

Control #: D4-100N-0042

## FACILITY STATUS CHANGE FORM

was present in the excavated area. The GPERS survey map is included in Attachment 3. A global positioning system (GPS) civil survey was performed to document the extent of the excavation. The GPS civil survey information is included in Attachment 4. The excavated area is currently clear of Industrial Hygiene and Radiological postings, however it does lie within the 100-N URMA.

### Identification of Documented Waste Site(s) or Nature of Potential Waste Site Discovery (as applicable):

No Waste Information Data System (WIDS) site was affected during D4 activity at the 1112-N and 1112-NA facilities. Additionally, no potential WIDS site was discovered during D4 activity in the area. There are multiple WIDS sites located nearby or underlying the excavated area of these facilities, each of which is part of the 100-N-84 pipeline series. If necessary, these WIDS sites will be closed out pursuant to an applicable Record of Decision.

The Sampling Determination Form (Attachment 5) is part of a process implemented by the *Removal Action Work Plan for 100-N Area Ancillary Facilities*, DOE/RL-2002-70, Revision 3. The Sampling Determination Form for the 1112-N and 1112-NA Facilities (SDF-100N-017) represents a regulatory agreement between DOE and the Lead Regulator (Ecology), and indicates that the requirements of the Action Memorandum have been met with respect to demonstrating that cleanup criteria have been achieved for soils and structures remaining after removal of these facilities.

### Section 3: List of Attachments

1. Facility Information (Building Histories and Characterization)
2. Photographs (Pre- and Post-Demolition)
3. GPS Civil Surveys
4. Sampling Determination Form for the 1112-N and 1112-NA Facilities (SDF-100N-017). Includes GPERS surveys.

DOE-RL

Lead Regulator

EPA

Ecology

Date

Date

### DISTRIBUTION:

EPA: Dennis Faulk, B1-46

Ecology: Wanda Elliott, H0-57

DOE: Rudy Guercia, A3-04

Document Control, H0-30

Administrative Record, H6-08

SIS Coordinator: Benjamin Cowin, H4-22

D4 EPL: Clay McCurley, X5-50

Sample Design/Cleanup Verification: Megan Proctor, H4-22

FR Engineering: Rich Carlson, N3-30

FR EPL: Dan Saueressig, N3-30

## FACILITY STATUS CHANGE FORM

<b>Date Submitted:</b> August 29, 2012 <b>Originator:</b> David Warren <b>Phone:</b> 539-6040	<b>Area:</b> 100-N <b>Facility ID:</b> 1112-N and 1112-NA <b>Action Memorandum:</b> 100-N Ancillary Facilities	<b>Control #:</b> D4-100N-0042
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**This form documents agreement among the parties listed below on the status of the facility D&D operations and the disposition of underlying soil in accordance with the applicable regulatory decision documents.**

### Section 1: Facility Status

- All D4 operations required by action memo complete.
- D4 operations required by action memo partially complete, remaining operations deferred.

### **Description of Completed Activities and Current Conditions:**

The 1112-N and 1112-NA were added to the scope of the *Action Memorandum for General Hanford Site Decommissioning Activities* (DOE/RL-2010-22) by Tri-Party Agreement Change Notice (TPA-CN-494) via the plug in approach identified in the Action Memorandum and corresponding *Removal Action Work Plan for River Corridor General Decommissioning Activities* (DOE/RL-2010-34). In consultation with DOE and the Lead Regulatory Agency (Ecology), it was determined that the completion and closeout process identified in the *Removal Action Work Plan for 100-N Area Ancillary Facilities* (DOE/RL 2002-70 Rev. 3) should be followed for consistency with respect to CERCLA removal activities for other 100-N Area facilities.

Deactivation: If required, utility isolation was performed at each facility prior to beginning deactivation.

Decontamination and Decommissioning: If present, the following hazardous materials were removed from each facility prior to demolition: batteries, light bulbs, oils, grease, asbestos-containing material, mercury, refrigerant, and polychlorinated biphenyls. Hazardous material removal and waste disposition was performed in accordance with the *Removal Action Work Plan for 100-N Area Ancillary Facilities*, DOE/RL-2002-70.

Demolition: Demolition of the 1112-N Document Control Building was completed in March 2012. Demolition of the 1112-NA Microwave Tower was completed in February 2012. Waste was loaded out and transported to the Environmental Restoration Disposal Facility (ERDF), where it was disposed of. Based on past uses of these facilities, radiological contamination was not expected during demolition.

### **Description of Deferral (as applicable):**

N/A

### Section 2: Underlying Soil Status

- No waste site(s) present. No additional actions anticipated.
- Documented waste site(s) present. Cleanup and closeout to be addressed under Record of Decision.
- Potential waste site discovered during D4 operations. Waste site identification number <to be> assigned.  
Cleanup and closeout to be addressed under Record of Decision.

### **Description of Current/As-Left Conditions:**

The 1112-N Document Control Building and the 1112-NA Microwave Tower have been demolished and excavated, and the resulting waste has been disposed of at the ERDF. The 1112-NB Badge House had previously been removed in 1996. The excavated area has been backfilled to match the surrounding terrain.

A visual inspection of the excavated area was performed and no soil staining was found. Global positioning environmental radiological surveyor (GPERS) surveys were performed to document that no radiological contamination

D4 Project Facility Completion Form

**Attachment 1: Facility Information (3 pages)**

## D4 Project Facility Completion Form

### Facility Information

#### Introduction

This document provides information regarding the history, characterization, and final status at the completion of deactivation, decontamination, decommissioning, and demolition (D4) activities of the 1112-N Document Control Building and the 1112-NA Microwave Tower, and formerly located at the 100-N Area.

#### Site Information

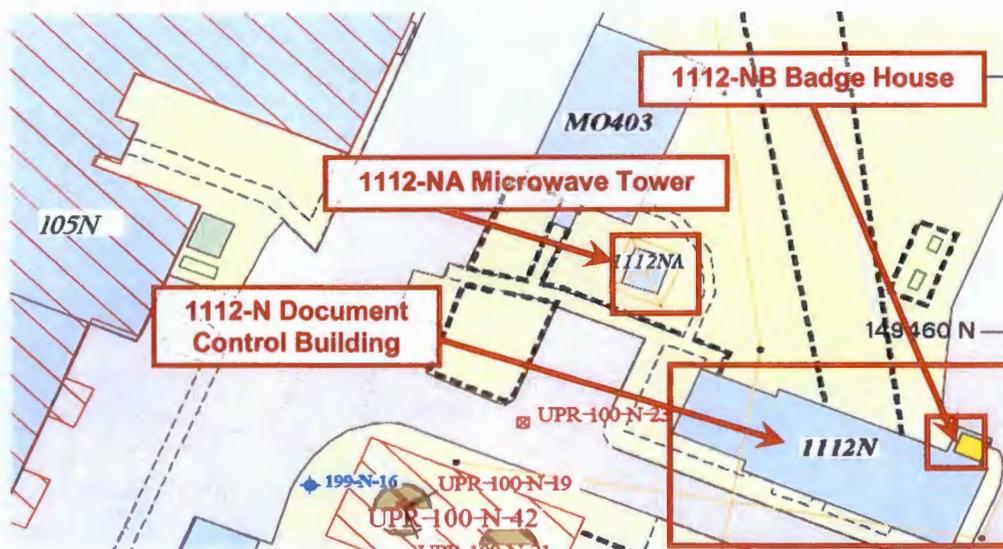
The 1112-N Document Control Building was a 92-foot by 25-foot trailer located atop a concrete slab east southeast of the 105-N Reactor. The building was constructed in 1978 and was made of tubular steel columns, steel beams, hardened concrete, concrete veneer, and a metal roof.

The 1112-NA Microwave Tower was an 82-foot tall steel structure located east southeast of the 105-N Reactor. The base of the structure was anchored by four concrete piers with an approximate area of 390 square feet. An instrument shed atop an approximately 81 square foot concrete pad was present within the base footprint.

The 1112-NB Badge House was a pre-engineered one room structure located adjacent to, and on the same concrete slab as, the 1112-N Document Control Building. It was constructed in 1984 and was made of a steel frame, metal exterior walls, and a metal roof lined with razor wire.

The 1112-N Document Control Building was used as an access control point, document storage area, telecommunications storage area, and office space throughout its existence. The 1112-NA Microwave Tower was used as the central communications hub for the 100 Areas. The 1112-NB Badge House was used as a shelter for security personnel who issued entry badges to personnel for access to the 105-N Reactor. A map of these facilities is included in Figure 1. Photographs of the 1112-N and 1112-NA facilities are included in Attachment 2.

**Figure 1. Location of the 1112-N, 1112-NA, and 1112-NB Facilities**



1112-N and 1112-NA Facility Completion

## D4 Project Facility Completion Form

### Radiological and Industrial Hygiene Surveys

Table 1 summarizes the industrial hygiene, radiological control, and asbestos samples collected from the 1112-N and 1112-NA Facilities.

**Table 1. Summary of Samples/Surveys Collected for 1112-N and 1112-NA**

Type	Quantity	Method Detection Limits	Results
Radiological Scoping Surveys	N/A	Beta-gamma – 1,000 removable/ 5,000 fixed <sup>a</sup> Alpha – 20 removable/ 100 fixed <sup>a</sup>	No radiological scoping survey was performed at the 1112-N or 1112-NA facility.
Pre Demolition and in Process Radiological Surveys	30 surveys	Beta-gamma – 1,000 removable/ 5,000 fixed <sup>a</sup> Alpha – 20 removable/ 100 fixed <sup>a</sup>	The results of 23 surveys were less than the method detection limit. It should be noted that seven historical surveys detected alpha and/or beta-gamma contamination within the 1112-N facility, however no such contamination was detected in the final three years of facility existence.
Post Demolition Radiological Surveys	N/A	Beta-gamma – 1000 removable/ 5,000 fixed <sup>a</sup>	No health and safety based radiological down-posting survey was required because the 1112-N and 1112-NA facilities were clean facilities that were not posted for radiological conditions. Accordingly, no such survey was performed.
Global Positioning Environmental Radiological Surveyor (GPERS) Surveys	2 surveys	N/A	A total of 1,002 data points were taken at the 1112-N and 1112-NA footprints. All results were less than 1.5 times background. It should be noted that readings from this location that are under 1.5 times the background count are considered insignificant.  GPERS survey maps are included in Attachment 4.
Industrial Hygiene Surveys, Scoping and in Process	1 Survey (4 Samples)	1% asbestos content	An industrial hygiene survey was performed at the 1112-N facility for asbestos concerns. Four air samples were taken and none exceeded the method detection limit.
Asbestos – Thermal System Insulation and Miscellaneous Material	36 Samples	1% asbestos content	At least four separate asbestos visual inspections were conducted at the 1112-N facility. Potential asbestos containing material was found and 35 samples were taken. Asbestos was detected above the method detection limit in 7 of the samples. One asbestos visual inspection was conducted at the 1112-NA facility. One sample was taken and it was assumed to be potentially asbestos containing material. All Regulated Asbestos Containing Material (RACM) was removed prior to demolition.
<sup>a</sup> – dpm/100 cm <sup>2</sup> (net cpm used as well)			

## D4 Project Facility Completion Form

### Civil Survey Information

Pre and post-demolition Global Positioning System (GPS) civil surveys were performed on the 1112-N Document Control Building, the 1112-NA Microwave Tower, and the excavations for their removals. The 1112-NB Badge House existed within the footprint of the 1112-N Document Control Building. Copies of the GPS surveys are provided in Attachment 4.

### Anomalies Discovered During Demolition

No anomaly was discovered during the demolition of the 1112-N Document Control Building or 1112-NA Microwave Tower.

### Final Building Status and Underlying Soil

Demolition of the 1112-N Document Control Building was completed by D4 on March 7, 2012. The demolition material was loaded into roll-off containers and sent to the Environmental Restoration Disposal Facility (ERDF). No anomaly or stained soil was reported during demolition of the 1112-N Document Control Building.

Demolition of the 1112-NA Microwave Tower was completed by D4 on February 22, 2012. The demolition material was loaded into roll-off containers and sent to the ERDF. No anomaly or stained soil was reported during demolition of the 1112-NA Microwave Tower. The 1112-NB Badge House was removed in 1996.

A visual inspection and GPERS surveys were performed at the excavated facility footprints. No soil staining or radiological contamination was identified.

No Waste Information Data System (WIDS) site was affected during D4 activities at these facilities. However, the soil underlying the 1112-NA contains various WIDS sites associated with the 100-N-84 pipelines.

**Table 2. Contaminants of Concern for Facility Demolition**

<b>Contaminant of Concern</b>	<b>Management Practice/Determination of No Impact to the Soil</b>
Radionuclides	The 1112-N and 1112-NA facility excavations were within the 100-N Area general Underground Radioactive Material Area (URMA). Additionally, several radiological survey records document the historical presence of radiological contamination in the 1112-N facility. GPERS surveys performed at the facility excavations did not detect radiological contamination. The GPERS surveys are included in Attachment 4.

D4 Project Facility Completion Form

**Attachment 2: Photographs (1 page)**

D4 Project Facility Completion Form



1112-N and 1112-NA Pre-Demolition



1112-N and 1112-NA Post-Demolition

D4 Project Facility Completion Form

**Attachment 3: GPS Civil Survey Information (10 pages)**

# D4 Project Facility Completion Form

## GPS Pre Demo Survey for 1112N

**Project : 100N-blds2**

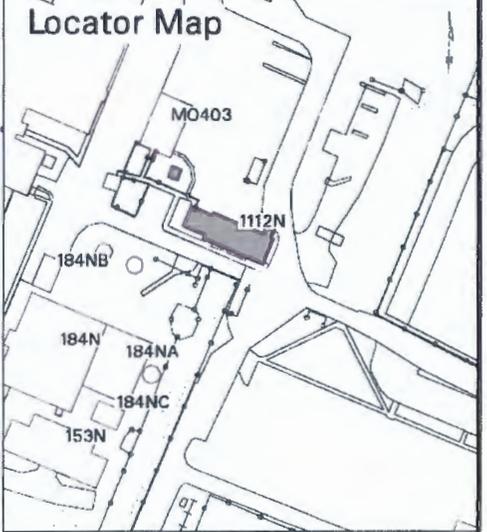
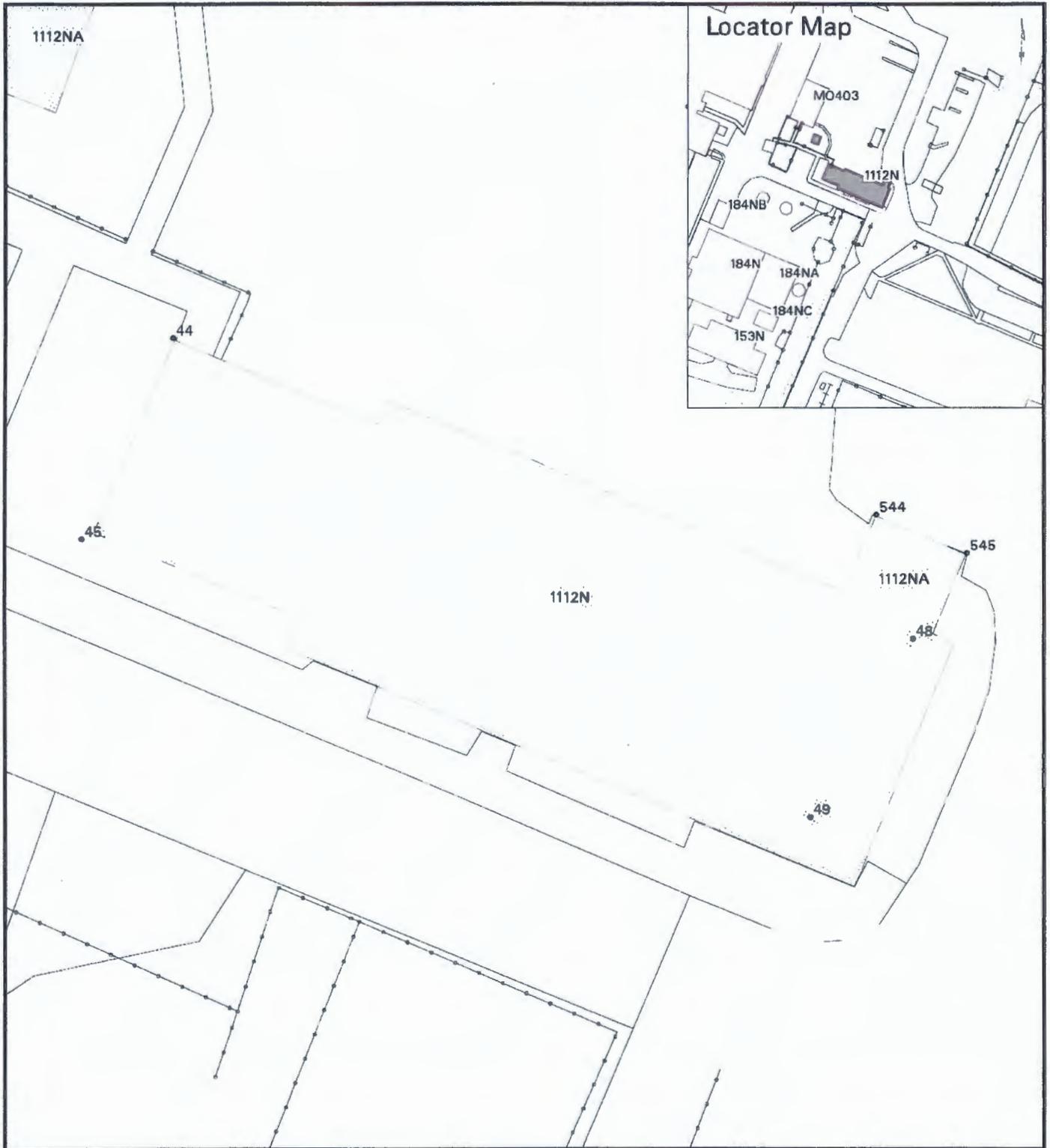
<b>User name</b>	maaye	<b>Date &amp; Time</b>	3:21:53 PM 8/30/2006
<b>Coordinate System</b>	US State Plane 1983	<b>Zone</b>	Washington South 4602
<b>Project Datum</b>	NAD 1983 (Conus)		
<b>Vertical Datum</b>	NAD83	<b>Geoid Model</b>	GEOID99 (Conus)
<b>Coordinate Units</b>	Meters		
<b>Distance Units</b>	Meters		
<b>Height Units</b>	Meters		

Survey Project Name/Title: GPS Survey for 1112N & 1112NA Pre - Demo  
 Survey Purpose: GPS Building locations pre -demolition for 1112N  
 Requested By: Dave Shea  
 General Site Location: 100-N  
 Charge Code: several  
 Field Surveyor: Margo Aye  
 Computer Software Used: Trimble Survey Controller, and Geomatics Office V.11  
 Survey Equipment Used: 5800  
 Control Monuments Used: 100N-4  
 Survey Method: RTK  
 Estimated Horizontal Precision: .020m  
 Estimated Vertical Precision: .050m  
 Fieldwork Start Date: 3/6/06  
 Fieldwork Completion Date: On Going  
 Notes: Building has large overhang on roof- points taken by laser

Name	Feature Code	Northing	Easting	Elevation	Description
44	corn-bldg	149455.697m	571322.912	139.842	
45	corn-bldg	149447.809m	571319.398	139.811	
48	corn-bldg	149443.920m	571351.866	140.005	
49	corn-bldg	149436.999m	571347.902	139.989	
544	corn-bldg	149448.744m	571350.430	140.005	
545	corn-bldg	149447.267m	571353.969	140.005	
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# D4 Project Facility Completion Form



 Paved Roads and Sidewalks

 Unpaved Roads and Trails

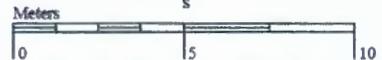
 Railroad

 Fences

 Location of 1112N and 1112NA Building Prior to Demolition

 GPS Locations for 1112N and 1112NA Building Prior to Demolition

## Pre Demolition Survey of 1112-N & 1112-NA Building



# D4 Project Facility Completion Form

0633196

## GPS Post Demo Survey for 1112N

Project : 100N-030712

Job 1195

User name	maaye	Date & Time	3:59:54 PM 3/12/2012
Coordinate System	US State Plane 1983	Zone	Washington South 4602
Project Datum	(WGS 84)		
Vertical Datum	NAVD88	Geoid Model	Not selected
Coordinate Units	Meters		
Distance Units	Meters		
Height Units	Meters		

Survey Project Name: 1112N Post Demolition Survey  
 Date: 3/12/2012  
 Equipment: 5800  
 Survey Purpose: Map the post demo area for the 1112N building  
 Requested By: Clay McCurley  
 Location: 100N  
 Charge Code:  
 Field Surveyor: Margo Aye  
 Survey Software Used: Trimble Survey Controller, and Geomatics Office V.11  
 Survey Equipment Used: 5800  
 Control Monuments Used: N-2  
 Survey Method: RTK  
 Horizontal Precision: .020m  
 Vertical Precision: .050m  
 Fieldwork Start Date: 3/7/12  
 Fieldwork Completion Date: 3/7/12  
 Notes:

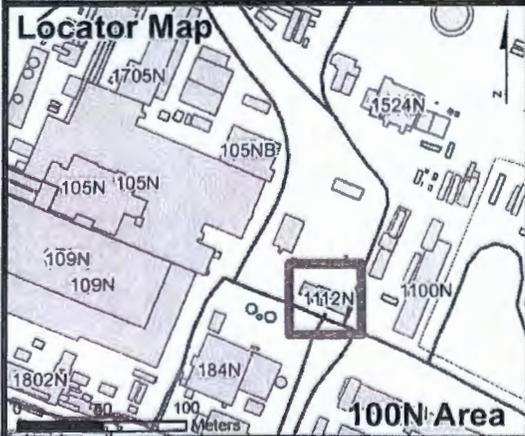
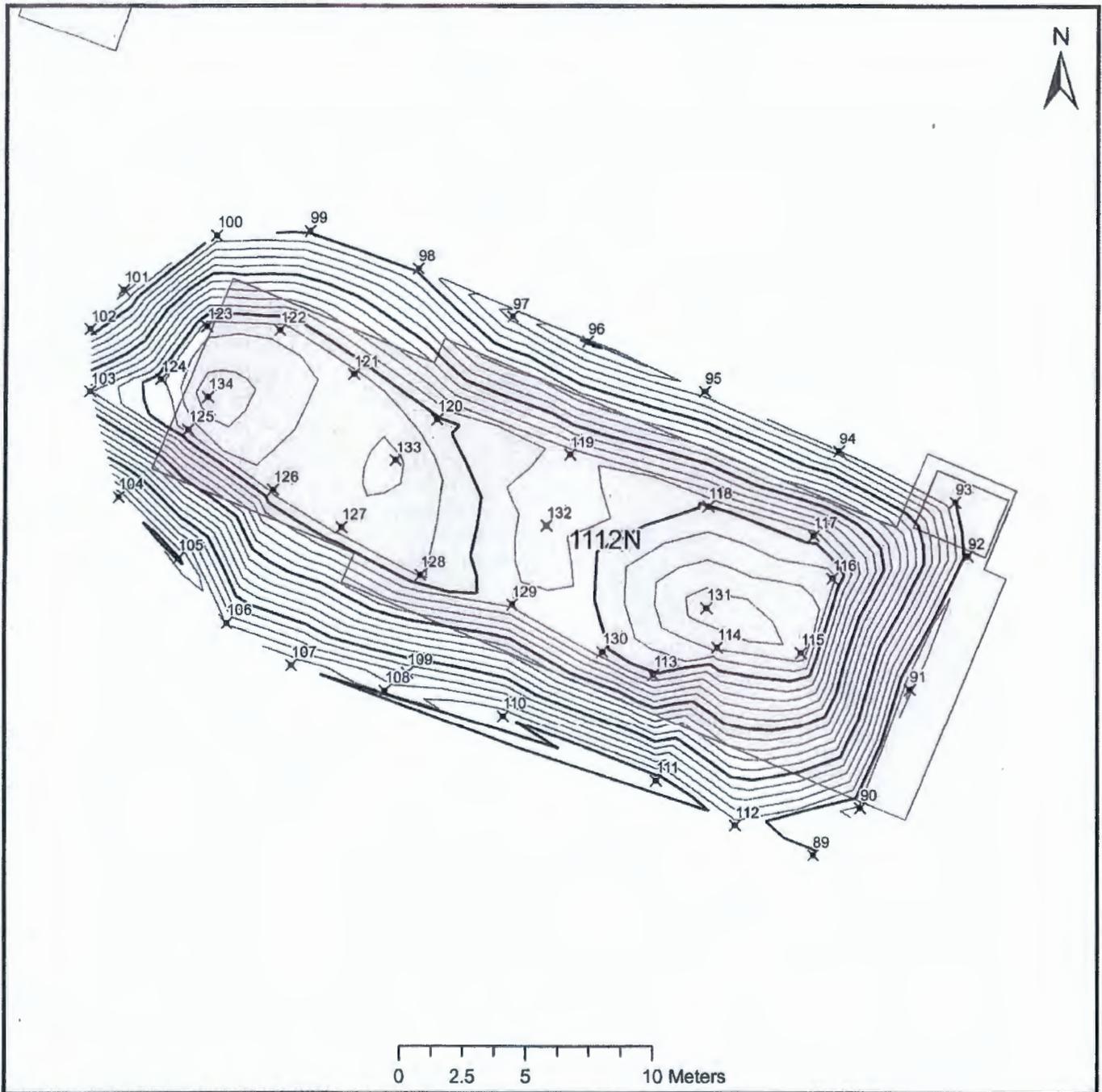
Name	Northing	Easting	Elevation	Feature Code	Description:
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90	149434.737m	571347.814m	139.813m	top	
91	149439.390m	571349.742m	139.853m	top	
92	149444.622m	571352.017m	139.776m	top	
93	149446.761m	571351.511m	139.748m	top	
94	149448.777m	571346.974m	139.676m	top	
95	149451.163m	571341.667m	139.684m	top	
96	149453.105m	571337.041m	139.759m	top	
97	149454.090m	571334.040m	139.674m	top	
98	149455.991m	571330.307m	139.517m	top	
99	149457.456m	571326.047m	139.510m	top	
100	149457.270m	571322.367m	139.483m	top	
101	149455.135m	571318.711m	139.620m	top	
102	149453.592m	571317.401m	139.536m	top	
103	149451.130m	571317.393m	139.105m	top	
104	149446.939m	571318.533m	139.743m	top	
105	149444.519m	571320.890m	139.761m	top	
106	149441.976m	571322.800m	139.643m	top	
107	149440.331m	571325.336m	139.747m	top	
108	149439.337m	571329.043m	139.678m	top	
109	149440.040m	571329.913m	139.597m	top	
110	149438.329m	571333.694m	139.746m	top	
111	149435.800m	571339.759m	139.791m	top	
112	149434.055m	571342.888m	139.730m	top	
113	149439.972m	571339.657m	139.007m	toe	
114	149441.035m	571342.187m	138.891m	toe	
115	149440.829m	571345.478m	138.859m	toe	
116	149443.756m	571346.721m	138.928m	toe	
117	149445.435m	571345.976m	139.016m	toe	
118	149446.606m	571341.815m	138.995m	toe	
119	149448.620m	571336.344m	139.064m	toe	
120	149450.047m	571331.078m	138.987m	toe	
121	149451.829m	571327.789m	138.929m	toe	
122	149453.551m	571324.877m	138.913m	toe	

## D4 Project Facility Completion Form

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124	149451.615m	571320.192m	138.963m	toe
125	149449.636m	571321.290m	138.930m	toe
126	149447.228m	571324.623m	138.931m	toe
127	149445.758m	571327.309m	138.910m	toe
128	149443.873m	571330.416m	138.943m	toe
129	149442.703m	571334.049m	139.036m	toe
130	149440.867m	571337.651m	139.011m	toe
131	149442.584m	571341.759m	138.814m	topo
132	149445.825m	571335.416m	139.086m	topo
133	149448.419m	571329.444m	138.889m	topo
134	149450.922m	571322.062m	138.813m	topo

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# D4 Project Facility Completion Form



## GPS Post Demo Survey Report For 1112N Building

GPS Post Demolition Survey Points:

- × See Survey Report for Point Details
- Major Contour .25 Meter Interval
- Minor Contour .05 Meter Interval
- Building Location

WCH-03/13/12/Map/ArcMap/100N/loc/demo\_1112N.mxd 11:10:38 AM

# D4 Project Facility Completion Form

0632938

## GPS Pre Demo Survey for 1119N and 1112NA

*Project : 100N-bldgs-8-06*

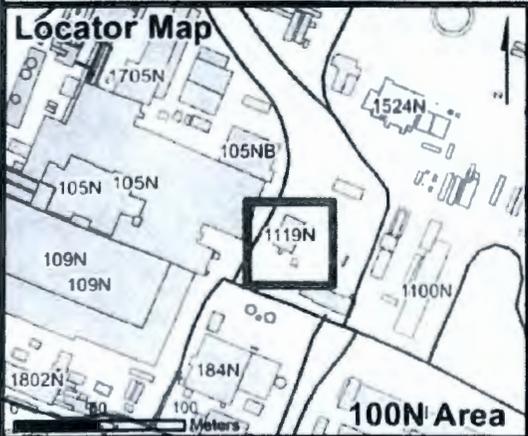
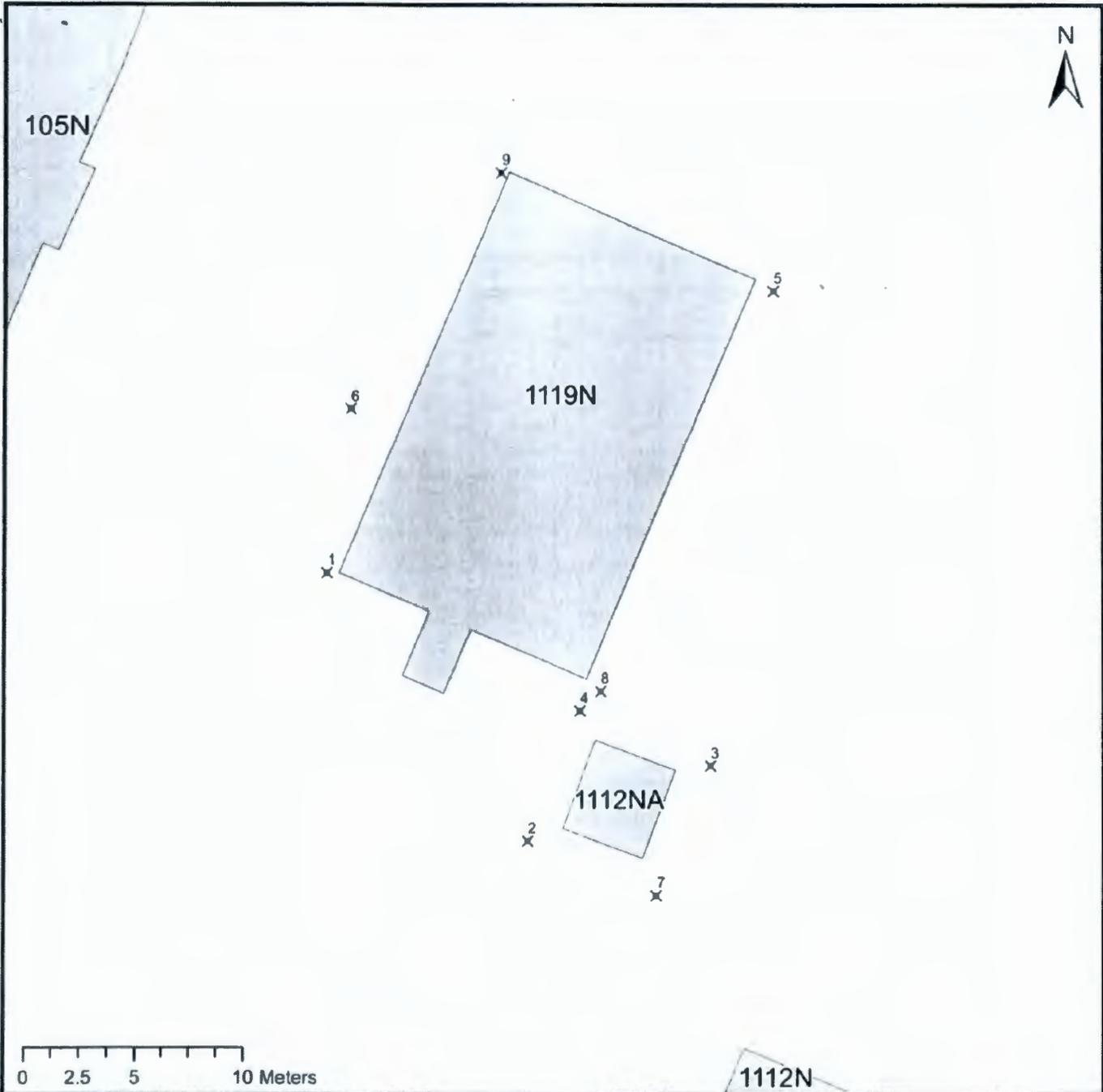
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Coordinate System	US State Plane 1983	Zone	Washington South 4602
Project Datum	NAD 1983 (Conus)		
Vertical Datum	NAVD88	Geoid Model	GEOID99 (Conus)
Coordinate Units	Meters		
Distance Units	Meters		
Height Units	Meters		

Survey Project Name: Survey corners around the 1119N and 1112NA Tower (pad)  
 Date: 3/9/2006  
 Equipment: 5800  
 Survey Purpose: GPS the area corners and surrounding features for the described building  
 Requested By: Amy Hood  
 Location: 100-N  
 Charge Code:  
 Field Surveyor: Margo Aye  
 Survey Software Used: Trimble Survey Controller, and Geomatics Office V.11  
 Survey Equipment Used: 5800  
 Control Monuments Used: 100N-4  
 Survey Method: RTK  
 Horizontal Precision: .02m  
 Vertical Precision: .05m  
 Fieldwork Start Date: 3/9/06  
 Fieldwork Completion Date: 3/9/06  
 Notes:

Name	Northing	Easting	Elevation	Feature Code	Description:
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2	149465.202m	571312.915m	139.830m	tower	
3	149468.677m	571321.465m	139.789m	tower	
4	149471.190m	571315.366m	139.833m	tower	
5	149490.687m	571324.338m	139.395m	corn-bldg	
6	149485.198m	571304.728m	139.586m	lift	
7	149462.680m	571318.952m	139.849m	tower	
8	149472.099m	571316.332m	139.500m	corn-bldg	
9	149496.091m	571311.672m	139.586m	corn-bldg	

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D4 Project Facility Completion Form



### GPS Pre Demo Survey Report For 1119N Building and 1112NA Tower

- GPS Post Demolition Survey Points:
- x See Survey Report for Point Details
  - Building Location

\\FH-0227\12\1\Area\Arch\Map\400\Area\1119 mod 1-16-15.dwg

# D4 Project Facility Completion Form

0632937

## GPS Post Demo Survey for 1119N and 1112NA

**Project : 100N-022312**

User name	maaye	Date & Time	1:24:15 PM 2/27/2012
Coordinate System	US State Plane 1983	Zone	Washington South 4602
Project Datum	(WGS 84)		
Vertical Datum	NAVD88	Geoid Model	Not selected
Coordinate Units	Meters		
Distance Units	Meters		
Height Units	Meters		

Survey Project Name: Post demo survey for 1119N 1112NA  
 Date: 2/23/2012  
 Equipment: 5800  
 Survey Purpose: Map topography from demo site  
 Requested By: Clay McCurley  
 Location: 100N  
 Charge Code: R1112NN400, R1M403N400  
 Field Surveyor: Margo Aye  
 Survey Software Used: Trimble Survey Controller, and Geomatics Office V.11  
 Survey Equipment Used: 5800  
 Control Monuments Used: N 2  
 Survey Method: RTK  
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 Vertical Precision: .050m  
 Fieldwork Start Date: 022312  
 Fieldwork Completion Date: 022312  
 Notes:

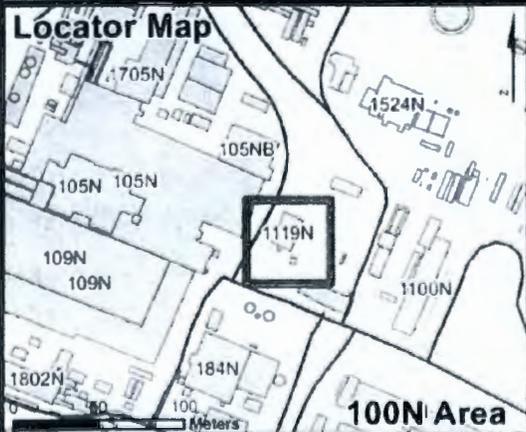
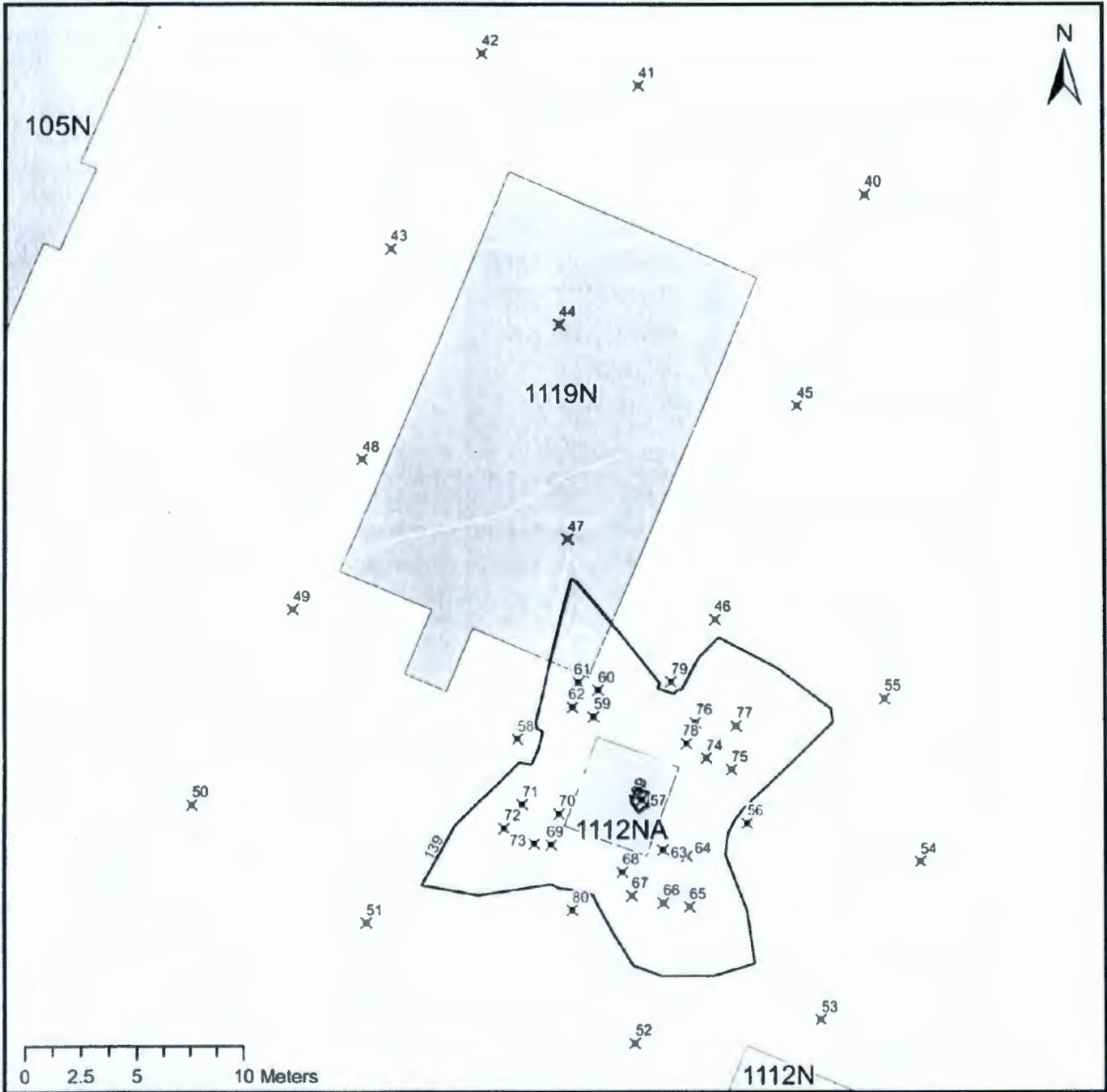
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42	149501.499m	571310.784m	139.440m	topo	
43	149492.620m	571306.518m	139.443m	topo	
44	149489.086m	571314.362m	139.513m	topo	
45	149485.287m	571325.410m	139.388m	topo	
46	149475.304m	571321.499m	139.178m	topo	
47	149479.046m	571314.742m	139.353m	topo	
48	149482.779m	571305.191m	139.504m	topo	
49	149475.801m	571302.026m	139.360m	topo	
50	149466.779m	571297.306m	139.351m	topo	
51	149461.311m	571305.353m	139.537m	topo	
52	149455.734m	571317.781m	139.586m	topo	
53	149456.825m	571326.462m	139.610m	topo	
54	149464.123m	571331.062m	139.595m	topo	
55	149471.652m	571329.418m	139.486m	topo	
56	149465.895m	571323.013m	139.363m	topo	
57	149466.961m	571318.096m	139.114m	topo	
58	149469.796m	571312.388m	139.403m	topo	
59	149470.826m	571315.898m	138.192m	toe	
60	149472.039m	571316.107m	138.101m	toe	
61	149472.416m	571315.211m	138.093m	toe	
62	149471.272m	571314.945m	138.241m	toe	
63	149464.668m	571319.066m	138.279m	toe	
64	149464.392m	571320.199m	138.242m	toe	
65	149462.037m	571320.318m	138.395m	toe	
66	149462.206m	571319.089m	138.442m	toe	
67	149462.541m	571317.623m	138.478m	toe	
68	149463.653m	571317.194m	138.455m	toe	
69	149464.916m	571313.954m	138.219m	toe	
70	149466.333m	571314.306m	138.228m	toe	
71	149466.771m	571312.608m	138.257m	toe	
72	149465.679m	571311.760m	138.184m	toe	
73	149464.958m	571313.167m	138.218m	toe	
74	149468.910m	571321.102m	138.205m	toe	
75	149468.381m	571322.287m	138.032m	toe	

## D4 Project Facility Completion Form

76	149470.545m	571320.602m	138.336m	toe
77	149470.405m	571322.502m	138.125m	toe
78	149469.567m	571320.166m	138.308m	toe
79	149472.423m	571319.462m	139.175m	toe
80	149461.892m	571314.919m	139.375m	toe

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# D4 Project Facility Completion Form



## GPS Post Demo Survey Report For 1119N Building and 1112NA Tower

- GPS Post Demolition Survey Points:  
 x See Survey Report for Point Details
- GPS Post Demolition Topography:  
 — Major Contour 1 Meter Interval  
 — Minor Contour .2 Meter Interval  
 ■ Building Location

\\CH-02\27\12-16\mason\ArcMap\100N\loc\Home\_1119.mxd 12:38:41 PM

D4 Project Facility Completion Form

**Attachment 4: Sampling Determination Form for the 1112-N and 1112-NA Facilities  
(SDF-100N-017)  
(12 pages)**

# D4 Project Facility Completion Form

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## 100-N ANCILLARY FACILITIES REMOVAL ACTION SAMPLING DETERMINATION FORM

Determination Number  
SDF-100N-017

### A. INSTRUCTIONS

*This form must be completed to: 1) document existing data in order to determine if current data is suitable to prove completion of 100-N Ancillary Facilities, or 2) document that site-specific sampling and analyses are needed to provide completion for 100-N Ancillary Facilities.*

### B. GENERAL INFORMATION

Building Name: Document Control Building and Guard House / Microwave Tower      Building Number: 1112-N and 1112-NA

WIDS Sites Associated or Adjacent:  
100-N-84 (colon sites 1, 2, 3, 4, 5, 6, and 8) and UPR-100-N-19 / 21 / 23 / 42  
All of these WIDS sites are classified as accepted.

Other:  
The 1112-N and 1112-NA facilities were erected atop concrete slab floors (CCN 126706 pg. 1). Throughout its history, the 1112-N facility was used for access control, document storage, office space, and telecommunications storage (CCN 126706 pgs. 1 & 2). The 1112-NA facility was a microwave tower with an instrument shed at its base (CCN 126706 pg. 1).

Above grade demolition of the 1112-N and 1112-NA facilities was completed in 2009. Only above grade demolition was pursued at that time due to the close proximity of the 1112-N facility foundation to the active 100-N export water line. Below grade demolition of the 1112-N and 1112-NA facilities was completed on March of 2012, following deactivation of the export water line. The 1112-N below grade structure was removed completely while the 4 footings for the 1112-NA tower were removed three foot below grade, with the remaining portions of the clean concrete footings to be left in place based on results of the visual inspection and final radiological surveys.

### C. INFORMATION SOURCES

Available information (list document number for each if applicable):

Historical Site Assessment: <u>Historical Site Assessment for the 1112-N &amp; 1119-N Facilities: CCN 126706</u>	E-mail documenting visual inspection of Site Walkdown: <u>the 1112-N and 1112-NA Excavation Soils: CCN 164788</u>
IH Characterization Report: <u>N/A</u>	Radiological Survey: <u>Global Positioning Environmental Radiological Surveyor (GPERS): ESR-FRM-120038BC and ESR-FRM-120038GC</u>
IHC/FHC Document: <u>N/A</u>	RCC Stewardship Information System (SIS) WIDS/SIS: <u>Facility Summary Reports: 1112-N and 1112-NA</u>
PDSR: <u>N/A</u>	Facility Inspection: <u>N/A</u>
Waste Characterization Checklist: <u>N/A</u>	Summary Report: <u>N/A</u>

Other:

- Analysis for Bulk Samples for Fiber Content of Asbestos: CCN 023890
- Asbestos Inspection and Sampling Report for 1112-NA Microwave Tower: CCN 144629
- Drawing H-1-41183 Sheet 1, Rev. 5
- Drawing H-1-41184 Sheet 1, Rev. 2
- Drawing H-1-41185 Sheet 1, Rev. 2
- Field Support Refrigerant/Inventory Form: CCN 509020
- Field Support Refrigerant/Inventory Form: CCN 519231
- Hazardous Material Removal Work Package for 1112-N: 100 08 07 15 002 A-Pack (e)
- Hazardous Material Removal Work Package for 1112-NA: 100 08 07 15 002 A-Pack (j)
- Pre-Existing Conditions Survey of Hanford Site Facilities, Phase II: BHI-00221
- Spill/Release Checklist Concerning Potable Water Spill: CCN 506599
- Photograph of the 1112-N and 1112-NA Facilities Pre-Demolition, Time-Stamped: SIS Facility Report for 1112-N pg. 6 (2/1/2006), CCN 144629 pg. 2 (5/20/2009); CCN 144629 pg. 2 (5/20/2009)
- Photographs of the 1112-N and 1112-NA Facilities Pre-Demolition, No Time Stamp: SIS Facility Report for 1112-N pgs. 3-5, SIS Facility Report for 1112-NA pg. 4, and CCN 126706

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## 100-N ANCILLARY FACILITIES REMOVAL ACTION SAMPLING DETERMINATION FORM

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pg. 3

- Photographs of the 1112-N and 1112-NA Facilities Post-Demolition, No Time Stamp: SIS Facility Report for 1112-NA pg. 5; CCN 164788 pgs. 2-5

### D. HAZARDOUS SUBSTANCES

Check all that apply:

- None    
  Asbestos containing material    
  Lead    
  PCBs/PCB Articles    
  Oils/Greases
- Chemicals    
 Tritium & vinyl chloride (CCN 126706 pgs. 5 & 6), refrigerant including R-22 (CCN 126706 pg. 8, List: CCN 519231 pg. 1, and CCN 509020 pg. 1), and potential for volatile fluid within thermometers (CCN 126706 pg. 8)
- Radiological Contamination    
  Mercury/Mercury Devices
- Other: Dry-cell and lead-acid batteries (BHI-00221 pgs. 3-77 & 3-78)

References/Comments:

- Asbestos Containing Material
  - 2% Chrysotile in 1112-N floor (CCN 023890 pg. 1); 1112-NA microwave dish covers contained non-friable presumed ACM (CCN 144629 Attachments 1 & 2); H-1-41185 Sheet 1, sections B-12 & B-13; and H-1-41183 Sheet 1 section D-8
- Lead
  - CCN 126706 pgs. 6 & 7; H-1-41184 Sheet 1 (section D-7)
- PCBs/PCB Articles
  - CCN 126706 pgs. 7 & 8
- Oils/Greases
  - Through connection to UPR-100-N-19 / 21 / 23 / 42
- Mercury/Mercury Devices
  - CCN 126706 pg. 7

Liquids:  Yes     No

If yes, describe source and nature of liquids:

The 1112-N facility contained water and sewer utilities (CCN 126706 pgs. 2 and 10).

Were the hazardous substances removed from the facility prior to demolition?     Yes     No

As verified by what documentation:

Multiple hazardous substances were encountered within the 1112-N facility (100 08 07 15 002 A-Pack (e) Table 1). All such substances were removed or identified for segregation prior to demolition, with the exception of "Bio-Hazards" (100 08 07 15 002 A-Pack (e) Table 2). The 1112-N facility presumably contained a majority of the hazardous substances at these facilities. However, it was predicted that these substances would not affect the disposal of the 1112-N facility rubble if they were not removed prior to its demolition (CCN 126706 pg. 8).

Multiple hazardous substances were encountered within the 1112-NA facility (100 08 07 15 002 A-Pack (j) Table 1). All such substances were removed or identified for segregation prior to demolition, with the possible exception of two window air conditioning units (100 08 07 15 002 A-Pack (j) Table 2).

The hazardous substances contained within these facilities did not present a reasonable potential for release during demolition, as detailed below. All documented sources of tritium, lead, PCBs, and mercury were present in standard building fixtures such as lamps, switches, and door actuators (CCN 126706 pgs. 5-9). No reviewed asbestos analysis indicated the presence of friable asbestos (CCN 023890 & CCN 144629).

Was there potential for hazardous substances to be introduced into the soils during facility operations or demolition?     Yes     No     N/A

References/Comments:

These facilities contained various hazardous substances. However, the contamination potential based on the nature and quantity of contained hazardous substances were minimal (CCN 126706 pg. 2). Because of this, the 1112-N and 1112-NA facilities were assigned a Type III risk level (CCN 126706 pg. 1). Facilities with a Type III risk level classification are managed as if they are free of contamination (CCN 126706 pg. 1). Such a classification was assigned to facilities for which there was not a reasonable potential for a release of hazardous material into the environment during demolition

**100-N ANCILLARY FACILITIES REMOVAL ACTION  
SAMPLING DETERMINATION FORM**

Determination Number  
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(CCN 126706 pg. 1).

List any hazardous materials left in the building for demolition:

- "Bio-Hazards" (100 08 07 15 002 A-Pack (e) Tables 1 & 2)
- (possibly) two window air conditioning units (100 08 07 15 002 A-Pack (j) Tables 1 & 2)
- (possibly) non-friable asbestos sources (CCN 023890 pg. 1 & CCN 144629 Attachments 1 & 2)
- (possibly) radiological contamination as a result of biological contaminant migration (CCN 126706 pg. 5)

Does review of historical records and process knowledge indicate a potential for radiological or chemical contamination to be present in the facility?

No. Hazardous substances were removed from these facilities prior to demolition and visual inspection of the excavations following removal did not identify soil staining or anomalies that would be indicative of chemical contamination (CCN 164788). Furthermore, the GPERS survey for this location yielded no points of elevated radiological contamination (ESR-FRM-120038BC and ESR-FRM-120038GC).

Comments:

A spill of 6,300 gallons of potable water occurred from a valve pit adjacent the 1112-N on June of 1998 (CCN 506599 pg. 1). These facilities were within the 100-N underground radioactive material area (CCN 126706 pg. 5).

Pertinent design drawings include H-1-45007 Sheets 35 & 36, H-1-41181 Sheet 1, H-1-41183 Sheet 1, H-1-41184 Sheet 1, and H-1-41185 Sheet 1.

**E. FIELD OBSERVATIONS**

**Visual Inspection**

Were any stained soils/anomalies discovered during or after demolition of the facility?  Yes  No

References/Comments:

No anomaly nor stained soil was discovered (CCN 164788).

Were samples taken of the stained soils/anomalies?  Yes  No  N/A

References/Comments:

N/A

Do results of the samples indicate that chemical contamination exists?  Yes  No  N/A

References/Comments:

N/A

Is the area potentially a discovery site?  Yes  No

References/Comments:

N/A

**Radiological Surveys**

Did radiological surveys (GPERS or equivalent) identify contamination?  Yes  No

References/Comments:

GPERS: ESR-FRM-120038BC and ESR-FRM-120038GC

Were samples taken of the radiologically contaminated soils?  Yes  No  N/A

References/Comments:

N/A

Is the area potentially a discovery site?  Yes  No

References/Comments:

N/A

Were the contaminated materials removed?  Yes  No  N/A

References/Comments:

N/A

**F. WIDS SITES**

# D4 Project Facility Completion Form

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## 100-N ANCILLARY FACILITIES REMOVAL ACTION SAMPLING DETERMINATION FORM

Determination Number  
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Were there any WIDS sites affected by D4 activities?  Yes  No

If yes, list the WIDS sites:  
N/A

Were the WIDS site(s) completely removed?  Yes  No

References/Comments:  
This question is not applicable as no WIDS sites were affected by D4 activities.

Will the Ancillary Facility Footprint be deferred to FR to be closed out with a co-located Waste Site?  Yes  No

References/Comments:  
N/A

### G. COPCs FOR SOILS AND STRUCTURES REMAINING AFTER DEMOLITION

What are the potential contaminants of concern for the remaining below-grade soil?

None  SVOC  VOC  Metals  TPH  Rad  PCBs  
 Other (Specify): \_\_\_\_\_

Comments:  
N/A

Summary of in-process soil sampling requirements:  
N/A

Constituents detected / concentrations / rationale  
Consult Sample Collection Summary below.

Sample Collection Summary  
• 1112-N Floor (Asbestos): Sample Number TMH1195233 (CCN 023890 pg. 2). The sample showed the flooring material to contain 2% Chrysotile asbestos.

### H. NOTES / ADDITIONAL INFORMATION

Check here if additional information / data / maps / sketches are attached to this form.

If checked, list the attachment(s):  
E-mail documenting visual inspection of the 1112-N and 1112-NA Excavation Soils (CCN 164788)

### I. SAMPLING

Are soil samples required to demonstrate that remaining structure or below-grade soils meet cleanup standards?  Yes  No

Based on the above information it was determined that sampling:  will  will not be required in order to demonstrate that cleanup criteria have been met.

The individual below acknowledges that the review of this facility has been completed. He or she also commits to provide to the Department of Energy (DOE) and the Washington State Department of Ecology (Ecology) any available information that could alter the sampling decision established in this form.

Information Reviewer Signature <i>David Warren</i>	Printed Name David Warren	Date 5.9.12
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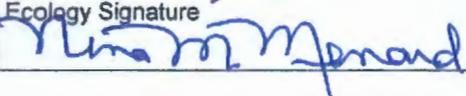
# D4 Project Facility Completion Form

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## 100-N ANCILLARY FACILITIES REMOVAL ACTION SAMPLING DETERMINATION FORM

Determination Number  
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The regulatory representative below agrees with the decision outlined in section I of this form for the indicated facility and supports implementation of that decision based on the information currently available.

DOE Signature 	Printed Name RF GUERCIA	Date 5/14/12
Ecology Signature 	Printed Name NINA M. MENARD	Date 5/17/12

# D4 Project Facility Completion Form

164788

## ^WCH Document Control

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**From:** Warren, David J  
**Sent:** Monday, March 26, 2012 2:04 PM  
**To:** ^WCH Document Control  
**Subject:** Visual Inspection of the 1112-N and 1112-NA excavation soils

**Attachments:** 1112N.NA Visual Inspection.doc; ESRFRM120038BC.pdf; ESRFRM120038GC.pdf

Please CHRON this e-mail and attachments as Visual Inspection of the 1112-N and 1112-NA excavation soils. Contact me if you have any questions. Thanks.

David Warren  
100-N EPL  
539-6040

---

**From:** Warren, David J  
**Sent:** Tuesday, March 20, 2012 10:39 AM  
**To:** Allen, Mark E  
**Cc:** McCurley, Clay D  
**Subject:** Visual Inspection of the 1112-N and 1112-NA excavation soils

At approximately 0930 hours on March 13, 2012, the soils/remaining structures at the 1112-N (Guard Station/Document Control Building) and 1112-NA (Microwave Tower) open excavations were visually inspected for signs of staining or anomalous items. Both excavations, including the remaining footings of the 1112-NA microwave tower which were removed to a level 3 feet below grade, were observed to be free of any stained soils or anomalies that would be indicative of chemical or petroleum contamination. The required GPERS surveys (Performed 3/14/2012, attached) didn't identify any contamination, nor was any expected since the structures were not contaminated. Additionally, GPS surveys have been performed to delineate the extent of excavations and locations of microwave tower footings that are to be left 3 feet below grade, pending approval by Ecology to do so. Please see the attached word file for photographs that were taken during the inspection. I'll CHRON this email and attachments for future use as references in closure documentation. Feel free to contact me if you have any questions. Thanks.

David Warren  
100-N D4 Environmental Project Lead  
WCH  
539-6040



1112N.NA Visual  
Inspection.doc...



ESRFRM120038BC.  
pdf (709 KB)



ESRFRM120038GC.  
pdf (716 KB)

**D4 Project Facility Completion Form**

**1112-N/1112-NA Visual Inspection Photographs**

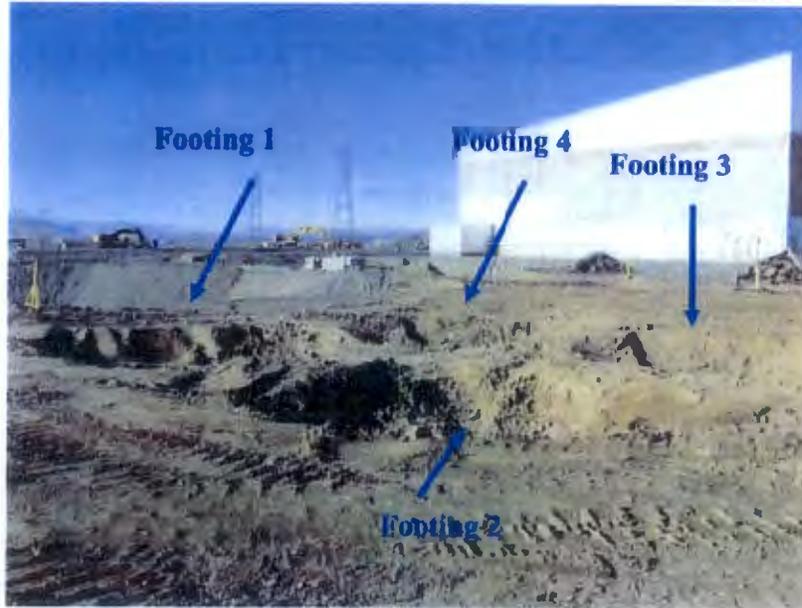


**1112-N Excavation Looking West-Northwest**



**1112-N Excavation Looking East-Southeast**

D4 Project Facility Completion Form



1112-NA (overview of tower footing locations)



Footing 1

D4 Project Facility Completion Form



**Footing 2**



**Footing 3**

**D4 Project Facility Completion Form**



**Footing 4**



Site View



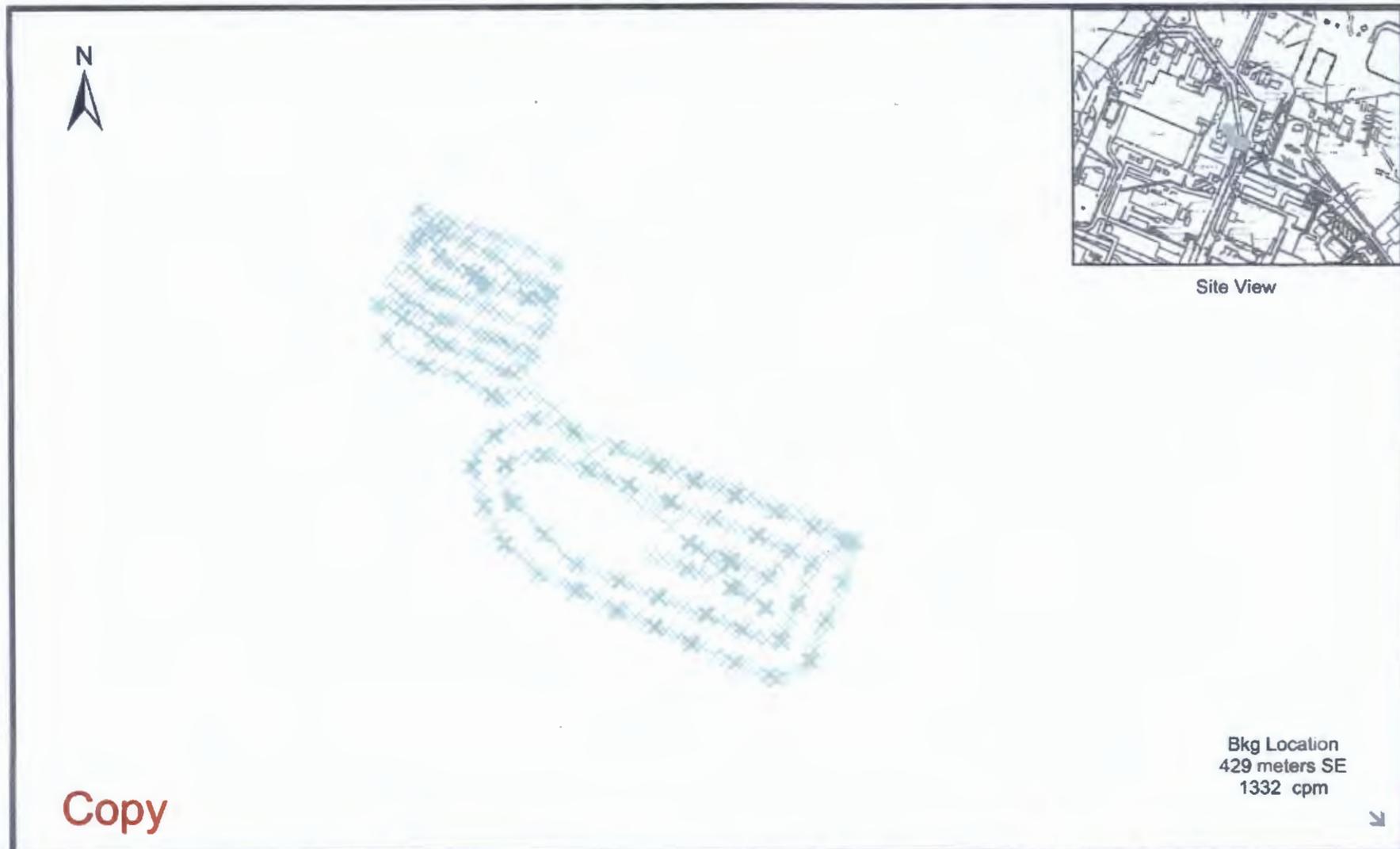
Copy

Bkg Location  
429 meters SE  
410 cpm



<p><b>Legend</b></p> <p>NET CPM</p> <ul style="list-style-type: none"> <li>X &lt;615</li> <li>● 615 - 5000</li> <li>● 5000 - 10000</li> <li>● 10000 - 25000</li> <li>● 25000</li> </ul>	<p><b>Summary Statistics</b></p> <p>Coverage File: N074B                  Number of Data Pnts: 79                  Type of Survey: beta                  Max GCPM: 753                  Avg Bkg CPM: 410                  Survey Date: 3/14/2012                  Area Surveyed: 767 m<sup>2</sup>                  Project File: ESRFRM120038B                  Pdf File: ESRFRM120038BC</p>	<p><b>100N Field Remediation                  1112-N / 1112-NA                  GPERS Radiological Survey                  Beta Track Map</b></p>	<p>0 5 10 15 20                  Meters</p> <p>Survey Map Prepared By: Bruce Coomer, ESI</p>
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D4 Project Facility Completion Form



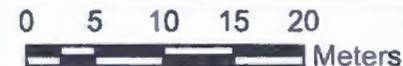
Copy

Bkg Location  
429 meters SE  
1332 cpm



Legend	Summary Statistics
NET CPM	Coverage File: N074,A
	Number of Data Pnts: 923
	Type of Survey: gamma
	Max GCPM: 1964
X <1998	Avg Bkg CPM: 1332
● 1998 - 5000	Survey Date: 3/14/2012
● 5000 - 10000	Area Surveyed: 767 m <sup>2</sup>
● 10000 - 25000	Project File: ESRFRM120038G
● 25000	Pdf File: ESRFRM120038GC

**100N Field Remediation  
1112-N / 1112-NA  
GPERS Radiological Survey  
Gamma Track Map**



Survey Map Prepared By Bruce Coomer, ESI