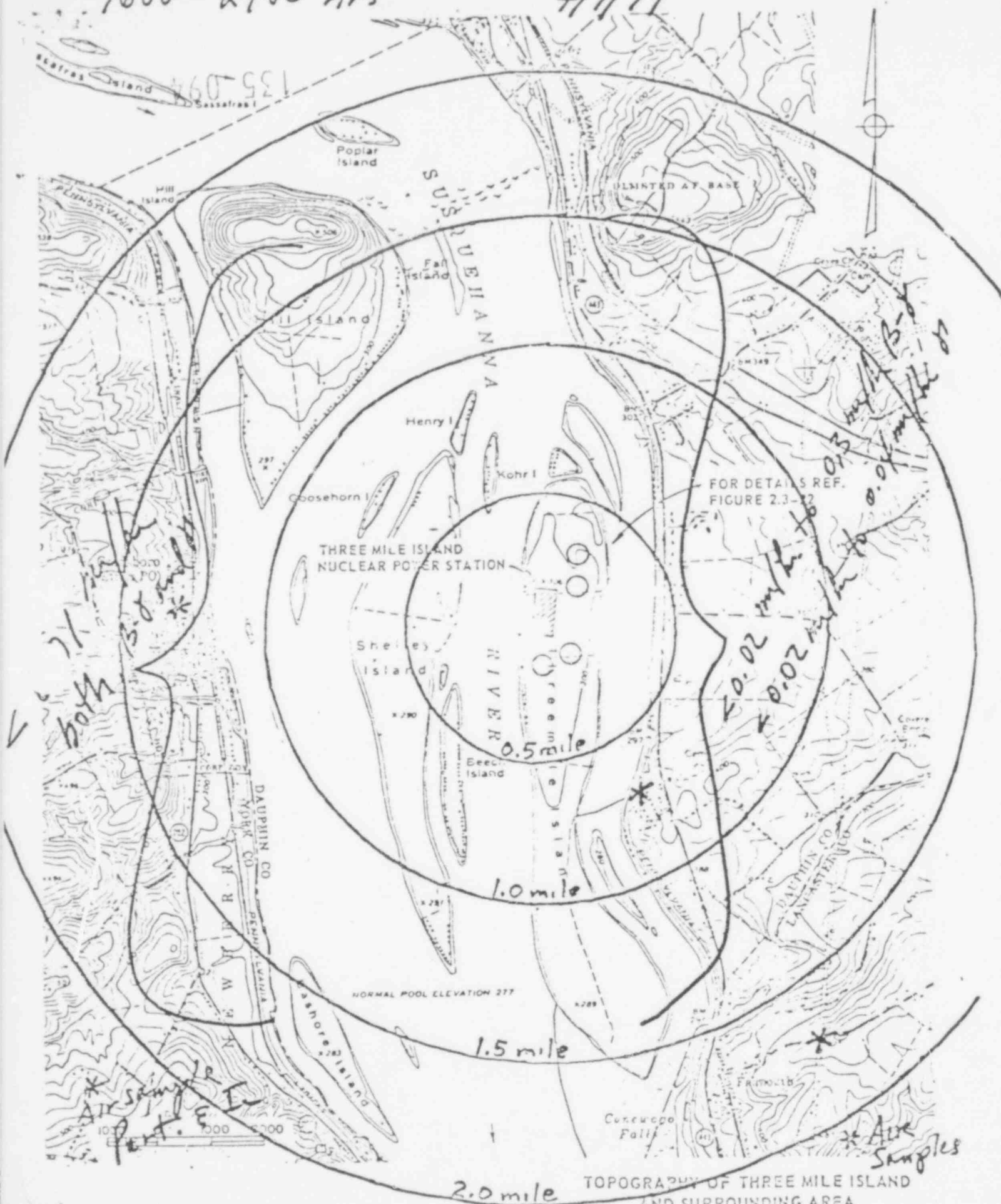
up from
operation
due to up 40000.000000

all working in
by 4/6/84

135 093

1600 - 2400 hrs

4/7/79



TOPOGRAPHY OF THREE MILE ISLAND AND SURROUNDING AREA

THREE MILE ISLAND NUCLEAR STATION UNIT 2

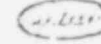


FIGURE 2.3-22A

AM 14 (5.7.78)

Summary

1600 - 2400 hrs

4/7/79

1. Meteorological

Time	Dir	Speed	Fuel Bldg monitor	my/hr	Station Vent Gas
			HPR-3240	(cpm)	HPR-219 (cpm)
1630	306	15-25	20	—	—
1700	315	15-25	60	—	—
1730	308	15-20	—	—	—
1800	310	8-12	20	—	—
1830	306	10-20	—	—	—
1900	325	5-15	8	—	1.5×10^5
1930	340	5-10	—	—	—
2000	325	5-10	8	—	1.2×10^5
2030	310-325	5-10	—	—	—
2100	210-225	0-5	8	—	1.2×10^5
2210	320	0-5	—	—	—

2. Ground Surveys

- #1. DOE (WEST) routine survey @ 22 pts. All readings < 0.01 m/hr. 1750-1815 hrs.
- #2. NRC (EAST) routine survey @ 15 pts. All readings < 0.01 m/hr. 2010-2050 hrs.
- * #3. NRC (EAST) non-routine survey made @ 2300 hrs due to slight increase in HPR-219 plant vent readings. No significant readings, 0.4 m/hr β - γ , 0.04 m/hr γ . Air sample @ Pt. 12 taken
- #4 DOE (WEST) routine survey of 22 pts. All readings < 0.01 m/hr.

3. Air Samples

#1	West side	1300	$< 0.1 \mu\text{Ci}/\ell$
#2	West side	1830	$< 0.1 \mu\text{Ci}/\ell$
#3	West side	1750	α 21 dpm/m ³ β 47 dpm/m ³ factor 2.28
#4	East side	2045	$< 1 \times 10^{-10} \mu\text{Ci}/\text{ml}$
#5	East side	2324	results not available as of 2355

4. AMS Flights

1805-1845	1 mile @ 500'	140°-150°	0.05 m/h max.
	3 mile @ 500'	130°-140°	0.015 m/h max.
	6 mile	plume well mixed @ 135°	0.01 m/h max

2247 AMS flight ordered up max 0.4 m/h
 general readings 0.05-0.2 m/h. Relayed
 by telephone. Details to follow.

5. Notification of Increase in HPR-219, Plant vent.
 ~2225 Notified of factor of 10 increase.
 Slight increase ^{exp} ~~was~~ verified in particulate f
 iodine on HPR-219. However, it was not a
 factor of 10. AMS flight ordered up. Ground
 survey done, air sample taken maximum
 readings 0.4 m/h β - γ , 0.04 m/h γ .

4-7-79

0000 1600



FOR DETAILS REF.
FIGURE 2.3-12

THREE MILE ISLAND
NUCLEAR POWER STATION

0.5 mile

1.0 mile

1.5 mile

2.0 mile

Winds 300°-324°

TOPOGRAPHY OF THREE MILE ISLAND
AND SURROUNDING AREA

THREE MILE ISLAND NUCLEAR STATION UNIT 2

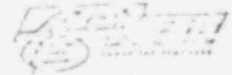


FIGURE 2.3-27A

AM. 14 (S-274)

AMS Survey 4/7/79

10:30 - 11:00 a.m.

Plume at 130° - 140°

Maximum Readings at 500'

Distance mR/h-

1 mile 0.05

3 miles 0.015

10 miles 0.01

Air Sampling:

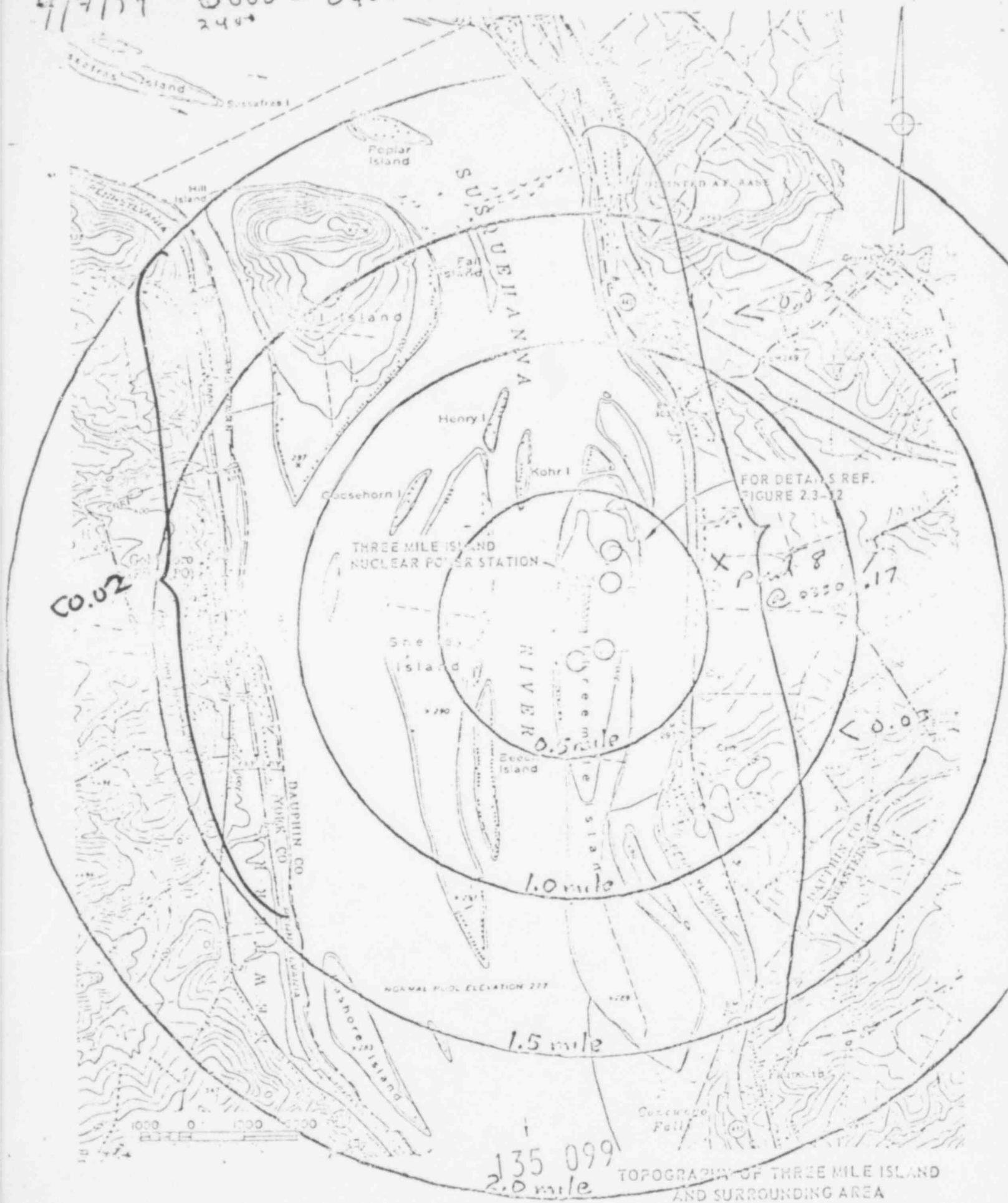
NRC ^{survey} team assumed responsibility
for air sampling on east side
of river. Sample was collected 4-7-79
~~10:30~~ 10:50-11:00. 20 ft³ through
charcoal cartridge

Milk samples from 4/6/79 received
for ¹³¹I analysis.

135 098

4/7/79

0000 - 0400
2444



FOR DETAILS REF.
FIGURE 2.3-12

TOPOGRAPHY OF THREE MILE ISLAND
AND SURROUNDING AREA

THREE MILE ISLAND NUCLEAR STATION UNIT 2



FIGURE 2.3-22A

AM 14 (6.7.74)

7/1/11
0000-0400

Methodological Data

Time	direction	Speed
2400		
0100	312°	10-20
0130	320°	10-15
0220	320°	10-15
0300	295°	15
0400	315°	20

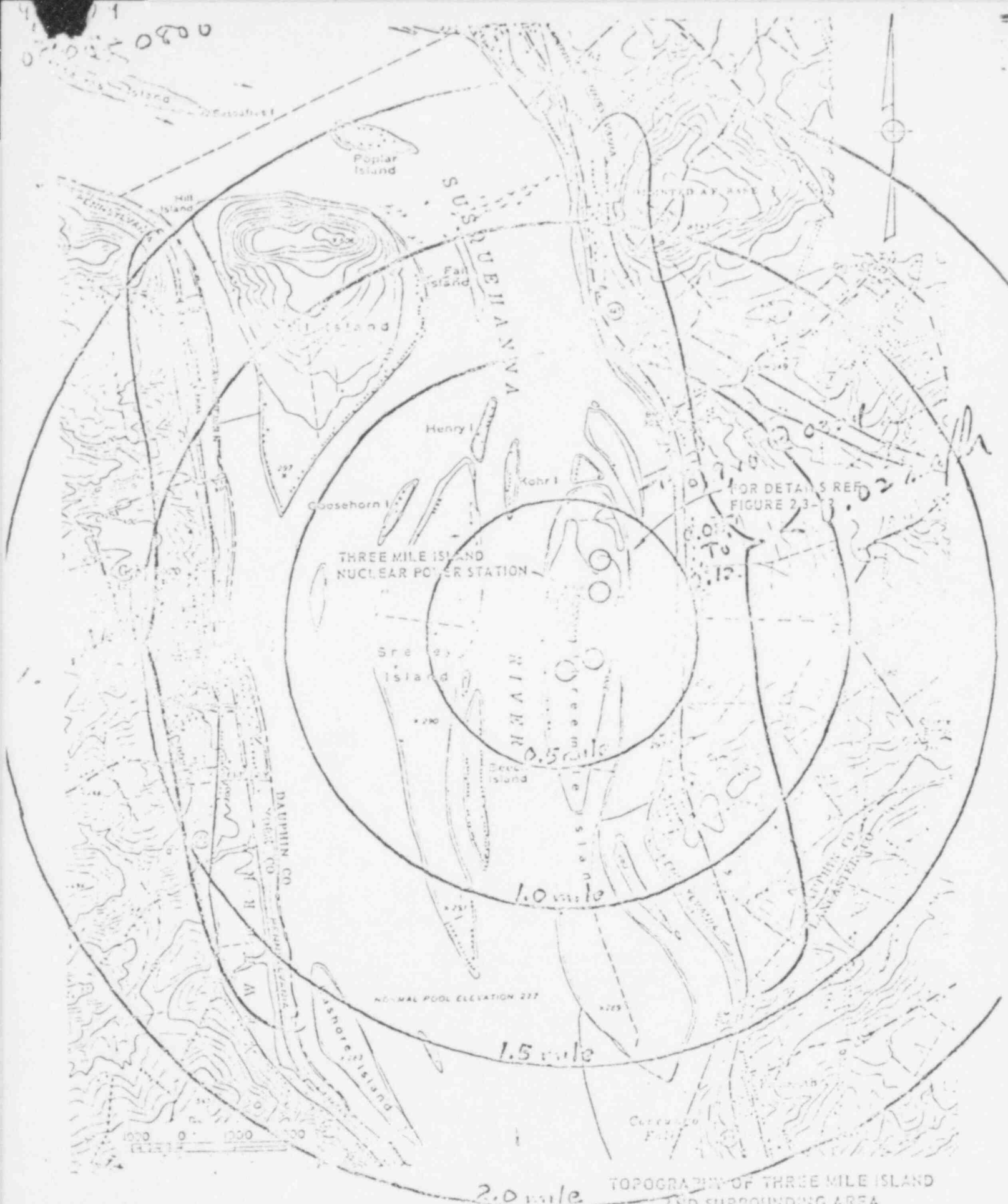
2) 0030 DOE Ground survey East
15 standard points, 10
NAC ground survey, East

0230 DOE ground survey, East
15 standard points, 10

DOE Ground survey, West
22 standard points, 10
0334 NAC ground survey, East
Points 8, 9 & 10 0.05 - 0.15

0132 (4/11/11) Air samples 135 100
20 ft³ 1000 100.1

0158 AIR SAMPLES TAKEN IN THE
0358 PLUME AT SAMPLE POINT #9 EAST
SIDE LMOA MDA 3.16 E-10 MG/CC I131



TOPOGRAPHY OF THREE MILE ISLAND AND SURROUNDING AREA

THREE MILE ISLAND NUCLEAR STATION UNIT 2

135 101

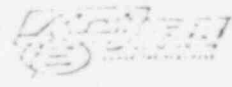


FIGURE 2.3-27A
AM. 14 (5-2-74)

4/1/79
0400 - 0800

METEOROLOGY DATA

Time	DIRECTION	SPEED	FUEL OIL MONITOR
2400	—	—	7
0100	310°	10-20	7
0200	290°	10-15	7
0230	320	10-15	7
0300	295	15	
0400	315	20	100
0430	305	10	
0500	310	15-20	25
0530	300	30	
0600	305	10-20	20
0630	320	20-30	

PLUME DATA

<u>0430</u>	DOE Ground survey East side 15 standard points, all < 0.02 m/hr
<u>0530</u>	DOE Ground survey, East side 15 standard points, max reading 0.5 m/hr
<u>0540</u>	DOE Ground survey, West side, 22 standard points, all points < 0.01 m/hr

2) MISC	INFLUENT Radiation Readings 35 102
DOSE	50,000 R/hr
PERS REC ROOM	3 m/hr
PERS REC PORT	90 m/hr
EQUIP HATCH	6 m/hr

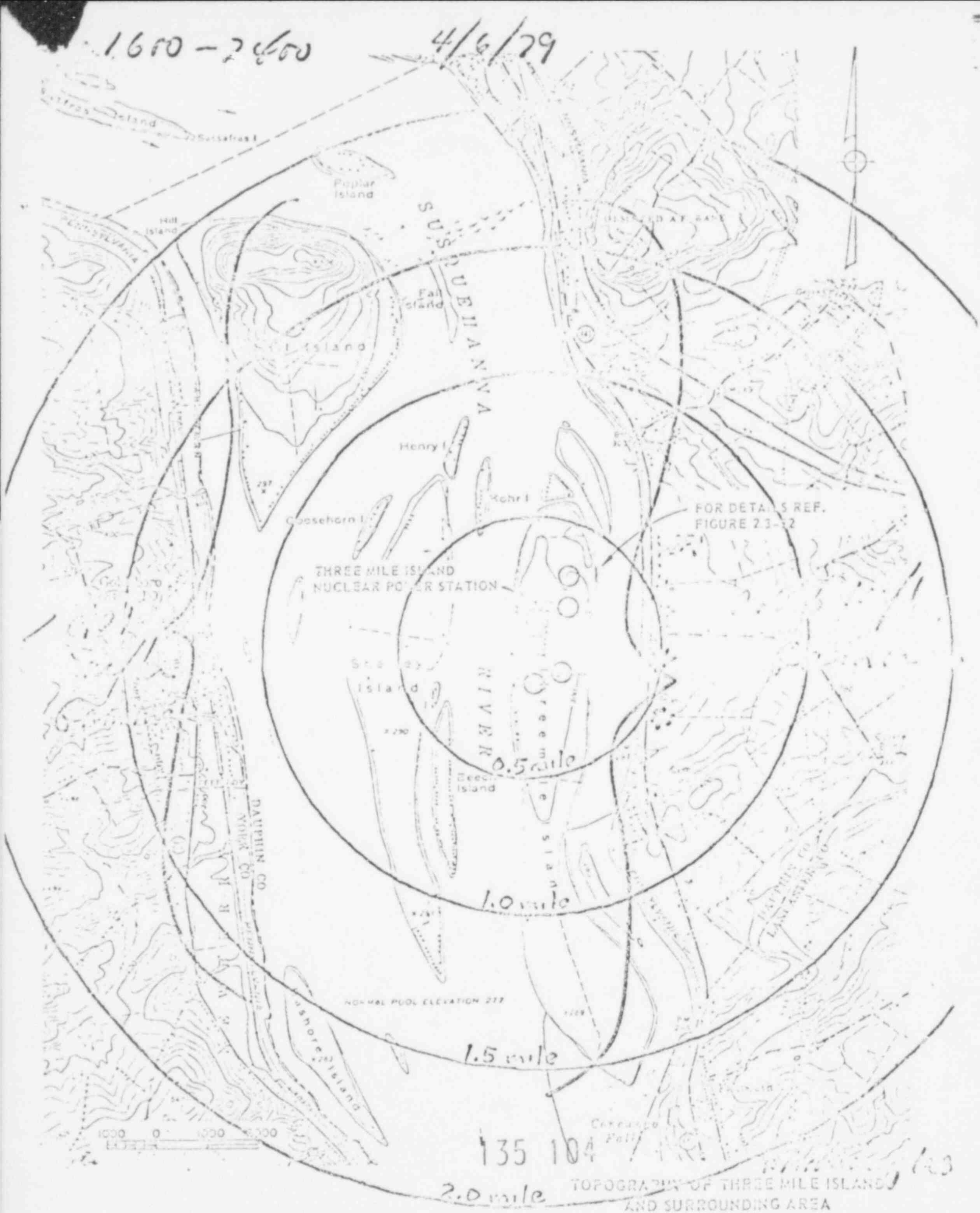
100
100

ARMS FLIGHT

1 MILE	SE OF PLANT	0.04 mph @ 500 ft
3 MILE	SE OF PLANT	0.03 - 0.04 mph @ 500 ft
10 MILE	SE OF PLANT	0.015 mph @ 500 ft

1610-2400

4/6/79



2.0 mile

TOPOGRAPHY OF THREE MILE ISLAND AND SURROUNDING AREA

THREE MILE ISLAND NUCLEAR STATION UNIT 2



FIGURE 2.3-22A

Library: 1010-240

4/28

1. Meteorological Data.

<u>High</u>	<u>Wind Dir.</u>	<u>Wind Speed</u>	<u>Feet Blk. Number</u> (no./hr.)
1857	300°	15-40	30
1907	270	25-40	"
1909	270	20-25	"
1913	270	20-25	40
1900	300	10-20	2.5
1920	300	15-25	-
2057	270	15	25
2200	300	10-20	10

70 mph @ 2000 hrs.

c. Second Surveys - Routine surveys done at 1628, 1818, 2044, 2254 by DOE, and at 1757 and 2126 by NRC Survey Team. No significant readings 40.01 m/s to 0.22 m/s gamma.

3. Air Samples - Charcoal samples taken at Pt 8 at 1527, and at Pt 9 at 2157. No sample results available as of 2335 hrs.

4. ~~11-12~~ ¹¹⁻¹² ~~11-12~~ Flights - 2055 to 2125 hrs. 1 mile @ 500 ft.
 Altitude 100°-140° - max reading 0.05 m/fh.
 Boats @ 1200 ft - max reading 0.05 m/fh.
 Clouds 320°, 20 knots at 500 ft. 125 105

Feb. 1911 - 1810 lbs - 30 miles, plane between 120° - 145° 135 105

135 105

max reading 0.05 mfd. 100 ft. Top of 6 ft.
1500 ft.

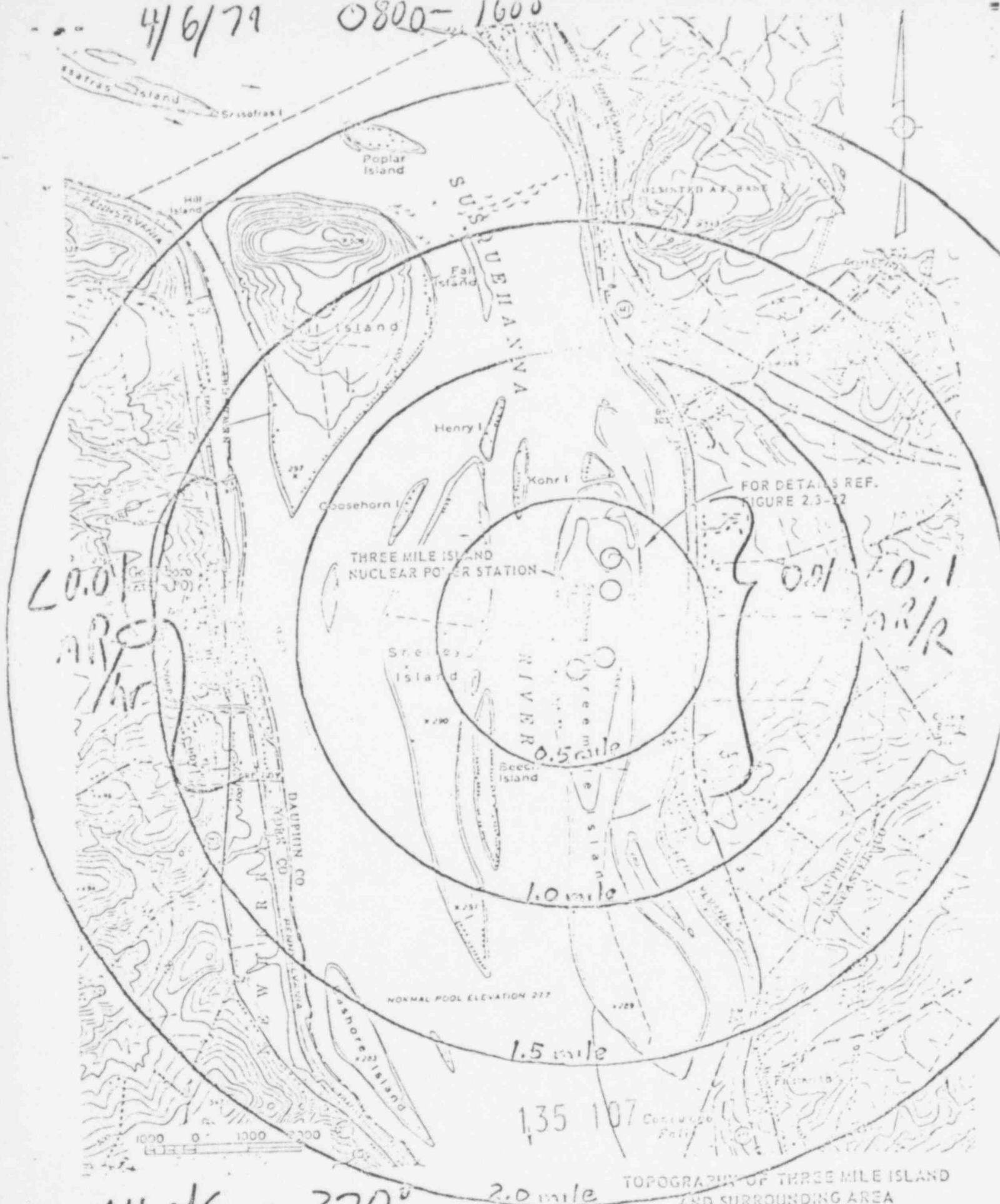
5. A gas sample was taken from the Station Vent (HRR 219) when the charcoal cartridge and particulate filter were taken/changed at 1515 hrs on 4/6/79. Results were:

I-131	0.2 1000 Ci/day
Xe 133	45,000 Ci/day

This is based on an estimated total flow of approximately 140,000 ft³/min.

4/6/79

0800-1600



THREE MILE ISLAND
NUCLEAR POWER STATION

FOR DETAILS REF.
FIGURE 2.3-22

0.5 mile

1.0 mile

1.5 mile

2.0 mile

Winds - 270°

TOPOGRAPHY OF THREE MILE ISLAND
AND SURROUNDING AREA

THREE MILE ISLAND NUCLEAR STATION UNIT 2

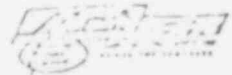


FIGURE 2.3-22A

AM. 14 (5-3-74)

Air Sample.

4-6-79 - Taken at Goldsboro

0648 - 0708

^{131}I

$< 3.2 \times 10^{-10} \text{ } \mu\text{Ci/cc}$

0610 - 0630

^{131}I

$< 3.2 \times 10^{-10} \text{ } \mu\text{Ci/cc}$

DOE Ground Surveys on West Side
 $< 0.03 \text{ mR/h}$

NRC + DOE Ground Surveys on East Side
0.01 - 0.1 mR/h Maximum readings
directly East of Plant

4-6-79

Gas Samples

through GPU's Task management group

NRC

Requested a

gas sample

from the

STATION ~~Plant~~ ^{HP-219} Vent

~~whenever charcoal~~

particle

filters

are changed. the gas

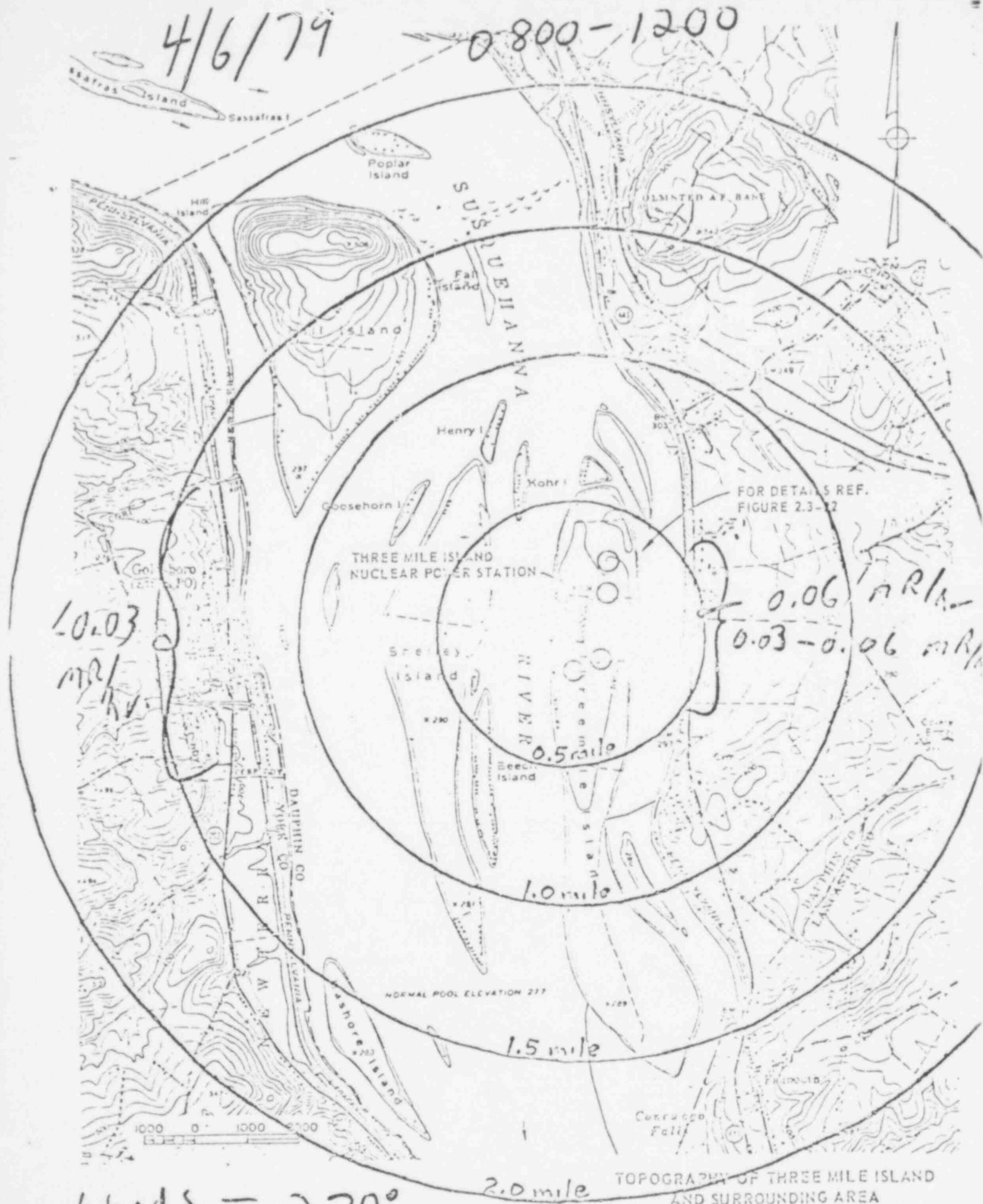
sample taken on

indicated a Xe^{133}

release rate of 1.5 Ci/sec.

4/6/79

0800-1200



FOR DETAILS REF.
FIGURE 2.3-12

0.06 mR/h

0.03-0.06 mR/h

0.5 mile

1.0 mile

1.5 mile

2.0 mile

Winds - 270°
25-40 mph 135 109

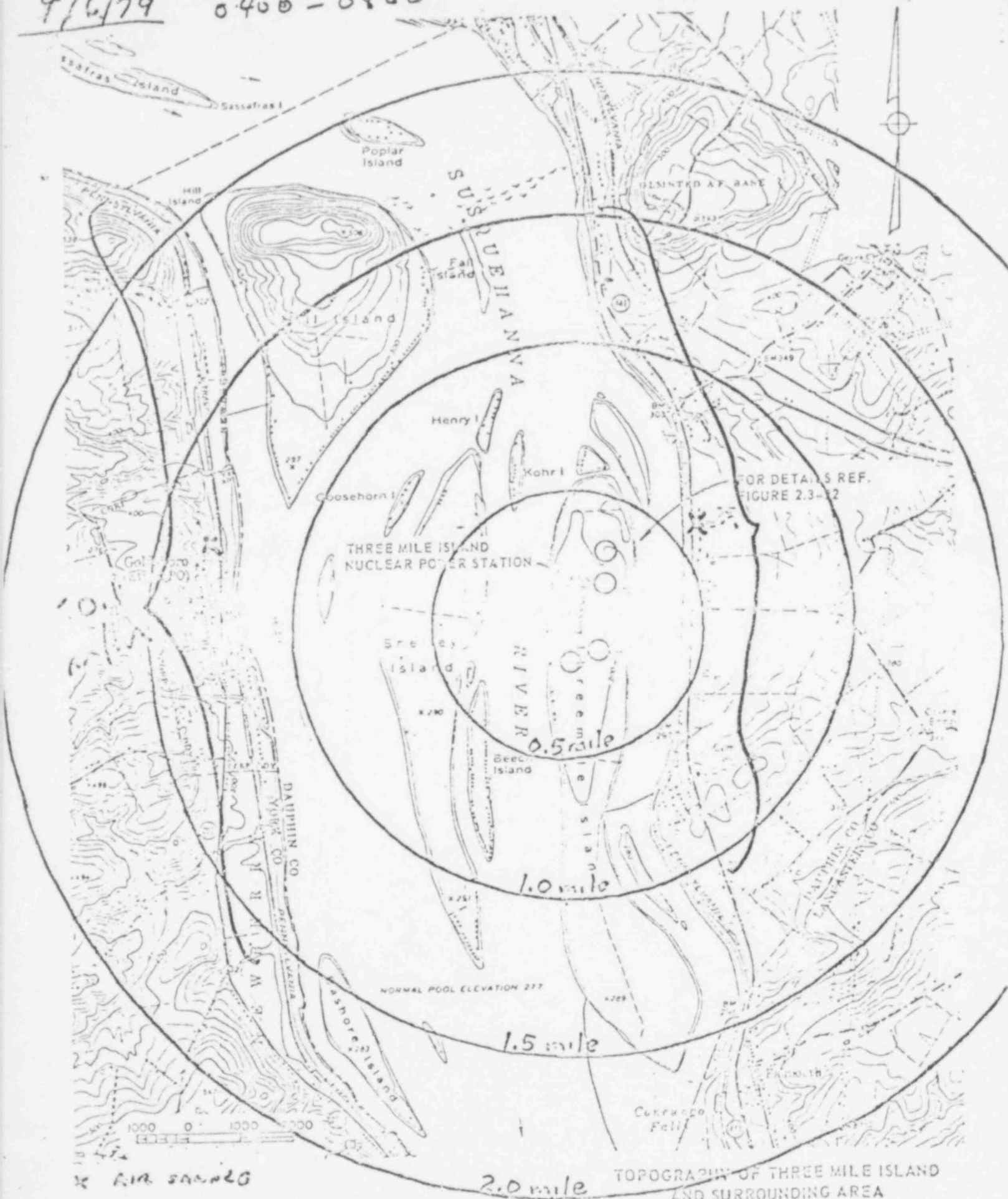
TOPOGRAPHY OF THREE MILE ISLAND
AND SURROUNDING AREA

THREE MILE ISLAND NUCLEAR STATION UNIT 2

FIGURE 2.3-22A
AM. 14 (5-3-74)

4/6/79

0400-0800



FOR DETAILS REF. FIGURE 2.3-22

TOPOGRAPHY OF THREE MILE ISLAND AND SURROUNDING AREA

THREE MILE ISLAND NUCLEAR STATION UNIT 2

FIGURE 2.3-22A

AM 14 (5-3-74)

* AIR SAMPLES

135 110

11/79 0400-0800

METEOROLOGY DATA

TIME	DIRECTION	SPEED	FUEL GLOVE VENT MONTH
0400	190	10-15	8
0430	215	10-20	8
0500	230	15	
0530	250	20-25	7.5
0600	270	15-20	7.5
0630	280	20-30	300
0650	—	—	200
0700	270	25-45	

PLUME DATA

0430 DOE Ground survey, east side, standard points, all < 0.03 m/hr

0316 Air sample, west side, Point II₁
(Winnebago) $27 \text{ m}^3 < 0.1 \text{ pci/l} \pm 131$

0537 DOE Ground west side, standard points, all < 0.01 m/hr

0450 DOE Ground, east side, standard points, all < 0.03 m/hr

0516 NRC Ground survey, east side, standard point, max reading 0.5
① point TRAILER CITY MAIN
ENTRANCE 135 111

WISE

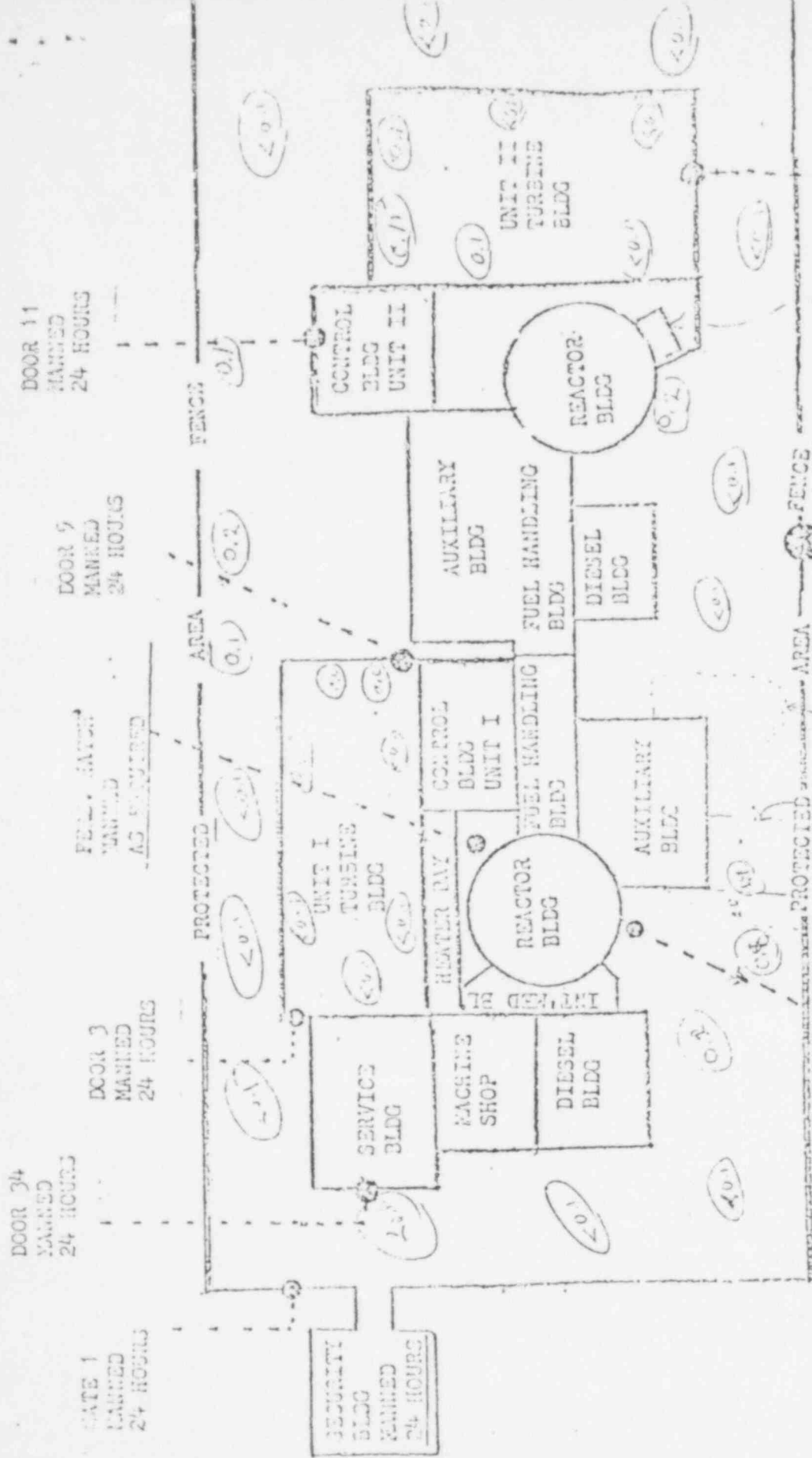
WASTE GAS DECAY

0545 TRANSFER OF "A" TANK TO CONTAINMENT
BEGAN 5 MIN AGO. SURVEY TEAMS
DISPATCHED, ARMS FLT DISPATCHED

0600 IN PLANT READINGS

PERS ACC	HATCH @ PORT	08 m/h
"	" ARM	7 m/h
EQUIPMENT	HATCH	5.2 m/h
DOME	MONITOR	45,000 R/h

0650 TRANSFER OF WASTE GAS DECAY TANK
TO CONTAINMENT TERMINATED DUE TO
LEAK. CS HP 3240 FUEL HANDLING
EXHAUST DUCT READ 300 m/h @ 630
DOWN TO 200 m/h @ 0650



135 113

EQUIP. HATCH
MANNED
AS REQUIRED

UNIT II TRAIL.
MANNED
0600-1800
NON-SAT

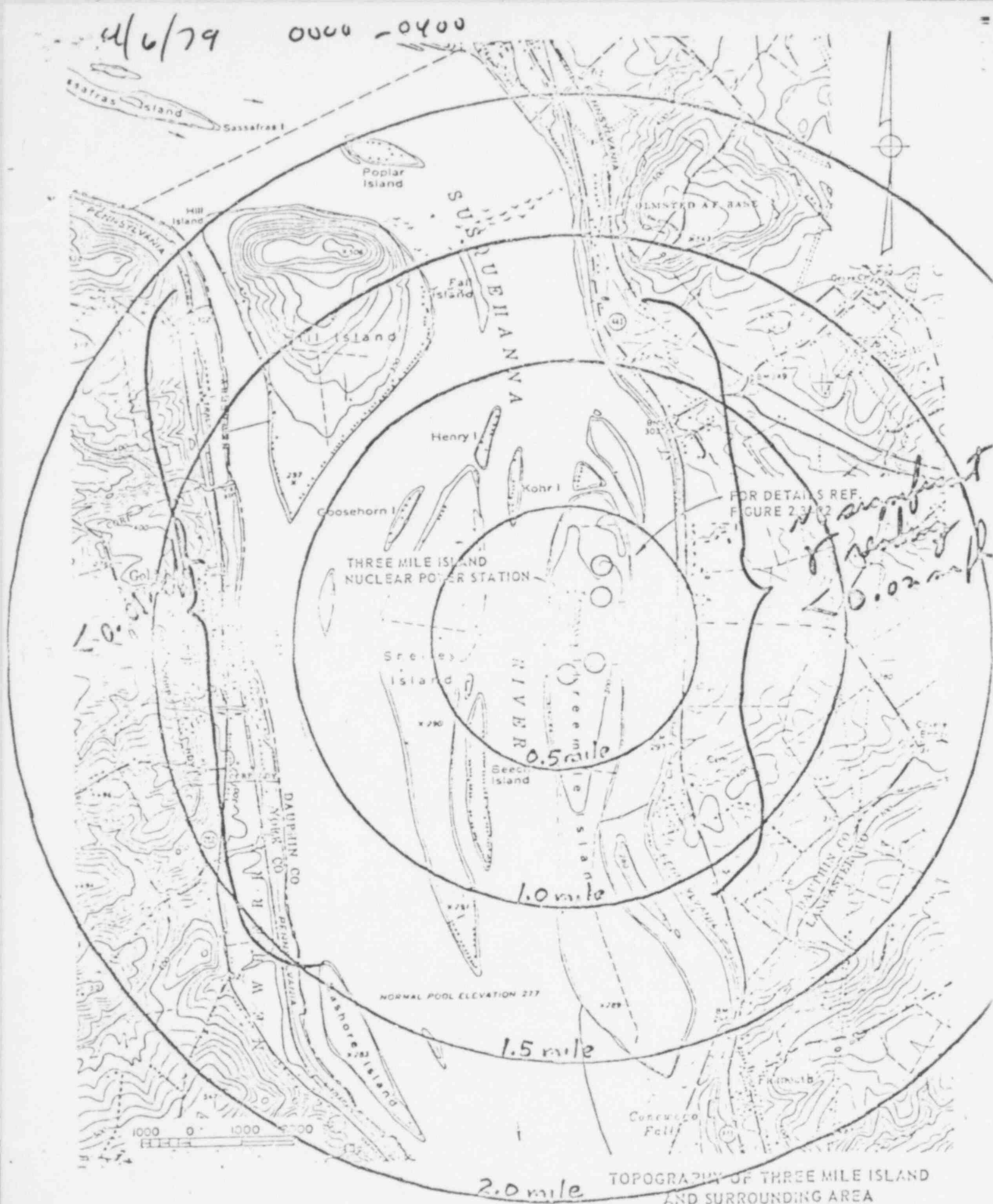
Door 16
Manned 24 hours
NRE # 1024

Security Control
4/6/79 0745-0530
NRE # 873, 8100, 8100
NRE # 873, 8100, 8100

SECURITY PORTALS MANNED
DURING THE UNIT I OUTAGE

4/6/79

0000 - 0400



135 114

THREE MILE ISLAND NUCLEAR STATION UNIT 2

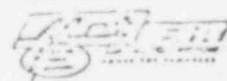


FIGURE 2.3-22A

AM. 14 (5-3-74)

4/6/79

0001 - 0400

METEOROLOGICAL DATA

1)

TIME	DIRECTION	SPEED	FUEL (GAL) VEGT (MIL)
0030	190	5	
0100	190	5	8 mph
0130	180	5	
0200	190	10	
0300	200	10-15	
0330	200	10-15	8

2) Phase data

0113 NRC Ground survey east side, standard points, ALL points < 0.02 mph

0134 DOE Ground survey WEST side, standard point, max reading < 0.01 mph

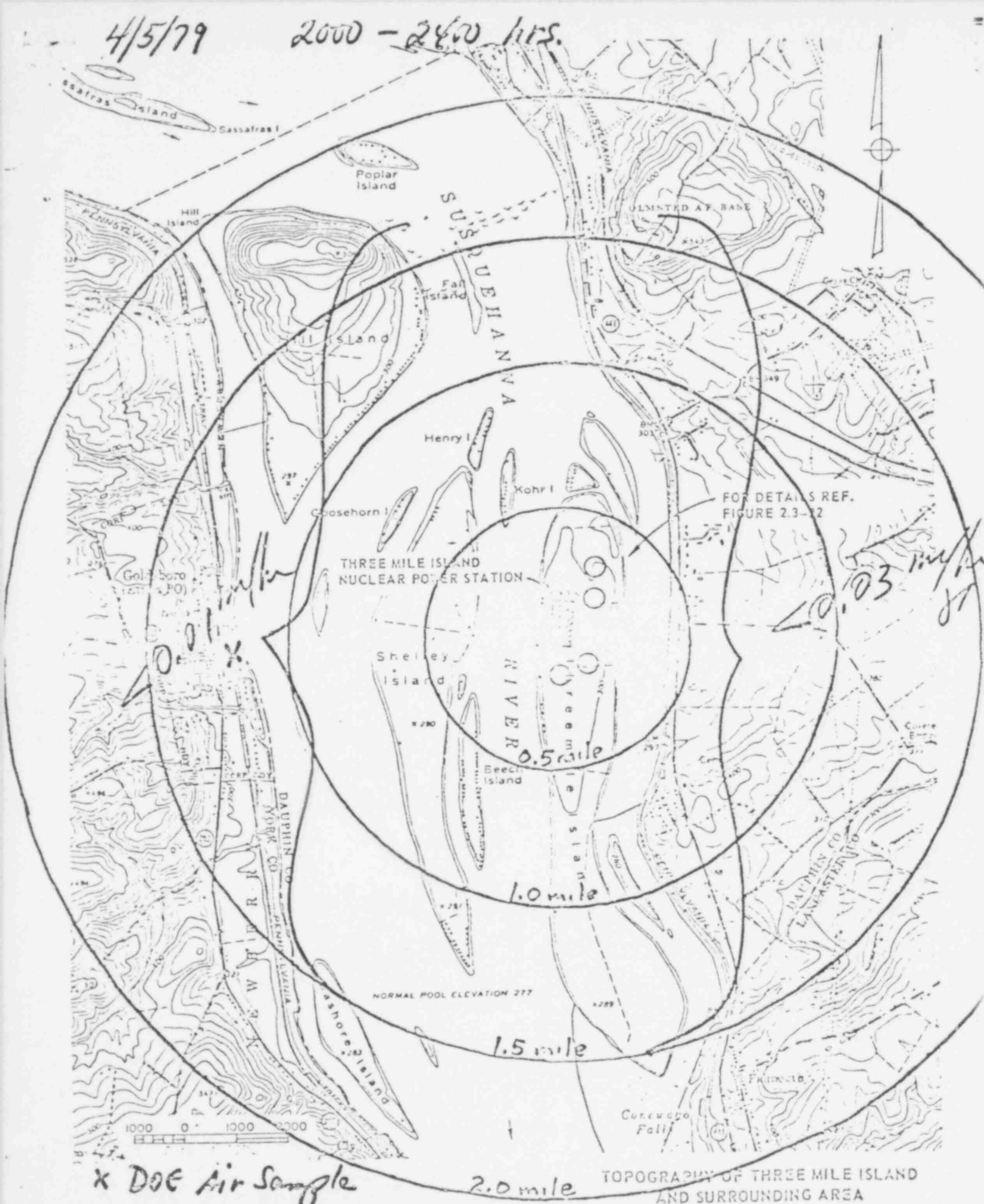
0230 DOE Ground survey EAST side standard points, max reading < 0.03 mph

Misc

0310 IWTs releasing 100 gal/min

135 115

2000 - 2400 hrs.



x DOE Air Sample

135 116

THREE MILE ISLAND NUCLEAR STATION UNIT 2

FIGURE 2.3-22A

AM. 14 (5-3-74)

4/5/79 2000 - 2400 hr summary

1. Meteorological Data

<u>Time</u>	<u>Direction</u>	<u>Speed</u>	<u>Monitor</u>
2110	200°	2 mph	—
2300	180	5	— 20

2. Plume Surveys

Flt #3 2120 - 2150, 1 mile @ 500 ft, plume found 015 - 060°, max reading 0.05 m/h. 3 miles @ 500 ft, plume found 020 - 060°, readings across the plume 0.01 - 0.03 m/h. Top of plume at 3 miles - 600 ft.

3. Ground Surveys

2150 NRC ground survey - standard points - no measurements > Bkgsd.

2253 DOE ground survey - standard points on EAST side. All readings < 0.03 m/h.

4. Air Sample Results

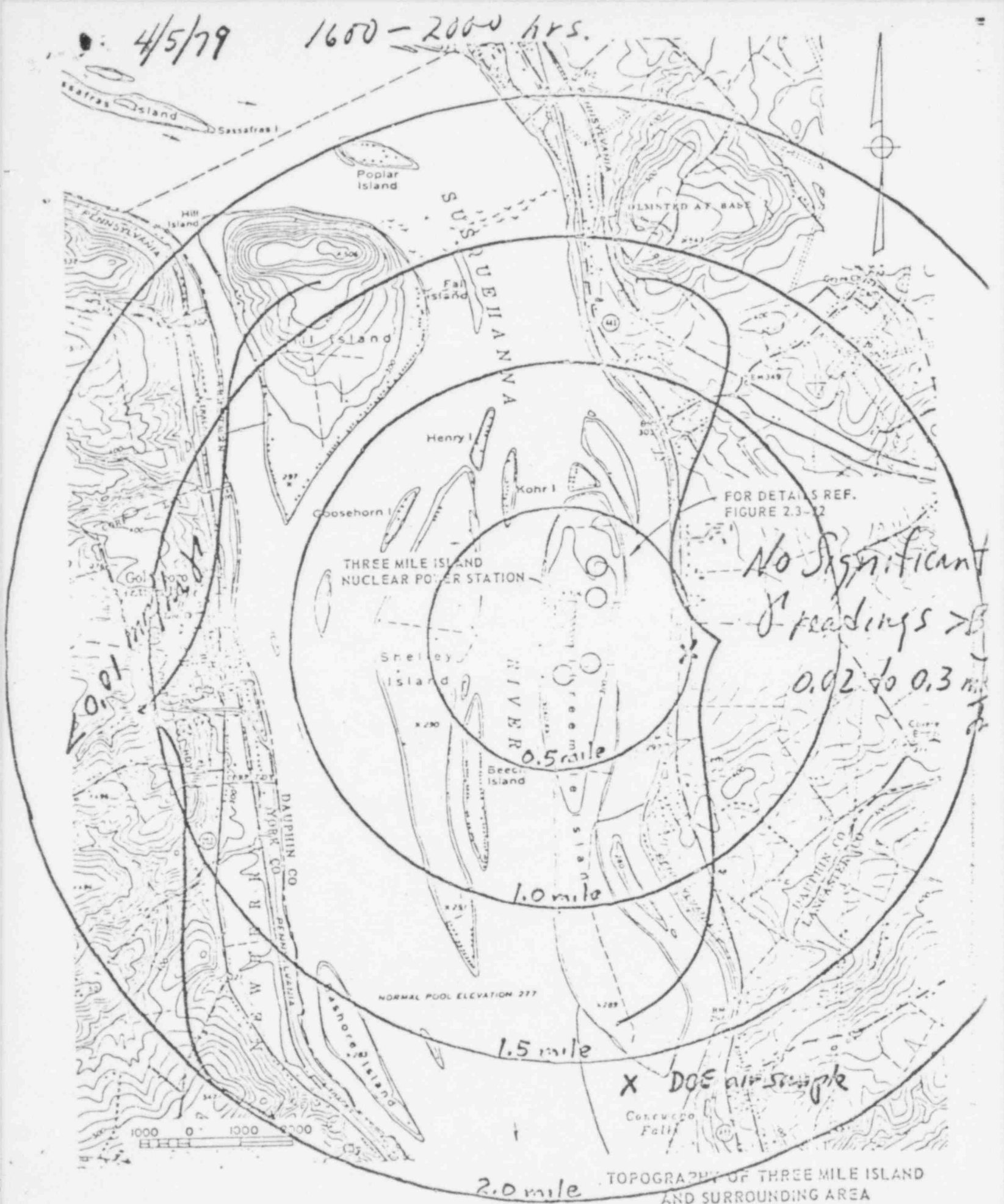
1945- Location at Pt #1, Goldsboro, alpha 51 dpm/m³
2045 Beta 105 dpm/m³. Indicating normal radon.
Analysis findings - $< 0.2 \text{ pCi/l}$

5. Misc.

2110 Sanitary sewage being pumped into truck
for offsite transfer. Toilets, domestic water,
even showers ON as of 2106 hrs.

4/5/79

1600 - 2000 hrs.



FOR DETAILS REF.
FIGURE 2.3-12

No Significant
Readings >
0.02 to 0.3 m

X DOE air sample

TOPOGRAPHY OF THREE MILE ISLAND
AND SURROUNDING AREA

THREE MILE ISLAND NUCLEAR STATION UNIT 2

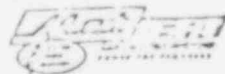


FIGURE 2.3-22A

AM. 14 (5-3-74)

135 119

4/5/79

1600 - 2000 hrs

1. Meteorological Data

<u>Time</u>	<u>Wind Direction</u>	<u>Wind Speed</u>	<u>Fuel Bldg. Area monitor</u>
1632	306 °	5-20 mph	—
1700	270	10-25	60
1730	270	10-20	—
1800	270	12	—
1830	270	5	40
1900	270	5	—
2000	240	5	40

2. Plume Data

AMS Flt #1 1515 - 1615 Flight made at 1 mile radius @ 500'. Plume located 120-135°. Maximum radiation level < 0.1 mR/hr. Plume tracked to 8 miles, max altitude 1600'.

AMS Flt #2 1649 - 1831 Flew "racetrack", 1/4 to 1/2 mile downwind (112°). Max radiation level < 0.2 mR/hr. Plume tracked to 10 miles. Max altitude 2000'.

1830 hrs

135 120

NRC Ground survey (EAST SIDE) STANDARD POINTS, max reading @ IT #8, OBSERVATION BLDG 0.3 mR/hr Gamma

DOE Ground survey 1725 hrs (WEST SIDE) STANDARD POINTS, max reading < 0.01 mR/hr Gamma.

2. Plume Data (cont'd)

DOE Ground Survey 1925 (EAST SIDE) STANDARD POINTS
MAX READING 0.15 mR/hr GAMMA.

3. AIR Sample

DOE AIR SAMPLE TAKEN AT APPROXIMATELY ¹³⁴⁵~~1545~~ HRS.
SAMPLE RESULTS NOT AVAILABLE AS OF 2045 HRS.

4. MISC.

• IN-PLANT RADIATION READINGS:

- a) PERSONNEL ACCESS HATCH PORT - 110 mR/hr
 - b) EQUIPMENT HATCH - 6.6 mR/hr
 - c) FUEL HANDLING MONITOR - 60 mR/hr
 - d) DOME MONITOR - 50,000 R/hr
- } 1600 hrs.

• HPR-219 (STARK MONITOR) STILL OFF - SCALE AT 1820 HRS.

• 1830 hrs STARK RELEASE RATE 1.5 Ci per second.

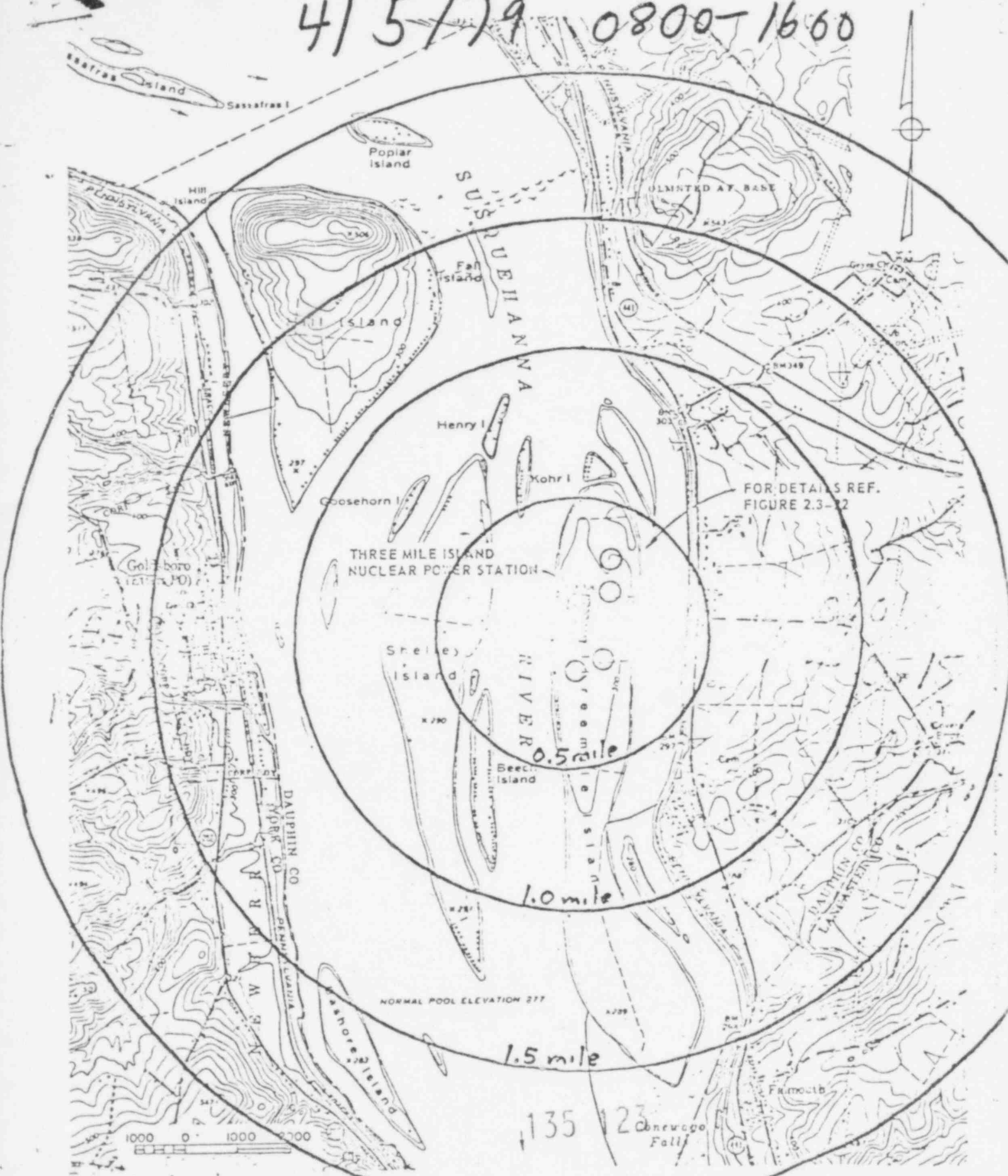
• 1726 hrs Soil & Vegetation sampled at Pt. TLD W-1

TLD

Dose Rate (mil. rads per hour)

Location	Code	Distance Direction	4/1	4/2	4/3	4/4	Rate 4/5
Almouth	SE-2	1.9 SSE	0.15	0.01	0.20	0.04	0.02
Idle town	N-1	3.3 N	0.044	0.01	0.02	0.01	0.01
Oldsboro	W-1	1.3 W	0.13	0.05	0.07	0.07	0.05
Oldsboro	W-2	1.3 WSW	0.040	0.02	0.05	0.02	0.03
Swisberry	W-5	7.1 W	0.053	0.02	0.04	0.03	0.02
Pasant Grove	SW-2	2.4 SW	0.041	0.02	0.06	0.01	0.01
Ork Haven	S-1	2.5 S	0.074	0.02	0.10	0.05	0.01
One way Neighbors	S-2	5.3 S	0.044	0.02	0.07	0.02	0.01
Emigville	S-3	9.0 S	0.053	0.02	0.07	0.02	0.02

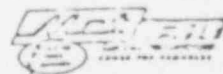
415179 0800-1600



Winds 250°-325°

TOPOGRAPHY OF THREE MILE ISLAND
AND SURROUNDING AREA

THREE MILE ISLAND NUCLEAR STATION UNIT 2



UNIT 2

FIGURE 2.3-22A

ARMS Survey

4-5-71 @ 1430

Wind 15 Knot @

330°

Wave 110°-120°

Readings at 300 ft.

Distance

MR/h

1 mile

0.1

2 miles

0.1

5 miles

0.05

7 miles

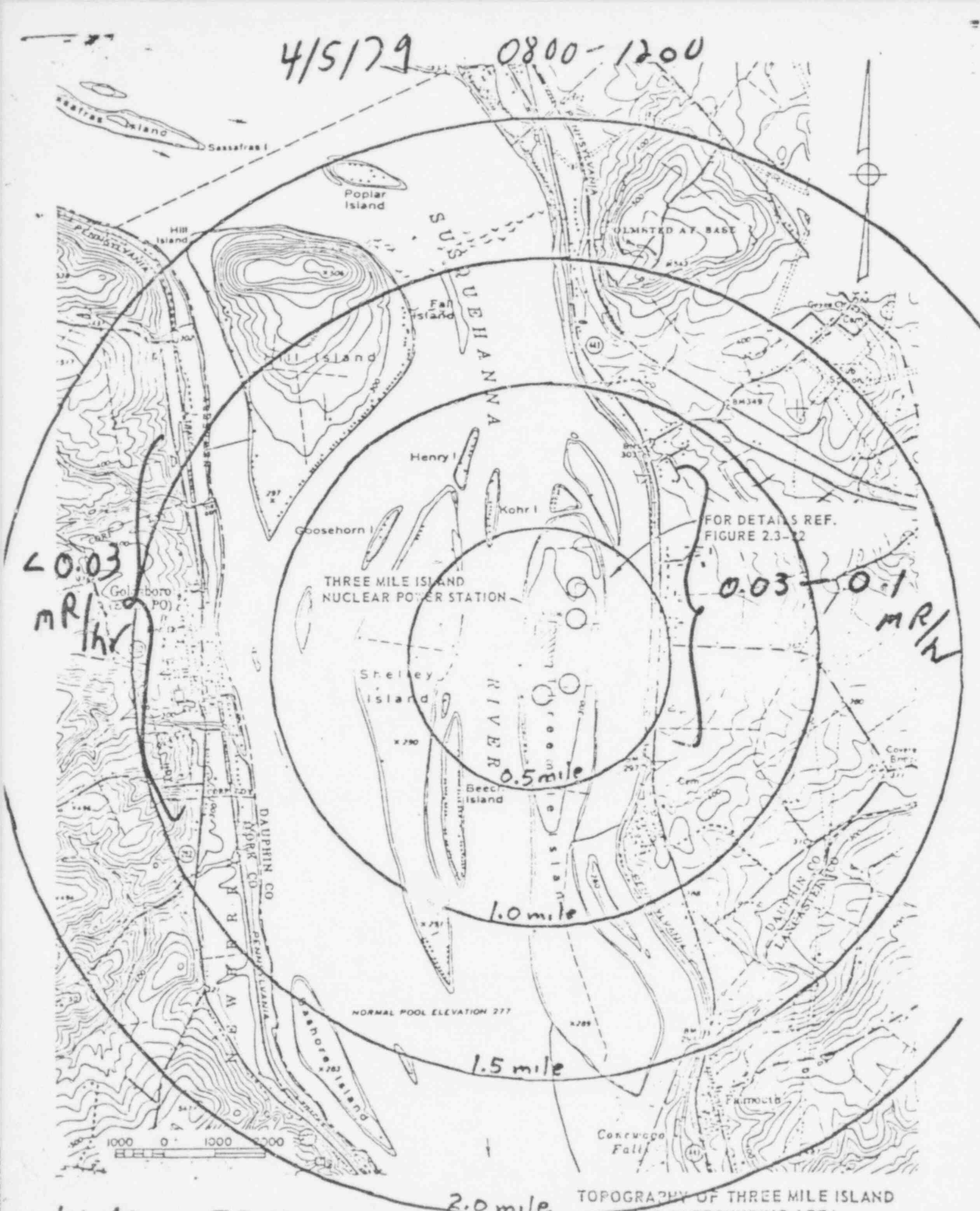
0.05

10 miles

0.03

4/5/79

0800-1200



FOR DETAILS REF.
FIGURE 2.3-22

THREE MILE ISLAND
NUCLEAR POWER STATION

0.5 mile

1.0 mile

1.5 mile

2.0 mile

TOPOGRAPHY OF THREE MILE ISLAND
AND SURROUNDING AREA

THREE MILE ISLAND NUCLEAR STATION UNIT 2

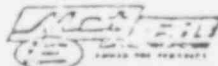


FIGURE 2.3-22A

WINDS

235°-300°

135

125

4/5/79

ARMS Survey @ 0915

Plume 125-130°

Distance	Dose Rate
1 mile	0.3 mR/hr
3 mile	0.05 mR/hr
10 miles	0.03 mR/hr

IWTS

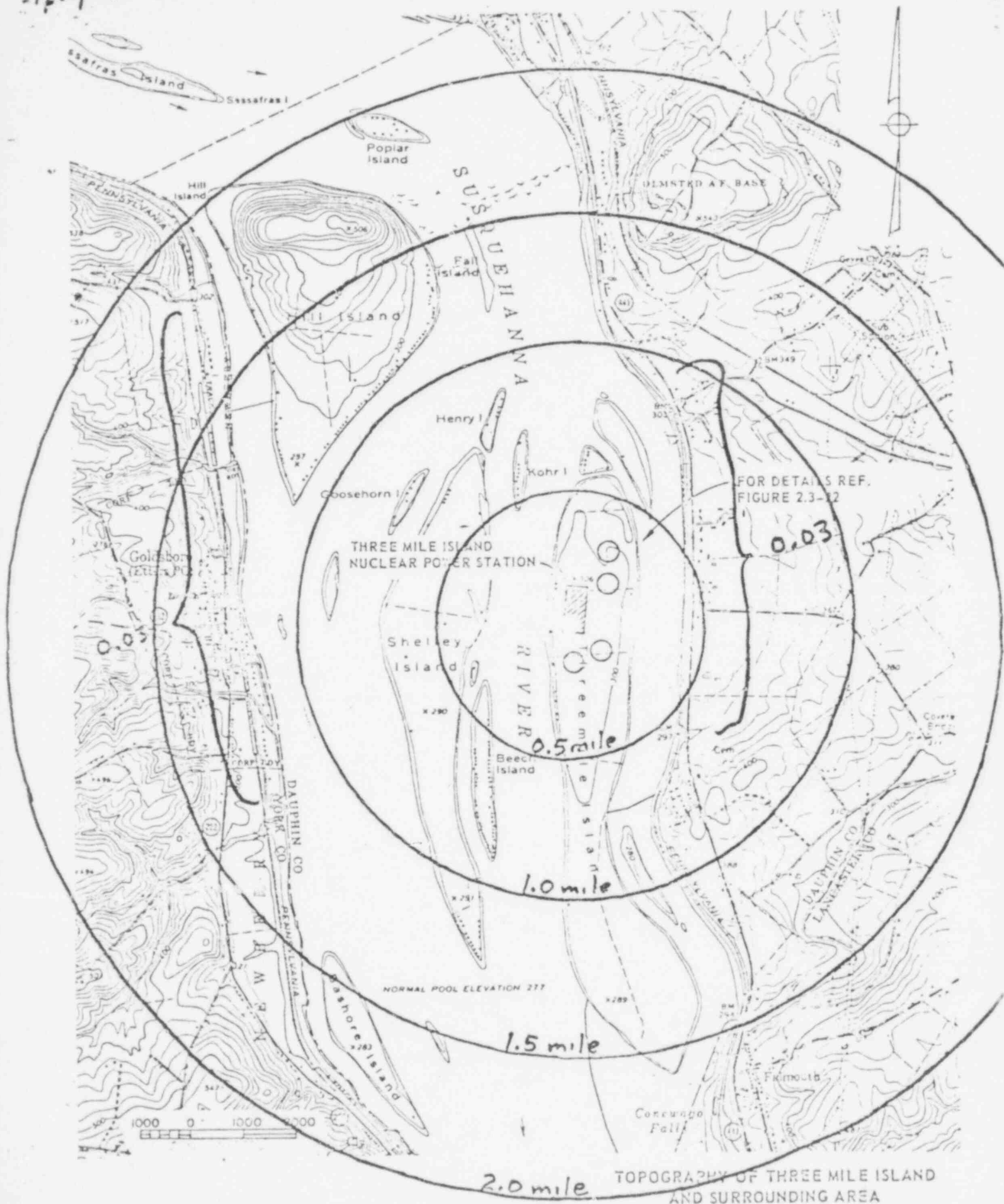
Last discharge 4/2/79 @ 1850 hrs.

Inputs terminated. No time projected for any discharge at this time since IWTS is not filling.

Last IWTS sample analyzed by NRC: I Mobile Lab @ 0000 hrs on 4/5/79 was $2.78 \text{ E-5 } \mu\text{Ci/ml I-131}$.

(IWFS at same time was $< 2 \text{ E-6 } \mu\text{Ci/ml}$.)

4/5/79 0001 - 0400



TOPOGRAPHY OF THREE MILE ISLAND AND SURROUNDING AREA

THREE MILE ISLAND NUCLEAR STATION UNIT 2



FIGURE 2.3-22A

AM. 14 (5-3-74)

4/4/79 (0400)

MET DATA

TIME	Wind direction	Wind speed	Month
0030	180	2	
0100	145	2	90
0210	215	4	
0230	210	4	90
0305	225	3	
0330	220	5	90
0400	225	7	100

Plane data

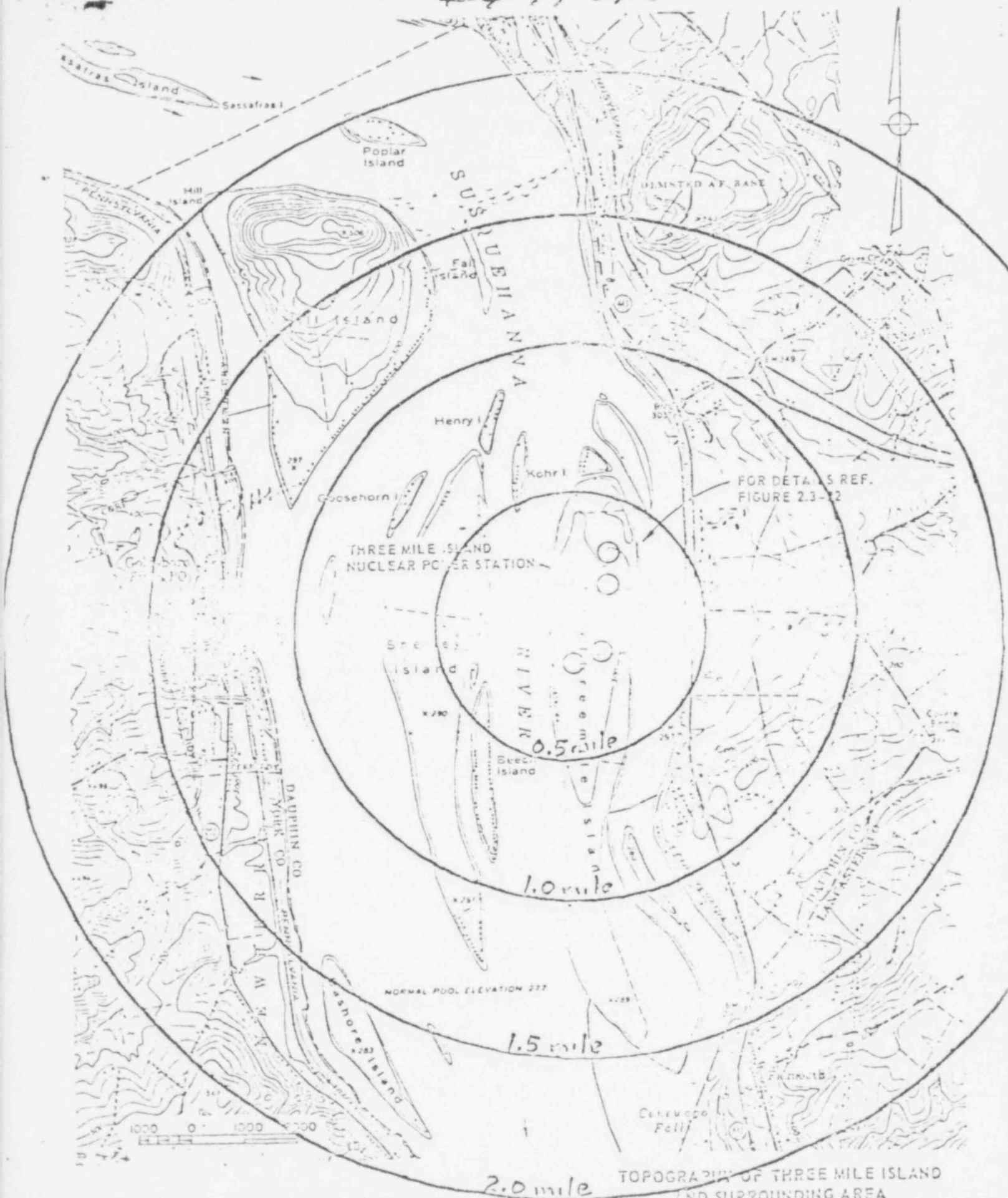
2255 - DOE Ground survey, west side standard points. Points 2 - 0.05, 3 - 0.04 all other points < 0.01

0030 DOE Ground survey, EAST side standard points, No detectable activity above BKGD.

0230 DOE Ground survey, EAST side standard points, No detectable activity above BKGD

2150 AIR sample taken on west side Point II (River Rd & Winnebago)
No detectable activity < 0.1 pCi/l

4-4-79 2400



TOPOGRAPHY OF THREE MILE ISLAND
AND SURROUNDING AREA
THREE MILE ISLAND NUCLEAR STATION UNIT 2



FIGURE 2.3-22A

AM. 14 (5-3-74)

4-4-79 (2400)

METEOROLOGY

TIME	WIND DIRECTION	WIND SPEED	FUEL ALPH AREA MONITOR
2020	300°	7	35
2110	90°	4	—
2140	90°	2	100
2200	90°	3	—
2240	90°	2	100
2310	90°	3	—
2400	250°	3	—

PLUME DATA

2016 - DOE GROUND SURVEY, WEST SIDE STANDARD POINTS,
NO ACTIVITY DETECTABLE ABOVE BACKGROUND.

2055 DOE GROUND SURVEY, STANDARD EAST SIDE SURVEY
POINTS, NO ACTIVITY DETECTABLE ABOVE BACKGROUND

2310 NRC GROUND SURVEY, STANDARD EAST SIDE SURVEY
POINTS, NO ACTIVITY ABOVE BACKGROUND,



At 5000 ft
1005

wind 90° @ 6 mph

135

THREE MILE ISLAND NUCLEAR STATION UNIT 2

FIGURE 2.3-02A

AM. 14 (5-2-74)

4-4-79 2000 DATA SUMMARY.

METEOROLOGICAL

<u>TIME</u>	<u>WIND DIRECTION</u>	<u>WIND SPEED</u>	<u>ACSA MONITOR FIR CLPS.</u>
1600	90°	8	—
1630	90°	6	—
1730	126°	4	—
1800	108°	3	100
1825	360°	4	—
1900	345°	6	—
1940	360°	6	110

AMS

Flight at 1520, DATA NOT AVAILABLE DUE TO MALFUNCTION OF
INSTRUMENT. 12. MEAN VALUES BY SCANNING THE DETECTOR DATA
DERIVED BY COMPUTER.

PLUME DATA

1545 - DOE GROUND SURVEYS ON WEST SIDE, STANDARD POINTS,
NO SIGNIFICANT READINGS.

1629 - DOE GROUND SURVEY, STANDARD POINTS, EAST SIDE, NO
SIGNIFICANT READINGS.

1752 - NRC SURVEY, EAST SIDE, STANDARD POINT, NO SIGNIFICANT
READINGS.

1625 - AIR SAMPLE TAKEN AT WEST SIDE POINT #1 (RIVER ROAD +
WINEBAGO, GOLDSBORO) NO DETECTABLE ACTIVITY.

4-4-79 2000 CONT.

MISC.

EML (H&L) DECIDED NOT TO DEPLOY TLD'S SINCE THEY ARRIVED LATE AND DOSE RATES HAVE APPARENTLY DECLINED.

FDA HAS TLD'S OUT, IN SERIES MODE, CONTACT MADE WITH FDA AT PA DER OFFICE. THEY CONTACTED FDA, HQ. I SUGGEST THIS NOW BE PURSUED BY NRC:IE COMMAND VAN TRAU TSIHQ.

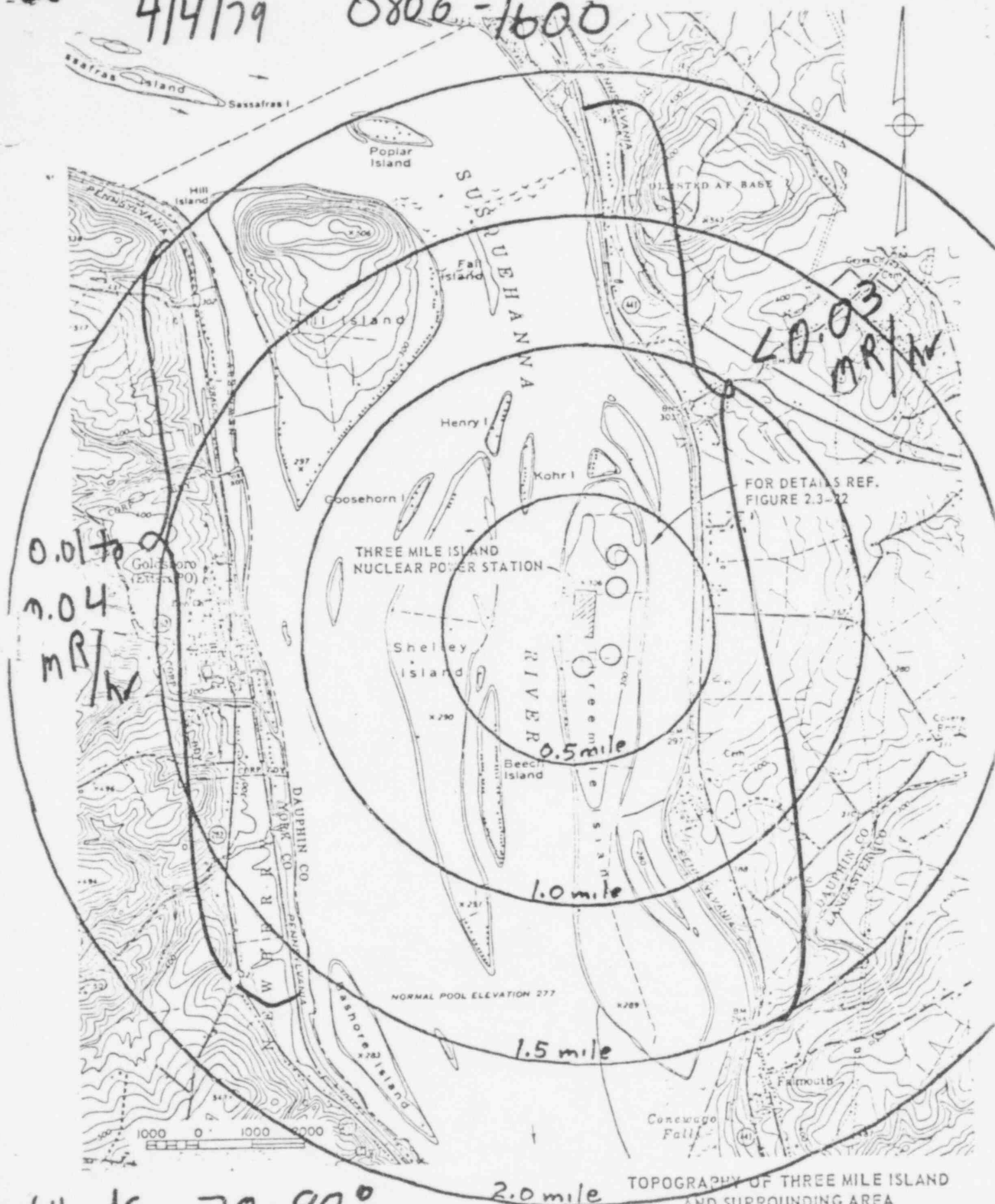
PA DER USED THE SAME TLD'S AS MET-EO:QA, READ BY RMC. IF RMC TLD'S ARE SENT, NO NEED FOR THESE Q-50, (IN)

EPA HAS 2 PLANTS WITH UNKNOWN RESULTS ON 3 APR. THEY MUST BE ANNULLED. (CAF(D))

DOE IS REDUCING SIZE OF FORCE BEGINNING TONIGHT.

4/4/79

0806-1600



Winds 70-90°

135 134

TOPOGRAPHY OF THREE MILE ISLAND
AND SURROUNDING AREA

THREE MILE ISLAND NUCLEAR STATION UNIT 2

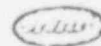


FIGURE 2.3-22

AM. 14 (5-3-74)

4/4/79

0800 - 1600

4 milk samples collected this
A.M. Maryland will analyze.

Winds primarily 70-90° S.W.
0800.

Ground Surveys — East of River
West Side Maximum Reading
0.03 mR/hr.
0.01-0.04

Air Sample Goldsboro
 $\approx 1\frac{1}{2}$ mi E
 $< 1 \times 10^{-10}$
Sample time ≈ 1 hr.

Arms Aerial Survey 12:15
0.8 mR/hr @ 1 mi
0.4 mR/hr @ 3 mi

NO additional / over exposure,

1600-2000 4-3-79



Map shows areas within five- and 10-mile radius of the Three Mile Island nuclear power plant.

TLD -
SURVEYS -
IODINE SAMPLES -

4-3-79 (1500-2000)

Misc. SEE ATTACHED.

DOE BRIEFING SUMMARY:

BNL TOOK AIR SAMPLES IN GOLDSBORO AREA AND AT 1/2 mile SOUTH OF SITE ON Rt 441. 60 min SAMPLE TIME USING Ag-Silica GEL. - BOTH SAMPLES HAD $^{131}\text{I} = 2.2 \times 10^{-11} \mu\text{Ci}/\text{ML}$.
MDA = $10^{-12} \mu\text{Ci}/\text{ML}$.

SOIL SAMPLES TAKEN AT THE SAME LOCATION SHOWED IDENTIFIABLE IODINE-131 PEAKS BUT CONCENTRATION WAS BELOW MDA.

GRASS SAMPLES TAKEN - NO DATA YET.

FDA MILK DATA REPORTS FINDING UP TO 41 pCi/L OF ^{131}I IN MILK SAMPLES WHILE CORRESPONDING SAMPLES TAKEN BY THE STATE OF PA SHOWED ALL SAMPLES LESS THAN 10 pCi/L EXCEPT 1 WHICH WAS LESS THAN 19 pCi/L

TLD DATA

DATA ATTACHED.

HIGHEST POINT MEASURED WAS SE-1 WHICH IS LOCATED 1 MILE S.E. OF SITE. TOTAL 24 HOUR DOSE 0.41 MR. ~~0.41 MR.~~

4-3-79 (1600-2000)

<u>METEOROLOGY</u>	<u>DIRECTION</u>	<u>SPEED</u>	<u>FUEL BLDG AREA MONITOR</u>
1613	288	2-6	150
1640	270-280	4	
1730	340-360	5	
1900	360	4	130
1930	345	3	

PLUME DATA.

AT 1649 A READING WAS FOUND OF 0.4 MR/HR APPROX.
1/2 mile SOUTH OF NR TRAILER ^{ON} RT. 441, WIND SHIFTS
PRECLUDED AIR SAMPLE AT THAT TIME. RESURVEY AT
1752 SHOWED 0.05 MR/HOUR AT THAT SAME POINT. ALL
OTHER READINGS BACKGROUND.

AMS FLIGHTS

1500-1600: WIND DIRECTION 100-120° @ 2 MPH.

1 mile: MAX READING 2 MR/HOUR @ 500 ft.

PLUME EXTENDED FROM 300 - 1100 ft.

3 miles: MAX READING 0.5 MR/HR @ 200 ft.

6 miles: MAX READING 0.5 MR/HR @ 150 ft.

1815-1900 WIND DIRECTION 160-180°

1 mile: MAX READING 2 MR/HR @ 500 ft.

PLUME EXTENDS FROM 150 ft TO 1250 ft.

3 miles: MAX READING 0.5 MR/HR @ 500 ft.

6 miles: MAX READING 0.2 MR/HR @ 150 ft.

SPIKE OF 1.0 MR/HR NOTED AT 4 miles

The DOE Radiological Assistance Program was mobilized at the request of the Commonwealth of Pennsylvania. A team was established to monitor the environment for the presence or deposition of radioactivity due to releases from the Three Mile Island reactor. The team, composed of experts from various National Laboratories, is part of the overall environmental monitoring effort in the counties surrounding the plant.

The team obtained samples of soil, water, vegetation, and air and measured these samples for radioactivity. These are pathways for radioactivity to enter the human body or the food chain. The radionuclide of most immediate concern from an internal exposure viewpoint is iodine. The major constituent in the release of radioactivity from the plant as indicated from our data was inert radioactive gases. This deposition monitoring team is searching for radionuclides which can deposit in the body, such as iodine. These measurements will assist in determining whether radiation exposure from internal radioactivity would be significant compared to the direct radiation from the inert, short half-lived noble gases.

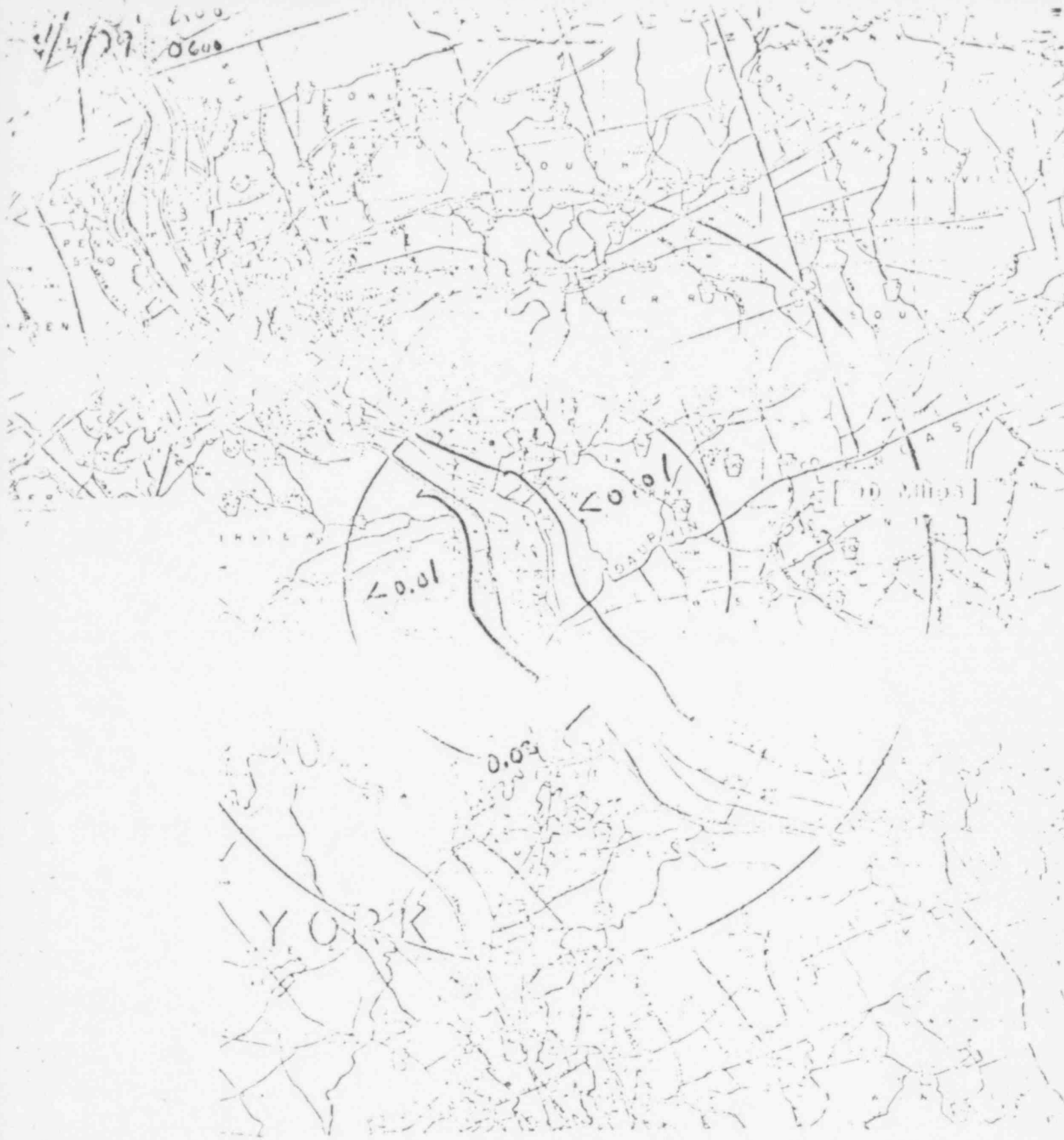
Soil, water, and vegetation samples have been collected. Water samples were collected in one liter containers from surface water, ponds, and streams at the sample location. Vegetation samples were collected by clipping leaves, grass, or other plant life in a one meter-square area. Soil samples were taken by scraping the earth over a one square foot area at each location. The vegetation and soil samples were placed in plastic bags for transport to the counting facility. In addition, air samples were collected at various locations.

As of April 3, 145 vegetation samples, 34 water samples, 13 soil samples, and several air samples have been collected and analyzed. The environmental samples taken were analyzed by experienced radiochemists and laboratory personnel using primarily solid state lithium-drifted germanium detectors with multi-channel analyzers.

No radiiodine has been found in any of the soil, water, or vegetation samples within the very sensitive limits of detection of the equipment and procedures used. It should be noted that although even more sensitive laboratory procedures are capable of detecting even lower traces of radioactivity, these are time consuming and can only be done under laboratory conditions. In addition, no other man-made gamma-emitting radioisotopes were observed in these samples of soil, water, or vegetation.

The members of the team who have been living in the area and collecting these samples within 15 miles of the plant have each received about 5 millirem radiation exposure in the six days.

Given @ DOE briefing on 4/3/79 @ 1700
ASL



Map shows areas within five- and 10-mile radii of the Three Mile Island nuclear power plant.

John Smith
Survey

4/4/79 (2400 - 0800)

METEOROLOGY	DIRECTION	SPEED	REL. HUMIDITY
0015	300	4	100%
0045	320	6	
0135	40	4	
0200	40	4	130
0220	30	5	
0300	40	4	130
0330	90	3	
0414	70	2	130
0450	40	4	
0530	70	1	130

Plume data

on 4/3/79 at 2210 at York Haven (west side) 0.3
miles located, normal plume measurements.

air sample (chess) taken by ODE at North end
of BRUNNERS Island at 1821-1916 on 4/3/79
35.8 ft³ @ 0.1 psi/l 5131

AMS FLIGHTS

1815-1900 Wind direction 115-120°

1 mile: max radon 2.2 mpc 2.50%.

2 miles: max radon 1.5 mpc 1.75%.

3 miles: max radon 1.2 mpc 1.50%.

6 miles: max radon 0.2 mpc 0.25%.

Spine of 60 mpc used at 4 miles

CONTAMINANT rad-

Trace 1030 4/6/77

I-131 1.9×10^5 dpm/ml at 11:00
= 85.6 uCi/ml

I-133 8.7×10^6 dpm/ml at 11:00
= 3.9 uCi/ml

Cs-134 3.1×10^4 dpm/ml
= 1.4×10^{-2} uCi/ml

Cs-136 6.3×10^4 dpm/ml
 2.8×10^{-2} uCi/ml

Cs-137 1.2×10^5 dpm/ml
 5.5×10^{-2} uCi/ml

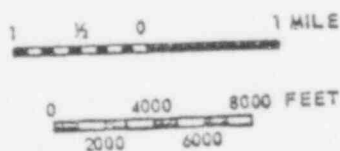
sample contained water

Ground Survey Summary

0800-1600
4/3/79



CONTOUR INTERVAL 20 FEET



Winds $270^\circ - 360^\circ$

AIR SAMPLE ^{131}I

$< 1 \times 10^{-10} \text{ } ^{131}\text{I} / \text{cc}$

SITE TOPOGRAPHY 5 MILE RADIUS
THREE MILE ISLAND NUCLEAR STATION UNIT 1

Prepared by D.M. Montgomery



FIGURE 2-2
(AM 43 7-16-73)

135 143

Act Data 4/3/79

Time	Wind Speed (mph)	Direction
0814	Z	100°
0854	8-10	270°
0930	10-15	360°
0954	10-15 8-10	175-200°
1026	8-10 10-15	324°
1057	4-6 10-15	324°
1130	2-4	306°
1200	4-6	306°
1235	6	324°
1328	6-10	320-340°
1427	6-8	320-340°
1500	4-6	270-285°
1540	2-6	250-285°

Environmental Summary. 1600 April 3, 1979

~~AMS~~ AMS

Three ~~n~~ ^{AMS} E6-G helicopter surveys were made ^{on} 4/3/79. The highest readings were ^{observed} during the period, 12:00 - 13:00.

At 1 mile from the plant, the maximum level was 2.0 mR/hr. (wp) Ground surveys during the day showed elevated levels on the east side of the Susquehanna R. The gamma dose levels ranged from 0.01 to 0.5 mR/hr.

An air sample for ^{131}I was collected in the plume at a location ≈ 0.8 mi SSE of the plant. The ^{131}I concentration in air was less than 10^{-10} NC/cc.

TLD's at the 40 offsite locations were changed and will be read out and reported as soon as possible.

① Precip data - Met. Ed. data

2/28 - 3/31 $< 0.2 - < 0.5$ pCi/l (^{131}I)

4 locations ~~from~~ 0.4 mi to 15 mi

② Milk data - Met. Ed.

< 0.6 & < 0.7 pCi/l (^{131}I) @ control stn 4/1 & 4/2

others 2.3 - 4.4 pCi/l

4/1 & 4/2

goat 27 pCi/l

4/1

③ ^{3}H discharge data

1900 pCi/l

on 3/7, 3/14 & 3/21

500 pCi/l

3/29

④ TLD's

0.01 - 0.07 mR/hr off 4/2/79

1/3/79 2400-0800

net data	direction	speed	net count
0045			125
0100	325	4	
0130	300	2	
0200	305	10	200
0230	328	7	
0305	315	5	110
0400	325	2	130
0430	328	1	
0530	315	4	100
0600	315	8	
0730	342	6	

DOE air sample data on 4/2/79

West side of river 3 samples < MDA 4.8×10^{-12} MC/cc
 East side 2 samples < MDA " "

~~NOTE~~

Plane survey - following release at 0100 team
 found 0.4 m/hr on Fairview Rd and 1/2 mile east
 of Rt 441
 two other survey found background readings of < 0.02
 m/hr

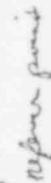
4/2/79 2400-0000



Map shows areas within five- and 10-mile radius of the Three Mile Island nuclear power plant.

WINDS $310^{\circ} - 340^{\circ}$

74



7.5" Δ_{in} Distribution
Exposure Ratio not to

Security papers. vol 4/3/79 0330 to 0430

UNO 181 F500B SERIAL 1269

— M. A.

EAST SIDE (RIVER RD)

OR-2

GNIS INST # 261

DATE 4-3-71

READINGS IN MPH

CATION	TIME	E-Y	W	WIND DIR.
1	0645	0.05	0.03	315° at 8 mph 0600 hrs.
2	0647	0.05	0.03	
3	0649	0.03	0.03	
4	0651	0.03	0.03	
5	0653	0.03	0.03	
6	0655	0.05	0.03	
7	0657	0.40	0.05	
8	(0645)	(10.00)	(2.00)	
8	0659	0.40	0.05	
9	0661	0.50	0.06	
10	06703	1.50	0.40	
11	0705	2.00	0.50	
12	0707	0.50	0.10	
13	0709	0.40	0.10	
14	0711	0.25	0.10	
15	0713	0.25	0.10	

All readings in mph

135 150

4-2-79 (2000 - 2400)



CONTOUR INTERVAL 20 FEET

1 1/2 0 1 MILE

0 4000 8000 FEET
2000 6000

340° - 4 mph

TLD —

SITE TOPOGRAPHY 5 MILE RADIUS
THREE MILE ISLAND NUCLEAR STATION UNIT 1



FIGURE 2-2
(AM. 41 7-16-73)

135 151

4-2-79 (2000-2400)

<u>METEOROLOGY</u>	<u>WIND DIRECTION</u>	<u>SPEED</u>	<u>FUEL BLOC AREA MONITOR</u>
2000	340°	5	120 MR/HR
2100	340°	4	100
2155	360°	CALM	—
2245	54°	2	—
2315	320°	1	—

PLUME DATA

COMPLETE WEST BANK AND EAST BANK SURVEYS COMPLETED AT 2050 AND 2309. ~~NO~~ READINGS ESSENTIALLY BACKGROUND. HIGHEST WEST BANK 0.15 MR/HR, HIGHEST EAST BANK .05 MR/HR.

MISC.

2300 TLD REPORT FOR PAST 24 HOURS. HIGHEST READING 1.7 MR (.07 MR/HR). LIST ATTACHED.

NO	STATION I. D.	DOSIMETER I. D.	START DATE TIME	STOP DATE TIME	TOTAL DOSE AVG. (mR)	REMARKS
1	E-1	60101 60102	4/1 0907	4/2 0918	.4 (.1)	.02
2	NE-1	30133 30134	4/1 0917	4/2 0929	.2 (.04)	.01
3	NE-2	30100 30101	4/1 0924	4/2 0935	.3 (.1)	.01
4	N-1		4/1 0935	4/2 0943	.3 (.09)	.01
5	NE-3		4/1 0942	4/2 0950	.3 (.05)	.01
6	NE-4		4/1 0951	4/2 1007	.3 (.05)	.01
7	N-2		4/1 1017	4/2 1023	.3 (.05)	.01
8	N-3		1022	1028	.3 (.05)	.01
9	N-4		1110	1044	.3 (.05)	.01
10	N-5		1053	1053	.3 (.05)	.01
11	NW-5		1114	1123	.4 (.08)	.02
12	NW-4		1205	1220	.3 (.08)	.01
13	NW-3		1234	1235	.2 (.15)	.03
14	NW-2		1242	1240	.4 (.04)	.02
15	NW-1		1301	1330	1.7 (.22)	.07
16	W-1		1307	1343	1.2 (.21)	.0
17	W-2		1314	1340	.5 (.16)	.02
18	SW-1		1322	1350	.8 (.08)	.03
19	W-3		1352	1414	.5 (.08)	.02
20	W-5		1400	1423	.6 (.08)	.02
21	W-4		1408	1312	.4 (.08)	.02
22	SW-2		1330	1405	.5 (.0)	.02
23	S-1		1338	1440	.4 (.26)	.02
24	S-2		1437	1448	.4 (.08)	.02
25	S-3		1448	1455	.4 (.08)	.02
26	SW-3		1502	1512	.4 (.08)	.02

rmc

UNIVERSITY CITY SCIENCE CENTER
3508 MARKET STREET
PHILADELPHIA, PA 19104

DATE REPORTED

412/79

BY

R chin

NO	STATION	DOSIMETER	START		STOP		TOTAL DOSE	REMARKS
	I. D.	I. D.	DATE	TIME	DATE	TIME	AVG. (mR)	
27	SW-4	60121 60122	4/1	1509	4/2	1518	.5(.06)	.01
28	S-4	30143 30144	4/1	1525	4/2	1538	.3(.06)	.01
29	SE-5	30117 60118	4/1	1609	4/2	1616	.3(.05)	.01
30	SE-4	30141 30142	4/1	1618	4/2	1622	.3(.05)	.01
31	SE-3	30123 30124	4/1	1624	4/2	1628	.3(.05)	.01
32	SE-2	30140 30140	4/1	1634	4/2	1633	.3(.08)	.01
33	SE-1	30105 60106	4/1	1628	4/2	1637	.3(.05)	.01
34	E-2	30115 60120	4/1	1643	4/2	1644	.3(.05)	.01
35	E-3	30109 60110	4/1	1647	-	1648	.4(.05)	.02
36	E-4	30119 30120	4/1	1654	4/2	1654	.3(.04)	.01
37	E-5						.3(.05)	.01
	E-1A	30129 30130	4/1	1719	4/2	1850		

135 154

4-2-79 1600-2000



CONTOUR INTERVAL 20 FEET

1 1/4 0 1 MILE

0 4000 8000 FEET
2000 6000

WIND DIRECTION 72°
SPEED 2 MPH

ARMS GROUNDED.

SITE TOPOGRAPHY 5 MILE RADIUS
THREE MILE ISLAND NUCLEAR STATION UNIT 1



FIGURE 2-2

(AM. AT 7-16-73)

135-455

4-2-79 2000 STATUS

<u>METEOROLOGY</u>	<u>DIRECTION</u>	<u>SPEED</u>	<u>FUEL BLDG AREA MONITOR</u>
1600	90-100°	2-4 MPH	100 mR/Hr
1640	72°	3	
1710	90°	6	100
1745	40°	4	
1800	40°	3	100
1830	72°	3	
1900	72°	2	120
1930	0°	0-1	

DOE TOOK AIR SAMPLE AT 1710 - ANALYSIS SHOWED NO
IODINE > MDA (4.85×10^{-12} $\mu\text{Ci/mL}$.)

PLUMB DATA.

DOE EAST SIDE - 15 POINT SURVEY - ALL READINGS BKG.

DOE WEST SIDE - NO SURVEY POINTS ABOVE BKG.

NRC - TEAM - NO DATA ABOVE BKG.

4/2/79

12:00 - 16:00



CONTOUR INTERVAL 20 FEET

1 1/2 0 1 MILE

0 4000 8000 FEET
2000 6000

Winds 90°-100° at 5-10 mph
NO ARMS Flight

SITE TOPOGRAPHY 5 MILE RADIUS
THREE MILE ISLAND NUCLEAR STATION UNIT 1



FIGURE 2-2

135 157 (AM. 41 7-16-73)

4/2/79

0800-1200



CONTOUR INTERVAL 20 FEET

1 1/2 0 1 MILE

0 4000 8000 FEET

2000 6000

131 I. @ 536

$< 1 \times 10^{-9} \mu\text{Ci/cc}$

SITE TOPOGRAPHY 5 MILE RADIUS

THREE MILE ISLAND NUCLEAR STATION UNIT 1



FIGURE 2-2

(AM. 41 7-16-73)

135 158

Met Data 4/2/79

Time	Wind Direction	Speed mph
0800	90°	5
0827	90°	8
10:34	90°	10-15

4/2/79

Ground Survey

1/29 (0001 - 0800)

INVT	DATA	SPEED	MONITOR
0001	DIRECTION 90°	10	220 mm
0030	125°	10-15	
0100	115°	10-15	200 mm
0130	130°	10	
0200	115°	10-15	200 mm
0230	100°	12-18	
0300	125°	10-15	

Plasma Survey (00E) made survey on East side of river
 results are listed on following sheets - all < 0.0128

NOTE: Waste gas tech sample was taken @ 0400

4-1-79 (2000 - 2400)

METEOROLOGICAL DATA.

			<u>Direction</u>
2000	Direction	036	100 m/s
2035		030	3
2100		080	4
2122		180	15
2200		135	15-25
2230		130	15-20
2300		110	10-15

PLANT SURVEY

Air GRAB SAMPLES TAKEN BY DOE 2 (CHARCOAL FILTER)
1943 0.2 miles NORTH OF 262 AND RIVER ROAD

RESULTS: NO ACTIVITY ABOVE BACKGROUND

MINIMUM SENSITIVITY: 2×10^{-7} μ Ci/ml

1903 0.5 miles NORTH OF INTERSECTION 262 AND
RIVER ROAD.

RESULTS: NO ACTIVITY ABOVE BACKGROUND

MINIMUM SENSITIVITY SAME AS ABOVE.

MISC

2140 UNIT REPORTED INCREASE IN COUNT RATE
POSITION LEVEL: FROM 0.1 TO 1.0 m/s.

AIR SAMPLE STARTED. ATTRIBUTED TO WIND SHIFT.

1800 ACMS FLIGHT: 1 m/s @ 500 Ft 1 mile FROM
plant.

4-1-79 2000

AIR SAMPLE TAKEN 1030-1050 AT 1 MILE
SOUTH OF WRETHERS. NO DETECTABLE IODINE FOUND.
RADIATION READING AT POINT 0.025 mR/hr

LOW LEVELS OF I-131 HAVE BEEN REPORTED BY
SEVERAL GROUPS INVOLVED IN ENVIRONMENTAL SAMPLING.
FDA REPORTED FINDING ABOUT 40 PC/L IN A MILK SAMPLE,
BUT PENN. BRH REPORTED ONLY 11 PC/L FROM AN
ALiquOT OF THE SAME SAMPLE. THE HIGHEST REPORTED
AIR CONCENTRATION OF WHICH WE'RE AWARE WAS
 2×10^{-18} $\mu\text{Ci}/\text{ML}$ FOR A SAMPLE TAKEN CONTINUOUSLY
OVER SEVERAL DAYS.

MET DATA

FUEL BURN
AREA MONITOR

1445	WIND DIR 330 @ 5 MPH	110
1552	" " 360 @ 2-4 MPH	
1705	" " 360 @ 4 MPH	100
1735	" " 360 @ 5 MPH	
1805	" " 360 @ 4 MPH	100
1930	" " 080 @ 4 MPH	
1910	" " 080 @ 4 MPH	100

135 163

PLUG DATA

1615	FALMOUTH RD, 100 YDS OFF 441	0.01 mR/hr
1620	TOWN SQUARE, BAINBRIDGE	0.01
1625	RT 441 AT FALMOUTH RD.	0.01
1740	ENGLE RD AT RT. 441	< 0.05
1800	RT 441 AT ENGLE RD	0.01
1740-1800	DOE TRAVERSE FROM INTERSECTION 262 and 382 TO SOUTH END OF BRUNNEN'S ISLAND	max reading 0.005 mR/hr



Map shows areas within five- and 10-mile radius of the Three Mile Island nuclear power plant.

SUMMARY OF MET DATA AND FUEL
HANDLING BLDG EXHAUST UNIT 2
AREA MONITOR (HP-R-3240)

TIME 4-1-79	WIND DIRECTION (FROM)	WIND SPEED (MPH)	HP-R-3240 MONITOR (CMR/HR)	
1445	330	5	110 (As of 1400)	* Small release confirmed;
1552	360	2-4	----	
1705	360	4	100	
1735	360	5		
1805	360	4	100	
1900	080	4	100	
1931	072	4	---	
2000	036	4	100	
2035	080	3	---	
2100	030	4	100	
2122	180	15	---	
2200	135	15-25	----	
2230	130	15-20	200	
2300	110	10-15	---	
2400	90	10	220	
0100	115	10-15	200	
0200	115	10-15		
0300	125	10-15		
0400	90-115	5-10	190	
0445	90	5-7		
0510	110	10		
0610	125	8-12	150	
0700	110	5-12	150	

SUMMARY OF SURVEY DATA

TIME	LOCATION	β - γ ^{MR/hv}	γ
<u>1 APRIL 79</u>	<u>BACKGROUND</u>	0.02	0.01
1615	100 YARDS OFF 441 ON FALMOUTH RD	0.03	0.01
1615-1800	CENTER OF BAIN BRIDGE	0.02	0.01
	441 AT FALMOUTH ROAD	0.02	0.01
	441 AT ENGINE ROAD	0.02	0.01
1740	DOE (ORNH): ENGINE Rd & Rte 441	<0.05	<0.05
1740-1820	DOE (ANL) TRAVERSE FROM INTERSECTION OF 262 & 382 TO SOUTH END OF BRUNNER'S ISLAND	<0.01	0.005
2130	W. AXELSON REPORTED THAT RAD'N LEVELS IN UNIT #1 CONTROL ^{ROOM} HAD INCREASED FROM <0.1 TO BETWEEN 1.0 AND 2.0 MR/hv. LICENSEE TAKING AIR SAMPLE TO		

4/1/79 8:00 - 4:00 SHIFT PLUMG DATA (25 OF 1600)

WEST SIDE OF RIVER:

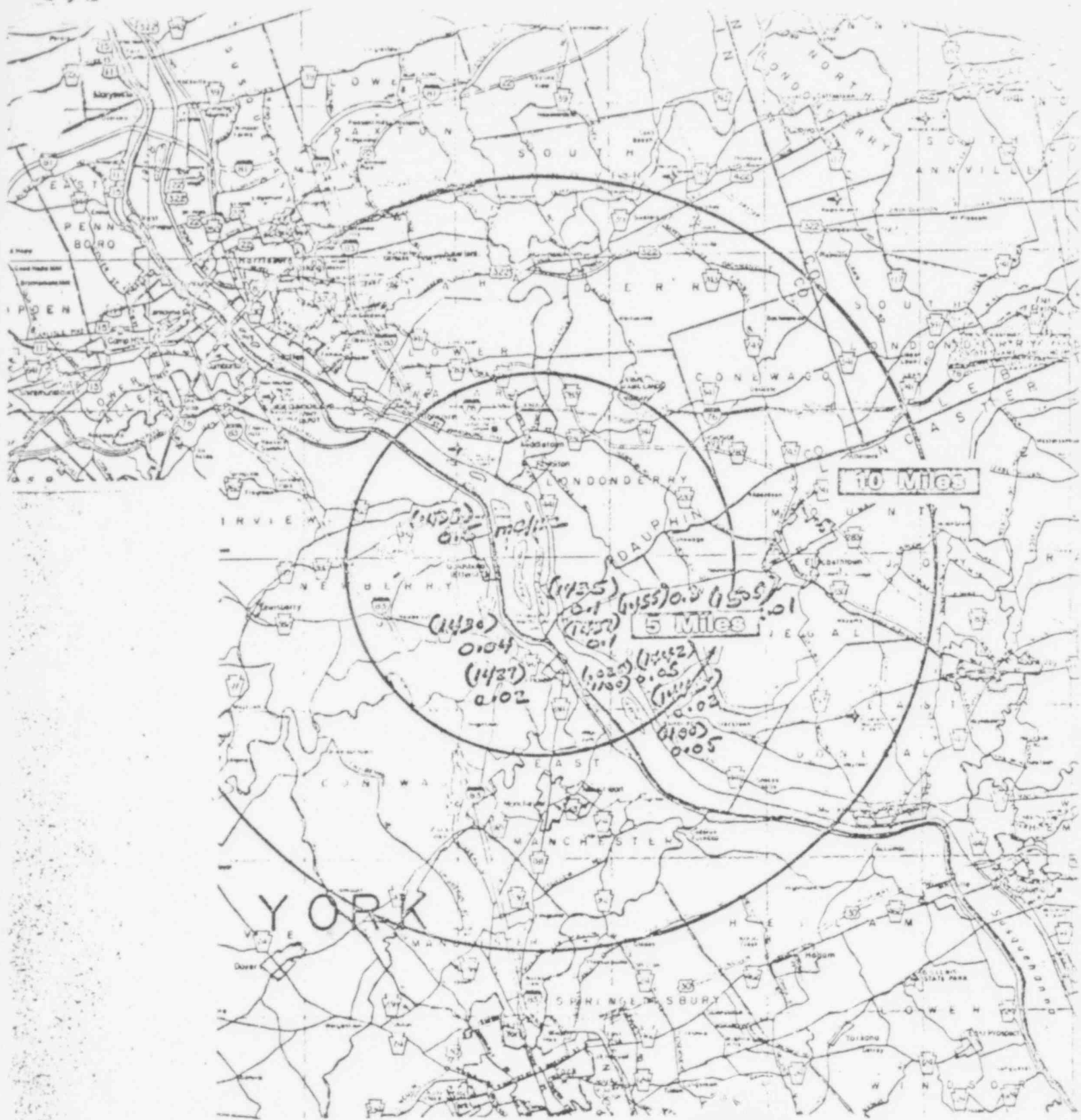
	GM	MICROLOGS
1427 INTERSECTION 295 AND 262	2.01 MR/HR	0.02
1430 INTERSECTION 382 AND 262	.03	0.04
1438 NORTH END BRUNNER'S ISLAND	0.5	

BAD DATA

EAST SIDE OF RIVER

1435 Rt 441 AND SOUTH GATE TO TMI	0.1 MR/HR
1437 (W) RIVER RD AND FALMOUTH RD.	0.1
1442 RIVER RD AND KINGS RD	0.05
1445 RIVER RD AND KEEPER RD.	.02
1455 RIVER RD AND EUGLE RD.	0.3
1505 RIVER RD AND ENGLE RD.	2.01
1150 Rt 441, 1 mile South of NECT TUNNEL	0.025 MR/HR
1100 INTERSECTION 382 AND 121	0.25

135 168



Map shows areas within five- and 10-mile radius of the nuclear power plant.

NRC GROUND SURVEYS

EAST SIDE (RIVER RD.)

DATE 4/6TEAM D/CanINST # 7

LOCATION	TIME	E-8	8'	WIND DIR.
1	1740	<0.02	<0.02	270/25-30
2	1741	<0.02	<0.02	
3	1743	<0.02	<0.02	
4	1744	<0.02	<0.02	
5	1745	<0.02	<0.02	
6	1746	0.03	<0.02	
7	1747	1.03	<0.02	
8	1749	0.15	0.05	
9	1750	0.5	0.05	
10	1751	<0.02	<0.02	
11	1752	<0.02	<0.02	
12	1754	<0.02	<0.02	
13	1755	<0.02	<0.02	
14	1756	<0.02	<0.02	
15	1757	<0.02	<0.02	

DATE 4-6-79
 TEAM E. Neill / J. Madole
 INST # NEG 711

EAST SIDE (RIVER RD.)

LOCATION	TIME	E-2	2	WIND DIR.
1	2102	10.02	10.02	270°
2	2104	10.02	10.02	
3	2106	10.02	10.02	
4	2108	10.02	10.02	
5	2110	10.02	10.02	
6	2112	10.02	10.02	
7	2114	10.02	10.02	
8	2115	0.13	0.02	
9	2116	0.40	0.03	
10	2118	10.02	10.02	
11	2119	10.02	10.02	
12	2121	10.02	10.02	
13	2123	10.02	10.02	
14	2124	10.02	10.02	
15	2126	10.02	10.02	

Air Sample in
 at 2137
 off at 2157

135 172

15 mph

GROUND SURVEY DATA
East Side (River Road)

Date Apr 7, 1979
Team NRC
Inst # Thydc

LOCATION	TIME	B- γ	γ	WIND DIR.
1	0329	<0.05	<0.05	240° 15mph @ 0300 hrs
2	0326			
3	0340			
4	0345			
5	0346			
6	0347			
7	0348			
8	0349	0.07		
9	0351	0.5	0.05	
10	0355	1.5	0.12	
11				
12				
13				
14				
15				

← interrupted to
take air sample

GROUND SURVEY DATA
East Side (River Road)

Date April 7, 1979
 Model NRC
 Inst # Thyde II
NRC # 000710

LOCATION	TIME	B- χ	χ	WIND DIR.
1	0531	0.02	0.02	
2	0533	0.02	↓	
3	0535	0.02		
4	0537	0.02		
5	0539	0.02		
6	0541	0.02		
7	0542	0.02		
8	0548	0.05	↓	
9	0549	0.50	0.05	
10	0551	0.02	0.02	
11	0552	0.02	↓	
12	0553	0.02		
13	0554	0.02		
14	0555	0.02		
15	0557	0.02	↓	

Glenn / Woodruff 4/7/77

Thyau III, SN 1931

<u>Time</u>	<u>Miles</u>	<u>Location</u>	<u>open</u>	<u>closed</u>
0843	174.4	Engle Rd at 441	.03	.01
0845	174.8	Engle Rd .4 mi East of 441	.03	.02
0847	175.2	Engle Rd .8 mi East of 441	.03	.02
0848	175.4	Peck Rd & Engle Rd	.03	.02
	175.6	Peck Rd .2 mi North of Engle Rd	.03	.02
0852	176.0	Zion & Peck	.02	.02
0858	177.1	Engle Rd ~ .6 mi East of 441	Max. 15	.05

133 175

GROUND SURVEY DATA
East Side (River Road)

Date 4/7/77
Team J. Glenn
R. Woodruff
Inst # Thyae II, SN 1931

LOCATION	TIME	B- χ	χ	WIND DIR.
1	0912	.03	.02	320°
2	0914	.03	.02	320°
3	0916	.03	.02	320°
4	0917	.03	.02	320°
5	0919	.03	.02	320°
6	0921	.02	.02	320°
7	0923	.03	.02	320°
8	0924	.05	.03	320°
9	0925	.7	0.1	320°
10	0927	.03	.02	320°
11	0929	.02	.02	320°
12	0930	.03	.02	320°
13	0932	.03	.02	320°
14	0934	.03	.02	320°
15	0936	.03	.02	320°

GROUND SURVEY DATA
East Side (River Road)

Date 4-7-79
Team #1 J. Glenn
P. Woodruff
Inst # ThyAC III ARC 710

LOCATION	TIME	B- <u>X</u>	<u>X</u>	WIND DIR.
1	0812	.03	.03	320°
2	0814	.03	.03	320°
3	0816	.03	.03	320°
4	0818	.03	.03	320°
5	0820	.02	.02	320°
6	0822	.03	.02	320°
7	0824	.03	.02	320°
8	0826	.06	.02	320°
9	0827	0.7	0.1	320°
10	0829	.03	.02	320°
1	0831	.02	.02	320°
12	0832	.03	.02	320°
13	0833	.03	.02	320°
14	0836	.03	.02	320°
15	0838	.03	.02	320°

GROUND SURVEY DATA
East Side (River Road)

Date 4/7/77
Team J Glenn
R Wentruff
Inst # Victorson Thye III
SR 1931

LOCATION	TIME	B- <u>X</u>	<u>X</u>	WIND DIR.
1	1012	.03	.02	320°
2	1014	.03	.02	320°
3	1015	.03	.02	320°
4	1017	.03	.02	320°
5	1019	.03	.02	320°
6	1020	.03	.02	320°
7	1021	.03	.02	320°
8	1023	.03	.02	320°
9	1025	upto .4	~.07	320°
10	1027	.02	.02	320°
11	1028	.03	.02	320°
12	1030	.03	.02	320°
13	1032	.02	.01	320°
14	1034	.02	.01	320°
15	1035	.03-.04	.03-.04	

GROUND SURVEY DATA
East Side (River Road)

Date 4-7-79
Team O'Neill / Perry
Inst # NAC 710

LOCATION	TIME	B- χ	χ	WIND DIR.
1	1520	20.02	20.02	300'
2	1527	20.02	20.02	
3	1529	20.02	20.02	
4	1531	20.02	20.02	
5	1533	20.02	20.02	
6	1535	20.02	20.02	
7	1536	20.02	20.02	
8	1537	0.03	20.02	
9	1538	0.25	0.03	
10	1539	0.03	20.02	
11	1543	20.02	20.02	
12	1545	20.02	20.02	
13	1548	20.02	20.02	
14	1550	20.02	20.02	
15	1551	20.02	20.02	

15-20 mph.

GROUND SURVEY DATA
East Side (River Road)

Date 4/7/23
Team GLENN/WOODRUFF
Inst # Thyae II, SN #1931

LOCATION	TIME	B- X	X	WIND DIR.
1	1341	0.03	0.02	320°-340°
2	1343	0.03	0.02	
3	1344	0.03	0.02	
4	1346	0.03	0.02	
5	1347	0.03	0.02	
6	1348	0.03	0.02	
7	1350	0.03	0.02	
8	1352	0.03	0.02	
9 *	1353	0.03	0.02	
10	1354	0.04	0.03	
11	1358	0.02	0.02	
12	1401	0.02	0.02	
13	1403	0.02	0.02	
14	1405	0.03	0.02	
15	1407	0.03	0.02	

* Peak of 0.10 → 0.15 between 9 & 10 (open window)

GROUND SURVEY DATA
East Side (River Road)

Date 4/7/79
Team J. GLENN
R. Woodruff
Inst # Victoreen Thyrac III
SN 1431

LOCATION	TIME	B- γ	γ	WIND DIR.
1	1236	0.02	0.02	320°-340°
2	1238	0.03	0.02	[
3	1241	0.03	0.02	
4	1243	0.03	0.02	
5	1245	0.03	0.02	
6	1246	0.03	0.02	
7	1247	0.03	0.02	
8	1249	0.04	0.03	
9	1250	0.10	0.04	
10	1252	0.05	0.03	
11	1254	0.03	0.02	
12	1256	0.03	0.02	
13	1257	0.03	0.02	
14	1259	0.03	0.02	
15	1300	0.03	0.02	

* High of ~0.6 measured open window
about half-way between 9 & 10

417/29

SN 1931

0,02

GROUND SURVEY DATA
East Side (River Road)

Date 4-7-79
Team O'Neill / Perry
Inst # ARC # 710

LOCATION	TIME	B- χ	χ	WIND DIR.
1	2005	20.02	20.02	
2	2006	20.02	20.02	
3	2008	20.02	20.02	
4	2010	20.02	20.02	
5	2012	20.02	20.02	
6	2014	20.02	20.02	
7	2015	20.02	20.02	
8	2016	20.02	20.02	
9	2017	20.02	20.02	
10	2018	20.02	20.02	
11	2020	20.02	20.02	
12	2021	20.02	20.02	
13	2024	20.02	20.02	
14	2025	20.02	20.02	
15	2026	20.02	20.02	

GROUND SURVEY DATA
East Side (River Road)

Date 4-7-79
Team O'Neill / Perry
Inst # NCC# 710

LOCATION	TIME	B- γ	γ	WIND DIR.
1	2230			
2				
3				
4				
5				
6				
7				
8				
9				
10	✓	0.02	—	
11	2254	0.1	—	
12	2300	0.4	0.04	
13	2250	0.3	—	
14				
15				

Location #12
Air sample on at 2304
off at 2324

GROUND SURVEY DATA
East Side (River Road)

Date April 8, 1979

Team NRC

Inst # Thyoc II

NRC 000710

LOCATION	TIME	B- <u>8</u>	<u>8</u>	WIND DIR.
1				
2				
3				
4				
5				
6				
7				
8	0031	0.02	0.02	@0015hrs
9	1152/0030	0.3/0.02	0.05	
10	1159/0038	0.3/0.02	0.03	
11	1206/0046	0.3/0.02	0.03	
12	0008/0037	0.08/0.08	0.02/0.02	
13	0010/0031	0.12/0.4	0.02/0.04	
14	0019	0.17	0.02	
15	0017	0.13	0.02	

Kings 441 0015 0.05 0.02

360° 2 mph

CLOUD SURVEY DATA
East Side (River Road)

Date April 8, 1979

Time NRC

Inst: Thyac II S/N 1931
NRC 710

Instrument BKGD = 0.02

LOCATION	TIME	B- χ	χ	WIND DIR.
1	0506	0.02	0.02	350° @ 6MPH @ 5:05hrs
2	0508	0.02	0.02	
3	0509	0.02	0.02	
4	0511	0.02	0.02	
5	0513	0.02	0.02	
6	0514	0.02	0.02	
7	0515	0.02	0.02	
8	0516	0.02	0.02	
9	0517	0.02	0.02	
10	0518	0.02	0.02	
11	0519	0.03	0.02	
12	0522	0.04	0.02	
13	0523	0.04	0.02	← dir sample taken 0535hrs
14	0526	0.03	0.02	
15	0528	0.02	0.02	

GROUND SURVEY DATA
East Side (River Road)

Date 4/8/77
Team GLENN/WOODRUFF
Inst # THYAC III, SN 1931

LOCATION	TIME	B- χ	χ	WIND DIR.
1	0858	0.02	0.01	270 → 015
2	0856	0.03	0.02	
3	0854	0.03	0.02	
4	0852	0.03	0.02	
5	0851	0.03	0.02	
6	0849	0.03	0.02	
7	0847	0.02	0.02	
8	0825	0.03	0.02	
9	0826	0.03	0.02	
10	0827	0.04	0.03	
11	0829	0.04	0.02	
12	0831	0.04	0.03	
13	0832	0.03	0.02	
14	0834	0.03	0.02	
15	0836	0.03	0.02	✓

0841 0.05 0.03
0843 ~ 0.06 0.03

at South Gate TMI
Middle of South Bridge

135 187

GROUND SURVEY DATA
E st Side (River Road)

Date 4/6/79
Team GLENN/WOODRUFF
Inst # Thyru II, SK 143

LOCATION	TIME	B- χ	χ	WIND DIR.
1	0916	0.03	0.03	270 $\rightarrow$ 015
2	0918	0.03	0.02	"
3	0920	0.03	0.02	"
4	0923	0.03	0.02	"
5	0925	0.03	0.02	"
6	0926	0.03	0.02	"
7	0927	0.03	0.02	"
8	0928	0.03	0.02	"
9	0930	0.06	0.03	"
10	0932	0.03	0.02	"
11	0933	0.03	0.02	"
12	0934	0.02	0.02	"
13	0935	0.02	0.02	"
14	0937	0.02	0.02	"
15	0939	0.02	0.02	"

135 188

GROUND SURVEY DATA
East Side (River Road)

Date 7/8/79
Team GLENN/WOODRUFF
Inst # THYAC III, SN 1931

LOCATION	TIME	B- <u>X</u>	<u>X</u>	WIND DIR.
1	1007	0.03	0.02	40°
2	1008	0.03	0.02	40°
3	1010	0.03	0.02	"
4	1012	0.03	0.02	"
5	1014	0.03	0.02	"
6	1015	0.04	0.03	110-260
7	1016	0.08	0.04	↓
8	1017	0.06	0.03	
9	1019	0.03	0.03	
10	1021	0.03	0.02	
11	1022	0.03	0.02	
12	1024	0.03	0.02	
13	1025	0.03	0.02	
14	1027	0.03	0.02	
15	1029	0.03	0.02	

GROUND SURVEY DATA
East Side (River Road)

Date 4/8/79
Team G. LEW/WOODRUFF
Inst # Vicoreen Thyse HI
SN 1931

LOCATION	TIME	B- X	X	WIND DIR.
1	1043	0.03	.02	160°-180°
2	1046	0.03	.02	
3	1048	0.02	.02	
4	1050	0.03	.02	
5	1052	0.06	.03	
6	1053	0.03	.02	
7	1055	0.03	.01	
8	1056	0.02	.02	
9	1057	0.03	.02	
10	1059	0.03	.02	
11	1101	0.03	.02	
12	1102	0.03	.02	
13	1103	0.03	.02	
14	1105	0.03	.02	
15	1106	0.03	.02	✓

GROUND SURVEY DATA
East Side (River Road)

Date 4/8/79

Team Glenn / Woodruff

Inst # Victoreen Thya IV
SR 1931

LOCATION	TIME	B- <u>X</u>	<u>X</u>	WIND DIR.
1	1304	0.03	0.02	180°
2	1305	0.03	0.02	
3	1307	0.07	0.04	
4	1309	0.03	0.02	
5	1311	0.03	0.02	
6	1312	0.03	0.02	
7	1313	0.03	0.02	
8	1314	0.03	0.02	
9	1316	0.02	0.02	
10	1317	0.02	0.02	
11	1318	0.02	0.02	
12	1320	0.02	0.02	
13	1321	0.02	0.02	
14	1322	0.03	0.02	
15	1324	0.03	0.02	✓

GROUND SURVEY DATA
East Side (River Road)

Date 4/8/79
Team Glen/Woodruff
Inst # Victor Thompson III
SA 1931

LOCATION	TIME	B- <u>X</u>	<u>X</u>	WIND DIR.
1	1355	0.03	0.02	210°
2	1357	0.03	0.02	
3	1358	0.03	0.02	
4	1359	0.03	0.02	
5	1401	0.04	0.03	
6	1403	0.03	0.02	
7	1404	0.03	0.02	
8	1405	0.03	0.02	
9	1406	0.02	0.02	
10	1408	0.03	0.02	
11	1410	0.02	0.02	
12	1411	0.03	0.02	
13	1412	0.03	0.02	
14	1414	0.03	0.03	
15	1415	0.03	0.03	

GROUND SURVEY DATA
East Side (River Road)

Date 4/8/29
Team GLENN/WOODRUFF
Inst # VICTOREEN/THYK II
SN 1931

LOCATION	TIME	B- X	X	WIND DIR.
1	1432	0.03	0.02	250°
2	1434	0.03	0.02	
3	1435	0.04	0.02	
4	* 1439	0.05	0.03	
5	1514	0.05	0.03	
6	1516	0.03	0.02	
7	1517	0.03	0.02	
8	1518	0.03	0.03	
9	1519	0.03	0.03	
10	1520	0.02	0.02	
11	1521	0.03	0.02	
12	1522	0.03	0.03	
13	1524	0.02	0.02	
14	1526	0.02	0.02	
15	1527	0.02	0.02	

* 1441 0.07 .04 ~ .2 mi South of Loc 4

GROUND SURVEY DATA
East Side (River Road)

Date 4-8-79
Team D'NEILL / PITY
Inst # NRC # 710

LOCATION	TIME	B- X	X	WIND DIR.
1	1642	<0.02	<0.02	90°
2	1647	<0.02	<0.02	
3	1650	<0.02	<0.02	
4	1651	<0.02	<0.02	
5	1652	<0.02	<0.02	
6	1654	<0.02	<0.02	
7	1655	<0.02	<0.02	
8	1656	<0.02	<0.02	
9	1657	<0.02	<0.02	
10	1658	<0.02	<0.02	
11	1659	<0.02	<0.02	
12	1700	<0.02	<0.02	
13	1702	<0.02	<0.02	
14	1703	<0.02	<0.02	
15	1704	<0.02	<0.02	

3 mph

Date 4/8/79
Terrain NEC

Dir. 100°
Speed 3-5 mph

90°

3-5

for sample
Goldshero (NWT to River)
ON at 1956
off at 2016

Wind
1930

90 - 3-5

Location Ate 262.
Curve after bridge
0.25 m/s / 0.025

Glenn/Terc 4/6/79
Thyac III, NRC 710, SN 1931

<u>Time</u>	<u>Miles</u>	<u>Location</u>	mR/hr	
			<u>open</u>	<u>close</u>
1316	081.4	Hillsdale Rd & Fulmouth Rd	<0.03	<0.03
1318	081.6	Hillsdale Rd & Hill Rd	.05	<0.03
1322	081.8	Hillsdale Rd .2 mi North of Hill Rd	.05	<0.03
1325	082.2	Hillsdale Rd & Creek Rd	.10	.04

135 196

EAST SIDE (RIVER RD.)

DATE 4/6/77TEAM Glenn/TercINST # Thyco 211

NRC 710

SN 1931

Source Check 1.0

LOCATION	TIME	$\epsilon - \gamma$	γ	WIND DIR.
1	1240	40.03	40.03	270
2	1242	40.03	40.03	270
3	1244	40.03	40.03	270
4	1246	40.03	40.03	270
5	1247	40.03	40.03	270
6	1249	40.03	40.03	270
7	1251	40.03	40.03	270°
8	1252	1.0	0.1	270°
9	1254	0.2	40.03	270°
10	1257	40.03	40.03	270°
11	1259	40.03	40.03	270°
12	1301	40.03	40.03	270°
13	1303	40.03	40.03	270°
14	1305	40.03	40.03	270°
15	1307	40.03	40.03	270°

Glenn/Terc 4/6/79
Thyac III, NRC 710, SN 1931

<u>Time</u>	<u>Miles</u>	<u>Location</u>	mR/hr	
			<u>open</u>	<u>close</u>
1316	081.4	Hillsdale Rd & Fulmont Rd	<0.03	<0.03
1318	081.6	Hillsdale Rd & Hill Rd	.05	<0.03
1322	081.8	Hillsdale Rd .2 mi North of Hill Rd	.05	<0.03
1325	082.2	Hillsdale Rd & Creek Rd	.10	.04

135 198

EAST SIDE (RIVER RD.)

DATE 4/5/77TEAM Glenn/ToruINST # Thyae 76

NRC 710

SN 1931

Source Check 1.0

LOCATION	TIME	L-X	X	WIND DIR.
1	1240	40.03	40.03	270
2	1242	40.03	40.03	270
3	1244	40.03	40.03	270
4	1246	40.03	40.03	270
5	1247	40.03	40.03	270
6	1249	40.03	40.03	270
7	1251	40.03	40.03	270°
8	1252	1.0	0.1	270°
9	1254	0.2	40.03	270°
10	1257	40.03	40.03	270°
	1259	40.03	40.03	270°
12	1301	40.03	40.03	270°
13	1303	40.03	40.03	270°
14	1305	40.03	40.03	270°
15	1307	40.03	40.03	270°

135 199

Map Points - East Side (River Road)

<u>Point</u>	<u>Location</u>
1	South Union & Rt. 441
2	1) Byrd Street & Rt. 441
3	Railroad Corssing & Rt. 441
4	Riverside Boat Sales & Rt. 441
5	Geyer Church Road & Rt. 441
6	Laurel Road & Rt. 441
7	Meadow Lane & Rt. 441
8	Headquarters Building (55 MPH Limit Sign) & Rt. 441
9	Access Road on left & Rt. 441
10	Red Hill Plaza & Rt. 441
11	Engle Road & Rt. 441
12	Conoy City Sign & Rt. 441
13	Falmouth Road & Rt. 441
14	Collins Road & Rt. 441
15	Keener Road & Rt. 441

GROUND SURVEY DATA
East Side (River Road)

Date 4/5/79
Team Dico
Inst # Allyn - NR 4702

LOCATION	TIME	B- <u>X</u>	<u>X</u>	WIND DIR.
1				
2				
3				
4				
5				
6				
7	1705	1.5	0.3	
8	1645	1.5	0.3	
9	1628	0.15	0.03	270-300
10	1638 1642	<0.02	<0.02	
11	1639	<0.02	<0.02	
12	1640	<0.02	<0.02	
13	1642	<0.02	<0.02	
14	1643	<0.02	<0.02	
15	1644	<0.02	<0.02	

Net
as of 1605
270-300
15-25

1700
270
15-25

1700- 115-2 0.15 in front of observation bldg

GROUND SURVEY DATA
East Side (River Road)

Date 4/5/79
Team Dick
Inst # Thyac NRC 702

LOCATION	TIME	B-X	X	WIND DIR.
1	1830	<0.02	<0.02	
2	1829	<0.02	<0.02	
3	1828	<0.02	<0.02	
4	1827	<0.02	<0.02	
5	1826	<0.02	<0.02	
6	1825	<0.02	<0.02	
7	1824	0.1	0.05	
8	1823	3.5	0.3	
9	1822	0.3	0.05	
10	1820	0.03	0.02	
11	1819	<0.02	<0.02	
12	1818	<0.02	<0.02	
13	1817	<0.02	<0.02	
14	1816	<0.02	<0.02	
15	1815	<0.02	<0.02	

Met
1605
270-300
15-25
1700
270
15-25
1800
270
12

135 202

Date 4/5/79GROUND SURVEY DATA
East Side (River Road)Team NRC-Dick-O'Brien
PCRMInst # THAC, NRC 702

LOCATION	TIME	B- <u>X</u>	<u>X</u>	WIND DIR.
1	2123	< 0.02	< 0.02	200
2	2124	< 0.02	< 0.02	
3	2127	0.03	< 0.02	
4	2129	0.1	0.03	
5	2131	0.04	< 0.02	
6	2134	< 0.02	< 0.02	
7	2135	< 0.02	< 0.02	
8	2138	< 0.02	< 0.02	
9	2139	< 0.02	< 0.02	
10	2141	< 0.02	< 0.02	
11	2143	< 0.02	< 0.02	
12	2144	< 0.02	< 0.02	
13	2146	< 0.02	< 0.02	
14	2148	< 0.02	< 0.02	
15	2150	< 0.02	< 0.02	

2 mph

2145/180/6

135 203

GROUND SURVEY DATA
East Side (River Road)

Date 4/6/79
Team NRC
Inst # THVAC
190°

LOCATION	TIME	B- <u>X</u>	<u>X</u>	@ 0030hrs WIND DIR.
1	0118	0.03	0.015	5 mph - 190°
2	0122	0.025	0.015	
3	0125	0.025	0.02	
4	0127	0.03	0.015	
5	0129	0.015	0.015	
6	0132	0.02	—	
7	0134	0.015	—	
8	0135	0.015	—	
9	0136	0.02	—	
10	0139	0.02	—	
11	0140	0.02	—	
12	0142	0.015	—	
13	0143	0.015	—	
14	0145	0.02	—	
15	0147	0.02	—	<u>X</u>

R. Paul
L. Friedman

EAST SIDE (RIVER RD.)

7/1/77

TEAM: NRC

INST # Thyac

LOCATION	TIME	P - 8'	8	WIND DIRECTION
1	0516	0.01		
2	0518	0.02		
3	0519	0.025		
4	0522	0.015		
5	0524	0.02		
6	0527	0.03		
7	0530	0.02		
8	0652	0.15	0.12	
9	0654	1.08	0.03	
10	0656	1.02		
11	0657	1.02		
12	0659	1.02		
13	0703	1.03		
14	0705	1.02		
15	0707	1.02		

→ 270° - 20-25 mph

at ~ 6:37 am — 5 mi/hr open window
 0.5 " " " closed window

at main entrance of
 Rt 441 (Trailer city)

135 205

GROUND SURVEY DATA
East Side (River Road)

Team

Inst #

Thy #

1931

Date

4/6/79

Glen/Terc

1931

Thy #

1931

Inst #

Thy #

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Thy #

1931

LOCATION	TIME	B-X	Y	WIND DIR.
1	0847	2.03	2.03	270°
2	0845	2.03	2.03	270°
3	0843	2.03	2.03	270°
4	0840	2.03	2.03	270°
5	0838	2.03	2.03	270°
6	0836	2.03	2.03	270°
7	0834	0.04	1.03	290°
8	0810	0.6	1.07	290°
9	0816	0.03	2.03	290°
10	0817	2.03	2.03	11
11	0819	2.03	2.03	11
12	0821	2.03	2.03	11
13	0823	2.03	2.03	11
14	0825	2.03	2.03	11
15	0827	2.03	2.03	11

Check source box

Glenn / Terc 4/6/79

Time	Miles	Location	open	closed
0854	026.4	4 1/2 mi Meadow	.3	.03
0858	026.6	Meadow & Peck	1.0	.01
0900	027.0	Peck & Zion	0.7	0.06
0903	027.2	.2 mi S of Inters. Peck and Zion (on Peck)	0.5	0.06
0905	027.4	.4 mi S of Peck and Zion (on Peck)	<0.03	<0.03
0906	027.5	Peck, Engle, & Covered Bridge	<0.03	<0.03
0909	028.1	Peck & Zion	0.5	0.03
0911	028.4	.3 mi E on Zion	<0.03	<0.03
0913	028.9	Zion & Hillsdale	<0.03	<0.03
0917	029.6	.7 mi S on Hillsdale	0.25	.03
0919	029.8	.9 mi S on Hillsdale	0.15	.05
0921	030.0	1.1 mi S on Hillsdale	0.18	.05
0924	030.1	Hillsdale & Creek Rd	.15	.03
0926	030.3	.2 mi S on Hillsdale	.04	.04
From Inters. with Creek Rd				
0928	030.5	.4 mi S on Hillsdale	.07	.03
0929	030.7	Hillsdale & Hill Rd	.06	.03
0930	030.9	Hillsdale & Falmouth	<.03	<.03

Glenn / Torc

4/6/77

Thyae III, NBC 000710, 5/1 1931

<u>Time</u>	<u>Miles</u>	<u>Location</u>	<u>open</u>	<u>closed</u>
10:55	050.4	Hillsdale & Hill Rd	.14	.04
10:58	050.7	.3 mi N on Hillsdale	.10	.03
10:59	051.0	Hillsdale & Creek Rd	.08	.03
11:01	051.6	.6 mi N on Hillsdale	.04	<.03
From Creek Rd				
11:05	051.7	.9 mi N on Hillsdale	.03	<.03
11:09	052.2	Hillsdale & Zion	<.03	<.03
11:12	053.0	Zion & Pecks Rd	0.6	.04
11:14	053.3	Pecks Rd & Alsodon Ln	0.03	0.03
11:15	053.7	Zion & Pecks Rd	0.03	<0.03
11:17	053.9	.2 mi S on Pecks Rd	0.4	.04
From Zion Rd				
11:18	054.1	.4 mi S on Pecks Rd	0.4	.04
11:20	054.2	Pecks Rd & Engle Rd	<0.03	<0.03
	056.3			

GROUND SURVEY DATA
East Side (River Road)

Date 4/6/79
Team Glen / Terc
Inst # Thyag III

NRC # 000710
SN 1931

, Check source 1.0

LOCATION	TIME	B- <u>X</u>	<u>X</u>	WIND DIR.
1	1023	20.03	20.03	270°
2	1025	20.03	20.03	270°
3	1027	20.03	20.03	270°
4	1028	20.03	20.03	270°
5	1030	20.03	20.03	270°
6	1031	20.03	20.03	270°
7	1033	20.03	20.03	270°
8	1034	0.6	0.06	270°
9	1035	.03	2.03	270°
10	1037	2.03	2.03	270°
11	1038	2.03	2.03	270°
12	1040	2.03	2.03	270°
13	1042	2.03	2.03	270°
14	1044	2.03	2.03	270°
15	1046	2.03	2.03	270°

135 209

GROUND SURVEY DATA
East Side (River Road)

Inst #

Wichman, Thane

Team

Glenn / Tek

Date

4/6/79

ARC - 000210
Source Aref 1.0

LOCATION	TIME	B-X	Y	WIND DIR.
1	10 20	< 0.03	< 0.03	270°
2	10 18	< 0.03	< 0.03	270°
3	10 16	< 0.03	< 0.03	270°
4	10 14	< 0.03	< 0.03	270°
5	10 12	< 0.03	< 0.03	270°
6	10 09	< 0.03	< 0.03	270°
7	10 06	0.03	40.03	270°
8	09 52	0.25	0.03	270°
9	09 50	0.5	0.05	270°
10	09 48	< 0.03	< 0.03	270°
11	09 46	< 0.03	< 0.03	270°
12				
13	09 45	< 0.03	< 0.03	270°
14	09 43	< 0.03	< 0.03	270°
15	09 40	< 0.03	< 0.03	270°

Date 4-6-79GROUND SURVEY DATA
East Side (River Road)Team LK?GMSM Inst # 26181

LOCATION	TIME	B- <u>X</u>	<u>X</u>	WIND DIR.
1	1030	<0.030	<0.03	270° 25-40 mph
2	1032	<0.030	<0.03	
3	1034	<0.030	<0.03	
4	1036	<0.030	<0.03	
5	1038	<0.030	<0.03	
6	1040	<0.030	<0.03	
7	1042	<0.030	<0.03	
8	1044	0.5	0.1	
9	1046	<0.030	<0.03	
10	1048	<0.030	<0.03	
11	1050	<0.030	<0.03	
12	1052	<0.030	<0.03	
13	1054	<0.030	<0.03	
14	1056	<0.030	<0.03	
15	1058	<0.030	<0.03	

Date 4-6-79Team OR1Inst # IC 26181GROUND SURVEY DATA
East Side (River Road)Avg = <.03

Readings = mRHR.

LOCATION	TIME	B- <u>X</u>	<u>X</u>	WIND DIR.
1	1253	<.03	<.03	270°
2	1255	<.03	<.03	10-20 mph 1215
3	1257	<.03	<.03	
4	1259	<.03	<.03	
5	1300	<.03	<.03	
6	1302	<.03	<.03	
7	1304	<.03	<.03	
8	1305	.25	.05	
9	1306	.8 mRHR	.06	
10	1308	<.03	<.03	
11	1309	<.03	<.03	
12	1310	<.03	<.03	
13	1312	<.03	<.03	
14	1313	<.03	<.03	
15	1315	<.03	<.03	

135 212

Glenn/Terc 4/6/79
 Thye III, NRC 710, SN 1931

<u>Time</u>	<u>Miles</u>	<u>Location</u>	<u>mR/hr</u>	
			<u>open</u>	<u>closed</u>
1316	081.4	Hillsdale Rd & Falmouth Rd	<0.03	<0.03
1318	081.6	Hillsdale Rd & Hill Rd	.06	<0.03
1322	081.8	Hillsdale Rd .2 mi North of Hill Rd	.05	<0.03
1325	082.2	Hillsdale Rd & Creek Rd	.10	.04

Glenn / Terc

4/5/79 Start 13:10 pm

Victorem Thyac III, NRC 000710, SW 1931

Bat. Check OK, Check Source .8

Time	Miles	Location	nr/hr	
			open	close
13:16	918.2	50 yds N Obs. (center on 441)	0.5	.06
13:17	918.2	"	0.9	.07
			2.0	.2
13:21	918.4	.2 mi. South of Obs. (cn.)	2.0	.2
13:26	919.2	441 & Engle Rd	4.03	4.03
13:33	919.7	$\frac{1}{2}$ mile East on Engle Rd	4.03	4.03
13:37	920.3	Intsr. Peck, Engle, & Covered Bridge	.3	.05
13:42	920.8	Peck & Zion	0.03	4.03
13:46	921.6	Zion & Hillsdale Dr	0.03	4.03
13:59	922.6	1 mile South of Hillsdale	40.03	4.03
14:01	922.8	Hillsdale Dr. & Creek Rd	40.03	4.03
14:03	923.4	Hillsdale Rd & Hill Rd	4.03	4.03
14:04	923.7	Hillsdale & Falmouth(?)	.05	4.03
14:08	924.0	.3 miles SW on Falmouth(?)	.1	.03
		(Stevens Hill Church)		
14:11	924.6	Covered Bridge Rd & Falmouth(?)	4.03	4.03

Glenn/Terc

Time	Miles	Location	open	closed
14:18	926.0	Fulmouth & 441	4.03	4.03
1423	927.1	441 .2 mi S of obs. sta.	.4	.03
1434	927.8	Peaks Rd & Meadow Ln	.15	4.03
1437	928.1	Peaks Rd & Zion Rd	.10	4.03
1438	928.2	.1 mi S of intersection of Peak & Zion	.5	.06
1443	928.5	.4 mi S of intersection of Peak & Zion	.4	.04
1447	928.7	Intersect. Peak, Engle, & Cornell Bridge Rds	4.03	4.03
1454	930.5	.2 mi South on 441 of Observation Con.	1.0	.05
15:06	931.8	Geyers Ch. & 441	4.03	4.03
1530	936.3	White House Rd & 230	4.03	4.03
1536	937.5	Rosedale & Rt 230	4.03	4.03
1539	938.7	Union St & 441	4.03	4.03

B Submitter to
DOE/RAP on 4/1/79

NRC Ground Survey Data

Date-Time	Location	MR/A-	
		B-8	8
3-30-79 11:33 PM	Hwy 441 + Laurel	0.4	0.03
11:37	Hwy 441 + Main Gate	4 11	1.2
11:45	Hwy 441 at Plant RR Crossing	0.3	0.04
11:47	Hwy 441 + Blvd	0.4	0.06
11:54	Hwy 441 + Railroad Crossing (Plant)	5	0.5
11:57	Hwy 441 + 1.7 miles South of Plant	5	0.5
11:59	Hwy 441 - 1.2 miles South of Plant	6	0.6
12:03	Hwy 441 at plant entrance	0.6	0.07
12:07	NRC Command Post + Hwy 441	0.03	0.01
3-31-79			
0152	Hwy 441 at Meadow Lane	0.4	0.3
0202	Hwy 441 at Laurel	0.4	0.3
0206	Hwy 441 at Main Gate	0.03	0.02
0213	Hwy 441 at Laurel	40	5
0220	East end of Meadow Lane	19	4
0227	Hwy 441 and Geyers Church Road	0.02	0.01
0230	Geyer Church Road and Gingrich Rd.	0.07	0.01
0238	Zion Rd + Gingrich Rd	3.0	0.5
0245	Gingrich at Laurel	20	2.5
0251	Hilldale Rd	6	0.8
0523	Hwy 441 + Meadow Lane	1.0	0.12
0524	Hwy 441 (Midway between Laurel + Meadow Lane)	6.5	0.8
0526	Hwy 441 at Laurel	6.5	0.6
0527	Geyer Church Rd and Gingrich Rd	3.5	0.35
0528	Hwy 441 at Main Gate	135 216	1.3 0.20
0538	Hilldale Rd at Geyers Church Rd	2.0	0.3
0548	Bringer Rd + Geyers Church Rd	1.3	0.2

Date-Time	Location	B-5	R/h
0600	Harrisburg Pike + Geyers Church	2.5	0.35
0615	Bringer Rd + Geyers Church	1.7	0.25
10:30	Hwy 441 - 500 y south of plant entrance	12.0	4.0
10:33	Gingrich Rd at Power lines	12.0	-
10:40	" " " "	0.04	0.02
10:55	Hilldale Dr. at Power line	0.06	0.03
11:03	Geyers Church on Geyer Church Rd	7	2
11:45	Harrisburg Rd, ~ 1 m E of Geyers Church Rd	0.75	0.20
13:05	Hwy. 441 ~ 600 y. S. of plant entrance	7.5	2.0
13:20	Hilldale Rd ~ 1/2 m E. of Church	4.5	2.0
13:24	Bringer Road ~ 0.6 miles S.E. of Geyers Church	2.0	0.5
13:35	Harrisburg Pike at Geyers Church Rd	1.2	0.3
14:45	Hwy 441 at Laurel	13.5	3.5
14:47	Hilldale Dr ~ 1/4 mile from church	7.5	2.0
15:00	Bringer Rd ~ 1/2 mile SE of Geyers Church	4.5	1.3
15:15	Harrisburg Pike, 1 m E of intersection with Geyers Church Rd.	1.9	0.7
16:40	Hwy 441 + Engle Rd	4.0	0.6
16:50	Hwy 441 + Falmouth	2.0	0.3
17:05	Keener Rd (below Falmouth)	2.8	0.5
17:15	Trailer Park - Hwy. 441 + Kings Rd.	0.9	0.12
17:20	Amosite Rd - 0.3 miles E. of 441	3.0	0.6
17:30	Rt 441 + 241	1.7	0.4
	Race Street toward Maytown	1.0	0.17
	Intersection Race Street + Stone M. H.	1.0	0.17
	Intersection Race Street + Rt. 441	1.2	0.4
	Bainbridge	0.7	0.2
18:00	NBC Command Center	1.0	0.12
18:55	" "	0.8	0.15

• 135 217

Date - Time	Location	B-2	Use m R/hr
19:15	At 441 Across from #2 Cooling Tower	0.7	+
19:20	At. 441 - Across from #2 cooling. Tur.	8.0	1.5
19:20	200 yds N of Visitors Center	3.0	—
20:34	Inside NRC van	0.5	< 0.1
20:45	Zion Rd - E of NRC van (~1.5 mile)	4.5	0.6
21:30	Gingrich Rd + Zion Rd	0.6	
22:15	Inside NRC Van	5.	1.0
22:58	In front of Visitors Center	7.5	1.2

4-1-79

0037	Intersection 441 + 280 in Middleton	< 0.01	< 0.01
0128	Hwy 441 + Laurel	4.0	0.4
0232	Hwy 441 + Meadow Lane	3.5	0.3
0242	Gingrich Rd - 1.6 miles NNE of Beyers Church Rd	3.5	0.3
0247	Hillsdale Rd - E of Beyers Church = 2.0 miles	0.5	0.05
0308	Falmouth - Downtown	0.25	0.02
0319	Engle Rd, ~.6 m from Peck Rd	0.01	< 0.01
0336	Hwy 441 + Laurel	1.4	0.13
0425		3.5	0.03

4-1-79

0406	0.1 mile S. of Operations Center	1.5	0.4
0450	Peck and Engle	4	0.04
0503	Falmouth + Governors Stable Rd	2.5	0.3
0508	Covered Bridge Rd	5	0.5
0524	At 441 ~ 1/2 mile	4	1.5
11:00	At. 441 ~ 1 mi S. of Command Center	—	0.025
11:00	West Side of River at Intersection of 382 + 181	—	0.05
14:27	Intersection of 295 + 262		< 0.01
14:30	Intersection of 382 + 262	135	0.03

218

Date - Time	Location	B- ² m R/2	2
4-1-79			
14:38			
14:35	Wood Bridge to Island + Rt 441	0.7	0.1
14:37	Rt 441 + Falmouth Rd	0.8	0.1
14:42	Rt 441 + Keener Rd	0.2	0.05
14:45	Rt 441 + Kings Rd	<0.02	<0.02
14:55	Rt 441 + Engle Rd	2	0.3
15:05	Rt 441 + Engle Rd	0.05	<0.01

Air Samples - Charcoal Cartridges for ¹³¹I

3/30/79 at 0500 in plume ¹³¹I = Not detected
 $< 1 \times 10^{-10}$

~~4/1/79~~
 3/31/79 Air sample at 21:30 at
 Gingrich + Zion Rd ¹³¹I Not detected
 $< 1 \times 10^{-10}$

135 219

4/1/79

P.I.C. Readings $\mu R/hr$

Date	Time	Reading
1) 3/30/79	1900	9.7
2) 3/30/79	2100	9.4
3) 3/30/79	2330	10.0
4) 3/31/79	0200	11.1
5) 3/31/79	0400	10.4
6) 3/31/79	0600	12.7
7) 3/31/79	0710	14.0
8) 3/31/79	2300	195 - 230 *
9) 3/31/79	2315	349 - 355 *
10) 3/31/79	2330	48.0
11) 3/31/79	2400	30.8
12) 4/1/79	0030	355.0 *
13) 4/1/79	0745	24.7
14) 4/1/79	0800	9.2
15) 4/1/79	0930	8.7
16) 4/1/79	1200	8.2

* Under Plume

Measurements made
at Rear of Instrument
Van.

P. to M. Phil

135 220

PRESSURE 1260 (ON CHAMBER READINGS)

- $\mu R/hn$ (μ mod at REAR of INSTR. VARY)

DATE	Time	$\mu R/hr$	DATE	Time	$\mu R/hr$
4/1/79	0030	355.0*			
	0745	24.7			
	0800	9.2			
	0930	8.7			
	1200	8.2			
	1530				
← DISMANTLED 1530 →					

* : UNDER PLUME

35 221

Submitted 4/2/79 up 12:00

NRC Ground Survey 4/2/79

0000-08:00

Time 4-2-79	Location	m R/br β-γ	γ
01:28	Intersection 76 & 230 Middletown 310° West ~ 5.5 miles	0.02	0.02
01:39	White House Lane & Rt 230 320° West ~ 4.0 miles	0.02	0.02
01:43-	Intersection 283 & Rt 230 40° East ~ 3.5 miles	0.02	0.02
01:49	Intersection 441 & Rt 230 350° NNW ~ 3.0 miles	0.02	0.02
01:58	Rt 441 & Main Plant Gate 0.7 miles N of Trailer	0.02	0.02
03:48	Intersection of Rt 76 & 230 Middletown 310° West ~ 5.5 miles	< 0.02	< 0.02
03:53	White House Lane & Rt 230 320° West ~ 4.0 miles	< 0.02	< 0.02
03:56	Intersection 283 & Rt 230 40° East ~ 3.5 miles	< 0.02	< 0.02
04:00	Intersection 441 & Rt 230 350° NNW ~ 3.0 miles	< 0.02	< 0.02
04:06	Rt 441 & Main Plant Gate	< 0.02	< 0.02
0619	Rt 76 & 230 ~ Middletown 310° West ~ 5.5 miles	< 0.02	< 0.02
0624	White House Lane & Rt 230 320° W ~ 4.0 miles	< 0.02	< 0.02

Submitted 4-2-79 @ 12.4

Time	Location	B-2 mR/hr.	B-2
0626	Rt 283 and Rt 230, NNW	0.02	0.02
0634	Rt 441 + 230, 350° NNW ~ 3.0 miles	0.02	0.02
0641	Rt 441 + Main Gate	0.02	0.02
0642	Rt 441 + NRC Command Ctr. NW	0.02	0.02

DOE DATA

-1-79

4-2-79

0530

Goldsboro, directly west of
plant

0.20

0.15

Air Samples

4-1-79 @ 18:43

0.2 miles N of Intersection of

Rt 262 + 441, $^{131}\text{I} < 2 \times 10^{-7} \mu\text{Ci/cc}$

4-1-79 @ 19:03

~~0.5 miles~~ Intersection of Rt 262 + Rt 352

Iodine, $^{131}\text{I} < 2 \times 10^{-7} \mu\text{Ci/cc}$

135 225

Submitted 4-2-79 @ 12:00

NRC Grand Survey - 4/1/79

1600 - 2400
~~0000 - 0800~~

Date-Time	Location	BR	Y
4-1-79			
16:15	Falmouth Rd - 100yds E of Rt 441 ~ 2 miles SSE of Plant	0.03	0.01
17:40	Engle Rd + Rt 441 ~ 1 1/4 mi SSE of plant	20.05	<0.05
18:37	Intersection of 262 + 441 River Road	0.03	
18:53	0.2 mi North of Int. 262, & River Road	0.7	
19:40	Rt 262 between I 177 & 392 0.3 miles west 283° West at ~ 5.5 miles	0.3	0.03
23:44	Boundary line on Rt-262	0.4	0.06
23:49	Intersection 262 & 392 300° West ~ 2.4 miles		

135 224

CAS Intercomparison of $\rightarrow$ NRC/DOE Survey

4/2/79
1600-1710 hrs

NRC
~~DOE~~

TEAM: Drexel
INST #

DOE
~~NRC~~

STATION	TIME	$\beta-\gamma$	γ	WIND DIR.	$\beta-\gamma$	γ
1	1625 1620	0.02	< 0.01	90-100°	< 0.03	< 0.03
2	1620 1623	0.02	< 0.02			
3	1623	0.03	0.03			
4	1625	< 0.01	< 0.01			
5	1627					
6	1628					
7	1630					
8	1631					
9	1632					
10	1634					
11	1635					
12	1637					
13	1640			72°		
14	1642					
15	1643					
Other: middleton main & center east	1610	< 0.03	< 0.01			

135 225

TEAM Barrotti / O'Neil
 INST # 2001
 Thyrne III
 4-3-79

LOCATION	TIME	E-Y	Y'	WIND DIR.
1	2041	<0.02	<0.02	345°
2	2039	<0.02	<0.02	
3	2036	<0.02	<0.02	
4	2034	<0.02	<0.02	
5	2032	<0.02	<0.02	
6	2030	<0.02	<0.02	
7	2027	<0.02	<0.02	
8	2025	0.03	<0.02	
#10	2118	<0.02	<0.02	2mg h
#9	2022	0.03	<0.02	
	2020			
12	2011	0.03	<0.02	
13		0.1	0.03	
	2007	1.0	0.1	
14	2005	0.3	0.02	
15	2000	1.02	<0.02	

135 226

B. Dacey
TEAM D. Perrotti

Thy a III
SM 2001

4/3/79

STATION	TIME	E-S	S	WIND DIR.
1	1736	0.02	0.02	
2	1738	0.02	0.02	
3	1740	0.02	0.02	
4	1742	0.02	0.02	
5	1743	0.02	0.02	
6	1744	0.02	0.02	
7	1745	0.02	0.02	
8	1746	0.02	0.02	
9	1747	0.02	0.02	
10	1749	0.02	0.02	
11	1750	0.02	0.02	
12	1752	0.10	0.05	
13	1753	0.30	0.04	
14	1754	0.30	0.02	
15	1756	0.15	0.02	
	1758	0.08	0.03	
13	1802	0.02	0.02	
FALMOUTH RD. 0.2 mile Sq 441				

1730-340-36"
SMPL

0.02 mph
or less =
BKG

135 227

4/4/79

Starting

14:35

Victoreen Thye III

HPC 000710

Check Source 8m P/M

Bat. Check OK

Time	Miles	Location	$\frac{r}{h}$ open	closed
✓ 14:39	727.1	6 Laurel Rd E 441	0.03	< 0.03
14:42	727.6	5 Geyers Church Rd E 441	0.03	< 0.03
14:45	729.17	Market St E 441	0.03	< 0.03
14:50	729.9	Lawrence St E Ann St	0.03	< 0.03
14:55	730.9	Rosedale Rd E Rt 230	0.03	< 0.03
14:59	732.1	White House Rd E Rt 230	0.03	< 0.03
15:04	733.8	T street S Rt 230 (stealton)	0.03	< 0.03
15:21	741.6	10 Red Hill Plaza E 441	0.03	0.03
15:24	742.6	13 Falmouth Rd E 441	0.03	0.03
15:27	743.9	15 Keener Rd E 441	0.03	0.03
15:30	744.5	Kings Rd E 441	0.03	< 0.03
15:34	745.7	Rt 441 E Rt 241	< 0.03	< 0.03
15:39	746.6	Rt 441 E Race St	< 0.03	< 0.03
15:42	747.5	Rt 441 E Old Rt 441	0.03	0.03

135 228

EAST SIDE (RIVER RD.)

DATE 4-4-19TEAM O'NeillINST # 712

LOCATION	TIME	E-8	8'	WIND DIR.
1	2215	0.02	<0.02	90°
2	2218	<0.02	<0.02	
3	2221	<0.02	<0.02	
4	2224	<0.02	<0.02	
5	2226	<0.02	<0.02	
6	2229	<0.02	<0.02	
7	2230	0.03	<0.02	
8	2233	<0.02	<0.02	
9	2235	<0.02	<0.02	
10	2237	<0.02	<0.02	
11	2239	<0.02	<0.02	
12	2242	<0.02	<0.02	
13	2245	0.02	<0.02	
14	2246	<0.02	<0.02	
15	2247	<0.02	<0.02	

4 mph

135 229

Date 4-5-79Team NRCInst # Eberline F-530
SN 295 NRC 708GROUND SURVEY DATA
East Side (River Road)Eberline/VictoriaVictorine Thysac III
S/N 1931 NRC 710

LOCATION	TIME	B- χ	χ	WIND DIR.
1	0335	0.02/0.04	0.01/0.02	0305/225°/2nd/4r
2	0340	0.02/0.03	0.01/0.02	
3	0344	0.02/0.04	0.01/0.025	
4	0349	0.02/0.04	0.01/0.025	
5	0355	0.02/0.04	0.01/0.02	
6	0359	0.02/0.04	0.01/0.02	
7	0408	0.7 1.7/5.0	0.2/0.3	
8	0414	0.5/1.0	0.11/0.15	
9	0417	1/0.4	/0.04	
10	0420	/0.03		
11	0422	/0.03		
12	0424	/0.035		
13	0426	/0.03		
14	0430	/0.025		
15	0433	/0.02		

0404 0.5/1.1 0.04/0.12
2nd

135 230

Date 4-5-79Team NRCInst # Victoreen Thysac. I
5/N 1931 NRC, 710GROUND SURVEY DATA
East Side (River Road)

LOCATION	TIME	B- <u>X</u>	<u>X</u>	WIND DIR.
1	0535	0.03	0.02	⁰⁴³⁰ 2500, 5 mph
2	0536	0.035	0.02	
3	0538	0.03	0.02	
4	0540	0.02	0.02	
5	0542	0.025	0.02	
6	0545	1.2	0.06	
7	0549	0.8	0.07	
8	0550	0.03	0.02	
9	0552	0.02	0.02	
10	0553	0.02	0.02	
11	0555	0.015	0.015	
12	0557	0.03	0.02	
13	0611	0.02	0.02	
14	0612	0.02	0.02	
15	0614	0.02	0.02	

1/2 way 0548 2.5 by 2.15
between points 6 & 7

135 232

LOCATION	TIME	B-X	X	WIND DIR.
1	0540	<0.01	<0.01	
2	0541	<0.01	<0.01	
3	0542	<0.01	<0.01	
4	0545	<0.01	<0.01	
5	0546	<0.01	<0.01	
6	0550	<0.01	<0.01	
7	0551	<0.01	<0.01	
8	0552	<0.01	<0.01	
9	0553	<0.01	<0.01	
10	0554	<0.01	<0.01	
11	0555	<0.01	<0.01	
12	0556	<0.01	<0.01	
13	0558	<0.01	<0.01	
14	0600	<0.01	<0.01	
15	0615	<0.01	<0.01	
16	0616	<0.01	<0.01	
17	0617	<0.01	<0.01	
18	0618	<0.01	<0.01	
19	0620	<0.01	<0.01	
20	0622	<0.01	<0.01	
21	0624	<0.01	<0.01	
22	0627	<0.01	<0.01	

GROUND SURVEY DATA
West Side

Inst #

Team ANL

Date

4/5/79

AIR SAMPLE SURVEY DATA

DATE: 4/4/79

LOCATION: Survey point #1 (WEST)

WIND DIR: 2050 hrs.

TIME OFF: 2150 hrs.

TOTAL VOLUME: 40 cubic meters

SAMPLE COUNTED BY - ANL ~~WGS~~

TEST RESULTS: NONE

TEST RESULTS:

α = 80 dpm/cubic meter

β = 205 dpm/cubic meter

1st count factor 2.56 Normal range 2.22-2.50

Results indicate no detectable activity

AIR SAMPLE SURVEY DATA

DATE: 4/4/79

LOCATION: Sample point #1 (WEST)

WIND: 2050

TIME OFF: 2150

TOTAL VOLUME: 40 cubic feet

SAMPLE COUNTED BY - (ANL) NRC

ANALYST: J. J. J. J.

RESULTS:

Results indicate no iodine detected
Minimum detectable activity 0.1 pCi/l

135 234

AIR SAMPLE SURVEY DATA

Goldsboro

West side of River
Wind: 240-250'
5 mph

DATE: 4/5/79

LOCATION: Position #1 (West)

TIME ON: 0405

TIME OFF: 0445

TOTAL VOLUME: 736L

SAMPLE COUNTED BY - (ANL) (NRC)

NRC SAMPLE NUMBER: 253

ANALYSIS FINDINGS: < MDA

NRC { MDA = 1.88 $E = \frac{10}{12}$ mg/cc
I-131

ANL { < MDA = .1 pci/l

135 235

AIR SAMPLE SURVEY DATA

Goldboro

West side of River

DATE: 4/5/79

Wind 305°-270°
10-25 mph

LOCATION: Point #1

TIME ON: 1102

TIME OFF: 1202

TOTAL VOLUME: 40 ft³

SAMPLE COUNTED BY - (ANL) (NRC)

NRC SAMPLE NUMBER: 254

ANALYSIS FINDINGS: <MDA

$$MDA = 1.23 E^{-10} \text{ mCi/cc} = I-131$$

$$ANL < MDA = .1 \mu\text{Ci}/\text{ft}$$

LOCATION.

LOCATION #1 GOLDSBORO PIEN

ME-428

SAMPLE COLLECTION DATE: 4/4/77

TIME OF COLLECTION: 1525

LENGTH OF RUN:

TIME STOPPED 1625 MINUS TIME STARTED 1525 TOTAL TIME 60 MINUTES

VOLUME:

COLLECTION RATE 40 M³/hr X TOTAL TIME 60 MINUTES = VOLUME 40 M³

SUSPECTED ISOTOPE:

ALPHA

CG/168

d/m/M³

CG/40

BETA

CG/168

d/m/M³

CG/40

FIRST COUNT FACTOR:

BETA-GAMMA dpm

ALPHA dpm

2.57

DATE AND TIME OF
COUNT

GROSS COUNTS

BKGD

NET

RECORDERS

SCALERS

TOTAL COUNTS

COUNT TIME MIN.

COUNTS / MIN.

COUNTS / MIN.

COUNTS / MIN.

GEOMETRY

BACKSCATTER FACTOR

SAMPLE ABSORPTION

WINDOW AIR FACTOR

DISINTEGRATIONS
PER MINUTEd/m/M³

PER CENT OF CG USED

TYPE OF ACTIVITY

DECAY TIME

INITIALS

4/4 1645

41

2

20

20

43

.77

.8

75

1.09

2.2

265

135
237

x10

area factor

19

20 min

499

4/4 1647

564

2

282

174

108

43.4

.95

196

4.9

x10

area factor

49

B

20 min

6.9

ALPHA:

$$\frac{\text{cpm} - \text{Bkgd}}{g \times bf \times sa \times waf} = \text{dpm Alpha}$$

BETA: Pure Beta emitters

$$\frac{\text{cpm} - \text{Bkgd}}{g \times bf \times sa \times waf} = \text{dpm Beta}$$

COMPOSITE: Beta determination

$$\frac{\text{cpm} - [\text{Beta Bkgd} - \text{Alpha cpm}]}{g \times bf \times sa \times waf} = \text{dpm Beta}$$

REMARKS:

AIR SAMPLE SURVEY DATA

DATE: 4/4/79

LOCATION: Point # 10 (East)

TIME ON: 1650 1833

TIME OFF: 1710 1853

TOTAL VOLUME: 20 ft³

SAMPLE COUNTED BY - ~~XL~~ NRC

NO. OF SAMPLES: 200

RESULTS: < MDA

MDA = 2.45×10^{-13} mCi/cc

LOCATION:

LOCATION #1 GOLDSBORO PEN

MIS-428

SAMPLE COLLECTION DATE: 4/4/77

TIME OF COLLECTION: 2050

LENGTH OF RUN:

TIME STOPPED 2120 MINUS TIME STARTED 2050 TOTAL TIME 60 MINUTES

VOLUME:

COLLECTION RATE 40 M³/hr X TOTAL TIME 60 MINUTES = VOLUME 40/10 / area factor = 4 M³

SUSPECTED ISOTOPE:

ALPHA

CG/168

d/m/M³

CG/40

BETA

CG/168

d/m/M³

CG/40

FIRST COUNT FACTOR:

BETA-GAMMA dpm = 2.93

ALPHA dpm = 2.170

DATE AND TIME OF COUNT	GROSS COUNTS							BKGD	NET					d/m/M3	PER CENT OF CG USED	TYPE OF ACTIVITY	DECAY TIME	INITIALS
	RECORDERS	SCALERS	TOTAL COUNTS	COUNT TIME MIN.	COUNTS / MIN.	COUNTS / MIN.	COUNTS / MIN.	GEOMETRY	BACKSCATTER FACTOR	SAMPLE ABSORPTION	WINDOW AIR FACTOR	DISINTEGRATIONS PER MINUTE						
4/4 2128	-	-	147	2	74	-	74	45	-	.77 1.2	.8 A	279 521	70 80	-	2	8 MIN	6.83	
4/4 2200	-	-	1134	2	567	174	319	461	-	.96	.817	205	-	0	10 MIN	6.83		
135 2					567 -74 493 -174 319													

ALPHA:

$$\frac{\text{cpm} - \text{Bkgd}}{g \times bf \times sa \times waf} = \text{dpm Alpha}$$

BETA: Pure Beta emitters

$$\frac{\text{cpm} - \text{Bkgd}}{g \times bf \times sa \times waf} = \text{dpm Beta}$$

COMPOSITE: Beta determination

$$\frac{\text{cpm} - [\text{Beta Bkgd} - \text{Alpha cpm}]}{g \times bf \times sa \times waf} = \text{dpm Beta}$$

REMARKS:

AIR SAMPLE SURVEY DATA

DATE: 4/5/79

LOCATION: Point # 3 (cont)

TIME ON: 0055

TIME OFF: 0115

TOTAL VOLUME: 20 ft³

SAMPLE COUNTED BY - ~~AX~~ NRC

SAMPLE NUMBER: 213

ANALYSIS FINDINGS:

<MDA

MDA = 2.45×10^{-13} mCi/cc

I-131

SAMPLE COLLECTION DATE: 4/5/79
TIME OF COLLECTION: 0405

MINUTES	
TOTAL TIME	40

TOTAL TIME 40. MINUTES VOLUME 27

BETA CG/168 $\frac{\text{d/m/M}^3}{\text{CG/40}}$

FIRST COUNT FACTOR: 2.13
~~3.46~~
 BETA-GAMMA dpm. =
 ALPHA dpm

[illegible]

5.18	
------	--

431

6.75

8

2012

10,5	
------	--

43	1	1.3
----	---	-----

235

8	1
---	---

2245

5 294.5

01/17/10

6559	24.3
------	------

19

2004

2

43	1.1	1.0
----	-----	-----

911 5th

15

512012

$$4 \frac{\text{cpm} - \text{Bkgd}}{\text{g} \times \text{bf} \times \text{sa} \times \text{waf}} = \text{dpm Alpha}$$

BETA: Pure Beta emitters

$$\frac{\text{cpm} - \text{Bkgd}}{g \times bf \times sa \times waf} = \text{dpm Beta}$$

COMPOSITE: Beta determination

$$\frac{\text{cpm} - [\text{Beta Bkgd} - \text{Alpha cpm}]}{\text{g} \times \text{bf} \times \text{sa} \times \text{waf}} = \text{dpm Beta}$$

* 10% of sample Cursted.

AIR SAMPLE SURVEY DATA

DATE: 4-5-79

LOCATION: Point #1 (West)

TIME ON: 0405

TIME OFF: 0445

TOTAL VOLUME: 26 ft³

SAMPLE COUNTED BY - (ANT) NRC

NRC SAMPLE NUMBER:

ANALYSIS FINDINGS:

MDA ≤ 1 pci/lt

~~Be~~ Iodine concentration $\leq 1 \times 10^{-11}$ pc/lt.

AIR SAMPLE SURVEY DATA

DATE: 4/5/79

LOCATION: Point, (Ward)

TIME ON: 0405

TIME OFF: 0445

TOTAL VOLUME: 27 ft³

SAMPLE COUNTED BY - ANL NRC

NRC SAMPLE NUMBER:

ANALYSIS FINDINGS:

$$\alpha = 6.75 \text{ dpm/m}^3$$

$$\beta = 24.3 \text{ dpm/m}^2$$

$$1^{\text{st}} \text{ count factor} = 3.621$$

~~200~~

[2-77]

Location #1 Goldsboro Pa.

MC 428 4/5/79

SAMPLE COLLECTION DATE:

TIME OF COLLECTION: 1/07

LENGTH OF RUN:

TIME STOPPED	MINUS	TIME STARTED	TOTAL TIME	MINUTES
11:22		11:02	20	40

VOLUME:
COLLECTION RATE $\frac{40 \text{ M}^3/\text{hr}}{60}$ TOTAL TIME $\frac{40}{60}$ MINUTES = VOLUME $\frac{27}{60} \text{ M}^3$

SUSPECTED ISOTOPE:

ALPHA
CG/168
CG/40

 $d/m/M^3$

BETA	CG	CG
------	----	----

 $d/m/M^3$

FIRST COUNT FACTOR:
 $\frac{\text{BETA-GAMMA dpm}}{\text{ALPHA dpm}}$

DATE AND TIME OF COUNT		GROSS COUNTS		BKGD	NET	GEOMETRY	BACKSCATTER FACTOR	SAMPLE ABSORPTION	WINDOW A.R. FACTOR	DISINTEGRATIONS PER MINUTE	$\mu/m/M^3$ *	PER CENT OF CG USED	TYPE OF ACTIVITY	DECAY TIME	INITIALS
		RECORDERS	SCALERS	TOTAL COUNTS	COUNT TIME MIN.	COUNTS / MIN.	COUNTS / MIN.	COUNTS / MIN.	COUNTS / MIN.						

[illegible]

6/3/5 247 11

80	2
----	---

2/5

47

43

27.7

57

52

1

3 ✓

2

[illegible]

11472 4/5/79

585

292

551

37

43	1.1
----	-----

56.0.95

304.8

112.9

82/10

✓ (29)

--	--

ALPHA:

A: $\frac{\text{cpm} - \text{Bkgd}}{g \times \text{bf} \times s}$

= dpm Alpha

BETA: Pure Beta
cpm - Bkgd
g x bf x sa x wa

ters
dpm Beta

COMPOSITE: Beta determination
cpm - [Beta Bkgd - Alpha cpm]
g x bf x sa x waf

REMARKS: * 10% of Sample Counted

copy
to, B.J. Davis

AIR SAMPLE SURVEY DATA

DATE: 4-5-79

LOCATION: Point #8

WIND: 1315

TIME OFF: 1335

TOTAL VOLUME: 20 C.F.M.

SAMPLE COUNTED BY

ANL

NRC

NRC SAMPLE NUMBER: 264

TEST RESULTS:

NRC { <MDA
MDA 3.16E-10 μ Ci/cc I-131

ANL { <MDA < .1 μ Ci/lit

135 245

AIR SAMPLE SURVEY DATA

DATE: 4/5/79

LOCATION: Pt. #1, Goldboro

TIME ON: 1945

TIME OFF: 2045

TOTAL VOLUME: 40 ft³

SAMPLE COUNTED BY - (ANL) NRC

NRC SAMPLE NUMBER:

ANALYSIS FINDINGS: < 0.2 pCi/l

AIR SAMPLE SURVEY DATA

DATE: 4/5/79

LOCATION: Pt. #1, Goldsboro

TIME ON: 1945

TIME OFF: 2045

TOTAL VOLUME: 40 m³

SAMPLE COUNTED BY (AND) NRC

NRC SAMPLE NUMBER:

ANALYSIS FINDINGS: α - 51 dpm/m³
 β - 105 dpm/m³
first of 2.06
indicating normal radon

135 247

AIR SAMPLE SURVEY DATA

DATE: 4/6/79

LOCATION: Point #1 (West)

TIME ON: 0315

TIME OFF: 0356

TOTAL VOLUME: 26 ft³

SAMPLE COUNTED BY - ANL ~~NRC~~

NRC SAMPLE NUMBER:

ANALYSIS FINDINGS:

I = 2.1 pci/ft³ ± 0.1

135 248

AIR SAMPLE SURVEY DATA

DATE: 4/6/79

LOCATION: Point # 1 (West)

TIME ON: 0316

TIME OFF: 0356

TOTAL VOLUME: 27 cubic meters

SAMPLE COUNTED BY - ANL NRC

NRC SAMPLE NUMBER:

ANALYSIS FINDINGS:

$$\begin{aligned} L &= 71.3 \text{ dpm/m}^3 \\ Q &= 189.6 \text{ dpm/m}^3 \end{aligned}$$

$$1^{\text{st}} \text{ Count factor} = 2.65$$

Normal Range

135 249

AIR SAMPLE SURVEY DATA

DATE: 4-6-79

LOCATION: PARKING LOT NEAR POINT 8

TIME ON: 0648

TIME OFF: 0708

TOTAL VOLUME: 20 F³

SAMPLE COUNTED BY - ANL NRC

NRC SAMPLE NUMBER: 269

ANALYSIS FINDINGS:

< MPA
MPA: $3.16E-10$ MB/CC I-131

READING START 0.5 m/hr BY
0.1 m/hr δ

READING STOP 0.05 m/hr BT
0.03 m/hr δ

WIND 270° 15-20 MPH

135 250

2300
180°
4 mph

WIND 0030 190° 5 mph

AIR SAMPLE SURVEY DATA

DATE: 4-6-79

LOCATION: point 8

TIME ON: 0600

TIME OFF: 0630

TOTAL VOLUME: 20 F³

SAMPLE COUNTED BY - ANL NRC

NRC SAMPLE NUMBER: 255

ANALYSIS FINDINGS:

< MDA

MDA = 3.16×10^{-10} mCi/cc I-131

READING START 0.25 m/Hz BY

< 0.05 " " Y

READING STOP 0.5 m/Hz BY

0.1 m/Hz Y

WIND - 270° 5-10 m/Hz

MD

135 251

AIR SAMPLE SURVEY DATA

DATE: 4/2/79

LOCATION: Point #1 (West)

TIME ON: 0406

TIME OFF: 0443

TOTAL VOLUME: 27 ft³

SAMPLE COUNTED BY - (ANL) (NRC)

NRC SAMPLE NUMBER: 238

ANALYSIS FINDINGS: $< 1 \times 10^{-10}$ nCi/ml

ANL < MDA = 0.1 pCi/Lt

AIR SAMPLE SURVEY DATA

DATE: 4/3/79

LOCATION: Point #1 (West)

TIME ON: 0915

TIME OFF: 1015

TOTAL VOLUME: 39 ft³

SAMPLE COUNTED BY - (ANL) (NRC)

NRC SAMPLE NUMBER: 235

ANALYSIS FINDINGS: $< 1 \times 10^{-10}$ $\mu\text{Ci}/\text{ml}$

ANL < MDA 0.1 pCi/Lt

AIR SAMPLE SURVEY DATA

DATE: 4/3/79

LOCATION: Point # 21 (West)

TIME ON: 1821 hours

TIME OFF: 1916

TOTAL VOLUME: 35.8 ft.³

SAMPLE COUNTED BY - ANL (NRC)

NRC SAMPLE NUMBER: — 236

ANALYSIS FINDINGS:

ANL { MDA = 0.1 pci/lt.
I¹³¹ concentration < 1×10^{-10} pci/lt.

NRC < 1×10^{-10} μ li/uf

AIR SAMPLE SURVEY DATA

DATE: 4/4/79

LOCATION: Point #1 (West)

TIME ON: 1336 hours

TIME OFF: 1436 hours

TOTAL VOLUME: 39 ft³

SAMPLE COUNTED BY - (AND) (NRC)

NRC SAMPLE NUMBER: 237

ANALYSIS FINDINGS:

ANL { MDA = 0.1 pci/lt
I¹³¹ concentrations < 1×10^{-10} pci/lt

NRC - $< 1 \times 10^{-10}$ μ Li/ml

AIR SAMPLE SURVEY DATA

DATE: 4/4/79

LOCATION: Sample point #1 (WEST)

TIME ON: 2050

TIME OFF: 2150

TOTAL VOLUME: 40 cubic feet

SAMPLE COUNTED BY - ANL NRC

NRC SAMPLE NUMBER:

222 ($^{131}\text{I} < 10^{-10} \text{ Ci/ml}$ NRC)

ANALYSIS FINDINGS:

Results indicate no Iodine detected $< 1 \times 10^{-10} \text{ pCi/lt}$
Minimum detectable activity 0.1 pCi/lt

Appears NRC Sample # 222 + 263 are the same

C.R. 2

AIR SAMPLE SURVEY DATA

DATE: 4-5-79

LOCATION: Between point 5 & point 6 (Yingers Greenhouse)
East

TIME ON: 0435

TIME OFF: 0455

TOTAL VOLUME: 20 F³

SAMPLE COUNTED BY - ANL NRC

NRC SAMPLE NUMBER: 221

ANALYSIS FINDINGS:

¹³¹I < 10⁻⁶ uCi/ml

Reading START = 5 MR/Hr Bx
0.4 MR/Hr Y

READING STOP = 0.20 MR/Hr Bx
0.05 MR/Hr Y

135 257

EPA Air monitoring
4/4/79 S. of Galvestone

Xe¹³³
Kr⁸⁵

140,000 pCi/m³
1500 pCi/m³

AIR SAMPLE SURVEY DATA

DATE: 4/6/79

LOCATION: Next to Communication Trailer, Trailer City

TIME ON: 1507

TIME OFF: 1527

TOTAL VOLUME: 1 CFM for 20 min = 20 ft³

SAMPLE COUNTED BY - ANL (NRC)

NRC SAMPLE NUMBER: 290

ANALYSIS FINDINGS: <MDA

MDA - 3.16×10^{-10} mCi/cc

AIR SAMPLE SURVEY DATA

DATE: 4-6-79

LOCATION: Substation Access Road Site 441 (East)

TIME ON: 2137

TIME OFF: 2157

TOTAL VOLUME: 20 CFM

SAMPLE COUNTED BY - ANL (NRC)

LABORATORY NUMBER: 289

ANALYSIS FINDINGS:

LMPA MDA-316E-144/cc
collected by NRC

AIR SAMPLE SURVEY DATA

DATE: Apr 7, 1979

LOCATION: $\frac{1}{2}$ between point 8 (HQ Trailer City) & 9 (Access Rd)

WIND DIR: 0158

TIME OFF: 0218

TOTAL VOLUME: 20 min @ 1 CFM = 300 cu ft.

SAMPLE COUNTED BY - ANL (NRC)

NRC SAMPLE NUMBER: 298

ANALYSIS FINDINGS:

CPA

MDA: 3.16E-10 mCi/cc I-131

AIR SAMPLE SURVEY DATA

DATE: April 7, 1979

LOCATION: 50 yards South of Access road (Point 9)

TIME ON: 0353

TIME OFF: 0418

TOTAL VOLUME: 20 min. @ 1 cfm = 20 cu. ft.

SAMPLE COUNTED BY - ANL (ARC)

SEC SAMPLE NUMBER: 299

ANALYSIS FINDINGS:

CMDA

MDA - 3.16 E-10 m/l/cc I-131

NRL Team

AIR SAMPLE SURVEY DATA

DATE: 4/7/79

LOCATION: .2 mi North on Rt 441 from intersection
of 441 & Red Hill Plaza
Elev: 1650

TIME OFF: 1110

TOTAL VOLUME: 20 min x 1 cfm = 20 ft³

SAMPLE COUNTED BY - ANL NRC

LABORATORY NUMBER:

ANALYST'S SIGNATURE:

135 263

AIR SAMPLE SURVEY DATA

DATE: 4/7/78

LOCATION: .2 mi N of Rt 441 from intersection of 441 & Red Hill Playa

TIME ON: 1050

TIME OFF: 1110

TOTAL VOLUME: 566000 CC

SAMPLE COUNTED BY - ANL NRC

NRC SAMPLE NUMBER: 311

ANALYSIS FINDINGS:

$^{131}\text{I} < \text{MDA} (2.7 \text{E}-10)$

AIR SAMPLE SURVEY DATA

DATE: 4/7/79
LOCATION: Midway between 500KV substation access
road and Red Hill Plaza
TIME IN: 14:30
TIME OFF: 14:50

TOTAL VOLUME: $20 \text{ min} \times 1 \text{ cfm} = 20 \text{ ft}^3$

SAMPLE COUNTED BY - ANL NRC

NRC SAMPLE NUMBER:

ANALYSIS PLANTING:

AIR SAMPLE SURVEY DATA

DATE: 4/1/79

LOCATION: 200 yards south of Observation Bldg. (EAST)

TIME ON: 0435

TIME OFF: 0455

TOTAL VOLUME: 20 ft³

SAMPLE COUNTED BY - ~~AN~~ NRC

NRC SAMPLE NUMBER: 100

ANALYSIS FINDINGS:

< MDA

MDA = 2.45 E-¹⁰~~13~~ mCi/cc

I-131

135 266

AIR SAMPLE SURVEY DATA

DATE: 4/1/79

LOCATION: Goldboro (Point #1) West

TIME ON: 0642

TIME OFF: 0741

TOTAL VOLUME: 39 ft^3

SAMPLE COUNTED BY - AML NRC

NPC SAMPLE NUMBER: ~~278~~ 257

ANALYSIS FINDINGS:

NRC { C MPA
MPA

MDA = 1.58×10^{-13} $\mu\text{g/cc}$ I-131

$$A_{NL} < MDA = .1 \mu\text{Ci/lit}$$

AIR SAMPLE SURVEY DATA

DATE: 4/1/79

LOCATION: Point # 1 (West)

TIME ON: 1026

TIME OFF: 1126

TOTAL VOLUME: 39 ft³

SAMPLE COUNTED BY - (ANL) (NRC)

NRC SAMPLE NUMBER: 260

ANALYSIS FINDINGS:

NRC { $\leq$ MDA
1.58
MDA = ~~2.4~~ ¹⁰ E-13 μ g/cc $\leq$ 131

ANL { $\leq$ MDA = .1 μ ci/lt

AIR SAMPLE SURVEY DATA

DATE: 4/2/79

LOCATION: Point # 11 (East)

TIME ON: 0545

TIME OFF: 0605

TOTAL VOLUME: 20 ft³

SAMPLE COUNTED BY - ~~AX~~ NRC

SAMPLE NUMBER: 132

ANALYSIS FINDINGS:

< MDA

MDA-245 E-¹⁰~~13~~ ALI/cc

135 269

AIR SAMPLE SURVEY DATA

DATE: 4/2/79

LOCATION: 0.6 miles south of point #4 (West)

TIME ON: 1430 hours

TIME OFF: 1530 hours

TOTAL VOLUME: 39 cubic feet

SAMPLE COUNTED BY -

ANL

NRC

NRC SAMPLE NUMBER:

256

ANALYSIS FINDINGS: ANL

ANL { minimum detectable activity 0.1 pci/liter
all activity $< 1 \times 10^{-10}$ pci/liter

NRC { < MDA

MDA = ^{1.58}~~3.33~~ E-13 ¹⁰ALI/cc I-131

AIR SAMPLE SURVEY DATA

DATE: 4/2/79

LOCATION: Point # 11 (East)

TIME ON: 1650

TIME OFF: 1710

TOTAL VOLUME: 20 ft³

SAMPLE COUNTED BY - ~~AXL~~ NRC

NRC SAMPLE NUMBER: 137

ANALYSIS FINDINGS:

< MPA

MPA = 2.45×10^{-13} mCi/cc

AIR SAMPLE SURVEY DATA

DATE: 4/2/79

LOCATION: Point #1 (West)

TIME ON: 1655 hours

TIME OFF: 1800 hours

TOTAL VOLUME: 42.2 cubic feet

SAMPLE COUNTED BY - (ANL) (NRC)

NRC SAMPLE NUMBER: 258

ANALYSIS FINDINGS:

ANL { MDA = .34 pCi/Lt.
Iodine activity $< 3 \times 10^{-10}$ pCi/Lt

NRC { < MDA
MDA = 1.58×10^{-6} nCi/cc I-131

AIR SAMPLE SURVEY DATA

DATE: 4/3/79

LOCATION: Point #1 (West)

TIME ON: 0715

TIME OFF: 0144

TOTAL VOLUME: 19 ft³

SAMPLE COUNTED BY - (ANL) (NRC)

NRC SAMPLE NUMBER: 262

ANALYSIS FINDINGS:

NRC { < MDA

$$MDA = 3.16 \times 10^{-13} \text{ AG/ml I-131}$$

ANL { < MDA = .1 pci/lt

AIR SAMPLE SURVEY DATA

DATE: 4-3-79

LOCATION: Position 16 (East)

TIME ON: 0130

TIME OFF: 0150

TOTAL VOLUME: 20 ft³

SAMPLE COUNTED BY - ~~AX~~ NRC

NRC SAMPLE NUMBER: 154

ANALYSIS FINDINGS:

< MPA

MPA = 2.45×10^{-13} $\mu\text{Ci/cc}$

I-131

AIR SAMPLE SURVEY DATA

DATE: 4/3/79

LOCATION: Redhill Plaza Road (50 feet north of sign) (EAST)

TIME ON: 0200

TIME OFF: 0220

TOTAL VOLUME: 20 ft³

SAMPLE COUNTED BY - ~~AX~~ NRC

NRC SAMPLE NUMBER: 156

ANALYSIS FINDINGS:

< MDA

MDA = 2.45×10^{-3} mg/cc

I-131

135 275

AIR SAMPLE SURVEY DATA

DATE: 4/3/79

LOCATION: CEMETARY SOUTH OF FALMOUTH ROAD (EAST)

TIME ON: 0750

TIME OFF: 0810

TOTAL VOLUME: 20 ft³

SAMPLE COUNTED BY - ~~AN~~ NRC

ISO SAMPLE NUMBER: 157

ANALYSIS FINDINGS: < MDA

MDA = 2.45×10^{-12} MC/CC

I-131

135 276

AIR SAMPLE SURVEY DATA

DATE: 4/3/79

LOCATION: Bridge near Galmonth Road (EAST)

TIME ON: 0750

TIME OFF: 0740

TOTAL VOLUME: 20 ft³

SAMPLE COUNTED BY - AX NRC

NRC SAMPLE NUMBER: 158

ANALYSIS FINDINGS:

< MDA

MDA = 2.45 E-¹⁰~~3~~ mCi/cc

I-131

AIR SAMPLE SURVEY DATA

DATE: 4/3/79

LOCATION: NORTH of ENGLE ROAD (EAST)

TIME ON: 0410

TIME OFF: 0430

TOTAL VOLUME: 20 ft³

SAMPLE COUNTED BY - ~~AXL~~ NRC

NRC SAMPLE NUMBER: 155

ANALYSIS FINDINGS:

< MDA

MDA = 2.45 E-¹⁰~~13~~ pCi/cc

I-131

AIR SAMPLE SURVEY DATA

DATE: 4/3/79

LOCATION: 100 yds north Red Hill Plaza Road (EAST)

TIME ON: 1255

TIME OFF: 1305

TOTAL VOLUME: 20 ft³

SAMPLE COUNTED BY - ~~AN~~ NRC

NRC SAMPLE NUMBER: 170

ANALYSIS FINDINGS:

< MDA

MDA = 2.45×10^{-13} nCi/cc

I-131

135 279

AIR SAMPLE SURVEY DATA

DATE: 4/4/79

LOCATION: Point #19 (West)

TIME ON: 0040 hours

TIME OFF: 0120 hours

TOTAL VOLUME: 20 ft³

SAMPLE COUNTED BY - (ANL) (NRC)

NRC SAMPLE NUMBER: 261

ANALYSIS FINDINGS:

ANL { MDA = 0.1 pci/lt
I¹³¹ concentrations $< 1 \times 10^{-10}$ pci/lt.

NRC { < MDA

MDA = 3.16×10^{-13} M/G/cc I-131

AIR SAMPLE SURVEY DATA

DATE: 4/4/79

LOCATION: north of Engle Road (Rt 441) East

TIME ON: 0550

TIME OFF: 0610

TOTAL VOLUME: 10 ft³

SAMPLE COUNTED BY - ~~AXL~~ NRC

NRC SAMPLE NUMBER: 180

ANALYSIS FINDINGS:

C. P. A.

MDA: 4.9×10^{-13} ng/cc

I-131

AIR SAMPLE SURVEY DATA

DATE: 4/4/79

LOCATION: Point #1 (West)

TIME ON: 0640

TIME OFF: 0717

TOTAL VOLUME: 24 ft³

SAMPLE COUNTED BY - (ANL) (NRC)

NRC SAMPLE NUMBER: 259

ANALYSIS FINDINGS:

NRC { < MDA
MDA = 3.16E⁻¹⁰ ~~13~~ mg/cc I-131

ANL { < MDA = .1 pci/lt

AIR SAMPLE SURVEY DATA

DATE: 4-4-79

LOCATION: COCHS BORO POINT # 1 (west)

TIME ON: 2050

TIME OFF: 2150

TOTAL VOLUME: 39 ft³

SAMPLE COUNTED BY - (ANL) (NRC)

ISO SAMPLE NUMBER: 263

ANALYSIS FINDINGS:

NRC { < MDA
MDA = 1.58×10^{-13} mCi/cc I-131

ANL { < MDA = 0.1 pCi/lit.

135 283

DOE GROUND SURVEY

Date 4-11-79Team GRNL (SMITH) PowersInst # ThyAic # HP21CGROUND SURVEY DATA
East Side (River Road)ORNL
ThyAic

LOCATION	TIME	B-X	Y	HP-21C WIND DIR.
1	1428	< 0.1	< 0.1	30 cm
2	1430	<	<	40 cm
3	1431	<	<	30
4	1433	<	<	30
5	1435	<	<	30
6	1437	<	<	30
7	1438	<	<	30
8	1439	<	<	30
9	1441	<	<	30
10	1442	<	<	30
11	1444	<	<	30
12	1445	<	<	30
13	1446	<	<	30
14	1447	<	<	40
15	1449	< V	< V	30

This package was
retrieved from Capital City
DOE/CP on 4/10/79.

135 285

4/11/79
Hunkler/Smith

INSTS 158-E-500B
UR PRM-7
Hp 210

Location	time	UR	$\beta\delta$	δ	Hp-210
22	1318	4	<0.01	<0.01	<40 c/m
21	1322	4	<0.01	<0.01	<40 c/m
20	1324	4	<0.01	<0.01	<40 c/m
19	1327	3	<0.01	<0.01	<40 c/m
18	1329	5	<0.01	<0.01	<40 c/m
17	1332	5	<0.01	<0.01	<40 c/m
16	1334	5	<0.01	<0.01	<40 c/m
15	1335	5	<0.01	<0.01	<40 c/m
14	1336	4	<0.01	<0.01	<40 c/m
1	1338	6	<0.01	<0.01	<40 c/m
2	1339	4	<0.01	<0.01	<40 c/m
3	1340	4	<0.01	<0.01	<40 c/m
4	1344	5	<0.01	<0.01	<40 c/m
5	1345	10	<0.01	<0.01	<40 c/m
6	1350	4	<0.01	<0.01	<40 c/m
7	1352	4	<0.01	<0.01	<40 c/m
8	1353	4	<0.01	<0.01	<40 c/m
9	1355	4	<0.01	<0.01	<40 c/m
10	1355	4	<0.01	<0.01	<40 c/m
11	1359	4	<0.01	<0.01	<40 c/m
12	1400	4	<0.01	<0.01	<40 c/m
13	1403	3	<0.01	<0.01	<40 c/m

Hunkler/Smith

4/11/79

B8 - E - 500 B
 Insts. UR - PRM-7
 HP - 210

Location	Time	UR	B8	δ	HP 210
22	0948	4	<0.01	<0.01	< 40 c/m
21	0956	4	<0.01	<0.01	< 40 c/m
20	0959	4	<0.01	<0.01	< 40 c/m
19	1002	3	<0.01	<0.01	< 40 c/m
18	1004	6	<0.01	<0.01	< 40 c/m
17	1009	5	<0.01	<0.01	< 40 c/m
16	1010	5	<0.01	<0.01	< 40 c/m
15	1011	4	<0.01	<0.01	< 40 c/m
14	1012	4	<0.01	<0.01	< 40 c/m
13	1014	4	<0.01	<0.01	< 40 c/m
12	1016	4	<0.01	<0.01	< 40 c/m
11	1017	4	<0.01	<0.01	< 40 c/m
10	1020	5	<0.01	<0.01	< 40 c/m
9	1022	4	<0.01	<0.01	< 40 c/m
8	1026	5	<0.01	<0.01	< 40 c/m
7	1028	4	<0.01	<0.01	< 40 c/m
6	1029	4	<0.01	<0.01	< 40 c/m
5	1031	5	<0.01	<0.01	< 40 c/m
4	1033	4	<0.01	<0.01	< 40 c/m
3	1035	4	<0.01	<0.01	< 40 c/m
2	1037	5	.01	<0.01	< 40 c/m
1	1040	3	<0.01	<0.01	< 40 c/m

Date 4-10-79Team ORNL (Smith/Powers)Inst # ThyAic GMSM
HP210GROUND SURVEY DATA
West Side

LOCATION	TIME	B-X	X	H.P. 210 cpm WIND DIR.
1	1020	<0.1	<0.1	60
2	1028	<.1	<.1	60
3	1029	<.1	<.1	50
4	1031	<.1	<.1	70.
5	1032	<.1	<.1	5.0
6	1037	<.1	<.1	50
7	1038	<.1	<.1	50
8	1039	<.1	<.1	40
9	1040	<.1	<.1	40
10	1042	<.1	<.1	40
11	1044	<.1	<.1	60
12	1045	<.1	<.1	40
13	1046	<.1	<.1	40
14	0848	<0.1	<0.1	50
15	0850	<0.1	<0.1	50
16	0853	<0.1	<0.1	70
17	0855	<0.1	<0.1	60
18	0856	<0.1	<0.1	40
19	0859	<0.1	<0.1	30
20	0901	<0.1	<0.1	60
21	0905	<0.1	<0.1	50
22	0907	<0.1	<0.1	60
23	0925	<0.1	<0.1	50

GROUND SURVEY DATA
West Side

Date 4-10-79
Team ORNL Powers
Smith
Inst # _____

LOCATION	TIME	(Thyvac) B-8		HP-210 cpm MINI-DIR.
1	1454	2.1	2.1	30
2	1455			40
3	1456			30
4	1459			30.
5	1500			30
6	1504			20
7	1506			30
8	1507			30
9	1509			40
10	1510			30
11	1512			40
12	1514			30
13	1515			30
14	1452			30
15	1450			40
16	1449			30
17	1447			40
18	1445			30
19	1439			30
20	1436			30
21	1425			30
22	1429	V	V	30

135 289

4/10/79 on Duty W. Smith / C. H. Hunkler³¹
 0800 Reported to Capital Air port
 1930 Returned Forestry Service radio to
 NRC Trailer. (To Gen. Ref)

1030-1120 Chased plume to S. of NRC Center on 441
 ~ mile

Time	R/S	UR	(GM)-BX	HP 210
1120	7	24		
1124	13.4	120	.035 .015	100 c/m
1125	15.5	160	.075 .02	150 c/m
1127	13.5	100	.03 <.01	80 c/m
1128	9.0	60	.015 <.01	80 c/m
1132	13.5	100	.02 .01	140 c/m
1133	14.1	120	.05 <.01	100 c/m
1134	15.8	130	.035 <.01	160 c/m
1135	12.2	120	— .015	160 c/m
1136	12.4	100	.035 <.01	140 c/m
1137	14.5	140	— .015	120 c/m
1141	12.3	100	.025 <.01	100 c/m
1144	8.4	50	.035 <.01	60 c/m

INstruments { Model # RSS III
 UR PRM-7
 GM E-500 B
 HP 210 } Instrument Models
 used Above.

Team: Hunkler / Smith

135 290

4/9/79

Smith/Hunclicker

UR-PRM-7
BX-E-500B

Location

Time

BX

X

UR

HP 210

EFFICIENCY, LINE No. 2636



	1	2	3	4	5	6	7	8	9
1									
2	3	2	1417	<0.01	<0.01		6		60.0
3									
4	4		1421	<0.01	<0.01		6		60.0
5									
6	5		1422	<0.01	<0.01		5		60.0
7									
8	6		1427	<0.01	<0.01		6		60.0
9									
10	7		1429	<0.01	<0.01		5		60.0
11									
12	8		1430	<0.01	<0.01		5		60.0
13									
14	9		1432	<0.01	<0.01		6		60.0
15									
16	10		1432	<0.01	<0.01		4		60.0
17									
18	11		1436	<0.01	<0.01		4		60.0
19									
20	12		1437	<0.01	<0.01		4		60.0
21									
22	13		1440	<0.01	<0.01		4		60.0
23									
24									
25									
26									
27									
28									
29									
30									
31									

135 291

Date 4-9-79Team ORNL (Smith/Powers)Inst # H.P. 210
ORNL ThyAicGROUND SURVEY DATA
West Side

LOCATION	TIME	B-X	X	H.P. 210 WIND DIR.
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14	1325	<0.1	<0.1	40
15	1328	<0.1	<0.1	40
16	1330	<0.1	<0.1	60
17	1335	<0.1	<0.1	80
18	1340	<0.1	<0.1	40
19	1343	<0.1	<0.1	40
20	1345	<0.1	<0.1	40
21	1348	<0.1	<0.1	50
22	352	<0.1	<0.1	40
23	1408	<0.1	<0.1	60

ANL

TEAM COVERED
the FIRST
13 SURVEY
LOCATIONS

Between 1337 HRS
Between River
Rd & Reesers
Hill Rd. we
encountered the
"Plume" We
circled the Hill
west of 262 by
going up River Rd
to 295 then bac
to 262

Localized Radiation
Levels were

H.P. 210 300-400 c/c
ThyAic open 0.3 mR/hr
" closed 0.1 mR/hr

135 292

4/9/79

Hunkler/Smith

Insts. HP 210
2500 B

ALFALFA EFFICIENCY, LINE No. 2636

Location ²	Time ⁴	SPD ⁰	6	8	7	HR	8	HP 210 ⁹
1								
2	#3	0955	.01	<0.01		13	600 c/m	
3								
4	4	1001	<0.01	<0.01		7	600 c/m	
5								
6	5	1015	<0.01	<0.01		5	600 c/m	
7								
8	6	1021	0.01	<0.01		6	600 c/m	
9								
10	7	1033	<0.01	<0.01		5	600 c/m	
11								
12	8	1034	<0.01	<0.01		5	600 c/m	
13								
14	9	1037	<0.01	<0.01		6	600 c/m	
15								
16	10	1048	<0.01	<0.01		5	600 c/m	
17								
18	11	1053	<0.01	<0.01		5	600 c/m	
19								
20	12	1055	<0.01	<0.01		5	600 c/m	
21								
22	13	1058	<0.01	<0.01		4	600 c/m	
23								
24								
25								
26								
27								
28								
29								
30								135 293
31								

Smith / Hunckler

4/8/79

Location

Time

LR

R/S

B X X

	1	2	3	4	5	6	7	8	9	
1					5-6		5.7		<0.01	<0.01
2	#1		1439	1439	5-6		5.8			
3							5.4			
4							6.3			
5							6.0			
6							5.9			
7							5.6			
8							6.0			
9							5.9			
10							5.8			
11							6.3			
12							6.2			
13										
14	#1		1532		60					
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										

* R-3 better than no readings
0.03 <0.01

135 294

EFFICIENCY, LINE No. 2636



Smith/Hunekler

Date 4/8/79

Team ANL

Inst #

1/8/79

GROUND SURVEY DATA
Side (River Road)
WestE5008
HP-17

PRM-7

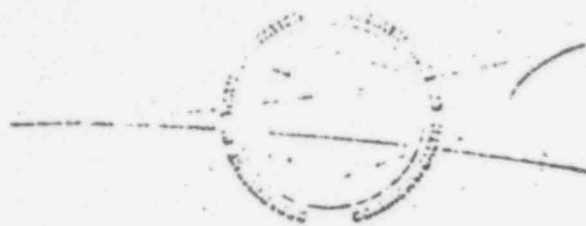
UR Meter (C¹³⁷)

LOCATION	TIME	B- X	X	WIND DIR.
* 1	0921	<0.01	<0.01	4
2	0923			4
* 3	1059			7
4	1111			8
5	1112			7
6	1117			5
7	1118			5
8	1119			4
9	1120			5
10	1122			4
11	1124			4
12	1125			4
13	1127			4
14	0923	<0.01	<0.01	4
15	0924	<0.01	<0.01	5
16	0926	<0.01	<0.01	5
17	0928			6
* 18	0930	.01	<0.01	12
19	0932			6
20	0935	<0.01	<0.01	9
* 21	0938	0.01	<0.01	8
* 22	0955	0.01	<0.01	8
* 23	1013	<0.01	<0.01	8

Time 1050 Samples

135 295

* Soil Vegetation 2, + 10 Samples

[illegible]

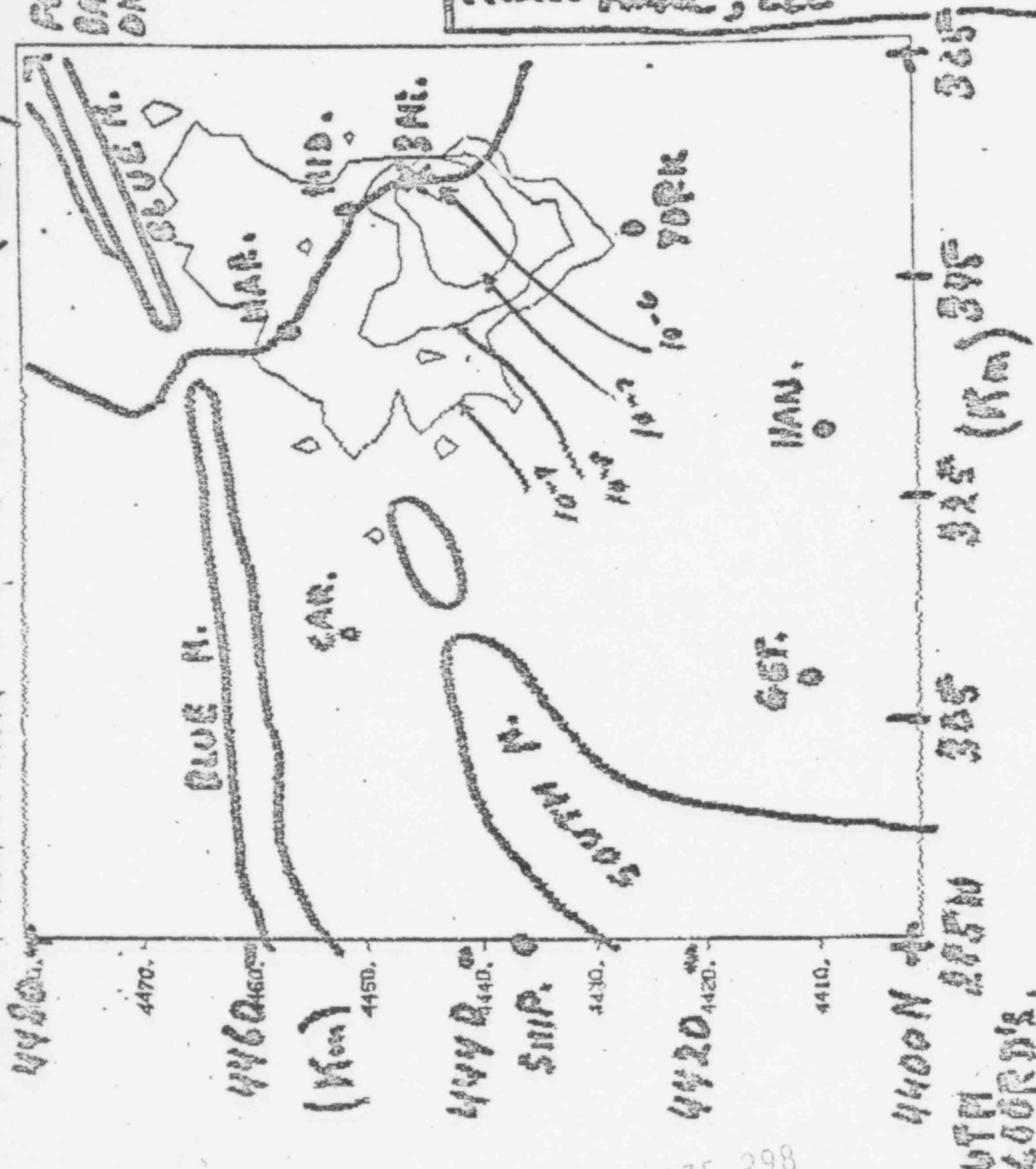
Map Point - West Side

<u>Point</u>	<u>Location</u>
* 1	River & Winebago (Goldsboro)
2	Center of Goldsboro
* 3	Rt. 262/Bridge
4	Rt. 262/Rt. 392
5	Rt. 262/Curve
6	Rt. 262 - Corn Hill Road
7	Rt. 262 & Husk Lane
8	Rt. 262 & Beinhower
9	Rt. 262 & Rt. 177
10	Rt. 262 & Rt. 83
11	Rt. 262 & Spring Road
12	Rt. 262 & Park Road
13	Rt. 262 & Rt. 76 (Bridge)
14	Frazer Street & Rt. 262
15	Wisler Road & Rt. 262
16	Midway Road & Rt. 262
17	River Road & Rt. 262
* 18	Rt. 295/Reeser (Hill Road)
19	Rt. 382 (Beer)
* 20	Rt. 382 & Rt. 181 (Drovers Bank)
* 21	North End Brunners Island
* 22	South End Brunners Island
* 23	Copewago Hts at Bridge/Rt 181

11/179 WEST. AIR COR. AT 35m (1/4m) 1700 ES1

FOR: 2200
BASED
ON: 3000

FROM: ARAC, LLL



135 298

BK9-4.03

OR-1

All Readings Are MRHR

IC 26174

W.m. Johnson & W.D. Carden

SECTION	TIME	2-5	2-6	WIND DIR.
1	1637	4.03	4.03	<u>288°</u>
2	1638	4.03	4.03	2-6
3	1640	4.03	4.03	<u>1413</u>
4	1642	4.03	4.03	
5	1644	4.03	4.03	
6	1645	4.03	4.03	
7	1646	4.03	4.03	
8	1647	.3	.05	
9	1649	3	.4	
10	1651	4.03	4.03	
11	1652	4.03 .03	4.03	
12	1654	4.03	4.03	
13	1655	4.03	4.03	
14	1656	4.03	4.03	
15	1900	4.03	4.03	

Survey taken 2158 to 2258

4/3/79

SEA SMPR

PRM-7

Sr. No 200

ES00-B

Sr. No. 1094

At the time of the survey

2258		GM	GM	PRM-7	Time				
Loc'n	2	OPEN	CLOSED	SAR/hr	5	7	8	9	
1	1	<.01	<.01	5		2158			
2	2			5		2158			
3	14			5		2159			
4	15			5		2159			
5	16			5		2200			
6	17 Rbr			5		2201			
7	18 295	.03	<.01	50		2203			
8	19 Bar	.06	.01	120		2207			
9	20	.10	.03	160		2210			
10	21	.06	.01	120		2213			
11	22	.04	<.01	60		2217			
12									
13	Between 18+17	.14	.05	420		2231			
14									
15	3	<.01	<.01	5		2240			
16	4 342			3-5		2243			
17	5 curve					2244			
18	6					2248			
19	7					2250			
20	8					2252			
21	9					2254			
22	10					2255			
23	11					2256			
24	12					2257			
25	13					2258			
26									
27									
28	2258	50	5	12					
29									
30	2258	50	5	12					
31									

135 300

ANL Team - Goldzlow-bore
GM Potable ESBOB [Sn.No. 1094]

4/3/79

Loc'n #

GM

GM

DSM-7

1813-1934 hrs

	1	2	3 DW	4 CW	5 mR/hr	6	7 Time	8	9
Drummet	22		0.03	<0.01	42		1813		
"	21		0.30	0.06	1000		1820		
82/181	20		0.1	0.02	150		1921		
82/182	19		<0.01	<0.01	2		1925		
82/185	18				3		1927		
82/186	17				2		1931		
82/187	16				3		1932		
82/188	15				3		1933		
82/189	14				3		1933		
82/190	13				2		1933		
82/191	12								
82/192	11								
82/193	10								
82/194	9								
82/195	8								
82/196	7								
82/197	6								
82/198	5								
82/199	4								
82/200	3								
82/201	2		<0.01	<0.01	3		1933		
82/202	1		"	"	3		1934		
82/203									
82/204									
82/205									
82/206									
82/207									
82/208									
82/209									
82/210									
82/211									
82/212									
82/213									
82/214									
82/215									
82/216									
82/217									
82/218									
82/219									
82/220									
82/221									
82/222									
82/223									
82/224									
82/225									
82/226									
82/227									
82/228									
82/229									
82/230									
82/231									

Air sample (CESCO) @ loc'n 21 - Ground level.

Start

1821

18.4 f/m

Stop

1916

131 I

} Vol = 35.8 ft³

Concentration < 0.1 pCi/l

135 301

1930

345 @ 3

4-2-17
East Side
Bkg - .03

CR-1

All Readings ARE MIR/R

W.M.

W.D.

Johnson & Carden

STATION	TIME	2-5	5	Notes
1	1845	<1.03	<1.03	1930
2	1946	<1.03	<1.03	<u>3450</u>
3	1947	<1.03	<1.03	3721
4	1950	<1.03	<1.03	
5	1952	<1.03	<1.03	
6	1953	<1.03	<1.03	
7	1954	<1.03	<1.03	
8	1955	<1.03	<1.03	
9	1956	<1.03	<1.03	
10	1957	<1.03	<1.03	
11	1958	.05	<1.03	
12	2000	.5	.03	
13	2002	.6	.06	
14	2004	.2	.05	
15	2007	<1.03	<1.03	

Entered
AD

135 302

4-3-79

BK9-.03

Readings ARE MRHR

OR-1

IC-26174

W.M.

Johnson & W.D. Carlson

STATION	TIME	W	S	WIND
1	2213	<.03	<.03	$\frac{360^\circ}{2 \text{ min}} = 2200$ East Side
2	2215	<.03	<.03	
3	2216	<.03	<.03	
4	2219	<.03	<.03	
5	2221	<.03	<.03	
6	2223	<.03	<.03	
7	2224	<.03	<.03	
8	2225	<.03	<.03	
9	2226	<.03	<.03	
10	2228	<.03	<.03	
11	2230	<.03	<.03	
12	2231	<.03	<.03	
13	2233	<.03	<.03	
14	2235	<.03	<.03	
15	2237	<.03	<.03	

135 303

320

6M1/H2

GMSIA INST #26174

DATE 4-4-77

BACKGROUND <0.03

LOCATION	TIME	E-8	8	WIND DIR.
1	0040	<0.03	<0.03	
2	0042	<0.03	<0.03	
3	0044	<0.03	<0.03	
4	0046	<0.03	<0.03	
5	0048	<0.03	<0.03	
6	0050	<0.03	<0.03	
7	0052	<0.03	<0.03	
8	0054	<0.03	<0.03	
9	0056	<0.03	<0.03	
10	0058	<0.03	<0.03	
11	0100	<0.03	<0.03	
12	0102	<0.03	<0.03	
13	0104	<0.03	<0.03	
14	0106	<0.03	<0.03	
15	0108	<0.03	<0.03	

135 304

Survey Point Identification - East Side of River - OK Tunnels Point Location

- 1 South Union & 441
- 2 Burd stand 441
- 3 Railroad Crossing end 441
- 4 River to Best Sales & 441
- 5 Geyer Church Road & 441
- 6 Laurel Road & 441
- 7 Meadow Lane & 441
- 8 Observation Center (at 55 mph sign)
- 9 Substation Access Rd & 441
- 10 Red Hill Plaza & 441
- 11 End of Rd & 441
- 12 Conroy City Sign & 441
- 13 Falmouth Rd & 441
- Collins Rd & 441
- 15 Keene Rd & 441

EAST SIDE (RIVER RD)

DATE

TEAM O.R. 2

6 MI/Hr

GMSM INST # 26174

BACKGROUND <0.03 MR/Hr DATE 4-4-7

LOCATION	TIME	E-8	8	WIND DIR.
1	0230	<0.03	<0.030	40.0
2	0232	<0.03	<0.03	
3	0234	<0.03	<0.03	
4	0236	<0.03	<0.03	
5	0238	<0.03	<0.03	
6	0240	<0.03	<0.03	
7	0242	<0.03	<0.03	
8	0244	<0.03	<0.03	
9	0246	<0.03	<0.03	
10	0248	<0.03	<0.03	
11	0250	<0.03	<0.03	
12	0252	<0.03	<0.03	
13	0254	<0.03	<0.03	
14	0256	<0.03	<0.03	
15	0258	<0.03	<0.03	

Identical readings
at all points as
obtained during
the 0040-0108
survey.

135 306

4/4/79

D.J. Sreniowski & R.A. Paul

DOE Ground Survey Sites

e

Map Points - East Side (River Road)

TIME	POINT	BY	LOCATION
0330	1	0.02	South Union + Rt. 441
0333	2	0.02	East Street + Rt 441
0335	3	"	Railroad Crossing + Rt 441
0337	4	"	River Side Boat Lanes + Rt 441
0339	5	"	St. John Church Road + Rt 441
0342	6	"	Laurel Road + Rt 441
0344	7	"	Meadow Lane + Rt 441
0345	8	"	Headquarters Bldg. (55 MPH LIMIT SIGN) + Rt 441
0346	9	"	Access Road on left + Rt 441
0348	10	"	Red Hill Plaza + Rt 441
0349	11	"	Engle Road + Rt 441
0351	12	"	Collins Road + Rt 441
0353	13	"	Collins Road + Rt 441
0356	14	"	Collins Road + Rt 441
0358	15	"	Heener Road + Rt 441

0.693 5
7.5

135 307

EAST SIDE (RIVER RD.)

TEAM 1 J. 2.

COMASSI INST # 26113

DATE 4-4-11

SALT GROUND < 0.03 m/s

LOCATION	TIME	E-8	8'	WIND DIR.
1	04 30	< 0.03	< 0.03	70° at 2 m/h
2	04 32	< 0.03	< 0.03	
3	04 34	< 0.03	< 0.03	
4	04 36	< 0.03	< 0.03	
5	04 38	< 0.03	< 0.03	
6	04 40	< 0.03	< 0.03	
7	04 42	< 0.03	< 0.03	
8	04 44	< 0.03	< 0.03	
9	04 46	< 0.03	< 0.03	
10	04 48	< 0.03	< 0.03	
	04 50	< 0.03	< 0.03	
12	04 52	< 0.03	< 0.03	
13	04 54	< 0.03	< 0.03	
14	04 56	< 0.03	< 0.03	
15	04 58	< 0.03	< 0.03	

135 308

BKG = .01

LOCATION	TIME	C-Y	Y	WIND DIR.
1	0442	.01	.01	40° at 450 4mph
2	0443	.01	.01	
3	0444	.02	.01	
4	0447	.01	.01	
5	0448	.01	.01	
6	0454	.01	.01	
7	0456	.01	.01	
8	0457	.01	.01	
9	0459	.01	.01	
	0500	.01	.01	
	0502	.01	.01	
	0504	.01	.01	
13	0506	.01	.01	
14	0538	.02	.01	
15	0540	.01	.04	
16	0542	.12	.04	
17	0543	.06	.03	
18	0546	.01	.01	
19	0551	.01	.01	
20	0553	.01	.01	
21	0555	.01	.01	
22	0557	.01	.01	

0040 hrs (at pt 19)

to
0120 hrs

W. 1000 ft

MDA 1000 ft

135 309

DIAL & GROUND = < 0.03 m.y.f.

GROSS WIND # 2 1.1.1.1

DATE 1.1.1.1

LOCATION	TIME	P-Y	Y'	WIND DIR.
1	0630	< 0.03	< 0.03	90° 4 mi/hr
2	0632	< 0.03	< 0.03	at 0635 hrs.
3	0634	< 0.03	< 0.03	
4	0636	< 0.03	< 0.03	
5	0638	< 0.03	< 0.03	
6	0640	< 0.03	< 0.03	
7	0642	< 0.03	< 0.03	
8	0644	< 0.03	< 0.03	
9	0646	< 0.03	< 0.03	
10	0648	< 0.03	< 0.03	
11	0650	< 0.03	< 0.03	
12	0652	< 0.03	< 0.03	
13	0654	< 0.03	< 0.03	
14	0656	< 0.03	< 0.03	
15	0658	< 0.03	< 0.03	

135 310

EAST SIDE (RIVER RD)

4/4/79

TEAM C.F.R.

CONTRACT # 70111

BACKGROUND = < 0.03 ml/l

LOCATION	TIME	C-8	8	WIND DIR.
1	0830	< 0.03	< 0.03	(70° 5-10 mph) 0800 HRS
2	0832	< 0.03	< 0.03	
3	0834	< 0.03	< 0.03	
4	0836	< 0.03	< 0.03	
5	0838	< 0.03	< 0.03	
6	0840	< 0.03	< 0.03	
7	0842	< 0.03	< 0.03	
8	0844	< 0.03	< 0.03	
9	0846	< 0.03	< 0.03	
10	0848	< 0.03	< 0.03	
11	0850	< 0.03	< 0.03	
12	0852	< 0.03	< 0.03	
13	0854	< 0.03	< 0.03	
14	0856	< 0.03	< 0.03	
15	0858	< 0.03	< 0.03	

135 311

EAST SIDE (RIVER RD)

4/4/79

TEMP 6.1

C. M. SM. INST. # 36

BACK GROUND < 0.03 nml/h

LOCATION	TIME	C-8	8	WIND DIR.
1	10 15	< 0.03	< 0.03	90° 0800
2	10 17	< 0.03	< 0.03	10-20 mph
3	10 19	< 0.03	< 0.03	
	10 21	< 0.03	< 0.03	
5	10 23	< 0.03	< 0.03	
6	10 25	< 0.03	< 0.03	
7	10 27	< 0.03	< 0.03	
8	10 29	< 0.03	< 0.03	
9	10 31	< 0.03	< 0.03	
10	10 33	< 0.03	< 0.03	
(	10 35		< 0.03	
12	10 37	< 0.03	< 0.03	
13	10 39	< 0.03	< 0.03	
14	10 41	< 0.03	< 0.03	
15	10 43	< 0.03	< 0.03	

135 312

TEAM ANT
INST #
4/4/79

Background = 0.01 m/l.

~~WEST SIDE~~

LOCATION	TIME	1-2	2	WIND DIR.
1	1042	0.2	0.03	90°
2	1046	0.01	0.01	10-15 mph
3	1049	0.01	0.01	1130 ft
4	1053	0.01	0.01	1050 ft.
5	1055	0.01	0.01	
6	1059	0.01	0.01	
7	1101	0.01	0.01	
8	1103	0.01	0.01	
9	1104	0.03	0.01	
10	1107	0.01	0.01	
	1109	0.01	0.01	
12	1112	0.01	0.01	
13	1115	0.01	0.01	
14	1132	0.01	0.01	
15	1133	0.01	0.01	
16	1135	0.01	0.01	
17	1137	0.01	0.01	
18	1141	0.01	0.01	
19	1143	0.01	0.01	
20	1147	0.01	0.01	
21	1152	0.01	0.01	
22	1156	0.01	0.01	

Best 1336
Found 1436
39 cu ft
MDA 0.1 cu/l
NO IODINE DETECT

1x10⁻⁶ p/l
1x10⁻⁹ p/l
1x10⁻¹⁰ p/l

135 313

EAST SIDE (RIVER RD.)

TEAM OR-1INST # IC 26174

BK9- < .03

Readings are mph

W.M.

W.D.

John & Carden

LOCATION	TIME	A-Y	Y'	WIND DIR.
1	1352	< .03	< .03	
2	1353	< .03	< .03	
3	1354	< .03	< .03	
4	1356	< .03	< .03	
5	1358	< .03	< .03	
6	1359	< .03	< .03	
7	1400	< .03	< .03	
8	1402	< .03	< .03	
9	1403	< .03	< .03	
10	1405	< .03	< .03	
11	1406	< .03	< .03	
12	1408	< .03	< .03	
13	1410	< .03	< .03	
14	1412	< .03	< .03	
15	1413	< .03	< .03	

135 314

4/4/79

Background = 0.01 mph

LOCATION	TIME	E-8	8'	WIND DIR.
1	1447	.01	.01	90°
2	1450	.30	.05	10-15 mph
3	1453	.07	.02	@ 1500 hrs
4	1456	.01	.01	
5	1458	.01	.01	
6	1503	.01	.01	
7	1504	.01	.01	
8	1505	.01	.01	
9	1507	.01	.01	
10	1508	.01	.01	
(	1510	.01	.01	
12	1512	.01	.01	
13	1514	.01	.01	
14	1529	.02	.01	
15	1537	.01	.01	
16	1532	.02	.01	
17	1533	.01	.01	
18	1536	.01	.01	
19	1538	.01	.01	
20	1541	.01	.01	
21	1543	.01	.01	
22	1545	.01	.01	

135 315

EAST SIDE (RIVER RD.)

Readings in mylar

DATE 4-14-77
TEAM OR-1
INST #IC-26174

W.M. & W.D.
Johnson & Corwin

LOCATION	TIME	L-8	8	WIND DIR.
1	1604	L.03	L.03	90° at 8 mph 1600 hrs.
2	1611	L.03	L.03	
3	1612	L.03	L.03	
4	1614	L.03	L.03	
5	1615	L.03	L.03	
6	1617	L.03	L.03	
7	1618	L.03	L.03	
8	1619	L.03	L.03	
9	1620	L.03	L.03	
10	1622	L.03	L.03	
	1623	L.03	L.03	
12	1624	L.03	L.03	
13	1626	.03	.03	
14	1627	.03	L.03	
15	1629	L.03	L.03	

135 316

EAST SIDE (RIVER RL

DATE 4-4-17
 TEAM DICKEY/O'NEILL
 INST # 702

LOCATION	TIME	C-Y	Y	WIND DIR.
1	1725	<0.02	<0.02	126°
2	1728	<0.02	<0.02	
3	1730	<0.02	<0.02	
4	1732	<0.02	<0.02	
5	1734	0.03	<0.02	
6	1735	<0.02	<0.02	
7	1737	0.04	0.02	
8	1738	0.03	0.02	
9	1739	0.03	<0.02	
10	1740	0.03	<0.02	
11	1742	0.02	<0.02	
12	1745	0.04	0.03	
13	1746	0.04 0.02	0.03 0.02	
14	1750	0.02	<0.02	
15	1752	0.03	0.02	

4 mph

135 317

LEFT SIDE (RIVER RD)

AKG = 2.03

Reading and H&H R

TEAM CR-1

INST # 111111

Wm. J. Long

LOCATION	TIME	A-X	X	WIND DIR.
1	1752	2.03	2.03	184°
2	1755	2.03	2.03	1500
3	1757	2.03	2.03	3 inch
4	1800	2.03	2.03	
5	1802	2.03	2.03	
6	1804	2.03	2.03	
7	1806	2.03	2.03	
8	1807	2.03	2.03	
9	1808	2.03	2.03	
10	1810	2.03	2.03	
11	1811	2.03	2.03	
12	1813	2.03	2.03	
13	1815	2.03	2.03	
14	1816	2.03	2.03	
15	1817	2.03	2.03	
11	1826	1.03	1.12	
10	1828	1.03	1.1	
11	1833	1.3	1.1	on
12	1833	1.7	1.06	off
20 CFM Sample				

wind 0
360
1341

135 318

WEST SIDE

TEMP ANL

LOCATION	TIME	E-W	S	WIND DIR.
1	1905	.01	.01	1200 hrs
2	1909	.01	.01	3450
3	1910	.01	.01	6 mph
4	1920	.01	.01	2020
5	1922	.01	.01	300°
6	1925	.01	.01	7 mph
7	1927	.01	.01	
8	1929	.01	.01	
9	1930	.01	.01	
10	1931	.01	.01	
11	1932	.01	.01	
12	1934	.01	.01	
13	1937	.01	.01	
14	2000	.01	.01	
15	2002	.01	.01	
16	2003	.01	.01	
17	2004	.01	.01	
18	2006	.01	.01	
19	2008	.01	.01	
20	2010	.01	.01	
21	2013	.01	.01	
22	2016	.08	.04	

135 319

EAST SIDE (RIVER RD.)

Bkp-4.03

Readings MRHRDATE 14-4-79
TEAM CR-1
INST # LC-2617W.M. of W.D.
Johnson & Carden

LOCATION	TIME	E-Y	Y	WIND DIR.
1	2030	<.03	<.03	 2020 300° 7 mph
2	2031	<.03	<.03	
3	2034	<.03	<.03	
4	2036	<.03	<.03	
5	2038	<.03	<.03	
6	2040	<.03	<.03	
7	2041	<.03	<.03	
8	2043	<.03	<.03	
9	2044	<.03	<.03	
10	2046	<.03	<.03	
11	2048	<.03	<.03	
12	2049	<.03	<.03	
13	2051	<.03	<.03	
14	2052	.03	<.03	
15	2055	<.03	<.03	

135 320

EAST SIDE (RIVER RD)

BK9 <.03

Reading are mrhr

DATE 4-4-77

TEAM OR-1

INST # IC 26174

W.M. & W.O.

Johnson & Carsten

LOCATION	TIME	C-Y	X	WIND DIR.
1	2208	<.03	<.03	90° 22.40 2 mph
2	2210	<.03	<.03	
3	2212	<.03	<.03	
4	2215	<.03	<.03	
5	2217	<.03	<.03	
6	2218	<.03	<.03	
7	2220	<.03	<.03	
8	2221	<.03	<.03	
9	2223	<.03	<.03	
10	2225	<.03	<.03	
11	2226	<.03	<.03	
12	2227	<.03	<.03	
13	2230	<.03	<.03	
14	2232	<.03	<.03	
15	2234	<.03	<.03	

Date 4-5-79Team QR-1Inst # IC 26181GROUND SURVEY DATA
East Side (River Road)

BKP- <.03

Readings = MRHR

w.m. & w.D
Johnson & Carden

LOCATION	TIME	B- X	X	WIND DIR.
1	2231	<.03	<.03	2145
2	2232	<.03	<.03	180° -
3	2234	<.03	<.03	6 miles
4	2236	<.03	<.03	
5	2238	<.03	<.03	
6	2240	<.03	<.03	
7	2241	<.03	<.03	
8	2243	<.03	<.03	
9	2244	<.03	<.03	
10	2245	<.03	<.03	
11	2246	<.03	<.03	
12	2248	<.03	<.03	
13	2250	<.03	<.03	
14	2252	<.03	<.03	
15	2253	<.03	<.03	

135 322

135 323

LOCATION	TIME	B-8	8	WIND DIR.
1	2255	<0.01	<0.01	
2	2317	0.2	.05	
3	2319	0.12	.04	
4	2322	<0.01	<0.01	
5	2325	<0.01	<0.01	
6	2327	<0.01	<0.01	
7	2328	<0.01	<0.01	
8	2329	<0.01	<0.01	
	2331	<0.01	<0.01	
	2332	<0.01	<0.01	
11	2334	<0.01	<0.01	
12	2336	<0.01	<0.01	
13	2339	<0.01	<0.01	
14	2315	0.08	<0.01	
15	2313	<0.01	<0.01	
16	2312	<0.01	<0.01	
17	2310	<0.01	<0.01	
18	2308	<0.01	<0.01	
19	2306	<0.01	<0.01	
20	2304	<0.01	<0.01	
21	2305	<0.01	<0.01	
22	2259	<0.01	<0.01	

Background = 0.01

GROUND SURVEY DATA
West Side

Inst #

Date 4-4-74

4-4-74

GROUND SURVEY DATA
East Side (River Road)

Date 4-5-79

Team OR 2

Inst # 26174

LOCATION	TIME	B- X	X	WIND DIR.
1	0030	<0.03	<0.03	90° 3 mi/hr
2	0032	<0.03	<0.03	90° 3 mi/hr
3	0034	0.05	0.03	180° 2 mi/hr
4	0036	0.05	0.03	
5	0038	<0.03	<0.03	
6	0040	<0.03	<0.03	
7	0042	<0.03	<0.03	
8	0044	<0.03	<0.03	
9	0046	<0.03	<0.03	
10	0048	<0.03	<0.03	
11	0050	<0.03	<0.03	
12	0052	<0.03	<0.03	
13	0054	<0.03	<0.03	
14	0056	<0.03	<0.03	
15	0058	<0.03	<0.03	↓

135 324

Date 4-5-79GROUND SURVEY DATA
East Side (River Road)Team 1 C 2GMSM Inst # 26174

BACK GROUND 20.03 m/s

LOCATION	TIME	B- <u>X</u>	<u>Y</u>	WIND DIR.
1	0230	0.06	0.03	215 4m/s
2	0232	<0.03	<0.03	
3	0234	<0.03	<0.03	
4	0236	<0.03	<0.03	
5	0238	<0.03	<0.03	
6	0240	0.10	0.03	
7	0242	<0.03	<0.03	
8	0244	<0.03	<0.03	
9	0246	<0.03	<0.03	
10	0248	<0.03	<0.03	
11	0250	<0.03	<0.03	
12	0252	<0.03	<0.03	
13	0254	<0.03	<0.03	
14	0256	<0.03	<0.03	
15	0258	<0.03	<0.03	

135 325

Date 4-5-79Team ANLGROUND SURVEY DATA
West Side

Inst # _____

LOCATION	TIME	B-X	X	WIND DIR.
1	0249	.01	<0.01	225° at
2	0252	.01	<0.01	3 mph at 0305 hr
3	0254	.01	<0.01	
4	0256	.02	<0.01	
5	0258	.02	<0.01	
6	0303	.02	<0.01	
7	0304	.02	<0.01	
8	0305	.01	<0.01	
	0306	.01	<0.01	
	0307	.01	<0.01	
11	0309	.02	<0.01	
12	0310	.01	<0.01	
13	0314	.01	<0.01	
14	0329	.01	<0.01	
15	0330	.01	<0.01	
16	0331	.01	<0.01	
17	0332	.01	<0.01	
18	0335	.01	<0.01	
19	0336	.01	<0.01	
20	0339	.01	<0.01	
21	0341	.01	<0.01	
22	0344	.01	<0.01	

135 32~

13

135 32~

Date 4-5-79GROUND SURVEY DATA
East Side (River Road)Team CR-2Inst # 26174SAGE & ROUND < 0.03 mph. GMSIVE

LOCATION	TIME	B- X	X	WIND DIR.
1	0420	0.03	< 0.03	240 ⁶ Tm/Hr 0900
2	0422	0.03	< 0.03	
3	0424	0.03	< 0.03	
4	0426	0.03	< 0.03	
5	0428	0.03	< 0.03	
6	0430	0.20	0.4	
7	0432	7.0	0.40	
8	0434	0.1	0.03	
9	0500	< 0.03	< 0.03	
10	0502	< 0.03	< 0.03	
11	0504	< 0.03	< 0.03	
12	0506	< 0.03	< 0.03	
13	0508	< 0.03	< 0.03	
14	0510	< 0.03	< 0.03	
15	0512	< 0.03	< 0.03	

* AIR SAMPLE TAKEN

Date 4-5-70GROUND SURVEY DATA
East Side (River Road)Team 1 2GNSA (Inst # 26171)

BACKGROUND <0.03

LOCATION	TIME	B. $\frac{1}{X}$	$\frac{Y}{X}$	WIND DIR.
1				230° 5 mi/h
2	0627	<0.03	<0.03	
3	0629	<0.03	<0.03	
4	0631	<0.03	<0.03	
5	0633	<0.03	<0.03	
6	0635	1.0	0.04	
7	0637	0.2	<0.03	
8	0639	<0.03	<0.03	
9	0641	<0.03	<0.03	
10	0643	<0.03	<0.03	
11	0645	<0.03	<0.03	
12	0647	<0.03	<0.03	
13	0649	<0.03	<0.03	
14	0651	<0.03	<0.03	
15	0653	<0.03	<0.03	

135 328

Recorded

Date 4-5-79

GROUND SURVEY DATA
East Side (River Road)

Team O.R. 2-

Inst # 26178

Background <0.03 uR/hr

GM SM

LOCATION	TIME	B- X	X	WIND DIR.
1	0830	<0.03	<0.03	230° SW 1/2
2	0832	<0.03	<0.03	
3	0834	<0.03	<0.03	
4	0836	<0.03	<0.03	
5	0838	<0.03	<0.03	
6	0840	<0.03	<0.03	
7	0842	<0.03	<0.03	
8	0844	1.0	0.03	
9	0846	<0.03	<0.03	
10	0848	<0.03	<0.03	
11	0850	<0.03	<0.03	
12	0852	<0.03	<0.03	
13	0854	<0.03	<0.03	
14	0856	<0.03	<0.03	
15	0858	<0.03	<0.03	

135 329

EFFICIENCY LINE NO. 2836

	Locations	GM ¹⁰	GM ²⁰	UR ³	TIME
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					

Locations	GM ¹⁰	GM ²⁰	UR ³	TIME
16 Midway Road	<0.01	<0.01	5	1024
17 River Road	<0.01	<0.01	4	1024
18 Rt 295/Reaser	<0.01	<0.01	4	1028
19 Rt 382 (PKg Store)	<0.01	<0.01	4	1029
20 Rt 382/181 (cut BANK)	<0.01	<0.01	5	1032
21 No End Brunner Is.	<0.01	<0.01	4	1035
22 Sc. E. Brunner Is.	<0.01	<0.01	4	1042

4/5/79

UR

TIME

EFFICIENCY 111E NO 2636

Location ³	GMIC ⁶	GMIC ⁸		
1 ² River Road at Virengo	<0.01	<0.01	4	0915
2 ⁴ Center of Eldorado	<0.01	<0.01	4	0919
3 ⁶ 262/Bridge	<0.01	<0.01	4	0920
4 ⁸ 262/392	<0.01	<0.01	4	0923
5 ¹⁰ 262/curve	<0.01	<0.01	4	0924
6 ¹² 262/corn Hill rd	<0.01	<0.01	4	0928
7 ¹⁴ 262/Husk Lane	<0.01	<0.01	4	0929
8 ¹⁶ 262/Beinhauer	<0.01	<0.01	4	0930
9 ¹⁸ Jct 262/177	<0.01	<0.01	6	0932
10 ²⁰ 262/83	<0.01	<0.01	4	0933
11 ²² 262/Big Spring Rd	<0.01	<0.01	4	0935
12 ²⁴ 262/Park Rd	<0.01	<0.01	4	0936
13 ²⁶ 262/76 Bridge	<0.01	<0.01	4	0939
14 ²⁸ Frazer St.	<0.01	<0.01	4	1021
15 ³⁰ Wister Road	<0.01	<0.01	334-331	1022

Recorded
GROUND SURVEY DATA
East Side (River Road)

Date 4-5-79

Team OK 2

Inst # 26174

BACK GROUND $< 0.03 \text{ m/hr}$ *Gm 5 m/hr*

LOCATION	TIME	B- <i>X</i>	<i>X</i>	WIND DIR.
1	1030	< 0.03	< 0.03	290° 15-20 mph
2	1032	< 0.03	< 0.03	
3	1034	< 0.03	< 0.03	
4	1036	< 0.03	< 0.03	
5	1038	< 0.03	< 0.03	
6	1040	< 0.03	< 0.03	
7	1042	< 0.03	< 0.03	
8	1044	1.0	< 0.05	
9	1046	0.5	< 0.05	
10	1048	< 0.03	< 0.03	
11	1050	< 0.03	< 0.03	
12	1052	< 0.03	< 0.03	
13	1054	< 0.03	< 0.03	
14	1056	< 0.03	< 0.03	
15	1058	< 0.03	< 0.03	

MIDWAY
BETWEEN
POINTS
7 AND 8

1043	5.0	0.5
------	-----	-----

Date 4/5Team ANL

Inst # _____

GROUND SURVEY DATA
West SideAll < 0.01 , both $\beta\gamma + \gamma$

LOCATION	TIME	B-X	Y	WIND DIR.
1	1040			
2	1014			
3	15			
4	16			
5	17			
6	20			
7	21			
8	22			
9	24			
10	25			
11	26			
12	27			
13	28			
14	13			
15	12			
16	11			
17	10			
18	8			
19	7			
20	5			
21	3			
22	0			

135 333

Date H-5-79GROUND SURVEY DATA
East Side (River Road)Team OR-1Inst # LC-26174Sky - L.03

Readings: All mHR

W.M.

W.O.

Johnson

Cauden

LOCATION	TIME	B- <u>X</u>	<u>X</u>	WIND DIR.
1	1225	L.03	L.03	270°
2	1228	L.03	L.03	10-15 mhr
3	1230	L.03	L.03	1221
4	1232	L.03	L.03	
5	1234	L.03	L.03	
6	1236	L.03	L.03	
7	1237	L.03	L.03	
8	1238	1 mhr	.12	
9	1241	1.5 mhr	.15	
10	1243	L.03	L.03	
11	1244	L.03	L.03	
12	1246	L.03	L.03	
13	1248	L.03	L.03	
14	1249	L.03	L.03	
15	1252	L.03	L.03	

point # 8
Sample

	1315	3 mhr	.2	on
11	1335	.5	.3	OS-S

135 334

Date 4-5-79Team OR-1Inst # IC-26174GROUND SURVEY DATA
East Side (River Road)

BK9 - <.03

Readings = MRHR

W.M. Johnson & W.D. Carden

LOCATION	TIME	B- <u>X</u>	<u>X</u>	WIND DIR.
1	1442	<.03	<.03	1400
2	1443	<.03	<.03	290° 300°
3	1445	<.03	<.03	10-15 mph
4	1447	<.03	<.03	
5	1449	<.03	<.03	
6	1451	<.03	<.03	
7	1453	<.03	<.03	
8	1454	.15	.06	
9	1455	.06	<.03	
10	1459	<.03	<.03	
11	1501	<.03	<.03	
12	1503	<.03	<.03	
13	1504	<.03	<.03	
14	1505	<.03	<.03	
15	1507	<.03	<.03	

Inst. #
IC-26181

Date 4/5/79Team ANL

Inst # _____

GROUND SURVEY DATA

West Side

all readings 20.01 mP/hr 1.07 1.8+8

LOCATION	TIME	B-X	Y	WIND DIR.
1	1454			270°-300°
2	1459			
3	1500			
4	1503			
5	1504			
6	1508			
7	1509			
8	1510			
9	1512			
10	1513			
11	1515			
12	1516			
13	1521			
14	1536			
15	1537			
16	1538			
17	1539			
18	1542			
19	1544			
20	1551			
21	1553			
22	1556			

~~15-25~~
15-25 mph

135 336

Date 4/5/79Team AM

Inst # _____

GROUND SURVEY DATA

West Side

all < 0.01 m/sec last 8X+8

LOCATION	TIME	B-X	X	WIND DIR.
1	1725			270 S. 1/2 S pt
2	1724			
3	1734			
4	1737			
5	1738			
6	1741			
7	1742			
8	1743			
9	1745			
10	1746			
11	1746			
12	1747			
13	1749			
14	1724			
15	1723			
16	1722			
17	1721			
18	1720			
19	1717			
20	1715			
21	1714			
22	1710			

135 337

Soil + Vegetation sample taken at
NRC TLD location W-1 at 1726

Date 4-5-79GROUND SURVEY DATA
East Side (River Road)Team OB-1Inst # IC.26181

Bkg. <.03

Readings are m/s

W.M. & W.D.
Johnson & Carden

LOCATION	TIME	B- Y	Y	WIND DIR.
1	1905	<.03	<.03	270°
2	1906	<.03	<.03	1900 5 mph
3	1907	<.03	<.03	
4	1909	<.03	<.03	
5	1911	<.03	<.03	
6	1913	<.03	<.03	
7	1914	.25	.03	
8	1915	1.5 m/s	.15	
9	1917	.03	<.03	
10	1918	<.03	<.03	
11	1920	<.03	<.03	
12	1921	<.03	<.03	
13	1923	<.03	<.03	
14	1924	<.03	<.03	
15	1925	<.03	<.03	

135 338

Date 4/6/79Team ANL

Inst # _____

GROUND SURVEY DATA
West Side

LOCATION	TIME	B-X	X	WIND DIR.
1	0134	.01	< 0.01	180° at
2	0136	.01	< .01	5 mph
3	0137	.01	< .01	at 0130
4	0140	.01	< .01	
5	0141	.01	< .01	
6	0145	.01	< .01	
7	0146	.01	< .01	
8	0147	.01	< .01	
9	0148	.01	< .01	
10	0149	.01	< .01	
11	0151	.01	< .01	
12	0152	.01	< .01	
13	0154	.01	< .01	
14	0216	.01	< .01	
15	0217	.01	< .01	
16	0218	.01	< .01	
17	0219	.01	< .01	
18	0221	.01	< .01	
19	0222	.01	< .01	
20	0225	.01	< .01	
21	0228	.01	< .01	
22	0233	.01	< .01	

135 339

Date 4-6-79Team OR 2

GROUND SURVEY DATA

East Side (River Road)

GMSM Inst # 26181Background < 0.03 m/hr

LOCATION	TIME	B- χ	χ	WIND DIR.
1	0230	< 0.03	< 0.03	190° 5 m/hr
2	0232	< 0.03	< 0.03	
3	0234	< 0.03	< 0.03	
4	0236	< 0.03	< 0.03	
5	0238	< 0.03	< 0.03	
6	0240	< 0.03	< 0.03	
7	0242	< 0.03	< 0.03	
8	0244	< 0.03	< 0.03	
9	0246	< 0.03	< 0.03	
10	0248	< 0.03	< 0.03	
11	0250	< 0.03	< 0.03	
12	0252	< 0.03	< 0.03	
13	0254	< 0.03	< 0.03	
14	0256	< 0.03	< 0.03	
15	0258	< 0.03	< 0.03	

Date 4-6-79GROUND SURVEY DATA
East Side (River Road)Team OR-2BACKGROUND $< 0.03 \text{ m/hr}$ GSM Inst # 26181

LOCATION	TIME	B- X	X	WIND DIR.
1	0430	< 0.03	< 0.03	215° 10-15 MPH
2	0432	< 0.03	< 0.03	
3	0434	< 0.03	< 0.03	
4	0436	< 0.03	< 0.03	
5	0438	< 0.03	< 0.03	
6	0440	< 0.03	< 0.03	
7	0442	< 0.03	< 0.03	
8	0444	< 0.03	< 0.03	
9	0446	< 0.03	< 0.03	
10	0448	< 0.03	< 0.03	
11	0450	< 0.03	< 0.03	
12	0452	< 0.03	< 0.03	
13	0454	< 0.03	< 0.03	
14	0456	< 0.03	< 0.03	
15	0458	< 0.03	< 0.03	

135 342

LOCATION	TIME	B-X	WIND L. R.
1	0537	0.01	250°
2	0538		20-25 mph
3	0539		0530 km
4	0542		
5	0543		
6	0546		
7	0547		
8	0548		
9	0549		
10	0550		
11	0551		
12	0552		
13	0554		
14	0611		
15	0612		
16	0614		
17	0615		
18	0616		
19	0617		
20	0619		
21	0621		
22	0624	0.01	20.01

GROUND SURVEY DATA
West Side

Inst #

Team

ANL

Date

4/6/79

Date 4-6-79Team OK 2GROUND SURVEY DATA
East Side (River Road)GWSM Inst # 26181BACKGROUND $< 0.03 \text{ m}^2/\text{H}$

LOCATION	TIME	B-X	X	WIND DIR.
1	0830	< 0.03	< 0.03	
2	0832	< 0.03	< 0.03	
3	0834	< 0.03	< 0.03	
4	0836	< 0.03	< 0.03	
5	0838	< 0.03	< 0.03	
6	0840	< 0.03	< 0.03	
7	0842	< 0.03	< 0.03	
8	0844	1.0	0.04	
9	0846	< 0.03	< 0.03	
10	0848	< 0.03	< 0.03	
11	0850	< 0.03	< 0.03	
12	0852	< 0.03	< 0.03	
13	0854	< 0.03	< 0.03	
14	0856	< 0.03	< 0.03	
15	0858	< 0.03	< 0.03	

WIND 270° 20-30 mph

135 343

Date 4-6-79

ORI

Inst # IC 26181

GROUND SURVEY DATA
East Side (Silver Br 4)

BKG. <.03

Readings = m/hr.

W.M.

W.D.

Johnson

Carter

LOCATION	TIME	B- X	X	WIND DIR. 280 15-35 mph 1540
1	1608	<.03	<.03	
2	1610	<.03	<.03	
	1612	<.03	<.03	
4	1614	<.03	<.03	
5	1615	<.03	<.03	
6	1616	<.03	<.03	
7	1618	<.03	<.03	
8	1619	.06	<.03	
9	1620	.05	<.03	
	1622	<.03	<.03	
	1623	<.03	<.03	
12	1624	<.03	<.03	
13	1626	<.03	<.03	
14	1627	<.03	<.03	
15	1628	<.03	<.03	

135 344

GROUND SURVEY DATA
East Side (River Road)

BK9- <.03

Readings mHR

Date 4-6-79
Team OR-1
Inst IC-26187

w.m. Johnson & w.o. Carden

LOCATION	TIME	B- X	X	WIND DIR.
1	1756	<.03	<.03	
2	1759	<.03	<.03	
3	1800	<.03	<.03	
4	1803	<.03	<.03	
5	1804	<.03	<.03	
6	1805	<.03	<.03	
7	1807	<.03	<.03	
8	1808	<.03	<.03	
9	1809	.25	.05	
10	1811	<.03	<.03	
11	1812	<.03	<.03	
12	1814	<.03	<.03	
13	1815	<.03	<.03	
14	1816	<.03	<.03	
15	1818	<.03	<.03	

Date 4-6-79GROUND SURVEY DATA
East Side (Silver Road)Core OR1Inst # IC 26181

BK9 - <.03

Readings = MRHR

W.M. & W.D.
Johnson & Cardon

LOCATION	TIME	B- χ	χ	WIND DIR.
1	2023	<.03	<.03	2100
2	2024	<.03	<.03	300
	2025	<.03	<.03	15-20 mph
4	2027	<.03	<.03	
5	2030	<.03	<.03	
6	2031	<.03	<.03	
7	2032	<.03	<.03	
8	2034	.65	.22	
9	2035	.22	<.03	
10	2036	<.03	<.03	
11	2038	<.03	<.03	
12	2039	<.03	<.03	
13	2041	<.03	<.03	
14	2042	<.03	<.03	
15	2044	<.03	<.03	

135 346

Date 4-6-79

W. D. R1

Lot # IC-26181

GROSS MEASUREMENT
East Side (Silver to 3)

BK9- 2.03

Re-orig = MRHR

W. M. & W. D.
Johnson & Carlson

LOCATION	TIME	B-X	X	W.D. DIR.
1	2231	<.03	<.03	270
2	2233	<.03	<.03	150°
3	2234	<.03	<.03	205°
4	2236	<.03	<.03	
5	2238	<.03	<.03	
6	2240	<.03	<.03	
7	2241	<.03	<.03	
8	2243	<.03	<.03	
9	2244	<.03	<.03	
10	2247	<.03	<.03	
11	2248	<.03	<.03	
12	2250	<.03	<.03	
13	2252	<.03	<.03	
14	2253	<.03	<.03	
15	2254	<.03	<.03	

135 347

GROUND SURVEY DATA
East Side (River Road)

Date _____

Team _____

Inst. # _____

LOCATION	TIME	B- γ	γ	WIND DIR.
1	0030	<0.03	<0.03	3.0° 130°
2	0032	<0.03	<0.03	
3	0034	<0.03	<0.03	
4	0036	<0.03	<0.03	
5	0038	<0.03	<0.03	
6	0040	<0.03	<0.03	
7	0042	<0.03	<0.03	
8	0044	<0.03	<0.03	
9	0046	<0.03	<0.03	
10	0048	<0.03	<0.03	
11	0050	<0.03	<0.03	
12	0052	<0.03	<0.03	
13	0054	<0.03	<0.03	
14	0056	<0.03	<0.03	
15	0058	<0.03	<0.03	

00

GROUND SURVEY DATA
East Side (River Road)

D : 7-7-71

Team 282

Inst # 26181

LOCATION	TIME	B- X	X	WIND DIR.
1	0230	<0.03	<0.03	290° @ 10-15 mph
2	0232	<0.03	<0.03	
3	0234	<0.03	<0.03	
4	0236	<0.03	<0.03	
5	0238	<0.03	<0.03	
6	0240	<0.03	<0.03	
7	0242	<0.03	<0.03	
8	0244	<0.03	<0.03	
9	0246	<0.03	<0.03	
10	0248	<0.03	<0.03	
11	0250	<0.03	<0.03	
12	0252	<0.03	<0.03	
13	0254	<0.03	<0.03	
14	0256	<0.03	<0.03	
15	0300	<0.03	<0.03	

Date 4/7/79Team ALInst # GROUND SURVEY DATA
West Side

LOCATION	TIME	E-X	Y	WIND DIR.
1	0317	.01	<0.01	300° at
2				15 mph
3	0319			same
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22	0907	.01	<0.01	

135 350

GROUND SURVEY DATA
East Side (River Road)

Date 4-7-77

Team 123

Inst # 1234

LOCATION	TIME	B- <u>X</u>	<u>X</u>	WIND DIR.
1	0430	<0.03	<0.03	315° 20 mph
2	0431	<0.03	<0.03	at 400
3	0432	<0.03	<0.03	
4	0433	<0.03	<0.03	
5	0434	<0.03	<0.03	
6	0435	<0.03	<0.03	
7	0436	<0.03	<0.03	
8	0437	<0.03	<0.03	
9	0438	0.1	0.05	
10	0439	0.1	<0.03	
11	0440	0.1	<0.03	
12	0441	<0.03	<0.03	
13	0442	<0.03	<0.03	
14	0443	<0.03	<0.03	
15	0444	<0.03	<0.03	

8.0 m/sec between 8-9. 8.8 m/sec
7 - 0.2 m/sec

Date 4/2/75Time 14:10Inst # GROUND SURVEY DATA
West Side305° 10-20 mph
0600

LOCATION	TIME	B-X	X	WIND DIR.
1	0540	.01	<0.01	
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21		↓	↓	
22	0622	.01	<0.01	

135 352

GROUND SURVEY DATA
East Side (River Road)

Date 4-7-79
Team R2
Inst # 26181

LOCATION	TIME	B- χ	χ	WIND DIR.
1	0630	<0.03	<0.03	310° 14.00
2	0631	<0.03	<0.03	
3	0632	<0.03	<0.03	
4	0633	<0.03	<0.03	
5	0634	<0.03	<0.03	
6	0635	<0.03	<0.03	
7	0636	<0.03	<0.03	
8	0637	<0.03	<0.03	
9	0638	0.1	0.05	
10	0639	<0.03	<0.03	
11	0640	<0.03	<0.03	
12	0641	<0.03	<0.03	
13	0642	<0.03	<0.03	
14	0643	<0.03	<0.03	
15	0644	<0.03	<0.03	

Pier loading was south of point 9 0.540142 BS
0.140142 S

GROUND SURVEY DATA
East Side (River Road)

Date 4-7-78
Team CK
Inst # 26181

LOCATION	TIME	B- <u>X</u>	<u>X</u>	WIND DIR.
1	0830	<000	<003	
2	0831	<003	<003	
3	0832	<003	<003	
4	0833	<003	<003	
5	0834	<003	<003	
6	0835	<003	<003	
7	0836	<003	<003	
8	0837	<003	<003	
9	0838	0.2	0.5	
10	0839	<003	<003	
11	0840	<003	<003	
12	0841	<003	<003	
13	0842	<003	<003	
14	0843	<003	<003	
15	0844	<003	<003	

After leaving control point 2 0.5 miles E)
0.1 miles S

GROUND SURVEY DATA
East Side (River Road)

Date _____

Time _____

Inst # _____

LOCATION	TIME	B- γ	γ	WIND DIR.
1	10:30	<0.03	<0.03	355 S-W
2	10:31	<0.03	<0.03	
3	10:32	<0.03	<0.03	
4	10:33	<0.03	<0.03	
5	10:34	<0.03	<0.03	
6	10:35	<0.03	<0.03	
7	10:36	<0.03	<0.03	
8	10:37	<0.03	<0.03	
9	10:38	0.2	0.5	
10	10:39	<0.03	<0.03	
11	10:40	<0.03	<0.03	
12	10:41	<0.03	<0.03	
13	10:42	<0.03	<0.03	
14	10:43	<0.03	<0.03	
15	10:44	<0.03	<0.03	

135 355

Date 4/2/77

Time ANL

GROUND SURVEY DATA
West Side

Inst A

LOCATION	TIME	B-X	X	WIND DIR.
1	0909	<0.01	<0.01	
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21	✓	✓	✓	
22	1020	<0.01	<0.01	

135 356

GROUND SURVEY DATA
~~100~~ East Side (River Road)
 West

Date 4/7/78
 Team ANL
 Inst #

LOCATION	TIME	B- X	Y	WIND DIR.
1	1750			
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15		All readings		

#1 AIR:
 ON: 1300 hrs
 OFF: 1400
 Vol 1,104 Liters
 $< 0.1 \mu\text{Ci/l}$

#2 1830-
 1930 hrs
 Vol 1,104 Liters
 $< 0.1 \mu\text{Ci/l}$

$< 0.01 \text{ mri/hr}$

Part

40 m^3

$< 21 \text{ dpm/m}^3$

$< 47 \text{ dgm/m}^3$

1st Count factor: 2.28

135 357

16
 17
 18
 19
 20
 21
 22

1815

Ground Survey Data (WEST side)

Date 4-7-79

Termin ANL

[illegible]

Dir. 310-325'

Speed 5-10 mph

2011

2050 h.

100.

135 358

①: West side

UR 188537 ANL

Ser. 200

4/3/79

GM 159004 ANL

Ser #1105

4/3/79

Survey 1409 to 1514 hrs

ANL - Term - Collection

	Location		GM "O"s	GM "C"s	UR		Time
North							
1	River & W. Wehago Goldsboro		<0.01	<0.01	5		140
2	Center of Goldsboro		<0.01	<0.01	5		141
3	Rt 262/Bridge	—	<0.01	<0.01	5		1414
4	Rt 262/392	—	0.01	0.01	6		1416
5	Rt 262/Corve	—	0.01	0.01	6		1418
6	262/Corn Hill Rd	—	<0.01	<0.01	5		1422
7	Husk Lane	—	<0.01	<0.01	5		1425
8	262/Beinhower	—	<0.01	<0.01	5		142
9	Jct 262/177	—	<0.01	<0.01	5		142
10	262/83	—	<0.01	<0.01	5		143
11	262/Spring Rd	—	<0.01	<0.01	5		143
12	262/Park Rd	—	<0.01	<0.01	5		143
13	262/16 Bridge	—	<0.01	<0.01	5		143
South of Goldsboro							
14	FRAZER St.	—	<0.01	<0.01	5		145
15	WISLER Road	—	<0.01	<0.01	135 359		145

(2)

AMERICAN

EFFICIENCY, LINE NO. 2636

AM-20

	Location	3	GM"0"	GM"0"	6	UR	8	9	Time
1			←	←		5			
16	Midway Road		<0.01	<0.01		5			1451
3									
17	River Road		<0.01	<0.01		5			
5									
18	Rt 295/Reesor (Hill Road)		<0.01	<0.01		5			1500
7									
19	Rt 382 (Beer)		<0.01	<0.01		5			1504
9									
20	Rt 382/181 (Drovers Bank)		<0.01	<0.01		5			1508
11									
21	No. End Brunner's Island		<0.01	<0.01		5			1511
13									
22	So. E. Brunner Island		<0.01	<0.01		5			1514
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									

135 340

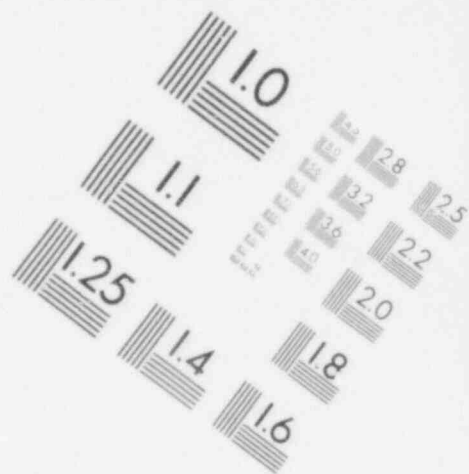
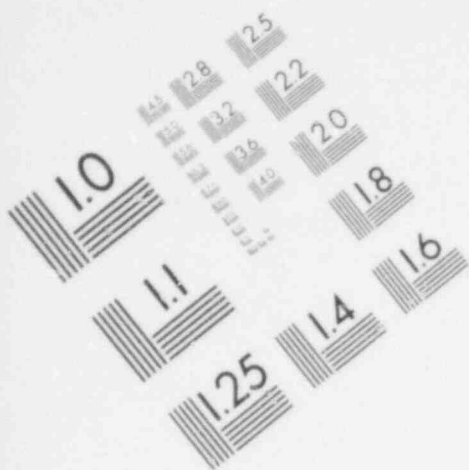
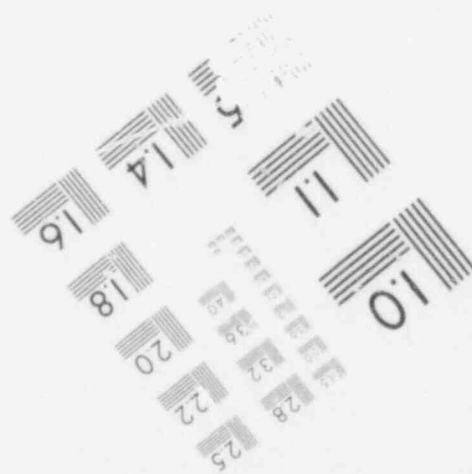
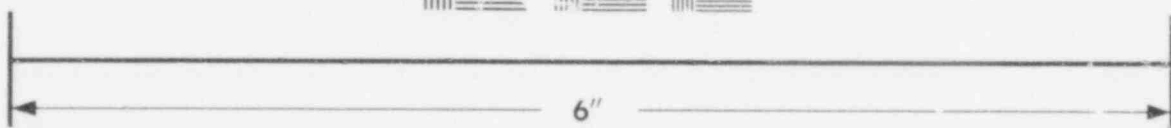
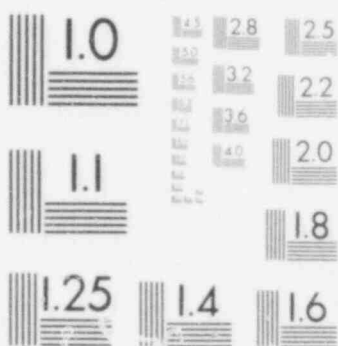


IMAGE EVALUATION
TEST TARGET (MT-3)



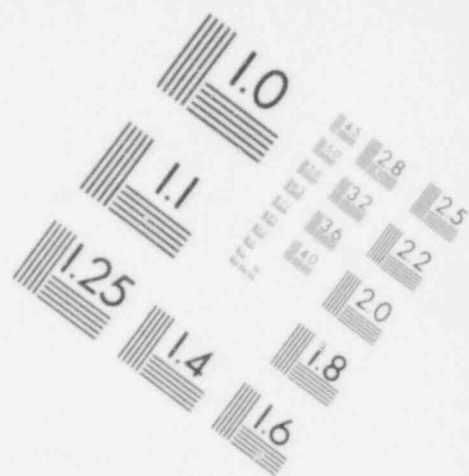
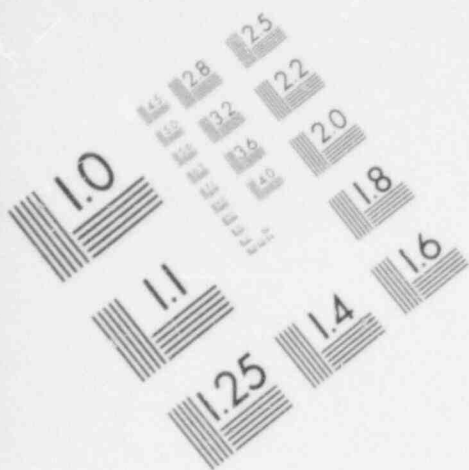
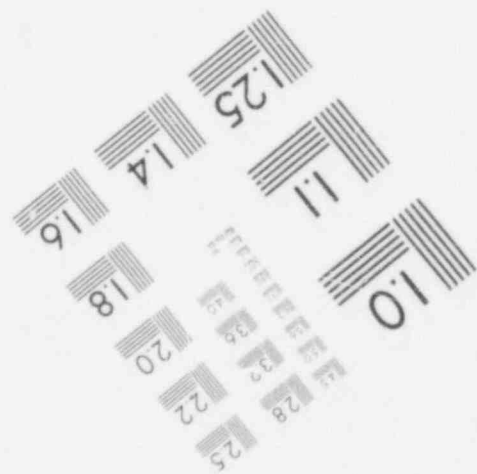
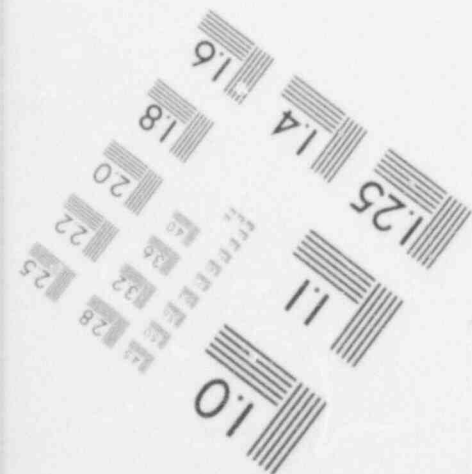
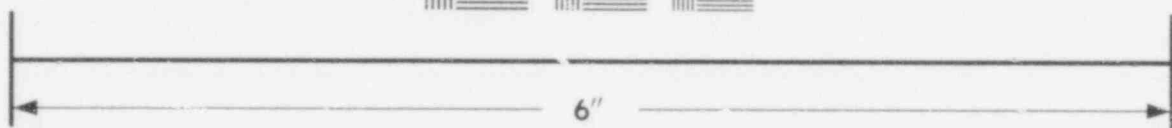
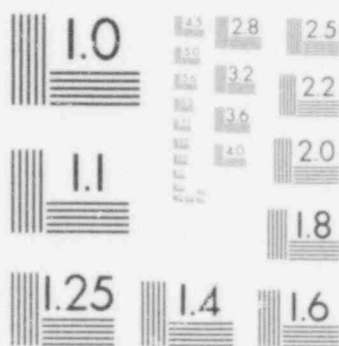


IMAGE EVALUATION
TEST TARGET (MT-3)



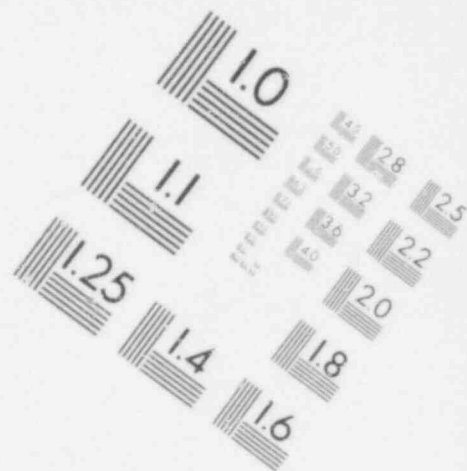
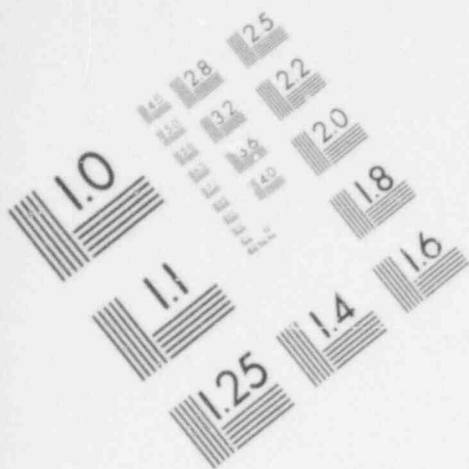
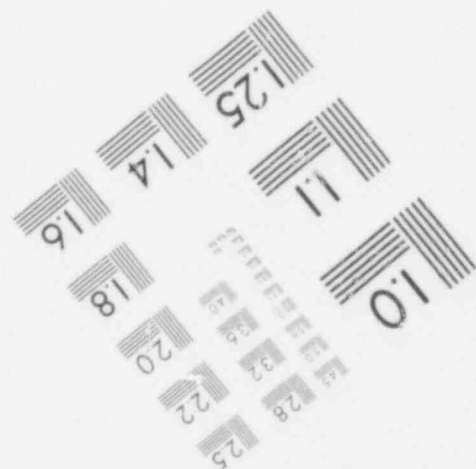
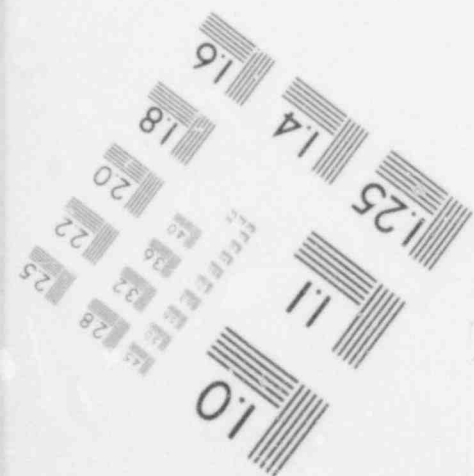
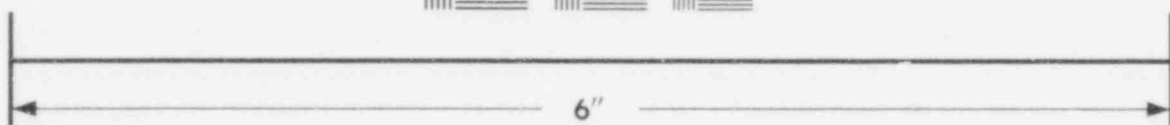
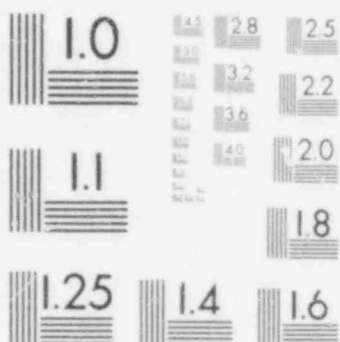


IMAGE EVALUATION
TEST TARGET (MT-3)



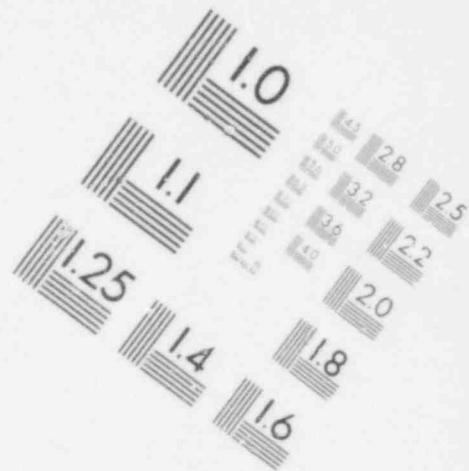
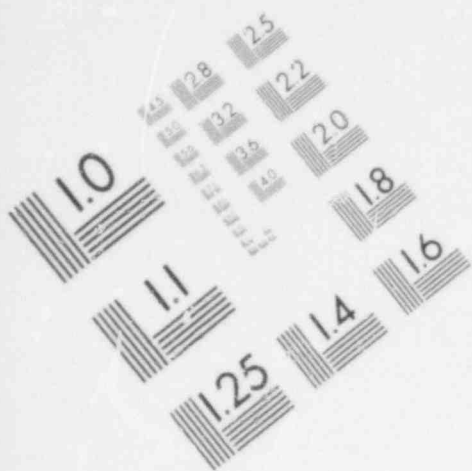
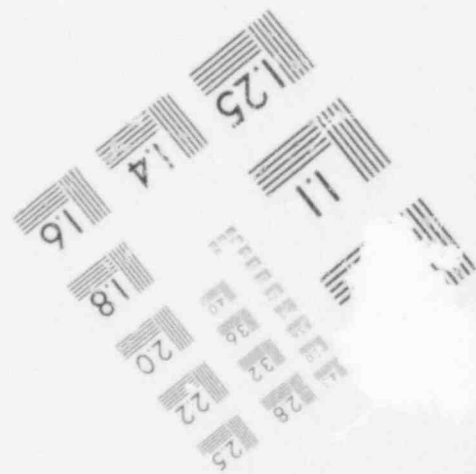
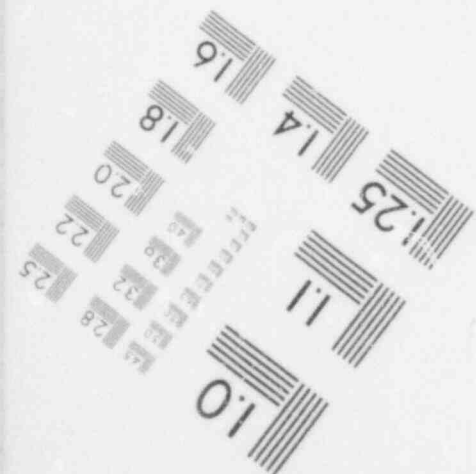
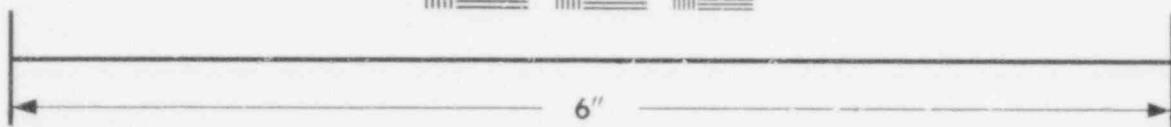
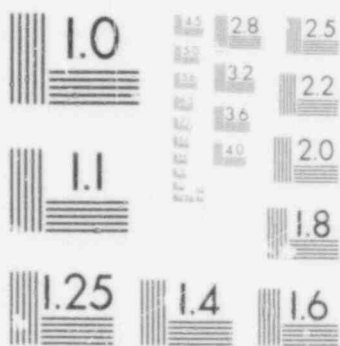


IMAGE EVALUATION
TEST TARGET (MT-3)



4-3-79

OR-1

BK9- 4103

EAST SIDE

FC 26174

SECTION	TIME	2-V	5	WIND DIR.
1				
2				
3				
4				
5				
6				
7				
8	1210	4.03 m/hr	4.03 m/hr	
9	1214	.1 m/hr	4.03 m/hr	
10	1217	2 m/hr	.2 m/hr	
11	1219	.8 m/hr	.1 m/hr	
12	1223	.3 m/hr	4.03 m/hr	
13	1226	.2 m/hr	4.03 m/hr	
14	1227	.1 m/hr	.03 m/hr	
5	1230	.8 m/hr	.06 m/hr	

Johnson & Corden

Air Sample

on at 1255-

3 m/hr

.3 m/hr

off at 1315-

6 m/hr

.7

Sample @

100 yds north
of Red Hill playground
Rd.

20 CFM - Sample

4-3-79

136 001

BKG-2.03

4-2-79

OK-1
IC, 26167

STATION	TIME	WIND	WIND	WIND DIR.
1	2126	005	005	$\frac{340}{4 \text{ mph}}$ $\frac{2100}{}$
2	2125	<1.03	<1.03	
3	2123	<1.03	<1.03	
4	2121	<1.03	<1.03	
5	2120	<1.03	<1.03	
6	2119	<1.03	<1.03	
7	2118	<1.03	<1.03	
8	2117	<1.03	<1.03	
9	2115	<1.03	<1.03	
10	2113	<1.03	<1.03	
11	2110	<1.03	<1.03	
12	2108	<1.03	<1.03	
13	2106	<1.03	<1.03	
14	2105	<1.03	<1.03	
15	2103	<1.03	<1.03	

John F. Carden

Readings are MRHR

WEST

1 SIDE ()

Trunk + Kneel TEAM JUL-3

INST #E5003

SEA #1105

LOCATION	TIME	θ-γ	γ	WIND DIR.
1	1853	0.015	<0.01	
2	1859	0.05	.01	
3	1905	0.3	.05	
4				
5				
6				
7				
8				
9				
10				
12				
13				
14	1905	0.3	.05	
15	1908	1.2	0.15	
16	1910	0.3	0.06	
17	1911	0.02	<0.01	
18	1918	0.02	<0.01	
19	1922	<0.02	<0.01	
20	1926	<0.02	<0.01	
21	1930	<0.02	<0.01	

See readings multiple

Note: Pts 4-13
not done in this
swing. Doc team
monitoring for Unit
"A" dump at 2000hrs
Waste Gas Decay Tank

NO IODINE SEEN

.34 gal/Lt. MDA

42.20 ft

Time started 1655
Time stopped 1800
18.40/mi

1800 km

18.40/mi

18.40/mi

18.40/mi

18.40/mi

18.40/mi

18.40/mi

18.40/mi

18.40/mi

18.40/mi

18.40/mi

18.40/mi

18.40/mi

18.40/mi

18.40/mi

18.40/mi

18.40/mi

18.40/mi

18.40/mi

18.40/mi

18.40/mi

136 003

WEST

SIDE

Mundis ofinacella TEHAT ANL-3

INST #E 50.0

Sur # 1105

LOCATION	TII =	A-Y	Y	WIND DIR.
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
12				
13				
14	2108	0.03	< 0.01	
15	2110	.05	.0	
16	2112	.12	.02	
17	2114	.16	.03	
18	2117	.07	.02	
19	2120	.07	.04	
20	2123	.01	< .01	
21	2125	.01	< .01	
22	2129	.01	< .01	

Note: Pts. 16-22
are new pts on
the west side. They
will be identified
as to specific
location by DOE.
136 004

LOCATIONS SOUTH OF GOLDSBORO - Rt to Rt to Rt

262-282-181

EFFICIENCY LINE No. 2636



	1	2	3	4	5	6	7	8	9
1	#14	Frazer St	+ Rt 262	(Between town square + Wisler Rd,					
2								~1/4 mi S	
3	#15	Wisler Rd,		Rt #262	66031			~1/4 mi more	
4									
5	#16	Midway Rd,		Rt #262				~1/2 mi more	
6									
7	#17	River Rd,		Rt #262				"	
8									
9	#18	Rt 295 (Reeser		Rt #262				~1 mi more	
10		Hill Rd)							
11	#19	Rt 382 (Beer)		Rt #262				1/2 mi	
12									
13	#20	Rt 382 / 181		in town of York Haven,					
14		(Drovers Bank)							
15	#21	N. end Brunners Is,							
16									
17	#22	S. end	" "						
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									

136 005

(East) River Road

TEAM OK-2

GMS. 100. = 100

Sept 19

LOCATION	TIME	P-8 *	8' *	WIND DIR.
1	0830	<0.025	<0.0125	130°
2	0832	<0.025	<0.0125	10-15 mph
3	0834	<0.025	<0.0125	
4	0836	<0.025	<0.0125	
5	0838	<0.025	<0.0125	
6	0840	<0.025	<0.0125	
7	0842	<0.025	<0.0125	
8	0844	<0.025	<0.0125	
9	0846	<0.025	<0.0125	
10	0848	<0.025	<0.0125	
11	0850	<0.025	<0.0125	
12	0852	<0.025	<0.0125	
13	0854	<0.025	<0.0125	
14	0856	<0.025	<0.0125	
15	0858	<0.025	<0.0125	

* All readings in mph.

136 006

TEAM OR 2
 CHASWILL
 DATE 4-1

LOCATION	TIME	$\bar{u}-\bar{v}^*$	$\bar{u}^*$	WIND DIR.
1	0330	<0.025	<0.025	WEST
2	0332	<0.025	<0.025	125°
3	0334	<0.025	<0.025	10-15 mph
4	0336	<0.025	<0.025	
5	0338	<0.025	<0.025	
6	0340	<0.025	<0.025	
7	0342	<0.025	<0.025	
8	0344	<0.025	<0.025	
9	0346	<0.025	<0.025	
10	0348	<0.025	<0.025	
11	0350	<0.025	<0.025	
12	0352	<0.025	<0.025	
13	0354	<0.025	<0.025	
14	0356	<0.025	<0.025	
15	0358	<0.025	<0.025	

All readings in m/hr.

136 007

Submitted 4/21/79

BACKGROUND < 0.03 m/hr

EAST SIDE

LOCATION	TIME	E-W	S-E	WIND DIR.
1	0930	<0.03	<0.03	90° 8-12 mph
2	0932	<0.03	<0.03	0929 hr
3	0934	<0.03	<0.03	
4	0936	<0.03	<0.03	
5	0938	<0.03	<0.03	
6	0940	<0.03	<0.03	
7	0942	<0.03	<0.03	
8	0944	<0.03	<0.03	
9	0946	<0.03	<0.03	
10	0948	<0.03	<0.03	
11	0950	<0.03	<0.03	
12	0952	<0.03	<0.03	
13	0954	<0.03	<0.03	
14	0956	<0.03	<0.03	
15	0958	<0.03	<0.03	
All readings in m/hr.				

136 008

EAST SIDE (RIVER RD)

J.R. 2

INSTR = 331

DATE 11/11/11

LOCATION	TIME	P-γ	γ	WIND DIR.
1	05 30	<0.025	<0.025	125° (0410 hrs) 10-15 mph
2	05 32	<0.025	<0.025	
3	05 34	<0.025	<0.025	
4	05 36	<0.025	<0.025	
5	05 38	<0.025	<0.025	
6	05 40	<0.025	<0.025	
7	05 42	<0.025	<0.025	
8	05 44	<0.025	<0.025	
9	05 46	<0.025	<0.025	
10	05 48	<0.025	<0.025	
11	05 50	<0.025	<0.025	
12	05 52	<0.025	<0.025	
13	05 54	<0.025	<0.025	
14	05 56	<0.025	<0.025	
15	05 58	<0.025	<0.025	

All readings in mcp/hr

AIR SAMPLE TAKEN AT POINT 11.

ON 05 45

OFF 06 05

- FWH/MIN

READING BEFORE SAMPLE = BACKGROUND < 0.025

" AFTER " = " < 136 009

Summiller 4/2/79

BACK GROUND = 0.03 m/s

EAST SIDE of Susquehanna

LOCATION	TIME	A-Y	W	WIND DIR.
1	0730	0.03	40.03	70°-100°
2	0732	0.03	40.03	5-7 mph
3	0734	0.03	40.03	
4	0736	0.03	40.03	
5	0738	0.03	40.03	
6	0740	0.03	40.03	
7	0742	0.03	40.03	
8	0744	0.03	40.03	
9	0746	0.03	40.03	
10	0748	0.03	40.03	
11	0750	0.03	40.03	
12	0752	0.03	40.03	
13	0754	0.03	40.03	
14	0756	0.03	40.03	
15	0758	0.03	40.03	

All readings in m/hr.

136 010

WEST SIDE

DOE submitted 4/2/79
@ 14:20

4/2/79

	TIME	E-Y	V	Notes
1	0945	.01	.05	0929.2m.
2	0949	.02	.02	90°
3	1009	.03	.02	at 8-12m.
4	1014	.02	.02	
5	1015	.02	.02	
6	1024	.02	.02	
7	1028	.05	.05	
8	1031	.10	.06	
9	1034	.10	.02	
10	1037	.10	.03	
11	1040	.07	.02	
12	1044	.03	.02	
13	1047	.03	.03	

136 011

Submitted

DUE 4/21/79 @ 14:00

January

STATION	TIME	Open 2-5	Close 5	Wind Dir.
A 1	1322	<.03	<.03	90° at
A 2	1320	<.03	<.03	1305 hwy
A 3	1305	<.03	<.03	1 - sample
A 4	1304	<.03	<.03	
A 5	1302	<.03	<.03	
A 6	1300	<.03	<.03	
A 7	1258	<.03	<.03	
A 8	1225	<.03	<.03	
A 9	1227	↓	↓	
A 10	1233			
A 11	1235			
A 12	1237			
A 13	1240			
A 14	1242			
A 15	1245			

WEST SIDE

SMITH

4/2/79

4/2/79

	TIME	WIND	WAVE	WIND
1	—	—	—	1407 hrs
2	—	—	—	100° at 98 mph
3	—	—	—	
4	1355	—	0.5	{ 6 mi south of 4 Rt 262+390
5	1400	.8	.8	
6	1402	.26	.01	
7	1410	.07	.02	
8	1413	2.01	2.01	
9	1415	2.01	2.01	
10	1418	2.01	2.01	
11	1420	.01	.01	
12	1422	.01	.01	
13	1425	.015	2.01	
14	1428	.06	.02	

East Side (River Road) ~
Bkg < 0.03

CR-1
JC26167

TIME	E-W	N-S	WIND DIR.
1426	4.03	4.03	100° mph
1427	4.03	4.03	4-8 mph
1429	4.03	4.03	
1431	4.03	4.03	
1433	4.03	4.03	
1435	4.03	4.03	
1437	4.03	4.03	
1439	4.03	4.03	
1442	4.03	4.03	
1444	4.03	4.03	
1446	4.03	4.03	
1449	4.03	4.03	
1450	4.03	4.03	
1451	4.03	4.03	
1452	4.03	4.03	

All readings m/hr.

136 014

WEST SIDE

4/2/79

201777

201777
SOUTH 100
1000 1.2111024

4/2/79

	TIME	ACT	ACT	ACT
1	1525	2.01	2.01	1407 hours
2	—	—	—	100° at 4-8 mgh
3	1503	2.01	2.01	
4	1444/1.51	.015/2	2.01/.45	
5	1447	.5	.07	
6	14154	2.01	2.01	

1430 hrs to 1530 hrs

18.4 L/min

39 cu ft

Minimum Detectable
Activity

.1 - .2 pCi/L



NDA of Dioxide
some Xe (bag)

136 015

EAST SIDE (RIVER ROAD) BK6 <0.03

Carden
Johnson & Co.

TIME	1st	2nd	TIME
1620	<0.03	<0.03	1650
1625	<0.03	<0.03	90-100
1630	<0.03	<0.03	2-4 mph
1635	<0.03	<0.03	
1640	<0.03	<0.03	
1645	<0.03	<0.03	
1650	<0.03	<0.03	1640
1655	<0.03	<0.03	72°
1700	<0.03	<0.03	3 mph
1705	<0.03	<0.03	
1710	<0.03	<0.03	
1715	<0.03	<0.03	
1720	<0.03	<0.03	
1725	<0.03	<0.03	
1730	<0.03	<0.03	
1735	<0.03	<0.03	
1740	<0.03	<0.03	
1745	<0.03	<0.03	
1750	<0.03	<0.03	

TEAM OR-1
185T HIC-26167
J

no reading up.

George @ 441 & Eagle Rd.

main station @ 1650 105M.F.

off @ 1710 4-2-72

1650 <0.03 <0.03
1710 <0.03 <0.03

East Side

4-2-79

OK-1

Qty. < .03

GMSIN ~~1111~~ IC 26167

Johnson & Cardin

ATION	TIME	W	W	WIND DIR.	NAL B-8	NAL 8
1	1828	<.03	<.03	1800° 40 3 mph	<0.02	<0.02
2	1830	<.03	<.03			
3	1831	<.03	<.03			
4	1838	<.03	<.03			
5	1840	<.03	<.03			
6	1842	<.03	<.03			
7	1843	<.03	<.03			
8	1844	<.03	<.03			
9	1845	<.03	<.03			
0	1847	<.03	<.03			
1	1848	<.03	<.03			
2	1850	<.03	<.03			
3	1853	<.03 .002	<.03			
4	1855	<.03	<.03	1900 hrs	<0.03	
5	1857	<.03	<.03	72° - 2 mph	<0.03	
14	1859	<.03	<.03		<0.03	
12	1903	<.03	<.03		<0.02	

All readings m/hr.

136 017

30=(30 march)

(GAMMA DOSE)

LOCATION

READING (mr/hr)

30-1 0.03

30-2 1.2

30-3 0.4

30-4 0.07

30-5 0.01

~~30-6~~

31-1 3.00

31-2 0.03

31-3 0.06

31-4 0.50

31-5 0.12

31-6 0.35

31-7 0.30

31-8 0.35

31-9 4.00

31-10 4.00

31-11 0.03

31-12 0.20

31-13 0.50

31-14 0.30

31-15 0.70

31-16 1.00

31-17 ~~0.04~~ 0.1

31-18 1.5

31-19 <0.1

136 018

(OVER)

(GAMMA DOSE)

LOCATION

READING (mr/hr)

1-1

< 0.1

1-2

0.4

1-3

0.3

1-4

0.02

1 = APRIL 1ST

SOIL AND VEGETATION SAMPLE RESULTS

NO DETECTABLE RADIOACTIVITY ABOVE

NATURAL BACKGROUND !

AIR SAMPLE RESULTS

NO DETECTABLE RADIOACTIVITY FOR IODINE !

(ALL SAMPLES READ LESS THAN 1.0×10^{-10} mCi/ml
OF IODINE-131)

136 019

DOE SURVEY EFFORT AT SITE FOR NRC

TEAMS: Argonne National Laboratory (ANL)
Oak Ridge National Laboratory (ORNL)

LOCATION: ANL - West side of river (Goldsboro)
ORNL - East side of river (Trailer City)

DEPT. OF ENERGY COORDINATOR: *(Interface between DOE teams and NRC)

DOE - Chicago Edward J. Jascewsky
DOE - Oak Ridge Bobby Joe Davis

*The survey teams will also respond to the NRC I&E Coordinator when the DOE representative is not stationed on site.

SURVEY TYPE:

WEST SIDE: A routine direct radiation survey is performed six times per day (2 per shift). This B-8 and 8 survey consists of surveying twenty-two (22) specific locations as specified in attachment A. The written description of these areas is found in attachment B. An iodine air sample is collected three times a day as a routine minimum. This sample is usually taken at the location where the highest gamma reading found in the direct radiation survey. The sample volume should be approximately 20 cubic feet. The sample* is counted in the ANL mobile van using the gamma spectrometer equipment.

Additional surveys are done based on operations at the reactor. This would basically involve surveys to locate any plume that might exist and to take direct radiation survey and an iodine sample.

EAST SIDE: The same surveys are performed by this team with the only difference being the frequency of the direct radiation surveys. This shift performs this effort twelve (12) times per day. The 15 locations and description are found in attachments C and D.

The iodine air samples are taken to the NRC counting facility for analysis.

DATA: The DOE Coordinator will receive a written record from the ORNL team.

The DOE Coordinator will prepare the written record of ANL's data provided to him by radio.

This data report is filed in the "DOE Survey Team Data Log" with a copy given to the NRC I&E representative.

* The sample will be saved for NRC so they can be counted by them.

An air sample will include the following data:

Time On	Minimum Detectable Activity
Time Off	Analysis Findings
Location	Date
Total Volume	

Map Point - West Side

<u>Point</u>	<u>Location</u>
1	River & Winebago (Goldsboro,
2	Center of Goldsboro
3	Rt. 262/Bridge
4	Rt. 262/Rt. 392
5	Rt. 262/Curve
6	Rt. 262 - Corn Hill Road
7	Rt. 262 & <u>Husk Lane</u>
8	Rt. 262 & <u>Beinhower</u>
9	Rt. 262 & <u>Rt. 17'</u>
10	Rt. 262 & Rt. 83
11	Rt. 262 & Spring Road
12	Rt. 262 & Park Road
13	Rt. 262 & Rt. 76 (Bridge)
14	Frazer Street & Rt. 262
15	Wisler Road & Rt. 262
16	Midway Road & Rt. 262
17	River Road & Rt. 262
18	Rt. 295/Reeser (Hill Road)
19	Rt. 382 (Beer)
20	Rt. 382 & Rt. 181 (Drovers Bank)
21	North End Brunners Island
22	South End Brunners Island

Map Points - East Side (River Road)

<u>Point</u>	<u>Location</u>
1	South Union & Rt. 441
2	Bird Street & Rt. 441
3	Railroad Crossing & Rt. 441
4	Riverside Boat Sales & Rt. 441
5	Geyer Church Road & Rt. 441
6	Laurel Road & Rt. 441
7	Meadow Lane & Rt. 441
8	Headquarters Building (55 MPH Limit Sign) & Rt. 441
9	Access Road on left & Rt. 441
10	Red Hill Plaza & Rt. 441
11	Engle Road & Rt. 441
12	Conoy City Sign & Rt. 441
13	Falmouth Road & Rt. 441
14	Collins Road & Rt. 441
15	Keener Road & Rt. 441





EAST SIDE
of Susquehanna

Kenner Rd,

D
A
U
D
I
N

Attachments B 136 025

E ADENHAM

JP Stohr

11/79 0900 WEATHER FORECAST WSFO PHILADELPHIA

STATIONARY FRONT ON AN EAST-WEST LINE THRU NORTHERN VA
AND SOUTHERN MD - SHOULD REMAIN IN THIS POSITION THRU
TODAY

GENERAL SYNOPTIC SITUATION:

LOW PRESSURE CENTER IN SOUTHWEST US WILL BE MOVING
NORTHEASTWARD AND INTENSIFYING

PARENT STATIONARY FRONT EXPECTED TO PASS THRU
HARRISBURG AS A WARM FRONT MID-MORNING ON
MONDAY, AND WINDS WILL BECOME SOUTHERLY
COOL FRONTAL PASSAGE EXPECTED EARLY TUESDAY, AND WINDS
WILL BECOME NORTHWESTERLY

WIND PATTERNS IN HARRISBURG AREA:

WINDS NOW GENERALLY FROM NORTHWEST AT 10 KTS
WINDS WILL GRADUALLY SHIFT TO NORTHEAST, WITH
EAST-NORTHEAST WINDS EXPECTED LATE THIS AFTERNOON
WINDS WILL CONTINUE TO SHIFT TO SOUTHEASTERLY TOMORROW
WIND SPEEDS THRU THE PERIOD WILL BE ABOUT 10 KTS

PRECIPITATION EXPECTED LATER TODAY, WITH PERIODS OF RAIN THRU
TOMORROW - CHANCE OF THUNDERSTORMS

WEAK INVERSIONS IN HARRISBURG AREA NOW - DEPTH OF 1000m
STRONG WESTERLY FLOW ABOVE INVERSION

136 026

WILL UPDATE @ 1300

WEATHER FORECAST WSFO PHILADELPHIA 4/1/79 1300 EST

ES

+

CURRENT WIND PATTERNS IN HARRISBURG AREA

WINDS NOW ARE GENERALLY FROM THE NORTH THRU NORTHEAST

WINDS WILL CONTINUE TO VEER DURING DAY BECOMING

SOUTHEASTERY TOMORROW MORNING

WIND SPEEDS THRU THE PERIOD WILL BE ABOUT 10 KTS

PRECIPITATION EXPECTED IN THE AREA ABOUT 1700

WEAK INVERSION REMAINS IN THE AREA - DEPTH INCREASED TO 1500m

AIRFLOW BENEATH INVERSION IS FROM THE NORTHEAST AT 8 KTS

WARM FRONTAL PASSAGE EXPECTED MID-MORNING MONDAY, WITH
GENERALLY SOUTHERLY WINDS

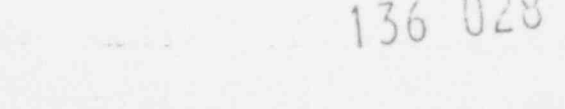
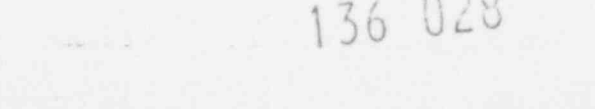
COLD FRONTAL PASSAGE EXPECTED EARLY TUESDAY, AND WINDS WILL BECOME
NORTHWESTERLY

5-DAY FORECAST FOR WINDS UP TO 3000 FT:

	MON	TUE	WED	WED AFTER FRONTAL PASSAGE
SFC	150° @ 13 KTS	200° @ 13 KTS	020° @ 10 KTS	340° @ 10
1000'	150° @ 15 KTS	200 15	010 10	350 15
2000	200° @ 17 KTS	210 18	350 15	340 15
3000	210° @ 22 KTS	210 25	340 15	290 20
	THUR	FRI	FRI AFTER FRONTAL PASSAGE	
SFC	CALM / 160° @ 10 KTS	250° @ 10 KTS	340° 15	
1000	190 10		330 15	
2000	200 15		310 15	
3000	220 20		300 20	

136 027

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DE EAST SIDE LOCATIONS

[illegible]

136 029



Conerago
136 030

A.C. Ground Survey — 4/8/79

1600 - 2200
~~0000 - 0500~~

Date-Time	Location	miles	B-S	Y
4-1-79				
16:15	Falmouth Rd - 100yds E of Rt 441 $\approx$ 2 miles SSE of Plant	0.03		0.01
17:40	Engle Rd + Rt 441 $\approx$ 1 1/4 mi SSE of plant	<0.05		<0.05
18:37	Intersection of 262 + 441 River Road	0.03		
18:53	0.2 mi North of Int. 262, $\frac{1}{2}$ River Road	0.7		
23:40	Rt 262 between I 177 + 392 0.3 miles west 283° West of $\sim$ 5.5 miles	0.3		0.03
23:44	Boundary line on Rt-262	0.4		0.06
23:49	Intersection 262 + 392 300° West $\sim$ 2.4 miles			

136 031

EAST SIDE

4/2/79

TIME	TIME	2-5	5	
1	1322	<.03	<.03	9.02
2	1323	<.03	<.03	9.03
3	1305	<.03	<.03	9.04
4	1304	<.03	<.03	
5	1302	<.03	<.03	
6	1300	<.03	<.03	
7	1257	<.03	<.03	
8	1255	<.03	<.03	
9	1227	↓	↓	
10	1233			
11	1235			
12	1237			
13	1240			
14	1242			
15	1245			

136 032

BACKGROUND < 0.03 m/L

4-2-79

Locations East of River

STATION	TIME	CHL	SP	DATE
1	0930	<0.03	<0.03	9-12-78
2	0932	<0.03	<0.03	09-12-78
3	0934	<0.03	<0.03	
4	0936	<0.03	<0.03	
5	0938	<0.03	<0.03	
6	0940	<0.03	<0.03	
7	0942	<0.03	<0.03	
8	0944	<0.03	<0.03	
9	0946	<0.03	<0.03	
10	0948	<0.03	<0.03	
11	0950	<0.03	<0.03	
12	0952	<0.03	<0.03	
13	0954	<0.03	<0.03	
14	0956	<0.03	<0.03	
15	0958	<0.03	<0.03	

All readings in m/L.

136 03~

WATER GROUND = 0.03 M/L

4-2-79

DOE Stations E₁ of River

STATION	TIME	P-Y	U	WIND S.S.
1	0730	0.03	+0.03	75-100
2	0732	0.03	+0.03	5-7 mph
3	0734	0.03	+0.03	
4	0736	0.03	+0.03	
5	0738	0.03	+0.03	
6	0740	0.03	+0.03	
7	0742	0.03	+0.03	
8	0744	0.03	+0.03	
9	0746	0.03	+0.03	
10	0748	0.03	+0.03	
11	0750	0.03	+0.03	
12	0752	0.03	+0.03	
13	0754	0.03	+0.03	
14	0756	0.03	+0.03	
15	0758	0.03	+0.03	

All readings in m/lh

136 034

4-2-79

Time	Location	B-2	B-2	
0626	Rt 283 and Rt 230, NNW		0.02	0.02
0634	Rt 441 + 230, 350° NNW ~ 3.0 miles		0.02	0.02
0641	Rt 441 + Main Gate		0.02	0.02
0642	Rt 441 + NRC Command Ctr. North		0.02	0.02

OCE DATA = 

4-2-79.

0530	Goldsboro, directly West of plant	0.20	0.15
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Air Samples

4-1-79 @ 18:43 0.2 miles N of Intersection of

Rt 262 + 441, $^{131}\text{I} < 2 \times 10^{-7} \mu\text{Ci/cc}$

4-1-79 @ 19:03 ~~0.2 miles~~ Intersection of Rt 262 + Rt 302

Iodine, $^{131}\text{I} < 2 \times 10^{-7} \mu\text{Ci/cc}$

ARK Ground Survey 4/2/79

Time	Location	m R/L	pg
01:28	Intersection 76 & 230 Middle	0.02	0.02
01:39	310° West ~ 5.5 miles White House Lane & Rt 230	0.02	0.02
01:43	330° West ~ 4.0 miles Intersection 283 & Rt 230	0.02	0.02
01:49	40° East ~ 3.5 miles Intersection 441 & Rt 230	0.02	0.02
01:53	350° NW ~ 3.0 miles Rt 441 & Main Plat Gate	0.02	0.02
03:18	Intersection of Rt 76 & 230 Middle	0.02	0.02
03:53	310° West ~ 5.5 miles White House Lane & Rt 230	0.02	0.02
03:52	300° West ~ 4.0 miles Intersection 283 & Rt 230	0.02	0.02
04:00	40° East ~ 3.5 miles Intersection 441 & Rt 230	0.02	0.02
04:06	350° NW ~ 3.0 miles Rt 441 & Main Plat Gate	0.02	0.02
04:14	Rt 76 & 230 ~ Middle	0.02	0.02
04:34	310° West ~ 5.5 miles White House Lane & Rt 230	0.02	0.02
04:36	330° W ~ 4.0 miles	0.02	0.02

136 036

WEST SIDE

4/2/79

NO	TIME	E-Y	V	REMARKS
1	0945	.01	.05	592422
2	0949	.02	.02	708
3	1009	.03	.02	128-1240
4	1014	.02	.02	
5	1015	.02	.02	
6	1024	.02	.02	
7	1029	.05	.05	
8	1031	.10	.06	
9	1034	.10	.02	
10	1037	.10	.03	
11	1040	.07	.02	
12	1044	.03	.02	
13	1047	.03	.03	
14				

136 037

Note - basically in Plumb

Needs
to be counted
- NRC will do
4/2

N.R. Grov. Survey Data

Date-Time Location

mR/h-

B-8

8

3-30-79	11:33 PM	Hwy 441 + Laurel	0.4	0.03
	11:37	Hwy 441 + Main Gate	0.4 11	1.2
	11:45	Hwy 441 at Plant RR Crossing	0.3	0.04
	11:47			
	11:54			
	11:57			
	11:59			
	12:03	Hwy 441 at plant entrance	0.6	0.07
	12:07	NRC Command Post + Hwy 441	0.03	0.01
3-31-79				
	0152			
	0202	Hwy 441 at Laurel	0.4	0.3
	0206	Hwy 441 at Main Gate	0.03	0.02
	0213			
	0220	East end of Meadow Lane	19	4
	0227	Hwy 441 and Geyers Church Road	0.02	0.01
	0230	Geyer Church Road and Gingrich Rd.	0.07	0.01
	0238	Zion Rd + Gingrich Rd	3.0	0.5
	0245-			
	0259	Hillsdale		
	0523	Hwy 441 + Meadow Lane	1.0	0.12
	0524	Hwy 441 (Midway between Laurel + Meadow Lane)	6.5	0.8
	0526	Hwy 441 at Laurel	6.5	0.6
	0527	Geyer Church Rd and Gingrich Rd	3.5	0.35
	0528	Hwy 441 at Main Gate	1.3	0.20
	0538	Hillsdale Rd at Geyers Church Rd	2.0	0.3
	0548	Bringer Rd at Geyers Church Rd	1.3	0.2

038

36

Date-Time	Location	B- ^m _s / hr	γ
0600	Harrisburg Pike + Geyers Church	2.5	0.35
0615	Bringer Rd + Geyers Church	1.7	0.25
10:30	Hwy 441 - 500 y south of plant entrance	12.0	4.0
10:33	Gingrich Rd at Power lines	12.0	-
10:40	" " " "	0.04	0.02
10:55	Hilldale Dr. at Power line	0.06	0.03
11:03	Geyers Church on Geyer Church Rd	7	2
11:45	Harrisburg Rd, $\approx$ 1 m E of Geyers Church Rd	0.75	0.20
13:05	Hwy. 441 $\approx$ 600 y. S. of plant entrance	7.5	2.0
13:20	Hilldale Rd $\approx$ 1/2 m E. of Church	4.5	2.0
13:24	Bringer Road $\approx$ 0.6 miles S.E. of Geyers Church	2.0	0.5
13:35	Harrisburg Pike at Geyers Church Rd	1.2	0.3
14:45	Hwy 441 at Laurel	13.5	3.5
14:47	Hilldale Dr $\approx$ 1/4 mile from church	7.5	2.0
15:00	Bringer Rd $\approx$ 1/2 mile SE of Geyers Church	4.5	1.3
15:15	Harrisburg Pike, 1 m E of intersection with Geyers Church Rd.	1.9	0.7
16:40	Hwy 441 + Engle Rd	4.0	0.6
16:50	Hwy 441 + Falmouth	2.0	0.3
17:05	Keener Rd (below Falmouth)	2.8	0.5
17:15	Trailer Park - Hwy. 441 + Kings Rd.	0.9	0.12
17:20	Amosite Rd $\approx$ 0.3 miles E. of 441	3.0	0.6
17:30	At 441 + 241	1.7	0.4
	Race Street toward Maytown	1.0 1.7	0.17
	Intersection Race Street + Stone M. H.	1.0	0.17
	Intersection Race Street + Rt. 441	1.2	0.4
	Bainbridge	0.7	0.2
18:00	NBC Command Center	1.0	0.12
18:55	" " "	0.8	0.15

Date - Time	Location	B-2	Dose mR/hr
19:15	Rt 441 Across from #2. Cooling Tower	0.7	—
19:20	Rt. 441 - Across from #2 Cooling. Tur.	8.0	1.5
19:20	200 yds N of Visitors Center	3.0	—
20:34	Inside NRC Van	0.5	< 0.1
20:45	Zion Rd - E of NRC van (~15 mile)	4.5	0.6
21:30	Gingrich Rd + Zion Rd	0.6	—
22:15	Inside NRC Van	5.0	1.0
22:58	In front of Visitors Center	7.5	1.2
4-1-79			
0037	Intersection 441 + 280 in Middleton	< 0.01	< 0.01
0128	Hwy 441 + Laurel	4.0 3.5	0.4 0.3
0232	Hwy 441 + Meadow Lane	3.5	0.3
0242	Gingrich Rd - 1.6 miles NNE of Geyers Church Rd	0.5	0.05
0247	Hillsdale Rd - E of Geyers Church = 2.0 miles	0.25	0.02
0308	Falmouth - Downtown	0.01	< 0.01
0319	Engle Rd, ~.6 m from Peck Rd	1.4	0.13
0336	Hwy 441 + Laurel	3.5	0.03
0425			
4-1-79			
0406	0.1 mile S. of Operations Center	1.5	0.4
0450	Peck and Engle	4	0.04
0503	Falmouth + Governors Stable Rd	2.5	0.3
0508	Covered Bridge Rd	5	0.5
0524	Rt 441 ~ 1/2 mile	4	1.5
11:00	Rt. 441 ~ 1 mi S. of Command Center	—	0.025
11:00	West Side of River at Intersection of 382 + 181	—	0.05
14:27	Intersection of 295 + 262	—	< 0.01
14:30	Intersection of 382 + 262	136	0.03

040

Date - Time

Location

B-²³⁵ m R/h

J

4-1-79

~~14:38~~

14:35

Wood Bridge to Island + Rt 441

0.7

0.1

14:37

Rt 441 + Falmouth Rd

0.8

0.1

14:42

Rt 441 + Keener Rd

0.2

0.05

14:45

Rt 441 + Kings Rd

< 0.02

< 0.02

14:55

Rt 441 + Eagle Rd

2

0.3

15:05

Rt 441 + Eagle Rd

0.05

< 0.01

Air Samples - Charcoal Cartridges for ¹³¹I

3/30/79

at 0500 in plume

¹³¹I = Not detected
< 1×10^{-10} $\mu\text{Ci}/\text{m}^3$

~~4/1/79~~

3/31/79

Air sample

at

21:30

at

Gingrich +

Zion Rd

¹³¹I . Not detected
< 1×10^{-10} $\mu\text{Ci}/\text{m}^3$

944-2381 =
0101
944-0301

Date: 4/11/79

Time	Wind Dir	Wind Speed	Monitor 3240	Monitor 219 Part	Monitor 219 Value	Monitor 219 Gas	Some 219	-3583 Var
1230	310	2						746
1300	270	5	15	4E4	1.5ES	3.5ES		150
1330	290	3						
1400	360	4	15	38E4	1.5ES	1.1ES		200
1430	340	3						
1500	340	3	15	36E4	1.5ES	1ES		220
{ Eggs hatch: 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100 { Some hatch: 68 " - Digi 95 " - 430-2 Some: 50X R/L								
1530	40	3						
1600 ✓	100	5	15	4E4	1.5ES	1ES		250
1630 ✓	100	5	—	—	—	—		—
1700 ✓	90	0/5	15	4E4	1.5ES	8E4		250
1730 ✓	100	0/5	—	—	—	—		—
1800 ✓	100	0/5	15	4E4	1.5ES	7E4		180
1830 ✓	100	0/5	—	—	—	—		—
1900 ✓	125	0/5	15	4E4	1.5ES	9E4		250
1930 ✓	270	0	—	—	—	—		—
2000 ✓	45	0/5	15	4E4	1.5E X 5	7E4		180
2030	90	0/5	—	—	—	—		—
2100 ✓	110	0/5	15	4E4	1.5E X 5	7E4	136 042	200

4/11/79

944-0101 = 2381

944-0301

Date: 4/11/79

100 J → 104 Scale

Time	Wind Dir	Wind Speed	Horizontal 3240	Monitor 219 Part	Value	Gas	Home 214	-3583 Var 748
PREV time								
2130✓	160	0	—	—	—	—	—	—
2200✓	140	0/5	20	5E4	1.5E5✓	2E5	—	200✓
2230✓	235	0/5	—	—	—	—	—	—
2300✓	105	0/5	20	4E4	1.5E5	1.5E5	5E5 Pne Hotal 10 ml/hr	200
2330	45	-0-	—	—	—	2.5E5	Equip Hotal 5 ml/hr	—
2400	125	1	16	4E4	1.8E5	7E5	Down 5E5	200
4/12/79								
0030	120	2	—	—	—	—	—	—
0100	200	1	16	4E4	1.5E5	6.5E5	5E5	200
0130	—	0	—	—	—	—	—	—
0200	—	0	15	3.9E4	1.5E5	1.2E3	5E5	180
0230	—	0	—	—	—	—	—	—
0300	90	2	18	4E4	1.8E5	6.5E4	5E5	180
0330	—	0	—	—	—	—	—	—
0400	110	1-2	18	4E4	1.5E5	7E4	5E5	200
0430	90	1-2	—	—	—	—	equip hotal 5.4 ml/hr.	—
0500	115	1-2	16	4E4	1.5E5	7E4	personnel hotal 70 ml/hr.	180
0530	130	1-2	—	—	—	—	5E5	—
0600	200	1-2	20	4.1E4	1.8E5	3.9E5	5E5	180
0630	—	0	—	—	—	—	—	—
0700	—	0	17	4E4	1.7E5	1.9E5	5E5	160
0730	2060	1	—	—	—	—	—	—
0800	60	1	20X	4E4	1.6E5	1E5	5E5	200
0830	330	0	—	—	—	—	—	—
0900	330	2	19	4E4	1.6E5	1E5	—	190
0930	220	2	—	—	—	—	—	—
1000	350	3	22	4E4	1.7E5	2.4E5	—	190
1030	110	1	—	—	—	136	043	—
1100	90	0	14	4E4	1.6E5	1.6E5	—	190

Date: 4/10/79

177-0301 744-2331 =
3583 0101
2483

Time	Wind Dir	Wind Speed	Monitor 1 <u>3240</u>	Monitor 2 19 Part Cabin	Gas	Some 219	Var 748 (44)	
2030 ✓	360	0/5						
2100 ✓	360/50	0/-	10	3E4	1.3E5	4E4	200	
2130 ✓	215	0/-						
2200 ✓	40/20	0/-	10	3.8E4	1.3E5	8E4	200	
2230 ✓	180	0/-				{ One SES Pres. Access Hatch 70 m.p./hr Equip. Hatch 9.55 m.p./hr		
2300 ✓	270	0/-	10	3.8E4	1.3E5		8E4	160
2330	230	0/-						
4/11/79 0000	250	0	3	4.2E4	1.6E5	5.5E5	5E5	160
0030	270	0						
0100		0	16	5E4	1.5E5	1E6	5E5	200
0130		0						
0200	340	1	20	4.2E4	1.5E5	7.8E5	5E5	200
0230		0						
0300	70	1	30	4.2E4	1.5E5	5.5E5	5E5	220
0330		0				equip. hatch 4.8 personnel door 65		
0400		0	18	4.1E4	1.4E5	1E6	5E5	190
0430		0						
0500		0	18	3.5E4	1.7E5	2.5E5	5E5	200
0530		0						
0600		0	15	3.5E4	1.5E5	1E5	5E5	275
0630		0						
0700		0	15	3.8E4	1.5E5	9E4	5E5	200
0730		0						
0800	90	2						
0830	130	0	15	3.5E4	1.5E5	8E4		190
0900								
0930	140	3						
1000	225	2	15	3.2E4	1.5E5	5E4		150
1030	310	0						
1100	90	2	15	3.5E4	1.5E5	7.9E4		150
1130	90	1						
1200	290	2	15	3.6E4	1.5E5	7.8E4	136 044	180

944-0301
3523944-2381 =
0101
2483

Date: 4/10/79

Time	Wind Dir	Wind Speed	Monitor 3240	Monitor 219 Part Values	Monitor 214	Some 214	1st 748 (1st)
0930	320	15	0301, 3523				
1000	300	10-15	20	3.5ES	1.7ES	4ES	2E2
1030	310	10-12					
1100	320	15	15	3.5E4	1.7ES	3ES	2E2
1130	310	10-20					
1200	310	18	15	3.5E4	1.7ES	2ES	3E2
1230	320	12-13					
1300	310	12-15	15	3.5E4	1.5ES	2ES	2.5E2
1330	330	15					
1400	210	15	15	1.5ES	1.3ES	3E3	2E2
1430	310	15					
1500	310	15	15	3E4	1.5ES	1ES	3E2
1530	310	12-15					
1600	330	12-13	12	3E4	1.5ES	9E4	50K R/R ~1535 3E2
1630	340	15	25				
1700 ✓	325	5/15	✓ 25	4E4	1.5ES	5ES	Pro/Hatch 71 Digimaster 90 RO ₂ 200 (202)
1730 ✓	325-340 VAIL	5/20				1730 hrs	Eg. Hatch 1st 5.2 Digimaster 6.0 RO ₂
1800 ✓	305	5/15	10	3E4	1.3ES	1.2ES	200
1900 ✓	325	0/80	10	3E4	1.5ES	1ES	13
1930	325	0/10					
2000	306	0/5	10	3E4	1.1ES	1ES	140

136 045

APR 9, 1979	DATE	WIND	WIND	MONITOR	MONITOR 219		DOME	
TIME	DIR	SP500	3240	PHLT	BOONE	GAS	HPR-214	VAR-748
1830	290	10/20						Part, I ₂ , Has
1900	270	5/10	90	1E5	1.8E5	>10 ⁶		
1930	270	10/15						
2000	270	5/15	100	9.5E4	1.8E5	>E ⁶		
2030	290	5/20						
2100	290	5/15	70	8E4	2E5	>E6		
2130	290	15/25						
2200	310	15/25	70	9E4	2E5	>E6		
2230	310	15-20						
2300	320	15-25	20	8E4	1.8E5	>E6		
2330	320	15-20						
4-10-79 0001	306	12-29 ~18	60	7E4	1.8E5	>E ⁶	5E5 160	005 005 160
0030	290	~15						
100	300	~15	50	6.5E4	1.8E5	>E6	5E5	005 005 150
0135	305-315	15 18						
0200	310	15	45	6E4	1.8E5	>E6	5E5	005 005 160
0230	305	20						
0300	325	15	35	5.5E4	1.8E5	>E6	5E5 5E5	005 005 160
0330	325	14-20						
0400	325	20-30	30	5E4	1.8E5	>E6	5E5	005 005 150
0500	315	15-25	30	4.5E4	1.8E5	1E6	5E5	005 005 200
0530	325	24						
600	310	16-20	20	4E4	2E5	7E5	5E5	005 005 200
0	306	10-15						
	320	12-17	30	4.5E4 4E4	2E5 2E5	E6 7E5		2E5
	310	15-20						
			20	4E4	2E5	7E5		2E5
	310	15-20						
	300	12	15	4E4	2E5	5E5	136 046	1.5E-

Date 7/9/79

-0101
-2483

Time	Wind Direction	Wind Speed	Monitor 3240	Remarks	Thermistor 219	Initial
1000	90	7	50		>E6	PC
1030	90	7-8				PC
1100	70	5	60		>E6	PC
1130	90	4				PC
1200	80	3	60		>E6(?)	PC
1230	60	3				PC
1300	80	2-3	60	219 - Part. I near	6E4 1.6E5 >E6	PC
1330	60	5				PC
1400	80	3-4	60	219 - Part. I near	6E4 1.7E5 >E6	PC
430	50	3				PC
1500	340	6	70	219 - Part. I near	8E4 1.8E5 >E6	PC
1530	300	7-8	80			PC
1600	330	5	80	219 - Part. I near	8E4 2E5 >E6	PC
1630	290	5				
1700	270	5-15	70	219	8E4	PC
1730	280	10-15			1.5E5	
800	280	10-15	80	219	7E6	
				Part I near	9E4 1.8E5 >E6	PC
				136 047		

DATE

4/16/79

Time

Wind
Direction

Speed

Pressure
32.40249
C/F

Remarks

✓1900	90	5	18	7x10 ⁵	gpc
✓1930	90	3-5			
✓2000	90	5-10	18	7x10 ⁵	gpc
✓2030	90	3-5			
✓2100	90 VAR	0-3	30	>10 ⁶	
✓2130	90 VAR	0-3			
✓2200	90	0-3	40	710 ⁶	
✓2230	90	2-5			
✓2300	90	5-10	25	8E5	gpc
2330	70-90	4-8			RMS
2400	90	5	40	>10 ⁶	RMS
4/21/79 0030	90°	5			RMS
0100	90°	5	25	>10 ⁶	
0130	40°-50°	4			RMS
0200	90°	4	20	9E5	RMS
0320	90°	5	150	8.1E5	RMS
0400	50°-70°	4-6	118	8.0E5	RMS
0430	90°	6			RMS
0500	90°	10	20	1E6	L
0535	100°	6			LFF
0600	90-105°	5	12	6.8E5	LFF
0630	90°	5			LFF
0700	100°	7	14	8x10 ⁵	LFF
0730	100°	4			LFF
0800	90°	4	18	7x10 ⁵	LFF
0830	90	6			RC
0900	110	5	50	>10 ⁶	RC
0930	90	6			RC

136 048

Date: 8 April

Time	Wind Direction	Wind Speed	Monitor 3270	Remarks	Initial
0700	340-020	0-1	10		SP
0730	330-015	2-4			SP
0800	350-020	3-4	10	219-2X10 ⁵	SP
0830	270-015	2-3		wind direction highly variable	SP
0905	360-015	2-3	10	219-2.5E5	SP
0930	400-090	2-3		wind direction highly variable	PC
1000	320-015	2-3	10	219-2.1E4	PC
1030	110-215	2		sign. wind change from NE to S (calm conditions)	PC
1100	160-160	3	25	219-2.1E4	PC
1130	130-190	3	25		PC
1200	160-195	3	18		PC
1230	180	2	18	219-3E4 - 219-5E5	PC
1300	180	3	15	219-3E4	PC
1330	210	3		4E5	PC
1400	160	4	10	219-2.5E4	PC
1430	250	2		9E5 3.8E5	PC
1500	380	2	30	219-3.2E4	PC
1530	495	2		7E5	PC
1600	90	3	10	219-3E4	PC
1630	90	3		4E5	PC
1700	90	5	25	219-8E5	
1730	90	5			
1800	100	3-5	15	219-7E5	136 049
1830	90	5-10			

TIME	WIND DIRECTION	WIND SPEED	UP Fuel Bldg Area MONITOR	DESCRIPTION/NARRATIVE OF EFFLUENT METEOROL. CHANGES
4/7/79				
1604	300°	15-20	20	ARR-3240(gws) HPR-2192
1640	306	15-25		
1710	variable 315	15-25	60	g/c 0.5
1740	steady 306	15-20		g/c
1815	310	steady 8-12	20	g/c 6×10^5
1845	306	15-20		g/c
1915	325	5-15	8	g/c 1.5×10^5
1945	340	steady 5-10		
2015	325	"steady" 5-10	8	g/c 1.2×10^5
2045	310-25	5-10		
2115	210-25	0-5	8	g/c 1.2×10^5
2145	250	0-5		
2215	320	0-5	20	g/c 8×10^5
2345	345	5-10		136 050
2345	430 (sw)	0-5		
2345	180 NW	0-5	50	10^5

DATE 4/8/79	WIND DIRECTION	WIND SPEED	Fuel Bldg Area 3240 MONITOR	DESCRIPTION/NARRATIVE OF EFFLUENT METEOROL. CHANGES 944-2381 944-2493 944-0101
TIME	(TIME)	(TIME)	(TIME)	(TIME)
0015	360°	2	(2400) 40	219 (2400) 10 ⁶ RAS
0045	20°	4 RAS		
0115	360°	4	48	< 10 ⁶ RAS
0145	20°	6 RAS		
0215	360	4 RAS	30 ⁴⁵ 30	10 ⁶ RAS
0245	330°	2 RAS		
0325	36°	2½	0300 30	RAS 7 E5 RAS
0345	360°	6 RAS		
0415	15°	8	30	8 E5 RAS
0445	360°	5 RAS		
0505	350°	6	10	3 E5 RAS
0515	350	5 RAS		
0545	340	5 RAS		
0615	60°	4	10	136 051 2 E5 RAS
0645	60°	2		RAS

DATE	WIND DIRECTION	WIND SPEED	UPPER 3200 Area WIND MONITOR	DESCRIPTION/NARRATIVE OF EFFLUENT METEOROL. CHANGES
TIME	(TIME)	(TIME)	(TIME)	(TIME)
0630	320°	10-30		ceb
0657	324°	10-30	50	ceb
0930	300	10-25		ceb
1000	306°	15-25	20	ceb
1029	310°	5-15		ceb
1050	300-310	10-25	20	ceb
1121	324°	15-25		ceb
1201	324°	6-35 10-25	50	ceb
1230	320-340°	10-25		ceb
1250	300-310	10-20	30	ceb
1330	306	6-30 15-25		ceb
1403	306°	6-30 15-25	10	ceb
1430	306°	15-20		ceb
1500	270-300	6-30 15-25	30	ceb
1533	300°	6-35 15-25		

136 052

DATE 4/7/79	WIND DIRECTION	WIND SPEED	W/L Reg Area MONITOR	DESCRIPTION/NARRATIVE OF EFFLUENT/METEOROL. CHANGES
TIME	(TIME)	(TIME)	(TIME)	(TIME)
0100	290°	10-15 ⁽⁴⁻⁷⁾	7	1.3 E 5 1.3 E 5 RAS
0130	310°	10-20		RAS
0200	290°	10-15 ^{RAS}	8	1.3 E 5 RAS
0230	320°	10-15 ^{RAS}		
0300	295°	15	100	Vented make up tank to Vent Header OS airtight (CLOSED VENT) RAS
0330	300°	15 ^{RAS}		
0400	315°	20 ^{RAS}	100	> 10 ⁶ RAS
0430	305°	10		RAS
0500	310°	15-20	25	1 E 6 RAS
0530	300°	30		RAS
0600	305°	10-20 ^{RAS}	20	9 E 5 RAS
0630	320°	20-30 ^{RAS}		
0700	310°	25-30 ^{RAS}	40	
0800	320°	15-30		ad
0800	320°	15-30	50	ad
				136 053

TIME	WIND DIRECTION (TIME)	SPEED (TIME)	Bldg Area MONITOR	EFFLUENT METEOROL. CHANGES (TIME) 944-0101
4-6-79				4/6/79
1533	250-270°	25-40	20	ccb
1557	260°	6-40 15-35		ccb
1629	290°	6-50 25-40	—	wxa
1700	270°	6-40 20-25	20	wxa
1730	270°	6-40 25-30	—	wxa
1800	270°	6-40 25-30	20	wxa
1900	300°	6-25 10-20	40	wxa
1930	300°	15-25		wxa
2000			70	
2100	270°	15-20	35	wxa
2200		6-25 10-20		
2300			10	wxa
			7	wxa
2400	300°	15-20		wxa
			7	13ES RAS

HPR-219 GAS 6X10⁵ CPM

HPR-219 GAS 2X10⁵ CPM

136 054

DATE 4/5/79	WIND DIRECTION	WIND SPEED	Fuel Bldg Area me/hr MONITOR	DESCRIPTION/NARRATIVE OF EFFLUENT/METEOROL. CHANGES
TIME	(TIME)	(TIME)	(TIME)	944-0101
2000	180°	5	20	wra
2330	180°	4	20	wra
0030	190°	5	-	wra HPR 219 at 2400 5 E 5
0100	190°	5	8	219-6 E 5 RAS
0130	180°	5	10	RAS
0200	190°	10		219-3 E 5 RAS
0300	200°	10-15	8 7.5	RAS 2 E 5 RAS
0330	200°	10-15	8	2 E 5 RAS
0400	190°	10-15 RAS	8	1.5 E 5 RAS
0430	215°	10-20 RAS	7.5	
0500	230°	15 RAS	8 7.5	1.3 E 5 RAS
0530	250°	20-25	7.5	2.5 E 5 RAS
0600	270°	15-20	7.5	3.5 E 5 RAS
0130	280°	20-30 RAS		136 055
0700	270°	25-45 RAS	130	2.0 E 6 RAS

TIME	WIND DIRECTION (TIME)	WIND SPEED MPH (TIME)	4 Fuel Bldg Area MONITOR	DESCRIPTION/NARRATIVE OF EFFLUENT METEOROL. CHANGES (TIME)
		G-30		944-0101
1500	270-300	15-25		cab
1600	270-300	15-20	40	cab
1632	306	625 5-20		wfa
1700	270°	GUST → 25 15		wfa
1710			60	wfa
1730	270°	GUST → 20 10	60	wfa
1800	270°	GUST → 20 12		wfa
1830	270°	5	40	wfa
1900	270°	5		wfa
1930	270°	5		wfa
2000	250°	4	40	wfa
2030	250°	4	—	wfa
2110	200°	2	—	wfa
2145	180°	6	20	wfa
				136 056

4/6/79	WIND	SPEED	Flow Bldg Area MONITOR	DESCRIPTION, NARRATIVE EFFLUENT, METEOROL. CHANGES
TIME	(TIME)	(TIME)	(TIME)	(TIME)
0100	280°	20-35		
0800	290°	20-35	100	ccb
0832	270°	20-35		ccb
0900	270°	25-40	80	ccb
0929	270°	25-40		ccb
1000	290°	6-40 15-35	40	ccb
1039	280°	6-30 15-25		ccb
1100	250°	25-40	100	ccb
1128	270°	15-35		pmc
1158	270°	15-40	40	ccb
1230	270°	6-35 10-30		ccb
1304	270°	6-45 20-35	80	ccb
1330	270°	20-45		ccb
1403	270°	25-40	40	ccb
1431	270°	25-45		ccb

944-0101

136 057

$< 3 \times 10^{-7}$ uli ml

start 1838

~~9000~~

9000 waste
tank transfer from
2 to 1

Banero NRR

4/5/79 TIME	WIND DIRECTION (TIME)	SPEED (TIME)	Bldg Area MONITOR	DESCRIPTION / NAME EFFLUENT METEOROL. CHANGES (TIME)
0000	235	10	80	RMS
0831	280°	¹⁵⁶ 5-10	—	col
0900	250°	²⁵⁶ 10-20	<u>90</u>	col
0935	250°	²⁵⁶ 10-20		col
1000	270-300	²⁵⁶ 10-20	80	col
1030	290°	15-25		col
1056	305	15-25	60	col
1135	270-300°	³⁰⁶ 10-25		col
1203	270°	10-15	70	col
1231	270°	15-25		col
1302	290°	⁶³⁰ 15-25	60	col
1335	325°	10-20		col
1400	290-300	10-15	60	col
1435	290	10-20		col
1503	290°	10-20	70	col

136 059

4-5-79	DIRECTION	SPEED	BLDG AREA MONITOR	EFFLUENT METEOROL. CHANGES 944-0101 944-2381
TIME (TIME)	(TIME)	(TIME)	(TIME)	(TIME)
0100	250	3	4-5-79 ↓	45-79 RMS
0130	180	2		RMS
0100	145	2	90	RMS
0210	215	4		RMS
0230	210	3	90	RMS
0305	225	4	100	RMS
0330	220	5	90	RMS
0400	240	7	80	RMS
0430	250	5	110	RMS
0500	200	5		RMS
0530	240	7		RMS
0610	230	5	80	RMS
0630	230	4	35	RMS
0700	250	10	0655 15	RMS
0730	225	3		RMS

136 060

DATE TIME	WIND DIRECTION (TIME)	WIND SPEED MPH (TIME)	1/2 Fuel Redg Area VENT MONITOR (TIME)	DESCRIPTION/NARRATIVE OF EFFLUENT & METEOROL. CHANGES (TIME)
				944-0101 4/4/79
1630	90°	6		wxa
1730	126°	4	100	wxa
1800	108°	3		wxa 1810 shift
1830	360°	4		wxa
1845			110	wxa
1900	345°	6		wxa
1940	360	6		wxa
2000			(down) 35	wxa
2020	300°	7	35	wxa
2110	090°	4		wxa
2140	090°	2	100	wxa
2200	090°	3		wxa
2240	090°	2	100	wxa
2300	090°	3	100	wxa
2330	130	3		

TIME	WIND DIRECTION (TIME)	SPEED (TIME)	BLDG AREA VENT MONITOR	DESCRIPTION / NARRATIVE EFFLUENT METEOROL. CHANGES (TIME)
C...L	70-90°	5-10	—	cop.
0900	5-15 54°	5-15 ^{20G}	70	cop.
0930	70-90°	10-15		cop.
1000	90°	10-20	90	cop.
1027	90°	10-15		cop.
1056	90°	10-15	100	cop.
1132	90°	6-20 10-15		cop.
1200	90°	8-12	110	cop.
1235	90	4-6		cop.
1310	50-80°	2-4	110	cop.
1332	35-70	0-4		cop.
1400	70°	4-6	100	cop.
1438	80°	5-10		cop.
1502	90°	10-15	120	cop.
1600 1600	90°	8	80	mta

136 062

TIME	DIRECTION	SPEED	MONITOR	EFFLUENT METEOROL. CHANGES
(TIME)	(TIME)	(TIME)	(TIME)	(TIME)
015	300	4 RAS		gnd 4 ↓
045	320	6 RAS		
0135	40	4 RAS		
0200	40	4	0215 130	RAS
0230	30	5		RAS
0300	40	4	130	RAS
0330	90	3		RAS
0415	70	2	130	RAS
0450	40	4	130	RAS
0530	70	1		RAS
0600	150	1	130	RAS
0635	90	4		RAS
0700	90	1		RAS
0730	90	3		RAS
0800	70	5-10	130	cop 136 063

4-3-79

DIRECTION SPEED Bldg Area EFFLUENT METEOROL. CHANGES
 (TIME) (TIME) MONITOR 713 700
 944-0101 HPR-3240

3	320-340	6-10		wp
1400			200	wp
1427	320-340	6-8	-	wp
1500	270-285	4-6	150	wp
1540	250-285	2-6	-	wp
1613	288	2-6	150	wp
1640	270-280	~4		wp
1730	340°-360°	5		wp
1805	360°	8	140	wp
1900	360°	4	130	wp
1930	345°	3	-	wp
2100	345°	4	140	wp
2200	360°	2	140	wp
2230	54°	5	170	wp
2345	360°	2		wp

DATE 4/3/79	WIND DIRECTION	WIND SPEED	UPPER Bldg Area VENT MONITOR	DESCRIPTION/NARRATIVE OF EFFLUENT METEOROL. CHANGES
TIME	(TIME)	(TIME)	(TIME)	944-0101
0650	20	0		
0700	310	4	0710 100	PMS
0730	342	6		PMS
0814	100	2	115	col
0851	270	8-10		col
0902	270	8-15	120	col
0930	360	10-15		col
0954	324	8-10	175-200	col
1026	324°	10-15		col
1057	324°	10-15	200	col
1130	306°	2-4		col
1200	306	4-6	200	col
1235	324°	6		col
1301	324°	4	180	col
				136 065

DATE 4-1-79	WIND DIRECTION (TIME)	WIND SPEED MPH (TIME)	WIND MONITOR (TIME)	DESCRIPTION/NARRATIVE OF EFFLUENT ^W METEOROL. CHANGES (TIME)
2015	320°	1		RMS
2345	330°	1		RMS
(4-2-79) 2030	320	2	250 to 300	RMS
0100	325	4 RMS	0105 170	RMS
0130	300	2 RMS		
0200	305	10	200	RMS
0230	325	7 RMS		
0305	315	5	110	RMS
0335	180	1 RMS		
0345	250	2 RMS	0350 130	RMS
0400	325	2		RMS
0430	325	1		RMS
0508	310	4	120	RMS
0530	315	4	100	RMS
0600	315	8	110	RMS

136 066

4-2-79	DIRECTION	SPEED	Bldg Area VENT MONITOR	EFFLUENT METEOROL. CHANGES
TIME	(TIME)	(TIME)		(TIME)
C 00	90°	5 RAS	150	RAS
0827	90°	8		cob
0904	75-100°	8	110	cb
0928	90°	8-12		cob
0959	90	8-12	110	cob
1034	90	10-15		cb
1115	90	5-10	110	cb
1137	90	5-10		cb
1206	90	8-12	90 110	cb
1232	90°	10-15		cob
1301	90°	10-15	100	cb
1343	90°	10		cb
1407	100°	4-8	110	cb
1422	100°	4-8		cb
1502	100	10-15	120	cb

944-2483

(367-6223) (944-0101)

136 067

TIME	WIND DIRECTION	WIND SPEED (MPH)	MONITOR	DESCRIPTION/NARRATIVE OF EFFLUENT METEOROL. CHANGES
1005	360°	4	100	
1830	080°	4	—	
1910	080°	4	100 mm/h	HP-R-3240
1931	072°	4	—	360 10 72
2000	036°	4	100	
2035	080	3	—	
2100	080	4	100	
2130	180°	15	—	
2200	135°	15-25		
2230	130°	15-20	200	
2300	110°	10-15		RMS
2330	130°	15		RMS
2400	90°	10	220	RMS

DATE 4/1/79	WIND DIRECTION	WIND SPEED	TEMP MONITOR	DESCRIPTION/NARRATIVE OF EFFLUENT METEOROL. CHANGES
TIME	(TIME)	(TIME)	(TIME)	944-2483
0500	360	2	220	RMS 944-0003 944-0101 944 2483 Don Montgomery
0600	110	4	110	RMS
0700	245	2 RMS	110	RMS
0800	210- ³⁴⁰ 240	3	100	RMS
0900	320°	5-6	100	coh.
1000	400°	5-10	110	coh.
1055	360-375°	3-8	100	coh.
1204	346°	~5	100	coh.
1259	346°	4-6	100	coh.
1400	345°	4-6	110 *	coh. * 200 when gas line was pressurized
1500	350°	4	100-125	coh.
1552	360°	2-4	100	
1625	360°	0-2	—	wfA
1705	360°	4	100	wfA
1735	360°	5	—	wfA 136 069

HP-R-3240

Fuel Handl.

Bldg Ext. Unit Area

RL

Bldg Stack
Unit

TIME	WIND DIRECTION	WIND SPEED	Area Monitor	DESCRIPTION/NARRATIVE OF EFFLUENT METEOROL. CHANGES
3-3.1	(TIME)	(TIME)	(TIME)	944-2483 944-6493 944-6604
1551	310-320	15-20	270 (156)	
1657	330 270-320	6 0-10	270	Coll. Bunk
1829	135°	2	270	20 13
1945	216°	4	180 MR	
2023	270°	2	200 mr	
2125	200°	2	(at 2145) 100 mr	MONITOR - HP-R-3240 "FUEL HANDLING BUILDING EXHAUST UNIT AREA" (UNIT 2) AREA MONIT.
2225	270°	3	140 mr	" "
2300	270°	1	(at 2340) 130 mr	" "
2400	ESE 290°	2 RMS		RMS
4/1/79	X	X	X	
0105	216°	3 RMS		
0200	250°	1	140 MR	RMS
0257	25	2 RMS	110	RMS
0400	290	2	110	RMS 136 071
0432 0435 0440			1000 2000 1000	appears to be release during sampling of WGD (~410 mlt/hr at Observ. Center) RMS

DATE <u>3-31</u>	WIND DIRECTION FROM °	WIND SPEED MPH	U/2 Fuel Bldg Area MONITOR	DESCRIPTION/NARRATIVE OF EFFLUENT METEOROL. CHANGES LAB (MOBILE PHONES) (TIME) 944-6493 944-6604	
TIME					
0150	250	5 to 7	-	Phone info 8 944-2483	R.H. 1st Smt RHS
0225	240	4 to 5	-		RHS
0315	240-250	5 to 7	-		RHS
0400	220-250	2 to 3	400m R/hr		RHS
0500	215	2	-		RHS
0555	200	2	-		
0610	180	2	550m R/hr		RHS
0725	170-180	2	-		RHS
0845	220	5-8	-		col
1005	220-250	2-8	300 ²⁴		col
1058	200-210	3-10	300-350		col
1159	210-220	8-10	300-350		col
1301	250	10-20	350		col
1335	225-240	10-20	-	136 072	col
1504	220°	4-5	300		col