

N00164.AR.002521  
NSA CRANE  
5090.3a

REPORT OF PHASE I ENVIRONMENTAL ASSESSMENT NSA CRANE IN  
11/1/2005  
MACTEC ENGINEERING AND CONSULTING INC

**REPORT OF PHASE I  
ENVIRONMENTAL SITE ASSESSMENT  
NAVAL SUPPORT ACTIVITY CRANE  
NAVAL REGION MIDWEST FAMILY  
HOUSING PRIVATIZATION**

Prepared for:  
Forest City Washington  
1615 L Street NW, Suite 400  
Washington, DC 20036

Prepared by:  
MACTEC Engineering and Consulting, Inc.  
5440 N. Cumberland Avenue, Suite 250  
Chicago, IL 60656

MACTEC Project No. 3205050472.04

November 1, 2005

**TABLE OF CONTENTS**

**EXECUTIVE SUMMARY .....IV**

**1.0 INTRODUCTION ..... 1**

    1.1 Purpose ..... 1

    1.2 Scope of Work ..... 1

        1.2.1 On-Site Inspection ..... 1

        1.2.2 Inspection of Surrounding Land ..... 2

        1.2.3 Site History ..... 2

        1.2.4 Regulatory Review ..... 2

        1.2.5 Non-ASTM Additional Issues ..... 3

        1.2.6 Sample Collection ..... 3

        1.2.7 Data Evaluation and Report ..... 3

    1.3 Special Terms and Conditions ..... 4

    1.4 Limitations and Exceptions ..... 4

**2.0 PROPERTY DESCRIPTION ..... 5**

    2.1 Property Location ..... 5

    2.2 Property and Vicinity General Characteristics ..... 5

    2.3 Current Use of Property ..... 7

    2.4 Property Improvements ..... 7

    2.5 Current Uses of Adjoining Properties ..... 7

**3.0 ENVIRONMENTAL RECORD SOURCES ..... 8**

    3.1 Standard Environmental Record Sources ..... 8

    3.2 Freedom of Information Act Requests ..... 12

    3.3 Threatened and Endangered Species ..... 15

**4.0 PHYSICAL SETTING SOURCES ..... 17**

    4.1 Topographic Map ..... 17

    4.2 Geologic, Hydrogeologic, and Hydrologic Conditions ..... 17

**5.0 HISTORICAL SOURCES ..... 19**

    5.1 Historical Aerial Photographs ..... 20

    5.2 Sanborn Fire Insurance Maps ..... 21

    5.3 State Historic Preservation Office ..... 21

    5.4 Environmental Document Review ..... 21

**6.0 SITE RECONNAISSANCE ..... 22**

    6.1 Introduction ..... 22

    6.2 Methodology Used and Limiting Conditions ..... 22

    6.3 Electrical/Hydraulic Equipment ..... 22

    6.4 Underground Storage Tanks (USTs) ..... 22

    6.5 Aboveground Storage Tanks (ASTs) ..... 23

---

6.6	Chemical Storage.....	23
6.7	Spills/Stains .....	23
6.8	Soil and Pavement Disturbances .....	23
6.9	Miscellaneous Debris.....	23
6.10	Wells.....	24
6.11	Waste Disposal .....	24
6.12	Pits, Ponds or Lagoons .....	24
6.13	Wastewater Discharge .....	24
6.14	Drains and Sumps.....	24
6.15	Stressed Vegetation .....	24
6.16	Septic System .....	24
6.17	Odors .....	25
6.18	Pools of Liquid.....	25
6.19	Railroad Tracks.....	25
<b>7.0</b>	<b>INTERVIEWS .....</b>	<b>26</b>
<b>8.0</b>	<b>ADDITIONAL SERVICES .....</b>	<b>27</b>
8.1	Radon.....	27
8.2	Drinking Water .....	27
8.3	Preliminary Lead-Based Paint and Asbestos Assessments.....	27
8.4	Possible Unexploded Ordnance.....	31
8.5	Pesticide Use.....	32
8.6	Wetlands .....	32
8.7	Cultural and Archeological Resources .....	32
8.8	Historical Resources.....	32
8.9	Threatened and Endangered Species .....	32
8.10	Storm Water Management Plans .....	33
8.11	Indoor Air Quality .....	33
8.12	Spill Prevention Control and Countermeasure Plans.....	33
8.13	Environmental Permits .....	33
8.14	Coastal Zones .....	33
<b>9.0</b>	<b>FINDINGS.....</b>	<b>34</b>
<b>10.0</b>	<b>OPINIONS.....</b>	<b>36</b>
<b>11.0</b>	<b>CONCLUSIONS.....</b>	<b>38</b>
<b>12.0</b>	<b>DEVIATIONS.....</b>	<b>40</b>
<b>13.0</b>	<b>REFERENCES.....</b>	<b>41</b>
<b>14.0</b>	<b>SIGNATURES OF ENVIRONMENTAL PROFESSIONALS .....</b>	<b>49</b>
<b>15.0</b>	<b>QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS.....</b>	<b>50</b>

**APPENDICES**

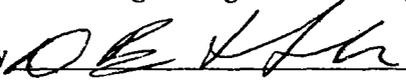
- A Figures
- B Photographic Documentation
- C Regulatory Information
- D Historical Aerial Photographs
- E Threatened and Endangered Species
- F Environmental Documents
- G Freedom of Information Act Requests and Responses
- H Resumes

**Amendment**

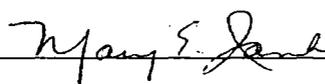
This Amendment is issued and effective as of January 1, 2006 for the purpose of amending, and a copy of this Amendment will be attached to and form an integral part of, each of those Reports which is listed on Exhibit "A" hereto by deleting the first paragraph which appears under the caption "Disclaimer and Limitation of Liability" in its entirety and replacing with the following provision:

This Report is intended for the exclusive use and benefit of Forest City Military Communities, LLC, Forest City Washington, Inc., Midwest Military Communities, LLC and Midwest Family Housing, LLC (collectively, "Client"). However, MACTEC has extended an offer to rely upon or use this Report ("Offer") to (i) the United States of America, Department of the Navy, and (ii) Lehman Brothers, Inc., its successors, affiliates, and permitted assigns, and is willing to extend an offer to rely upon or use this Report (also, "Offer") to the following third parties: (a) the authorized rating agency, (b) prospective bond or other security holders, (c) the trustees of a Trust created to hold the loan, or securities or certificates representing a participation or other interest therein, and (d) the loan servicer, as part of a securitized transaction, as third party beneficiaries of that certain contract between Client and MACTEC made as of July 5, 2005, as amended, (collectively, "Agreement") and this Report (all of the foregoing named in (i) through (d) above, inclusive, individually, "Beneficiary" and, collectively, "Beneficiaries"). The Offer has been, or hereby is, extended to each of you as a Beneficiary as if this Report was prepared for and addressed to you, which said Offer, and your ability to accept the Offer, are expressly conditioned upon (i) the limitations placed on the scope, nature and type of services performed by MACTEC under the Agreement, which are described in the Agreement and this Report, (collectively, "Services") and (ii) your agreement to be bound by the terms and conditions contained in the Agreement and this Report, all of which are incorporated herein by reference. Reliance upon or use of this Report and the contents hereof by you for any purpose whatsoever constitutes acceptance of the Offer and the foregoing conditions to such acceptance and makes you a third party beneficiary of the Agreement and this Report. A copy of the Agreement is available from MACTEC upon request, and certain substantive terms and conditions contained therein are attached to this Report as Attachment "A" for your information, in addition to a limitation of liability that MACTEC might incur as a result of the Agreement, the Services performed by MACTEC under the Agreement ("Services") and the Reports issued by MACTEC pursuant to the Agreement, including this Report ("Limitation of Liability"), as follows:

MACTEC Engineering and Consulting, Inc.

By   
Its Vice President

MACTEC Engineering and Consulting, Inc.

By   
Its Principal

## **EXHIBIT A**

### **Property Condition Surveys:**

Report of Property Condition Survey and Visual Infrastructure Inspection, Naval Region Midwest Family Housing Privatization, Fort Sheridan Naval Housing, August, 2005

Report of Property Condition Survey and Visual Infrastructure Inspection, Naval Region Midwest Family Housing Privatization, Forrestal Village Naval Housing, August, 2005

Report of Property Condition Survey and Visual Infrastructure Inspection, Naval Region Midwest Family Housing Privatization, Halsey and Nimitz Villages Naval Housing, August, 2005

Report of Property Condition Survey and Visual Infrastructure Inspection, Naval Region Midwest Family Housing Privatization, Glenview Naval Housing, August, 2005

Report of Property Condition Survey and Visual Infrastructure Inspection, Naval Region Midwest Family Housing Privatization, Naval Support Activity Crane, August, 2005

### **Phase I's:**

Report of Phase I Environmental Site Assessment, Fort Sheridan, November 1, 2005

Report of Phase I Environmental Site Assessment, NAVSTA Great Lakes, October 31, 2005

Report of Phase I Environmental Site Assessment, Naval Support Activity Crane, November 11, 2005

Report of Phase I Environmental Site Assessment, Former Naval Air Station Glenview, October 31, 2005

Report of Phase I Environmental Site Assessment, NSGA Sabana Seca, December 5, 2005

### **Phase II's:**

Report of Phase II Environmental Site Assessment, Fort Sheridan, December 14, 2005

Report of Phase II Environmental Site Assessment, NAVSTA Great Lakes, December 14, 2005

Report of Phase II Environmental Site Assessment, Naval Support Activity Crane, December 9, 2005

Report of Phase II Environmental Site Assessment, Former Naval Air Station Glenview, December 9, 2005

## **EXHIBIT "B"**

### **Disclaimer and Limitation of Liability (To be included on 1<sup>st</sup> page of each Report)**

This Report is intended for the exclusive use and benefit of Forest City Military Communities, LLC and Forest City Washington, Inc. (collectively, "Client"). However, MACTEC either has extended, or is willing to extend, an offer to rely upon or use this Report ("Offer") to (i) the United States of America, Department of the Navy, (ii) Lehman Brothers, Inc., its successors, affiliates, and permitted assigns, and (iii) the following third parties: (a) the authorized rating agency, (b) prospective bond or other security holders, (c) the trustees of a Trust created to hold the loan, or securities or certificates representing a participation or other interest therein, and (d) the loan servicer, as part of a securitized transaction, as third party beneficiaries of that certain contract between Client and MACTEC made as of July 5, 2005 ("Agreement") and this Report (individually, "Beneficiary" and, collectively, "Beneficiaries"). The Offer is extended to you as a Beneficiary as if this Report was prepared for and addressed to you, which said Offer, and your ability to accept the Offer, are expressly conditioned upon (i) the limitations placed on the scope, nature and type of services performed by MACTEC under the Agreement, which are described in the Agreement and this Report, (collectively, "Services") and (ii) your agreement to be bound by the terms and conditions contained in the Agreement and this Report, all of which are incorporated herein by reference. Reliance upon or use of this Report and the contents hereof by you for any purpose whatsoever constitutes acceptance of the Offer and the foregoing conditions to such acceptance and makes you a third party beneficiary of the Agreement and this Report. A copy of the Agreement is available from MACTEC upon request, and certain substantive terms and conditions contained therein are attached to this Report as Attachment "A" for your information, in addition to a limitation of liability that MACTEC might incur as a result of the Agreement, the Services performed by MACTEC under the Agreement ("Services") and the Reports issued by MACTEC pursuant to the Agreement, including this Report ("Limitation of Liability"), as follows:

**A LIMITATION OF MACTEC'S LIABILITY WAS A MATERIAL CONSIDERATION FOR MACTEC'S WILLINGNESS TO PERFORM THE SERVICES. IN THOSE JURISDICTIONS WHERE REQUIRED, YOU HEREBY ACKNOWLEDGE THAT YOU HAVE RECEIVED SPECIAL CONSIDERATION OF TEN DOLLARS (\$10.00) AND WAIVE ANY AND ALL RIGHTS TO DISPUTE THE RECEIPT AND SUFFICIENCY THEREOF. TO THE MAXIMUM EXTENT PERMITTED BY LAW, CLIENT AND ALL BENEFICIARIES, INCLUDING YOU, EXPRESSLY AGREE, FOR THEMSELVES AND ANYONE CLAIMING BY, THROUGH OR UNDER THEM, THAT THE LIABILITY OF MACTEC, ITS PARENT, SUBSIDIARIES, AFFILIATES AND SUBCONTRACTORS, INCLUDING THEIR RESPECTIVE OFFICERS, DIRECTORS, EMPLOYEES, PRINCIPALS, PARTNERS, AGENTS, SUCCESSORS AND ASSIGNS, ("INDEMNITEES"), FOR ANY AND ALL CAUSES OF ACTION WHATSOEVER, INCLUDING, WITHOUT LIMITATION, TORT, CONTRACT, STRICT LIABILITY, INDEMNITY OR OTHERWISE, ARISING OUT OF, OR IN CONNECTION WITH, ANY PROFESSIONAL SERVICES PERFORMED, AND REPORTS ISSUED, PURSUANT TO THE AGREEMENT (BUT SPECIFICALLY EXCLUDING BODILY INJURY (INCLUDING DEATH), PROPERTY DAMAGE AND ANY OTHER CAUSES OF ACTION ARISING FROM SERVICES WHICH DO NOT INVOLVE THE EXERCISE OF PROFESSIONAL ENGINEERING OR ARCHITECTURAL EXPERTISE, DISCERNMENT, TRAINING OR JUDGMENT), SHALL BE LIMITED TO THE AGGREGATE SUM, INCLUDING AMOUNTS PAID TO CLIENT AND ANY AND ALL BENEFICIARIES, INCLUDING YOU, TO WHOM REPORTS ARE PROVIDED, ATTORNEYS' FEES AND ALL OTHER LITIGATION COSTS AND EXPENSES INCURRED BY MACTEC, IF ANY, OF ONE MILLION DOLLARS (\$1,000,000.00). CLIENT, IN ITS OWN RIGHT AND ON BEHALF OF THE BENEFICIARIES, INCLUDING YOU, TO WHOM IT INTENDED TO PROVIDE, AND IN FACT HAS PROVIDED OR WILL PROVIDE, ANY REPORT FOR RELIANCE, HAS ACKNOWLEDGED AND AGREED THAT (i) IT HAS HAD THE OPPORTUNITY TO NEGOTIATE THE TERMS OF THIS LIMITATION OF LIABILITY AND THAT THE LIMITATION OF LIABILITY AMOUNT MAY DIFFER FROM THE AMOUNT OF PROFESSIONAL LIABILITY INSURANCE REQUIRED OF MACTEC UNDER THE AGREEMENT, AND (ii) THE NEED FOR AND EXISTENCE, IF NOT THE PRECISE IDENTITY, OF THE BENEFICIARIES WAS FORESEEABLE AND KNOWN BY CLIENT.**

**Attachment "A" (To the Report)**

**STANDARD OF CARE.** MACTEC will perform the Services in accordance with the Standard of Care. MACTEC will provide Client with a copy of the applicable ASTM standard(s) upon written request. Except where specified otherwise in MACTEC's proposal, a Phase I ESA and PCS will be a non-invasive survey of the Property that is the subject of the Services. **NO OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE OR INTENDED, AND THE SAME ARE SPECIFICALLY DISCLAIMED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE. AND THE OUTCOME OR RESULT OF ANY CASE OR PROJECT FOR WHICH CONSULTANT MAY BE RETAINED TO PROVIDE FORENSIC SERVICES AND/OR TESTIMONY.**

**OFFER.** Notwithstanding any other provision in this Agreement to the contrary, particularly including, but not limited to, Section 1.07 (a) above, Client acknowledges that the reports to be prepared by MACTEC as a result of the Services performed by it under this Agreement (individually, "Report" and, collectively, "Reports") are intended for the exclusive use and benefit of, and may be relied upon only by, (i) Client, (ii) Lehman Brothers, Inc., its successors, affiliates, and permitted assigns, and (iii) the following third parties: (a) the authorized rating agency, (b) prospective bond or other security holders, (c) the trustees of a trust created to hold the loan, or securities or certificates representing a participation or other interest therein, and (iv) the loan servicer, as part of a securitized transaction. Those parties named in (ii) through (iii) above hereby are specifically made third party beneficiaries of this Agreement and the Reports (individually, "Beneficiary" and, collectively, "Beneficiaries"). In furtherance of the foregoing, MACTEC hereby offers reliance upon and use of the Reports, as aforesaid, to each Beneficiary ("Offer"). Each Beneficiary may accept the Offer by receiving a copy of, and relying upon or otherwise using, a Report.

**ACCEPTANCE OF OFFER.** Owner, Consultant and each Beneficiary agree that receipt, reliance upon or use of the Reports and the contents thereof by a third party for any purpose whatsoever constitutes acceptance of the Offer and the foregoing conditions to such acceptance, and makes that third party a third party Beneficiary of this Agreement and the Reports. Reliance upon or use of the Reports for any purpose whatsoever by an individual or entity which is neither a party to this Agreement, nor a Beneficiary, is entirely at the peril of that individual or entity. Owner and Beneficiaries further acknowledge and agree that the contents of each Report will only reflect MACTEC's findings as to the conditions that existed at the time the Services referenced therein were performed and may be based in part or in whole on facts and/or assumptions provided to, but not verified independently by, MACTEC, and that MACTEC makes no representations or warranties as to the condition of the subject of any Report subsequent to the date on which the applicable Services were performed or with respect to any facts and/or assumptions provided to, but not verified independently by, MACTEC.

**INDIRECT DAMAGES.** Neither MACTEC nor you shall be responsible to the other party or any third party for any indirect or incidental damages (including, but not limited to, loss of use, income, profits, financing or reputation) arising out of or relating to the Agreement, this Report or the performance of the Services that gave rise to this Report.

**NOTICE REGARDING ASSUMPTION OF RISK AND ADDITIONAL SERVICES OPTIONS.** Since a Phase I ESA and a PCS is a survey and not an invasive investigation, and a Phase II ESA is a minimally invasive investigation that utilizes commonly used exploration methods (e.g. drilling, subsurface sampling) to take groundwater, soil and other Samples only in limited areas where the presence of contaminants is suspected, Client understands there is a risk that (i) certain past and present conditions, latent and otherwise, might not be detected and reported by MACTEC and (ii) contamination of previously uncontaminated soils and/or water, including water-bearing strata, which are capable of spreading Contaminants off-site, as well as on-site, might occur even if the Services are performed in accordance with the Standard of Care which is applicable to the Services. Such conditions include, but are not limited to, the presence of UST's that may have been installed and/or removed prior to performing a Phase I or Phase II ESA, short-term uses (generally less than 10 years) that may not be reflected in aerial photographs or other information that is readily available at the time a Phase I ESA is performed, the presence of contamination in areas where it was not suspected at the time a Phase II is performed, or conditions in roofs, buildings and other structures, and various components thereof, that, given the

non-invasive nature of the Services and/or limited visibility or accessibility, are not readily observable at the time a PCS is performed.

Client understands that a PCS is normally performed by a person who possesses a general knowledge of multiple building systems, but is not a specialist in any one of those systems. If Client wishes to have one or more systems surveyed by more experienced personnel, Client has the option to request MACTEC to perform a more extensive PCS, as additional Services, with a corresponding increase in compensation being payable to MACTEC. Also, a façade, invasive, and other special inspection(s) can be performed for roofs, buildings and other structures, and various components thereof, in lieu of a visual survey as additional Services, with a corresponding increase in compensation being payable to MACTEC. If Client does not request such additional Services, Client agrees that MACTEC is in no way liable for any Claims or Liabilities for a condition(s) which such additional Services might have detected. Client agrees that MACTEC is not an insurer or guarantor of the property that is the subject of the Services or the value thereof.

**DAMAGES.** In the event that MACTEC fails to perform in accordance with the Standard of Care which is applicable to the Services, Client agrees that the damages for which MACTEC shall be liable shall be limited to that proportion of damages which is attributable to MACTEC's percentage of fault which, in no event, shall exceed the limitation of liability set forth in Section 1.07 (c) of the Agreement. Further, in the event that MACTEC fails, in either an ESA or a PCS, to correctly report an environmental or deficient condition in violation of the applicable Standard of Care, the liability of MACTEC, and Client's exclusive remedy, for any and all damages which result therefrom is limited to the lesser of (i) the cost to either remedy the deficient condition or (ii) the resultant diminution in value of the Property on which the ESA was performed that is actually realized by Client, but in no event shall MACTEC be liable for the entire cost of replacing the Property or portion thereof that is subject to the deficient condition; provided, in the event that MACTEC has performed a PCS in violation of the applicable Standard of Care and the Property or portion thereof that is subject to the deficient condition cannot be remedied for a reasonable cost, but must be replaced prior to the end of its useful life, as its useful life was represented by MACTEC, the aforesaid liability of MACTEC will be limited to the value of the useful life of the Property or portion thereof for which Client did not receive the benefit of its represented useful life. This value shall be an amount equal to the full replacement cost of that Property or portion thereof, if and when replaced, multiplied by a fraction, the numerator of which is the amount of said useful life which was lost by the premature replacement and the denominator of which is the useful life, as represented by MACTEC, of the replaced Property or portion thereof that was ended prematurely.

## EXECUTIVE SUMMARY

MACTEC Engineering and Consulting, Inc. (MACTEC) was contracted by Forest City Washington to perform a Phase I Environmental Site Assessment on a portion of the Naval Support Activity (NSA) Crane facility located approximately 25 miles southwest of Bloomington, within Martin, Greene and Lawrence Counties, in south-central Indiana, hereafter referred to as the subject site. The site inspection was performed on August 16 and 17, 2005, by Ms. Benita H. Theleen of MACTEC.

The subject site investigation consisted of interviewing people knowledgeable about the site; reviewing environmental regulatory databases; reviewing historical information; and conducting a site assessment. The purpose of this investigation was to identify areas of environmental concern associated with the site.

## PROPERTY DESCRIPTION

The NSA Crane facility is located within three counties in south central, Indiana (Martin, Greene and Lawrence Counties), and is comprised of approximately 62,467 acres (97.6 square miles). An 800-acre man-made lake, Lake Greenwood, is located within the boundaries of NSA Crane. The following subject property consists of 29 single-family residences at NSA Crane. The single family residences are located in the Greenwood Shores community including A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U and BB: The residences also include Farmhouses 2, 3, and 5; and Quarters X, Y, W, and Z located outside of Greenwood Shores on other parts of the facility.

MACTEC has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-00. This assessment has revealed no evidence of the recognized environmental conditions in connection with the subject property except for the following:

- Sand-filled heating oil underground storage tanks are situated exterior to each of the houses on the subject property with the exception of the Quarters K, Q, and Z; and Farmhouses 2 and 5. The tanks were installed in 1941 to fuel the residential heating systems. The vent pipe remains at each house where a UST was abandoned-in-place. It is likely that USTs were also in use at Quarters K and Q at Greenwood Shores, based on the common date of construction for the housing. No information was provided indicating any soil testing was performed at the time the USTs were closed. (Section 6.4).
- Elevated levels of lead in soils were found at Quarters W where a gasoline spill was suspected. The soil testing was performed in 1997 (Section 8.3).

The following items are considered a potential recognized environmental condition that was identified during the course of the Phase I ESA:

- Based on the age of the buildings at Greenwood Shores; Farmhouses 2, 3, and 5; Quarters X, Y, W, and Z, it is possible that mercury switches and PCB-containing light ballasts and/or fluorescent lighting exist at the subject property (Section 6.3).

The following items pertain to off-site locations at NSA Crane, Indiana:

- NSA Crane was identified on the regulatory database report as a large quantity generator of RCRA hazardous waste, a CORRACTS (Corrective Action Site), a registered underground storage tank (UST) facility, and a reported leaking UST facility. According to documents reviewed, 34 Solid Waste Management Units (SWMUs) exist on the base. The SWMUs appear to be situated at a distance from the subject property that should reduce the risk of environmental impact from these sites (Section 3.2).

The following items, while not considered to be a recognized environmental condition as defined by the ASTM E 1527-00, may pose a financial or other impact to the subject site:

- Based on MACTEC's site reconnaissance, water intrusion was observed in basements at Quarters F, K, I, S, R, W, and M. On the day MACTEC visited the subject site, heavy precipitation was occurring. MACTEC viewed evidence of past water intrusion in Quarters H although the basement was dry at the time of the site visit. Microbial growth (what appeared to be mold) was observed in the cellar of Quarters F and on the basement wall and in the cellar in Quarters M (Section 8.11).
- Based on past asbestos surveys and the date of construction of the housing, it is likely that asbestos-containing materials are present at the subject property. MACTEC is currently completing a comprehensive asbestos survey. Results to-date indicate that asbestos-containing materials consisting mainly of transite sheet siding beneath the existing vinyl siding and linoleum flooring with underlying mastic are present in the housing. MACTEC observed a small amount of transite debris adjacent to the garage building at Farmhouse 2 (Section 8.3).
- According to the lead-based paint survey prepared in June of 1997 and the 2005 risk assessment, lead-based paint was identified in various interior locations at the Greenwood Shores houses and in two samples of lead dust at Greenwood Shores; and on exterior surfaces at Greenwood Shores and the Farmhouses 2, 3, and 5; and Quarters W, X, Y, and Z. The April 2005 awning survey results indicated a lead hazard in the exterior lead-based paint (Section 8.3).
- NSA Crane has a general moratorium on the removal of trees from April 15 through September 15 for the protection of the Federally-listed Endangered Indiana Bat. There is also a prohibition involving impact to air space over housing due to the potential effect to the Federally-listed Threatened Bald Eagle (Section 8.9).

## 1.0 INTRODUCTION

### 1.1 Purpose

MACTEC Engineering and Consulting, Inc. (MACTEC) was contracted by Forest City Washington to perform a Phase I Environmental Site Assessment of the subject site located on a portion of the Naval Support Activity (NSA) Crane facility located approximately 25 miles southwest of Bloomington, within Martin, Greene and Lawrence Counties, in south-central Indiana, hereafter referred to as the subject site. The subject site is comprised of 29 houses located in Greenwood Shores, Farmhouse 2, Farmhouse 3, Farmhouse 5, and Quarters X, Y, W, and Z. The site location and vicinity maps are presented in Appendix A. MACTEC performed the site inspections on August 16 and 17, 2005. The purpose of the Phase I Assessment was to identify areas of environmental concern associated with the subject site.

### 1.2 Scope of Work

MACTEC conducted the activities as stated in the following scope of work requested by Forest City Washington with reference to ASTM International's Standard Practice E 1527-00, "*Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*" (E1527-00) and Exhibit A – Scope of Work and Description of Services in the Agreement between Forest City and MACTEC dated July 5, 2005. This work was completed to search for areas of environmental concern associated with the subject site.

#### 1.2.1 On-Site Inspection

- a. MACTEC conducted an on-site inspection of the subject site that consisted of personnel interviews and visual observations to identify readily apparent potential sources of environmental liability.
- b. MACTEC searched for information from readily available sources regarding mercury in fluorescent lamps and switches and potential polychlorinated biphenyls (PCB)-containing light ballasts.
- c. MACTEC conducted an on-site inspection to visually identify transformers, capacitors, or other electrical equipment likely to contain polychlorinated biphenyls (PCBs). MACTEC determined if transformers/capacitors were leaking, and attempted to determine their ownership.
- d. MACTEC visually searched for aboveground storage tanks (ASTs), underground storage tanks (USTs), and associated piping.

- e. MACTEC reviewed environmental documentation files, historical information, and records made available to assist in identifying potential environmental liabilities associated with the subject site.
- f. MACTEC collected photographic documentation of significant environmental features of the subject site.

### **1.2.2 Inspection of Surrounding Land**

MACTEC conducted a visual inspection of surrounding land to identify observable potential environmental threats due to adjacent land use. MACTEC conducted the inspection from the subject site and did not enter other private properties.

### **1.2.3 Site History**

- a. MACTEC interviewed knowledgeable people, including current and previous owners/operators, where feasible, to determine past and present uses of the subject site.
- b. MACTEC reviewed historical aerial photographs from at least three different time periods.
- c. MACTEC searched for Sanborn Fire Insurance maps to assist in determining the past uses of the subject site.
- d. MACTEC reviewed the United States Department of Interior, 7.5 minute series, Topographic Map for the appropriate quadrangle to assist in determining past uses of the subject site.

### **1.2.4 Regulatory Review**

- a. MACTEC contracted Environmental Data Resources, Inc. (EDR) to complete a review of the following government regulatory databases for the specified search distances. Due to the size of the subject site, MACTEC requested that the search radii be extended 1.0-miles beyond the required distances listed below for each of the databases searched. Since the search radii presented in the EDR report extend from approximately the center of the subject site, some of the listed facilities are not accurately described within the EDR report.

Registered Underground Storage Tanks (USTs)	3 mile
Leaking Underground Storage Tanks (LUSTs)	2 mile
National Priority List (NPL)	1 mile
State Hazardous Waste Sites (SHWS)	1 mile
Category List (CAT) (State Equivalent NPL)	1 mile
Site Remediation Program Database (SRP)	2 mile
Comprehensive Environmental Response	
Compensation Liability Information System (CERCLIS)	2 mile
CERCLIS-No Further Remedial Action Planned (NFRAP)	3 mile

Solid Waste Facilities/Landfill Sites (SWF/LF)	2 mile
Resource Conservation and Recovery Act (RCRA)	
- Generators	2 mile
- Treatment, Storage and Disposal (TSDs) Facilities	2 mile
- Corrective Action Report (CORRACTS)	1 mile
Emergency Response Notification System (ERNS)	Subject Site

A description of each database is provided in Section 3.0 of this report.

- b. MACTEC contacted state and local agencies through formal freedom of information act letters and by telephone to search for information related to environmental files of the subject site.
- c. MACTEC contacted the State Historic Preservation Office, the Illinois Department of Natural Resources, and the United States Department of Agriculture Fish and Wildlife Service for information related to landmark/historic designations and threatened/endangered species at the subject site.

### 1.2.5 Non-ASTM Additional Issues

MACTEC attempted to obtain and review readily available information regarding each of the following non-ASTM additional issues:

- a. Radon testing;
- b. Contaminants in drinking water;
- c. Preliminary lead-based paint and asbestos assessments and provide summary information in the final report;
- d. Possible unexploded ordnance (UXO) on the subject property;
- e. Pesticide use;
- f. Wetlands;
- g. Cultural and archeological resources;
- h. Historical resources;
- i. Threatened and endangered species;
- j. Existing storm water management plans;
- k. Existing indoor air quality information including but not limited to mold;
- l. Spill Prevention Control and Countermeasure (SPCC) Plans;
- m. Other environmental permits (such as National Pollution Discharge Elimination System [NPDES]); and
- n. Development restrictions due to coastal zones.

### 1.2.6 Sample Collection

No samples of water, air, or soil were collected or analyzed as part of this Assessment.

### 1.2.7 Data Evaluation and Report

MACTEC evaluated and summarized background information obtained during the subject site inspection, historical review, and regulatory review. MACTEC prepared this report to discuss significant information and provide conclusions.

### **1.3 Special Terms and Conditions**

Unless otherwise stated, the material presented in this report is based on information provided from observations made during the on-site inspections on August 16 and 17, 2005.

This report has been prepared by MACTEC for the exclusive use of Forest City Washington, as it pertains to the subject site, NSA Crane, located in Martin, Greene, and Lawrence Counties in Indiana. Our professional services have been performed using that degree of care and skill ordinarily exercised under similar circumstances by other geologists and engineers practicing in this field. No other warranty, express or implied, is made as to the professional advice in this report.

MACTEC can offer no assurances and assumes no responsibility for site conditions or activities outside the scope of the inquiry requested by Forest City Washington as outlined in this document. It should be understood by Forest City Washington that MACTEC has relied on the accuracy of documents, oral information, and other materials and information provided by Forest City Washington, the Navy and other associated parties. It is recognized that regulatory requirements may change, including the revision of accepted action levels, which could necessitate a review of the discussion, findings, or conclusions of this report. Any subsequent modification, revision or verification of this report must be provided in writing by MACTEC.

### **1.4 Limitations and Exceptions**

Since the use of the subject site had not changed over long periods of time, research of the history during those periods was conducted by reviewing materials available at greater than the ASTM specified five year intervals.

## 2.0 PROPERTY DESCRIPTION

### 2.1 Property Location

The portion of NSA Crane which comprises the subject property totals 29 residential housing units including 22 single family residences, Quarters A through U and BB in Greenwood Shores. Greenwood Shores is a residential community located in the northwestern portion of NSA Crane on the south shore of Lake Greenwood. Also included in the subject site are seven residential housing units identified as Farmhouse 2, Farmhouse 3, and Farmhouse 5, and Quarters W, X, Y, and Z. Farmhouses 2 and 3 are located east of Highway 45 in the western portion of NSA Crane near the Burns City Gate; and Farmhouse 5 is located on Highway 45 outside of the NSA Crane facility, immediately west of the Bloomington Gate. Quarters W and Z are located to the west of Greenwood Shores and Quarters X and Y are located to the east of Greenwood Shores.

The subject site is located in south central Indiana in northern Martin County, with small portions of land in Greene and Lawrence Counties. NSA Crane is approximately 25 miles southwest of Bloomington, Indiana (Figure 1, Figure 2, and Figure 3).

### 2.2 Property and Vicinity General Characteristics

The subject site is developed with residential housing described in the following paragraphs. Refer to the Figures for building configuration and Appendix B for site photographs.

#### Greenwood Shores

The 21.65-acre portion of the Greenwood Shores community which comprises the subject property consists of 22 single family residences. The houses were constructed in 1941 and include Quarters A through U and BB. Quarters J, K, L, M, N, O, P, Q, R, S, T, and U are two-story single family residences. Each three-bedroom house totals approximately 2,330 square feet and includes a basement and a detached garage. The houses are constructed with a side-gabled roof with aluminum siding and a stone veneer. Quarters H, B, BB, C, D, E, F, G, H, and I are 1.5-story single family residences. Each four-bedroom house totals approximately 2,956 square feet and includes a basement and a detached garage. Quarters A is a two-story single family residence. The six-bedroom house totals 5,483 square feet and includes a basement and detached garage. Greenwood Shores is situated at the south side of Lake Greenwood at the northwestern portion of NSA Crane.

### Farmhouses 2, 3, and 5

The farmhouses are each two-bedroom single family residences. Farmhouses 2 and 3 are located near the Burns City Gate. Farmhouse 5 is located outside and immediately west of the Bloomington Gate. The Farmhouse 2 property totals 0.77-acres. The Farmhouse 2 building totals approximately 1,032 square feet and has a detached garage. The one-story farmhouse was reportedly constructed circa 1880 to 1900 and acquired by the Navy in 1943. The house is constructed with a side-gabled roof with vinyl siding and some wood siding; and an enclosed porch. The Farmhouse 3 property totals 0.82-acres. The Farmhouse 3 building totals approximately 2,576 square feet and includes a basement and a detached garage. The two-story farmhouse was reportedly constructed circa 1925 to 1935. The building was acquired by the Navy in 1944. Farmhouse 3 is constructed with a front-gabled roof and vinyl siding. The Farmhouse 5 property totals 2.02-acres. The Farmhouse 5 building totals approximately 1,790 square feet and includes a basement and detached garage. The 1.5-story farmhouse was acquired by the Navy in 1941. The exact date of construction is unknown. The house is constructed with a cross-gabled roof and vinyl siding. The farmhouses are scheduled for demolition.

### Quarters X and Y

Quarters X and Y are located approximately 1,000 feet south of Building 122 in the north-central portion of NSA Crane. Quarters X and Y total 1.55-acres of property. Quarters X is a one-story single family residence constructed in 1944. The 1,600 square foot house includes a basement and detached garage. The house is constructed with a front-gabled roof with aluminum siding. Quarters Y is a one-story single family residence constructed in 1938. The 1,856 square foot house includes a basement and a detached garage. The house is constructed with a side-gabled roof with aluminum siding. Quarters X and Y are scheduled for demolition.

### Quarters W

Quarters W is located west of Greenwood Shores. The property totals 0.92-acres. The two-story single family home was constructed in 1944. The house was used as a duplex residence for a period of time and currently houses one family. The 2,593 square foot house includes a detached garage and a basement. Quarters W is constructed with a front-gabled roof with vinyl siding.

### Quarters Z

Quarters Z is located west of Greenwood Shores. The property totals 0.60-acres. The one-story single family residence was constructed in 1938. The house totals approximately 1,937 square feet and includes a basement and detached garage. The house is constructed with a side-gabled roof with aluminum siding.

The houses are heated via natural gas-fired furnaces and cooled by electrically-powered pad-mounted air conditioning units. The heating system for the houses was originally fueled by heating oil. Refer to Section 6.4 for additional information.

### **2.3 Current Use of Property**

The subject site is developed for residential use.

### **2.4 Property Improvements**

The subject site is improved with sanitary sewer system operated and maintained by the NSA Crane. The potable water system is operated and maintained by the NSA Crane and utilizes surface water from Lake Greenwood. Natural gas is provided by Vectren of Dayton Ohio. Electrical transformers at the subject property are owned and maintained by the Navy and the electricity is provided by PSI Synergy (Public Service Indiana recently merged with Synergy). The heating systems for the residences at the subject site are currently fueled by natural gas. The heating systems were previously fueled by heating oil (refer to Section 6.4). Pad-mounted air conditioning units are present at each residence. The air conditioning units are electrically-powered.

### **2.5 Current Uses of Adjoining Properties**

The subject property is situated within the approximately 62,467 acres (97.6 square miles) NSA Crane facility. NSA Crane operates primarily as a weapons engineering center. Land uses throughout the installation include housing, warehouse, operations, maintenance, high technology operations (ordnance and electronic functions), administrative functions, medical, and open space (Environmental Baseline Survey, May 2004).

MACTEC conducted a visual inspection of surrounding land to identify observable potential environmental threats due to adjacent land use (refer to the Site Plan in Appendix A). MACTEC conducted the inspection from the subject property and did not enter other private properties. The areas surrounding the housing were forested vacant land, roadway, and/or Lake Greenwood. Lake Greenwood is located to the north of Greenwood Shores, Quarters W, and Quarters Z. Quarters X and Y are located approximately 1,000-feet south of Building 122, listed as the Flare Assembly Building.

### **3.0 ENVIRONMENTAL RECORD SOURCES**

The purpose of the record review is to obtain and review records that will help identify recognized environmental conditions in connection with the subject site.

MACTEC reviewed excerpts of federal, state, and local environmental regulatory agency lists for those properties within the search ranges as noted in the excerpts prepared by Environmental Data Resources, Inc. (EDR). EDR revises their lists periodically when they receive updates from the appropriate agencies. The date of the latest revision is shown on their report, which is appended to this report in Appendix A as *The EDR-Radius Map with GeoCheck®*. The EDR report also summarizes the origin and purpose of each list. Due to the size of the subject site, MACTEC requested that the search radii be extended 1.0-mile beyond the referenced required distances for each of the databases searched. Since the search radii presented in the EDR report extend from approximately the center of the subject site, some of the listed facilities are not accurately described within the EDR report. It should be noted that four separate database reports were obtained for NSA Crane. The reports were divided, as follows: Greenwood Shores, Quarters W and Z, Farmhouses 2 and 3, and Farmhouse 5. The EDR reports are attached in Appendix C.

Please note that regulatory listings are limited and include only those sites that are known to the regulatory agencies at the time of publication to be contaminated or otherwise regulated under environmental laws or that are in the process of evaluation for potential contamination.

It should be noted that evaluations in this section include a consideration of the anticipated groundwater flow direction discussed in Section 4.2 of this report.

#### **3.1 Standard Environmental Record Sources**

##### **ENVIRONMENTAL PROTECTION AGENCY (EPA) NATIONAL PRIORITIES LIST (NPL), dated 04/28/05**

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) established the National Priorities List (NPL) of federal "Superfund" sites. This list identifies Superfund sites that have been designated as national priority clean-up sites and targeted for immediate action due to their high assigned ranking, in terms of potential public health effects, by the EPA.

- The subject site does not appear on the NPL list.
- There are no NPL-listed facilities within a 1-mile radius of the subject site.

**EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY INFORMATION SYSTEM (CERCLIS), dated 02/15/05**

The CERCLIS lists and identifies suspected contamination sites throughout the nation; CERCLIS contains information on sites identified by the U.S. EPA as known or suspect abandoned, inactive, or uncontrolled hazardous waste sites which may require cleanup.

- The subject site does not appear on the CERCLIS list.
- Crane Naval Surface Warfare Center Crane Division is listed as a CERCLIS facility. The EDR report listed NSWC Crane as an 'orphan' site or unmappable site due to poor or inadequate address information. No additional information was provided in the EDR report regarding the NSWC Crane facility CERCLIS status. Refer to Sections 3.2 and 5.5 for additional information.

**EPA CERCLIS-NFRAP, dated 03/22/05**

As of February 1995, the CERCLIS No Further Remedial Action Planned (NFRAP) list identifies sites that have been removed from CERCLIS. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to aid cities, states, private investors, and affected citizens to promote economic redevelopment of unproductive urban sites.

- The subject site does not appear on the CERCLIS-NFRAP list.
- There are no CERCLIS-NFRAP-listed facilities identified within a ½-mile radius of the subject site.

**RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM (RCRIS), dated 03/13/05**

**RCRIS NOTIFIERS LIST** is an EPA database of facilities that generate and/or transport hazardous waste. This list also serves to track the status of hazardous waste treatment, storage, and/or disposal (TSD) facilities regulated under RCRA.

- The subject site does not appear on the RCRIS list as a generator facility.
- Crane Naval Surface Warfare Center Crane Division is listed as a RCRA Large Quantity hazardous waste (LQG) generator. The EDR report listed NSWC Crane as an 'orphan' site or

unmappable site due to poor or inadequate address information. No additional information was provided in the EDR report regarding the NSWC Crane facility RCRA LQG status. Refer to Sections 3.2 and 5.5 for additional information.

- There were no additional LQG or small quantity hazardous waste generators (SQG) identified within the ½-mile radius of the subject property.
- Crane Naval Surface Warfare Center Crane Division is listed as a Treatment, Storage and Disposal (TSD) facility. The EDR report listed NSWC Crane as an 'orphan' site or unmappable site due to poor or inadequate address information. No additional information was provided in the EDR report regarding the NSWC Crane TSD facility status. Refer to Sections 3.2 and 5.5 for additional information.

#### **CORRECTIVE ACTION REPORT (CORRACTS), dated 03/29/05**

The CORRACTS list identifies hazardous waste handlers with RCRA corrective action activity.

- The subject site does not appear on the CORRACTS list.
- Crane Naval Surface Warfare Center Crane Division is listed as a CORRACTS facility. The EDR report listed NSWC Crane as an 'orphan' site or unmappable site due to poor or inadequate address information. No additional information was provided in the EDR report regarding the NSWC Crane CORRACTS status. Refer to Section 5.5 for additional information.
- There are no additional CORRACTS-listed facilities reported within a 1-mile radius of the subject site.

#### **EPA EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS), dated 12/31/04**

The ERNS list is a national database used to collect information on reported releases of oil and hazardous substances.

- The subject site does not appear on the ERNS list.
- Four ERNS incidents are listed for Crane NSWC. One incident is listed at Building 69 and three incidents are listed at 300 Highway 361. Quarters A in Greenwood Shores is located at 301 Highway 361. No information was provided regarding the ERNS incident. No visual evidence of a spill was observed in the area of Quarters A at Greenwood Shores. ERNS listed spills are typically small. Significant spills appear on other regulatory lists. The ERNS incidents are not expected to pose an environmental risk to the subject site.

#### **STATE LANDFILL LIST (SWF/LF), dated 04/18/05**

Lists of active and inactive landfills, artificial fills, and disposal sites are maintained by the Indiana Department of Environmental Management (IDEM). The landfill listing does not include unpermitted landfills or dumps.

- The subject site does not appear on the landfill list.
- Crane Naval Surface Warfare Center Landfill is listed as a SWF/LF facility. The EDR report listed NSWC Crane as an 'orphan' site or unmappable site due to poor or inadequate address information. No additional information was provided in the EDR report regarding the NSWC Crane SWF/LF status. The landfill is currently in operation at NWSC Crane. Refer to Section 5.5 for additional information.

#### **LEAKING UNDERGROUND STORAGE TANK (LUST) LIST, dated 03/14/05**

The Leaking Underground Storage Tank list is a listing of UST systems within the State of Indiana, which have reported releases of UST contents. This list is maintained by IDEM.

- No LUST incidents at the subject property were identified on the EDR report.
- One LUST incident is listed at U.S. Navy, NSWC Crane. The EDR report listed NSWC Crane as an 'orphan' site or unmappable site due to poor or inadequate address information. No additional information was provided in the EDR report regarding the NSWC Crane LUST status. Refer to Sections 2.3 and 5.5 for additional information.

#### **REGISTERED UNDERGROUND STORAGE TANK (UST) LIST, dated 03/14/05**

The Registered Storage Tank List is a listing of underground storage tank systems, which are registered with IDEM.

- The subject site was not identified on the UST list.
- One registered UST facility is identified at NSWC Crane on the EDR report. The EDR report listed NSWC Crane as an 'orphan' site or unmappable site due to poor or inadequate address information. No additional information was provided in the EDR report regarding the NSWC Crane registered UST status. Refer to Sections 2.3 and 5.5 for additional information.

#### **STATE HAZARDOUS WASTE SITE (SHWS) INVENTORY LIST, dated 03/16/05.**

The State HWS inventory is a list of sites other than LUST sites within the Releases database. The State HWS list is maintained by IDEM.

- The subject site does not appear on the SHWS list.
- There were no SHWS facilities identified within the 1-mile search distance of the subject site.

Orphan Summary

The Orphan Summary list consists of sites with poor address quality, usually without zip code information. However, if street addresses are available, these site locations are checked against the known vicinity of the subject site to evaluate if they are located within the applicable ASTM search distance.

Nine listings appear on the orphan list. Of these sites, eight listings identify NSWC Crane including four ERNS incidents, one LUST/UST, and one CERCLIS, RCRA-LQG, RCRA-TSD, and CORRACTS report. These listings are described in the appropriate sections above. The one remaining orphan or unmapped site GTE North, Inc. appears to be outside the required search distance of the subject site. The NSWC Crane listings appear to be outside the required search distance of the subject site and therefore are not considered to be a recognized environmental concern to the subject site.

**3.2 Freedom of Information Act Requests**

MACTEC contacted applicable government agencies requesting available information regarding the subject site. The status of those requests is summarized in the following table:

Agency	Contact Person	Date Contacted	Information Provided
Indiana Department of Environmental Management (IDEM)	FOIA Coordinator	05/25/05	~214 inches of documents found. MACTEC conducted an onsite file review at the Agency.

The following documents were provided by IDEM, after a review of their Air, Water, RCRA, and UST files. Copies of IDEM files were copied and provided to MACTEC. The summary below includes documents which pertained to facilities or activities within close proximity (less than one mile) of housing units are listed here. A complete list of documents reviewed is included in Section 13, References.

Air

- The Part 70 Operating Permit, Operation Permit No.: T101-7341-00005, issued by IDEM Office of Air Quality, indicates the presence of a carpentry shop in Building 56, which is within close proximity of the Lakeside Housing. Particulate generated in the shop is controlled by a cyclone which exhausts to atmosphere via a stack.

- Information provided to IDEM regarding the installation of a Fuel Cell Power Plant included an orientation map illustrating the project location, excess earth disposal location, and solid fill disposal location. The solid fill disposal location is shown within close proximity of House W. *The nature of the fill being disposed is not known. However, the area is reported to be approximately 2,000 feet south of Quarters W. Based on the distance of the SWMU from the housing, the SWMU is not likely to environmentally impact the subject property.*
- The Title V/FESOP Annual Compliance Certification Review for certification year 2002 indicates intermittent compliance for D.3.4 (Visible Emissions Notations) and D.3.7 (Record Keeping Requirements) under Section D.3 – Carpentry. The report dates are listed as April 25, 2002, and January 24, 2003. Intermittent VE record keeping is noted. *The exact nature and severity of the non-compliance is not known. The Deviation reports which provide further explanation were not included in the packet provided by IDEM, although they are referenced in the Crane Division Annual Compliance Certification letter, dated March 5, 2003.*

### RCRA

- A *Work Plan for Base-Wide Background Soil Investigation*, dated May 1999, noted the existence of various Solid Waste Management Units (SWMUs). SWMU No. 29/07, PCP Dip Tank, is shown to be within close proximity of the Lakeside Housing. In addition, SWMU Nos. 23/00, Battery Shop, and 17/04, PCB Burial/Pole Yard, are potentially within close proximity to the Lakeside Housing. Presumed contaminants of potential concern (metals only) are listed as arsenic, beryllium, cobalt, and lead for No. 23/00. Contaminants of concern were not available for the other SWMUs. *Based on information provided by Mr. Thomas Brent, Crane Division, NSWC Crane, the PCP Dip Tank was located approximately 1,000-feet east of Greenwood Shores and is not expected to pose an environmental risk to the housing community.*

SWMUs Nos. 33/00, Composting Unit (Bioremediation Facility), 14/00, Sanitary Landfill/Lithium Battery, and 30/00, Landfarm, are potentially within close proximity to Houses #2 and #3. Presumed contaminants of potential concern are barium, magnesium, and lithium for No. 14/00 and barium, cadmium, and chromium for No. 30/00. Contaminants of concern were not available for the other SWMU. *Farmhouses 2 and 3 are scheduled to be torn down. Based on information provided by Mr. Brent, the Bioremediation facility was located approximately 6,000 feet from Farmhouse 3 and is no longer in operation. Based on the distance of the SWMU from the subject property, the potential risk to the housing appears to be low.*

Also, SWMU Nos. 32/00, Tank Farm, and 05/03, Old Burn Pit, are potentially within close proximity to House Z. Presumed contaminants of potential concern are antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, mercury, nickel, selenium, silver, thallium, and zinc for No. 05/03. Contaminants of concern were not available for the other SWMU.

*The exact locations of these SWMUs could not be determined from the document; however, based on information provided by Mr. Thomas Brent, the tank farm was located approximately 3,000 feet northwest of Quarters Z (the tank farm was removed in 1997). Based on the distance from Quarters Z and the presumed hydraulic gradient, this SWMU does not appear to pose an environmental risk to the subject property.*

- A draft *Environmental Monitoring Report for the Tank Farm* was prepared in September 2000, which indicated that all tanks, some contaminated soil and water, and all concrete barriers had been removed from the tank farm site. However, the report concluded that the site cannot be considered clean and

requires further characterization. *The tank farm was located northeast of House Z, approximately 3,000 feet. The report indicates that surface drainage trends to the south and southwest.*

- Letter from IDEM approved the *Interim Measures Work Plan* and the *General Project Plan* for SWMUs 14/00 and 17/04. Excavation of SWMU 14/00 was scheduled to begin in July 1995. Removal of PCB capacitors from SEMU 17/04 was scheduled to begin in August 1995. *Based on information provided by Mr. Brent, the PCB-Pole Yard is located approximately 3,000 feet south of the Greenwood Shores community.*
- The *Work Plan and Task-Specific Site Safety and Health Plan for Interim Measures Cleanup at Solid Waste Management Units #23/00, #25/07D, and #26/08D* provides a historical description of dumping activities at this SWMU. The report indicates that, between 1940 and 1975, approximately 2,000 gallons per year of battery acid was discharged onto a bank behind the Battery Shop, Building B-36. Other materials were dumped at this site, including concrete 55-gallon drums, cans, oil filters, and tires. A small stream flows through the ravine. *The direction in which the stream runs and the location of the stream discharge are not known. The battery dump site is reportedly located approximately one mile east of the Greenwood Shores community.*
- The *Quality Assurance Project Plan for RCRA Corrective Action Interim Measures at Naval Surface Warfare Center Crane*, dated December 29, 1995, provides a current status of SWMUs, including SWMU 14/00, Sanitary Landfill and Lithium Battery Disposal Area. This SWMU is potentially within close proximity of Houses #2 and #3. The report indicated that approximately 20 lithium batteries would be excavated from the disposal area and the surrounding soil would be analyzed. Soil containing concentrations of constituents above cleanup levels would be excavated. *It is not known what work was completed. Farmhouses 2 and 3 are scheduled to be torn down. The SWMU is reported to be approximately 2,000-feet from the Farmhouses. Based on the distance of the SWMU from the housing, it is not likely to environmentally impact the Farmhouses.*

This report also provides a status for SWMRU 17/04, PCB Capacitor Burial/Pole Yard. This SWMU is potentially within close proximity of the Lakeside Housing. The three PCB capacitors were buried here were planned to be excavated and surrounding soil sampled and analyzed. *It is not known what work was completed. The PCB Pole Yard is located approximately 3,000-feet south of the Greenwood Shores Community Based on the anticipated hydraulic gradient and the distance from the housing, this SWMU is not expected to pose an environmental risk to the housing.*

This report also provides a status for SWMRU 23/00, Battery Shop. This SWMU is potentially within close proximity of the Lakeside Housing. Soil samples were planned for this area. *It is not known what work was completed. The battery shop is located approximately one-mile east of the housing. Based on the distance of the SWMU from the housing, the SWMU is not likely to pose an environmental risk to the housing. .*

#### USTs

- *Notification for Underground Storage Tanks* form, completed in May 1996, indicates USTs located adjacent to Buildings 5 and 12, among others. These buildings are potentially within close proximity to the Lakeside Housing. Both tanks contain #2 Fuel Oil. The tanks are 9 and 12 years in age at this time, respectively. *No known issues with these tanks are listed. There is no known spill history for these tanks.*
- *Notification for Underground Storage Tanks* form, completed in July 1996 indicates a UST located adjacent to Building 200. This building is potentially within close proximity to Houses #2 and #3;

however, the building is not shown on available drawings. The tank contains diesel fuel. The tank is listed as new at this time. *No known issues with this tank are listed. There is no known spill history for this tank.*

- *Underground Storage Tank Closure Notification Form*, completed in September 1992, indicates a UST located adjacent to Building 7, which is located across the street from Building 56. This building is potentially within close proximity to the Lakeside Housing. The tank contains waste oil. The tank is 45 years old at this time. *No known issues with this tank are listed. There is no known spill history for this tank. Building 7 is not shown on the maps that were provided.*

### 3.3 Threatened and Endangered Species

MACTEC contacted the US Fish and Wildlife Service and the Indiana Department of Natural Resources to request a database search for listed threatened and endangered species at NSA Crane.

Agency	Contact Person	Date Contacted	Information Provided
Indiana Department of Natural Resources (IDNR)	Mr. Ronald P. Hellmich, Indiana Natural Heritage Center	06/07/05	Additional information was requested and a second request was submitted on 6/16/05.
US Fish and Wildlife Service	Scott E. Pruitt, Field Supervisor	06/07/05	See below

The Indiana DNR response, dated June 14, 2005, indicated that the Indiana Natural Heritage Data Center was checked and enclosed the results. Refer to Appendix E for a copy of the Threatened and Endangered species listing.

The US Department of the Interior Fish and Wildlife Service indicated that there are no significant wetlands at the subject site and that the proposed project will not affect any federally endangered species. The US Department of the Interior Fish and Wildlife Service has no objections to the project as currently proposed.

MACTEC conducted an internet search to identify Federally-listed Threatened and Endangered species for the State of Indiana. There are 27 listings for the State of Indiana (23 animals and 4 plants), as follows: Bat, gray (Endangered); Bat, Indiana (Endangered); Blossom, tubercled (pearly mussel) (Endangered); Butterfly, Karner blue (Endangered); Butterfly, Mitchell's satyr (Endangered); Catspaw, white (pearly mussel) (Endangered); Clubshell Entire Range (Endangered); Eagle, bald (Threatened);

Fanshell (Endangered); Mucket, pink (Endangered); Pearly mussel (Endangered); Pigtoe, rough (Endangered); Pimpleback, orangefoot (pearly mussel) (Endangered); Plover, piping (Threatened); Pocketbook, fat (Endangered); Puma (Endangered); Rifleshell, northern (Endangered); Snake, copperbelly water (Threatened); Tern, least interior (Endangered); Wartyback, white (pearly mussel) (Endangered); and Wolf, gray (Threatened). The four plants listed are Milkweed, Mead's (Threatened); Thistle, Pitcher's (Threatened); Goldenrod, Short's (Endangered); and Clover, running buffalo (Endangered).

Refer to Section 8.9 for a review of existing information regarding Threatened and Endangered Species.

## **4.0 PHYSICAL SETTING SOURCES**

### **4.1 Topographic Map**

The Indian Springs, Indiana Quadrangle and Koleen, Indiana Quadrangle, U.S. Geological Survey, 7.5 minute, Topographic Maps were reviewed for the subject site. The topographic maps for NSA Crane are dated July 1, 1990. The map shows the subject site as forested land. Lake Greenwood is visible to the north of Greenwood Shores. The topography of NSA Crane consists of steeply sloped, undulating terrain dissected by many small streams. The subject site is situated at an elevation which ranges from approximately 470 feet above mean sea level along Boggs Creek in the south central portion to approximately 860 feet above mean sea level at the eastern boundary of the base. Higher elevations and greater relief generally occur in the eastern portion of NSA Crane. Refer to Figure 1 in Appendix A.

### **4.2 Geologic, Hydrogeologic, and Hydrologic Conditions**

The underlying bedrock at NSA Crane is comprised of lower Pennsylvanian and upper Mississippian age sandstones, limestones, and shales. The Chester Formation of Mississippian age rock is exposed within deeply incised valleys and ravines at NSA Crane. The Pennsylvanian age Mansfield Formation (consisting of sandstone, siltstone, claystone, and shale) is found at the crests of hills and ridges in the eastern portion of the installation, and forms the surficial bedrock material of the western portion of the NSA Crane. Caves, shafts, and sinkholes occur primarily in the eastern portions of the facility, where Mississippian age limestones are found near the surface. The remainder of the installation is underlain by Pennsylvanian age massive sandstone and evenly bedded limestones, shales, and coal. Deposits of coal are relatively abundant and are evident in northeastern and southeastern portions of the installation (Comarco Systems, Inc., 2001).

Four types of soils occur at NSA Crane: Wellston-Gilpin Association, Wellstone-Berks-Gilpin Association, Wellston-Berks-Ebal Association, and Wekeland-Wilbur-Haymond Association. The Wellston-Gilpin Association occurs primarily on the western half of the installation and consists of deep and moderately deep, gently sloping to very steep, well-drained soils.

The soils located at the subject property are identified within the Wellston-Gilpin Association. The soils are approximately 60 percent Wellstone soil and 30 percent Gilpin soil. The surface layer is typically very dark, grayish brown channery silt loam, about four inches thick. The subsoil is about 27 inches thick. Available water capacity is high in the Wellston soil and low in the Gilpin soil. Permeability is

moderate in both soils and surface runoff is medium. These soils are well suited to trees (U.S. Department of Agriculture, 1988).

NSA Crane has no major rivers or major floodplains and the area is drained by small streams. Six creeks (First, Sulphur, Little Sulphur, Boggs, Turkey, and Seed Creek) dissect NSA Crane and divide the installation into four major watersheds. Surface water drainage predominately exhibits a southerly trend with creeks at the installation eventually draining into the White River and then to the Wabash River.

The 820-acre man-made Lake Greenwood is drained by First Creek, and is the largest lake on NSA Crane. Lake Greenwood is used for potable water, flood control, and recreation. Lake Greenwood is the nearest body of water to the subject property buildings located in the Greenwood Shores Community, as well as Quarter W and Z. Quarters X, Y and Farmhouse are located adjacent to intermittent streams which run throughout NSA Crane (Environmental Baseline Survey, May 2004).

Groundwater in the region of NSA Crane is found in two aquifers, the Mitchell Limestone and the Mansfield Sandstone. Groundwater enters the two main aquifers through outcrops and gravity flows to the southwest. Groundwater on NSA Crane is not abundant and is not used for public supply (Comarco Systems, Inc., 2001). Shallow groundwater is reported to mimic local topography. Deep groundwater is generally greater than 80 feet below ground surface and typically flows in a westerly direction throughout NSA Crane (Environmental Baseline Survey, Project Resources, Inc., May 2004).

Groundwater flow is discussed in this report as being up-gradient, down-gradient or cross-gradient in relation to the subject site. A site that is up-gradient from the subject site has the potential for impacting the site as the groundwater is migrating toward the subject site. A site that is down-gradient has little potential for impacting the subject site since the groundwater is directed away from the subject site. A site that is cross-gradient has limited potential for impacting the subject site since the groundwater is not migrating from the site in the direction of the subject site.

## 5.0 HISTORICAL SOURCES

Emphasis was placed on identifying on-site and off-site environmental conditions most likely to:

- Adversely affect the future site development and usage.
- Present financial liabilities to site owners and developers.
- Be of concern to the various regulatory agencies, in so far as site conditions are covered by current environmental regulations.

The historical search dates back to 1807, which is the earliest record of reasonably available historical information. Sources for this review included aerial photographs, document review, interviews and topographic maps.

The history of the subject property and surrounding area can be searched back to 1807, when the area was primarily agricultural. In 1934, the northern townships of Martin County were chosen by Federal officials as the site of a project to reforest land and develop a lake. Plans called for the construction of an 800-acre lake and the government purchase of 30,000 acres of land. The program was enacted and the resulting forest area was dedicated on September 15, 1939 (Reid, 29).

Crane NSWC was established as the result of a plan to develop an inland naval munitions facility for the eastern United States. The preference was for a facility that was not near the east coast and thus out of reach of the long-range bombers. Planners wanted a site that was not in a major urban area, preferably in an area with an abundance of inexpensive land. The intent was to build a large installation and have numerous small ammunition bunkers spread out over a large area. The Lake Greenwood site offered relative isolation, supplies of water, stone, and timber, and large amounts of inexpensive land. In 1940, the construction of an ammunition depot in Martin County was announced to the public. Construction of facilities at Crane continued throughout the World War II period and included bunkers, mine-filling equipment, utilities, administrative facilities, and housing (Cultural Resources Survey of Navy Family Housing for Public/Private Venture, dated October 2004).

The Greenwood Shores community includes 22 single family residences included in the subject property. The houses, Quarters A through U and BB, were constructed in 1941. Quarters Y and Z were constructed in approximately 1938; and Quarters W and X were constructed in approximately 1944. Farmhouse 2 was constructed circa 1880 to 1900 and deeded to the Navy in 1943. Farmhouse 3 appears to have been

constructed between 1925 and 1935 and was deeded to the Navy in 1944. Farmhouse 5 was constructed prior to 1941 when it was deeded to the Navy.

The houses at Greenwood Shores were configured in basic floorplans, as follows: Quarters J, K, L, M, N, O, P, Q, R, S, T, and U are three-bedroom houses totaling approximately 1,686 square feet; Quarters B, BB, C, D, E, F, G, H, and I are four-bedroom houses totaling approximately 2,321 square feet; and Quarters A is a five-bedroom house totaling approximately 5,483 square feet. Quarters Z is a two-bedroom house totaling 1,396 square feet. Quarters X and Y are two-bedroom houses totaling 1,200 square feet. Quarters W is a four-bedroom house totaling approximately 2,332 square feet. Quarters W was originally constructed as a single family residence; then used as duplex home housing two families for a number of years; and has been converted back to a single family residence (current use).

Farmhouses 2 and 3 are two-bedroom houses totaling approximately 976 square feet and 2,298 square feet, respectively. Farmhouse 5 contains two-bedrooms and totals approximately 1,241 square feet.

According to Ms. Diana Byers, Crane Family Housing Manager, NSA Crane, a revitalization of the housing was performed between 1999 and 2003. Windows were replaced during the revitalization. The slate roofs on the houses were replaced in approximately 1992. The siding was replaced in the 1980's or possibly earlier.

The houses were originally heated via heating oil-fueled systems. The heating systems were converted to natural gas in approximately the 1980's. Refer to Section 6.4 for additional information.

## **5.1 Historical Aerial Photographs**

MACTEC obtained copies of aerial photographs from NSA Crane Department of Natural Resources on August 17, 2005. Historical aerial photographs dated 1935, 1952 and 1984 were reviewed to assist in determining past uses of the subject site. It should be noted that the aerial photographs do not show Farmhouse 5 due to its location outside the boundary of NSWC Crane. Refer to Appendix D for copies of selected aerial photographs.

### 1935

The 1935 aerial photographs show the subject property as forested and agricultural land. These photographs show the area surrounding the subject property prior to construction of Lake Greenwood.

### 1952

The 1952 aerial photographs show the existing buildings at Greenwood Shores, Farmhouses 2 and 3, and Quarters W, X, Y, and Z.

### 1984

Conditions on the subject property and in the surrounding areas appear consistent with the 1952 aerial photographs.

## **5.2 Sanborn Fire Insurance Maps**

MACTEC contracted EDR to search their files for Sanborn maps for the subject site. In response, EDR indicated they have no Sanborn map coverage of the subject site or adjacent properties.

## **5.3 State Historic Preservation Office**

MACTEC visited the Department of Natural Resources at NSA Crane and interviewed Ms. Nancy Alberson, State Historic Preservation Office (SHPO) director at the base, to determine whether or not the subject property was listed on the historical preservation database. Ms. Alberson indicated that no areas within the subject property are listed on the historic preservation database.

## **5.4 Environmental Document Review**

MACTEC personnel requested previously prepared environmental reports and any environmentally related documents pertaining to the subject site. The information contained in these documents is contained in the appropriate sections of this report.

## **6.0 SITE RECONNAISSANCE**

### **6.1 Introduction**

The site inspections of the subject property were performed on August 16 and 17, 2005, by Ms. Benita Theleen of MACTEC. Ms. Diana L. Byers, Crane Family Housing Manager, NSA Crane, met with Ms. Theleen to discuss the subject site and assist in accessing the housing units.

### **6.2 Methodology Used and Limiting Conditions**

MACTEC viewed the interior and exterior of 22 of the 29 single family quarters at the subject site including Quarters D, F, L, K, I, B, S, U, R, E, W, Z, J, H, M, Q, A, X, Y, and Farmhouses 2, 3, and 5. MACTEC walked the perimeter of the subject property and viewed all exterior and adjacent areas.

### **6.3 Electrical/Hydraulic Equipment**

Overhead transformers were observed throughout the subject property. The electrical transformers are owned and maintained by NAVFAC, NSA Crane. According to an interview with Mr. James Hunsicker, Manager of the Environmental Protection Department, NSA Crane, the electrical transformers in the housing are certified non-PCB containing. Mr. Hunsicker indicated that 1200 transformers were sampled in the 1980's through the 1990's; and the transformers were changed out between the 1990's to 2000. The Environmental Baseline Survey, dated May 2004, indicated that the transformer outside of Quarters J was found to be PCB-containing. MACTEC obtained a copy of the sampling records and the referenced transformer contains less than 2ppm PCBs (non-PCB containing).

Based on the age of the buildings at the subject site, it is possible that mercury switches and PCB-containing light ballasts and/or fluorescent lighting exist at the subject property.

No hydraulic equipment was observed at the subject site during the site reconnaissance.

### **6.4 Underground Storage Tanks (USTs)**

MACTEC observed vent pipes at each of the houses on the subject property with the exception of the Quarters K, Q, and Z; and Farmhouses 2 and 5. An UST Inventory Volume 3, dated October 2001, provided by NSA Crane, indicates that the USTs were installed exterior to each of the houses at the subject property in 1941 to fuel the residential heating systems. The 564-gallon fuel oil tanks were filled with sand and abandoned-in-place. The vent pipe remains at each house where a UST was abandoned.

Based on information received from Navy personnel, the UST systems were likely closed in the 1980s. It is likely that USTs were also in use at Quarters K and Q at Greenwood Shores, based on the common date of construction for the housing. It is possible that the USTs were removed from those locations and that is why no vent pipe was left to identify the tank location; or it is possible that the UST was sand-filled and abandoned-in-place and the vent pipe was removed. The houses at the subject property are currently heated via natural gas fueled systems. No information was provided indicating any soil testing was performed at the time the USTs were closed. Quarters Z was constructed prior to the Greenwood Shores housing as a forest ranger's house and reportedly did not use an UST (possibly an AST was used to store fuel oil; however, no records were available to confirm or deny this information).

### **6.5 Aboveground Storage Tanks (ASTs)**

Information provided to MACTEC by Navy personnel indicated that heating systems for Farmhouses 2 and 5 were fueled by oil contained in ASTs. MACTEC did not observe ASTs at the subject site during the site reconnaissance.

### **6.6 Chemical Storage**

MACTEC did not observe oil or chemical storage at the subject site during MACTEC's site reconnaissance with the exception of small quantities of maintenance supplies (less than 5-gallons). The garage units contained a small metal flammable materials storage cabinet to store supplies. No stains or odors were noted.

### **6.7 Spills/Stains**

MACTEC did not observe stained soils or other evidence of spills during the site reconnaissance. Staining was evident from water intrusion in several of the houses. Refer to Section 8.11 for additional information.

### **6.8 Soil and Pavement Disturbances**

MACTEC did not observe soil or pavement disturbances at the subject property at the time of the site reconnaissance.

### **6.9 Miscellaneous Debris**

MACTEC observed pieces of transite (possibly from sheet siding) adjacent to the detached garage at Farmhouse 2. MACTEC did not observe other areas of miscellaneous debris at the subject site during the site reconnaissance.

### **6.10 Wells**

MACTEC observed a potable water well at the rear of Farmhouse 5. The well is covered by a metal plate which gives access to what is described in the Environmental Baseline Survey, May 2004, as a 100-gallon holding tank for the well. MACTEC also observed possible or pump areas at the rear of Farmhouses 2 and 3. MACTEC has requested additional information from NAVFAC on the nature and status of the wells or pumps at the Farmhouse locations. Within the time allowed for completion of this report, response has not been received.

### **6.11 Waste Disposal**

General refuse is removed from the subject site by NSA Crane personnel and transported for disposal to the NSWC landfill.

### **6.12 Pits, Ponds or Lagoons**

MACTEC did not observe pits, ponds or lagoons at the subject site. Lake Greenwood is located off-site to the north of the subject site.

### **6.13 Wastewater Discharge**

MACTEC did not observe evidence of wastewater discharge at the subject site other than from sanitary purposes.

### **6.14 Drains and Sumps**

Floor drains were observed in each of the houses at the subject property. The floor drains are reported to discharge to the sanitary sewer system. No sumps were observed at the subject property. At the time of MACTEC's site reconnaissance on August 16, 2005, heavy precipitation was occurring. Several of the basement floor drains in the Greenwood Shores quarters appeared clogged since water was overflowing onto the concrete floor. Refer to Section 8.11, Indoor Air Quality for information regarding water intrusion in the basements of the housing.

### **6.15 Stressed Vegetation**

MACTEC did not observe stressed vegetation during the site reconnaissance.

### **6.16 Septic System**

MACTEC did not observe evidence of a septic system at the subject site.

**6.17 Odors**

An odor of mold was noted in Quarters F in Greenwood Shores. MACTEC did not note unusual or noxious odors in other residences at the subject site at the time of the site reconnaissance.

**6.18 Pools of Liquid**

MACTEC did not observe pools of liquid at the subject site at the time of the site reconnaissance.

**6.19 Railroad Tracks**

No railroad tracks are located on the subject site.

## **7.0 INTERVIEWS**

The following individuals associated with the subject property were interviewed regarding the subject property and surrounding area:

- Ms. Diana L. Byers, Crane Family Housing Manager, NSA Crane, provided information regarding the history and the current conditions at the subject site.
- Mr. James Hunsicker, Manager Environmental Protection Department, Code 095, Crane Division, Naval Surface Weapon Center, provided information regarding the history and the current conditions at the subject site.
- Mr. Jimmy Colvin, NAVSEA, NSA Crane, provided information regarding the history and the current conditions at the subject site.
- Mr. Shashi Kumar, NAVSEA, NSA Crane, provided information regarding the history and the current conditions at the subject site.
- Ms. Nancy Alberson, SHPO director, Department of Natural Resources, NSA Crane, provided information regarding cultural and archeological resources, wetlands, and historical resources for the subject site.
- Mr. Trent Osmon, Department of Natural Resources, NSA Crane, provided aerial photographs for the subject site.
- Mr. John Allen, Department of Natural Resources, NSA Crane, provided historical information regarding the housing at the subject site.
- Mr. Steve Andrews, Department of Natural Resources, NSA Crane, provided information regarding threatened and endangered species at the subject site.
- Mr. Tom Brent, NAVSEA, NSA Crane, provided information regarding Solid Waste Management Units at NSWC Crane.
- Mr. Stephen Reddick, NSWC Crane Water Utilities Branch, provided information regarding utilities and public works at the base.

## **8.0 ADDITIONAL SERVICES**

In conjunction with this Phase I ESA, MACTEC attempted to obtain and review readily available information regarding each of the following non-ASTM additional issues.

### **8.1 Radon**

MACTEC reviewed the Radon Sampling and Analysis Status Report for the Housing Quarters at Naval Surface Warfare Center, Crane Division, dated September 2002, prepared by Science Applications International Corporation (SAIC) of Bloomfield, Indiana. The radon testing was performed at 16 of the residences at Greenwood Shores. Results indicated radon levels at all of the buildings tested were below the US Environmental Protection Agency action level of 4 pCi (picoCuries). Refer to Appendix F, Environmental Documents for a copy of the radon report.

### **8.2 Drinking Water**

Naval Surface Weapon Center (NSWC) Crane is supplied with drinking water from surface water at Lake Greenwood. MACTEC was provided with the NSWC Crane 2004 Potable Water Consumer Confidence Report, PWS-ID 5251003 which indicates that the drinking water quality at Crane meets or exceeds established water quality standards. Refer to Appendix F, Environmental Documents.

### **8.3 Preliminary Lead-Based Paint and Asbestos Assessments**

MACTEC reviewed the nine volume lead-based paint (LBP) risk assessment prepared by GLE Associates, Inc. of Tampa, Florida for NSA Crane. The report is dated March 3, 2005. The assessment of Navy and Marine Corps Family Housing for Lead-Based Paint was initiated by the Department of the Navy. The lead content of paint was regulated in 1977. Therefore, buildings that were constructed prior to 1977 are likely to have remaining LBP. Due to the date of construction of the housing units (prior to 1977), it is suspected that LBP is present (EBS, May 2004).

A summary of the LBP results conducted follows: Quarters Y and Z (1938) – Results indicated no lead hazards; Farmhouse 5 and twenty-two Greenwood Shores Quarters (1941) – Results indicated one exterior window frame and one basement dust hazard; Farmhouses 2 and 3 (1943) – Results indicated one lead-based paint hazard in the basement dust (Volume 1).

The 1997 Lead Activity Summary indicates that LBP was found, as follows: Quarters B - exterior siding; Quarters C – exterior door frame and siding, kitchen door, living room ceiling and door exterior; Quarters D – exterior fascia, siding, and soffit, window molding, kitchen wall and laundry room ceiling; Quarters E – exterior door and living room door, office door exterior and porch door frame; Quarters F – exterior door molding, and porch door; Quarters G – exterior door frame and the garage door; and Quarters H – garage door frame.

The 1997 Lead In Dust Inspection Summary indicated no results above action levels. The Lead In Soil inspection showed one roadside sample at Quarters E with lead at 2,517 ppm (above action level).

The Lead Inspection Report of NSWC Crane, Residences BB, K, Q, R, and J, dated April 2005, contains LBP results for exterior awnings on the quarters listed. LBP is paint or other surface coating containing lead equal to or in excess of 5,000 parts per million (ppm) (0.5% by weight) in the building component areas. Results indicated the following samples exceeded 5,000ppm: RRS, Metal Substrate (Exterior Awning, Brown Paint) at 9,300ppm; RJF, Wood Substrate (Exterior Door Heater, Brown Paint) at 5,700ppm; and RJS, Wood Substrate (Exterior Door Header, Brown Paint) at 42,000ppm.

The Lead Activity Summary prepared for NSWC Crane by Naval Training Center – Great Lakes, Environmental Department, Code N45, Great Lakes, Illinois, dated June 1997 (Draft), indicates all painted surfaces within the community were assessed for the presence of LBP.

#### Farmhouses and Quarters W, X, Y, and Z

LBP was identified on many of those surfaces on exterior components on mouthable and non-mouthable surfaces. Lead in dust was not found to exceed action limits. However, the presence of LBP dust creates the potential for elevated lead in dust levels if not properly maintained. Elevated levels of lead in soils were not found except in one instance at Quarters W where a gasoline spill was suspected.

#### Greenwood Shores

Two of 40 samples were found to contain lead in dust. Based on this result, the report states that the presence of leaded dust in the window wells above the action limits is a potential hazard to the occupants of the home. Elevated levels of lead in soils were not found. The presence of exterior LBP creates the potential for elevated lead in soil levels if not properly maintained.

A Draft Lead Management Plan was also provided by NSA Crane. According to Navy personnel, this plan has not been implemented.

MACTEC reviewed past asbestos surveys for NSWC Crane performed by TolTest, Inc. of Odon, Indiana. Each of the Greenwood Shores quarters was assessed as well as Farmhouses 2, 3, and 5; and Quarters X, Y, W, and Z. The survey included sampling of friable materials. Non-friable materials were assumed to be asbestos containing (floor tile, linoleum, mastic, gaskets, caulking, cover base, roof flashing, asphalt shingles, rolled roofing felt, electrical wire insulation, and fire doors). The asbestos surveys were performed in 1990 and 2003. Transite sheet siding and transite roofing shingles are assumed beneath existing vinyl siding and existing roof shingles at all of the residences with the possible exception of Quarters W. The condition of the asbestos-containing materials was noted as good in all instances. A general summary of the asbestos results follows:

Quarters #	Asbestos-containing Materials
Qtr A	Previous findings (1990): Paper-like material on ductwork; black pipe wrap; insulation on water lines; insulation on layered-paper pipe; 9" x 9" floor tile; linoleum floor tile; transite shingles; transite siding. 2003 findings: transite sheet under exterior vinyl siding and linoleum flooring in kitchen.
Qtr B	Previous findings (1990): Roofing shingles; linoleum flooring; black pipe wrap; cementitious insulation on fittings; transite sheet siding; blown-in attic insulation. 2003 findings: transite sheet under exterior vinyl siding and blown-in loose insulation in attic.
Qtr BB	Previous findings (1990): Transite shingles on roof; linoleum flooring; black pipe wrap; black tar-like pipe wrap on water lines; layered-paper insulation on water lines; paper-like insulation. 2003 findings: transite sheet under exterior vinyl siding and linoleum flooring.
Qtr C	Previous findings (1990): Transite shingles on roof; linoleum flooring; black pipe wrap; cementitious insulation on fittings; cementitious insulation on fittings on layered-paper insulated lines; air-cell paper duct insulation; paper-like material on ductwork. 2003 findings: transite sheet under exterior vinyl siding and linoleum flooring.
Qtr D	Previous findings (1990): Transite shingles on roof; linoleum flooring; black pipe wrap; cementitious insulation on fittings; layered-paper insulated lines; air-cell duct insulation; paper-like material on ductwork. 2003 findings: transite sheet under exterior vinyl siding and linoleum flooring.
Qtr E	Previous findings (1990): Transite shingles on roof; linoleum flooring; cementitious insulation on elbows/fittings; paper-like material on duct insulation; black tar pipe wrap. (2003 findings were not found for Quarters E. Only 1990 results were provided.)
Qtr F	Previous findings (1990): Transite shingles on roof; linoleum flooring; 9x9 inch floor tile; black pipe wrap; cementitious insulation on fittings; layered-paper insulation; paper-like material on ductwork. 2003 findings: transite sheet under exterior vinyl siding and linoleum flooring.
Qtr G	Previous findings (1990): Transite shingles on roof; linoleum flooring; black pipe wrap; cementitious insulation on elbows/fittings; cementitious insulation on fittings on layered-paper insulated lines; air-cell duct insulation; paper-like duct insulation. 2003 findings: transite sheet under exterior vinyl siding and linoleum flooring.
Qtr H	Previous findings (1990): Transite shingles on roof; linoleum flooring; black pipe wrap; cementitious insulation on fittings; cementitious insulation on fittings on layered-paper insulated lines; paper-like material. 2003 findings: transite sheet under exterior vinyl siding and linoleum flooring.
Qtr I	Previous findings (1990): Transite shingles on roof; linoleum flooring; black pipe wrap; cementitious insulation on fittings on layered-paper insulated lines; layered-paper pipe insulation; air-cell paper duct insulation; paper-like material on ductwork. 2003 findings: transite sheet under exterior vinyl siding and linoleum flooring.

Quarters #	Asbestos-containing Materials
Qtr J	<p>Previous findings (1990): Transite shingles on roof; linoleum flooring; black pipe wrap; white pipe wrapping; cementitious insulation on fittings; cementitious insulation on fittings on layered-paper insulated lines; air-cell duct insulation; paper-like material on ductwork.</p> <p>2003 findings: transite sheet under exterior vinyl siding and linoleum flooring.</p>
Qtr K	<p>Previous findings (1990): Transite shingles on roof; linoleum flooring; black pipe wrap; cementitious insulation on fittings; air-cell duct insulation; paper-like material on ductwork.</p> <p>2003 findings: transite sheet under exterior vinyl siding and linoleum flooring.</p>
Qtr L	<p>Previous findings (1990): Transite shingles on roof; linoleum flooring; black pipe wrap; cementitious insulation on fittings; air-cell paper insulation; paper-like material on ductwork.</p> <p>2003 findings: transite sheet under exterior vinyl siding and linoleum flooring.</p>
Qtr M	<p>Previous findings (1990): Transite shingles on roof; linoleum flooring; black tar pipe wrap; cementitious insulation on fittings; paper-like material on ductwork.</p> <p>2003 findings: transite sheet under exterior vinyl siding and linoleum flooring.</p>
Qtr N	<p>Previous findings (1990): Transite shingles on roof; linoleum flooring; black pipe wrap; cementitious insulation on fittings; paper-like material on ductwork.</p> <p>2003 findings: transite sheet under exterior vinyl siding and linoleum flooring.</p>
Qtr O	<p>Previous findings (1990): Transite shingles on roof; linoleum flooring; black pipe wrap; cementitious insulation on fittings; paper-like material on ductwork.</p> <p>2003 findings: transite sheet under exterior vinyl siding and linoleum flooring.</p>
Qtr P	<p>Previous findings (1990): Transite shingles on roof; linoleum flooring; black pipe wrap; cementitious insulation on fittings; paper-like material on ductwork.</p> <p>2003 findings: transite sheet under exterior vinyl siding and linoleum flooring.</p>
Qtr Q	<p>Previous findings (1990): Transite shingles on roof; linoleum flooring; black pipe wrap; cementitious insulation on fittings; paper-like material on ductwork.</p> <p>2003 findings: transite sheet under exterior vinyl siding and linoleum flooring.</p>
Qtr R	<p>Previous findings (1990): Transite shingles on roof; linoleum flooring; black pipe wrap; cementitious insulation on fittings; paper-like material on ductwork.</p> <p>2003 findings: transite sheet under exterior vinyl siding and linoleum flooring.</p>
Qtr S	<p>Previous findings (1990): Transite shingles on roof; linoleum flooring; black pipe wrap; cementitious insulation on fittings; paper-like material on ductwork.</p> <p>2003 findings: transite sheet under exterior vinyl siding and linoleum flooring.</p> <p>A 1992 asbestos abatement report is included in the Quarter S file information.</p>
Qtr T	<p>Previous findings (1990): Transite shingles on roof; linoleum flooring; 9x9 inch floor tile; black pipe wrap; cementitious insulation on fittings; paper-like material on ductwork; blown-in insulation.</p> <p>2003 findings: transite sheet under exterior vinyl siding and linoleum flooring.</p>

Quarters #	Asbestos-containing Materials
Qtr U	Previous findings (1990): Transite shingles on roof; linoleum flooring; black pipe wrap; cementitious insulation on fittings; paper-like material on ductwork. 2003 findings: transite sheet under exterior vinyl siding and linoleum flooring.
Qtr W	2002 findings: <u>No transite sheet under exterior vinyl siding was found.</u> Pipe insulation on water pipes; pipe fittings on water pipes; duct insulation; linoleum flooring; A 2003 asbestos abatement report is also included in the file information. A 2003 IDEM inspection was conducted at Building W indicating no violations.
Qtr X	2003 findings: 5 homogeneous areas (15 samples) were collected and submitted for laboratory analysis and no asbestos was detected in the samples analyzed. Assumed ACBM: floor tile, rolled linoleum, mastic, gaskets, caulking, cove base, roof flashing, asphalt shingles, rolled roofing felt, electrical wire insulation, and fire doors.
Qtr Y	2003 findings: 6 homogeneous areas (18 samples) were collected and submitted for laboratory analysis. Black tar pipe insulation wrapped in canvas and white duct seam wrap were found to be asbestos-containing. Assumed ACBM: floor tile, rolled linoleum, mastic, gaskets, caulking, cove base, roof flashing, asphalt shingles, rolled roofing felt, electrical wire insulation, and fire doors.
Qtr Z	Previous findings (1990): 9x9 inch vinyl floor tile and paper-like material on ductwork. 2003 findings: transite sheet under exterior vinyl siding.
FH 2	2003 findings: linoleum with a brown conglomeration pattern and linoleum with a red conglomeration pattern. Assumed ACBM: floor tile, rolled linoleum, mastic, gaskets, caulking, cove base, roof flashing, asphalt shingles, rolled roofing felt, electrical wire insulation, and fire doors. Transite debris was discovered outside Farmhouse 2 along the perimeter of the structure.
FH 3	2003 findings: 7 homogeneous areas (21 samples) were collected and submitted for laboratory analysis and no asbestos was detected in the samples analyzed. Assumed ACBM: floor tile, rolled linoleum, mastic, gaskets, caulking, cove base, roof flashing, asphalt shingles, rolled roofing felt, electrical wire insulation, and fire doors.
FH 5	2003 findings: linoleum with a club pattern, linoleum with a blue square pattern, and linoleum with a conglomeration pattern. Assumed ACBM: floor tile, rolled linoleum, mastic, gaskets, caulking, cove base, roof flashing, asphalt shingles, rolled roofing felt, electrical wire insulation, and fire doors.

#### 8.4 Possible Unexploded Ordnance

According to interviews with Navy personnel and the Environmental Baseline Survey dated May 2004, UXO is not expected to be a problem in the residential areas of NSA Crane. Farmhouses 2, 3 and 5; and Quarters X and Y are reportedly scheduled for demolition because the houses are situated within the Ordnance Explosive Arc. The Ordnance Explosive Arc is explained as an area of influence from a potential explosion site from which blast effects and fragmentation are likely. Residential structures are not allowed within the ordnance explosive arc for health and safety purposes (EBS, May 2004).

## **8.5 Pesticide Use**

MACTEC has been informed that pesticide treatment is contracted out to City Pesticide of Linton, Indiana. According to James Hunsicker, Manager of the Environment Protection Department, pesticide treatment has been handled by an outside contractor for the past five to seven years and pesticide application is applied on an infrequent basis.

## **8.6 Wetlands**

MACTEC reviewed readily available information pertaining to wetlands including maps at the NSA Crane Department of Natural Resources, the Environmental Baseline Survey dated May 2004, and an interview with Nancy Alberson at DNR. Based on the information reviewed, no wetland areas are located on the subject property.

## **8.7 Cultural and Archeological Resources**

MACTEC reviewed readily available information pertaining to cultural and archeological resources at the subject site. According to Nancy Alberson, State Historic Preservation Officer (SHPO) at the Department of Natural Resources, NSA Crane, there are no known archaeological resources located within the boundaries of the subject property.

## **8.8 Historical Resources**

MACTEC reviewed readily available information pertaining to historical resources at the subject site. All 29 structures at the subject property were evaluated for National Register eligibility and a Navy housing category. As a result of the evaluation, the structures were listed as not eligible for the National Register. Although there are several historic resources at NSA Crane, the subject property is not within or adjacent to the historical districts or buildings (EBS, May 2004).

## **8.9 Threatened and Endangered Species**

MACTEC reviewed readily available information pertaining to threatened and endangered species at the subject site. According to the Environmental Baseline Report by Project Resources, Inc., dated May 2004, the Implementation of an Integrated Natural Resources Management Plan at NSA Crane, for the years 2002 through 2006, identifies 17 species of animals on the State-listed threatened or endangered species list within NSA Crane. Of these, NSA Crane has one known species that is federally and state listed as endangered, the Indiana Bat. The federally threatened Bald Eagle (state listed as endangered) also occurs within NSA Crane. According to the EBS, dated May 2004, a rare plant species survey, performed in 1987 by Jacquart and LeBlanc, found no state threatened or endangered plant species. An endangered fish survey was conducted of the various watercourses on the installation in 1987. No federal or state listed fish were identified.

In an interview, Mr. Steve Andrews of the Department of Natural Resources at NSA Crane, indicated that NSA Crane has an agreement in place prohibiting tree-cutting from April 15 through September 15 (trees may only be removed for safety concerns). The tree-cutting prohibition is for the protection of the

Federally-listed Endangered Indiana Bat. There is also a general moratorium on the removal of specific types of trees. DNR should be contacted prior to any tree removal activities. There is also a prohibition involving impact to air space over housing due to the potential effect to the Federally-listed Threatened Bald Eagle.

### **8.10 Storm Water Management Plans**

According to information provided by the NAVFAC MW Environmental Department interview, MACTEC was informed that a National Pollution Discharge Elimination System exists for the base. A Storm Water Pollution Prevention Plan exists at NSA Crane. The Storm Water Pollution Prevention Plan is not applicable to the housing.

### **8.11 Indoor Air Quality**

According to information provided by the Environmental Protection Department interview, indoor quality testing is conducted on demand when a complaint is submitted by an individual. Based on MACTEC's site reconnaissance, water intrusion was observed in basements at Quarters F, K, I, S, R, W, and M. On the day MACTEC visited the subject site, heavy precipitation was occurring. MACTEC viewed evidence of past water intrusion in Quarters H although the basement was dry at the time of the site visit. MACTEC was informed by the tenant at Quarters U that the basement flooded until repairs were completed approximately 2.5-years ago (possibly drain tile installation). Microbial growth (what appeared to be mold) was observed in the cellar of Quarters F and on the basement wall and in the cellar in Quarters M.

### **8.12 Spill Prevention Control and Countermeasure Plans**

According to information provided by the NAVFAC MW Environmental Department interview, a Spill Prevention Control and Countermeasure (SPCC) plan is in existence for NSA Crane. The SPCC addresses oil and lubricants at the base and does not apply to the housing areas.

### **8.13 Environmental Permits**

According to information provided by the NAVFAC MW Environmental Department interview, NSA Crane has a Title V Air Permit and the facility has a large quantity RCRA hazardous waste generator number, along with the other environmental permits and plans listed above.

### **8.14 Coastal Zones**

The subject property does not border any natural body of water; therefore, no coastal zones are present.

## 9.0 FINDINGS

Based on information obtained during this assessment, MACTEC identified the following findings:

- Sand-filled heating oil underground storage tanks are abandoned-in-place exterior to each of the houses on the subject property with the exception of the Quarters K, Q, and Z; and Farmhouses 2 and 5. The tanks were installed in 1941 to fuel the residential heating systems. The vent pipe remains at each house where a UST was abandoned-in-place. It is likely that USTs were also in use at Quarters K and Q at Greenwood Shores, based on the common date of construction for the housing. No information was provided indicating any soil testing was performed at the time the USTs were closed. (Section 6.4).
- Based on the age of the buildings at Greenwood Shores; Farmhouses 2, 3, and 5; Quarters X, Y, W, and Z, it is possible that mercury switches and PCB-containing light ballasts and/or fluorescent lighting exist at the subject property. (Section 6.3).
- Elevated levels of lead in soils were found at Quarters W where a gasoline spill was suspected. The soil testing was performed in 1997 (Section 8.3).
- NSA Crane was identified on the regulatory database report as a large quantity generator of RCRA hazardous waste, a CORRACTS (Corrective Action Site), a registered underground storage tank (UST) facility, and a reported leaking UST facility. According to documents reviewed, 34 Solid Waste Management Units (SWMUs) exist on the base. The SWMUs appear to be situated at a distance from the subject property that should reduce the risk of environmental impact from these sites. (Section 3.2).
- Based on MACTEC's site reconnaissance, water intrusion was observed in basements at Quarters F, K, I, S, R, W, and M. On the day MACTEC visited the subject site, heavy precipitation was occurring. MACTEC viewed evidence of past water intrusion in Quarters H although the basement was dry at the time of the site visit. Microbial growth (what appeared to be mold) was observed in the cellar of Quarters F and on the basement wall and in the cellar in Quarters M (Section 8.11).
- Based on past asbestos surveys and the date of construction of the housing, it is likely that asbestos-containing materials are present at the subject property. MACTEC is currently completing a comprehensive asbestos survey. Results to-date indicate that asbestos-containing materials consisting mainly of transite sheet siding beneath the existing vinyl siding and linoleum flooring with underlying mastic are present in the housing. MACTEC observed a small amount of transite debris adjacent to the garage building at Farmhouse 2. (Section 8.3).
- According to the lead-based paint survey prepared in June of 1997 and the 2005 risk assessment, lead-based paint was identified in various interior locations at the Greenwood Shores houses and in two samples of lead dust at Greenwood Shores; and on exterior surfaces at Greenwood Shores and the Farmhouses 2, 3, and 5; and Quarters W, X, Y, and Z. The April 2005 awning survey results indicated a lead hazard in the exterior lead-based paint (Section 8.3).

- NSA Crane has a general moratorium on the removal of trees from April 15 through September 15 for the protection of the Federally-listed Endangered Indiana Bat. There is also a prohibition involving impact to air space over housing due to the potential effect to the Federally-listed Threatened Bald Eagle (Section 8.9).

## 10.0 OPINIONS

Based on the findings of our assessment, MACTEC provides the following opinions on the observed conditions.

- Sand-filled heating oil underground storage tanks are situated exterior to each of the houses on the subject property with the exception of the Quarters K, Q, and Z; and Farmhouses 2 and 5. The tanks were installed in 1941 to fuel the residential heating systems. The vent pipe remains at each house where a UST was abandoned-in-place. It is likely that USTs were also in use at Quarters K and Q at Greenwood Shores, based on the common date of construction for the housing. No information was provided indicating any soil testing was performed at the time the USTs were closed. MACTEC recommends further investigation to determine whether or not underlying soils have been impacted by the presence of the USTs (Section 6.4).
- Based on the age of the buildings at Greenwood Shores; Farmhouses 2, 3, and 5; Quarters X, Y, W, and Z, it is possible that mercury switches and PCB-containing light ballasts and/or fluorescent lighting exist at the subject property (Section 6.3).
- Elevated levels of lead in soils were found at Quarters W where a gasoline spill was suspected. The soil testing was performed in 1997. This is an historic recognized environmental condition. No additional information was provided regarding the gasoline spill. MACTEC recommends further investigation to determine potential impact to the subject property (Section 8.3).
- NSA Crane was identified on the regulatory database report as a large quantity generator of RCRA hazardous waste, a CORRACTS (Corrective Action Site), a registered underground storage tank (UST) facility, and a reported leaking UST facility. According to documents reviewed, 34 Solid Waste Management Units (SWMUs) exist on the base. The SWMUs appear to be situated at a distance from the subject property that should reduce the risk of environmental impact from these sites (Section 3.2).
- Based on MACTEC's site reconnaissance, water intrusion was observed in basements at Quarters F, K, I, S, R, W, and M. On the day MACTEC visited the subject site, heavy precipitation was occurring. MACTEC viewed evidence of past water intrusion in Quarters H although the basement was dry at the time of the site visit. Microbial growth (what appeared to be mold) was observed in the cellar of Quarters F and on the basement wall and in the cellar in Quarters M. Based on MACTEC's observations and interviews, action may be required to improve drainage at some of the housing and to inhibit the potential of mold occurring in the future (Section 8.11).
- Based on past asbestos surveys and the date of construction of the housing, it is likely that asbestos-containing materials are present at the subject property. MACTEC is currently completing a comprehensive asbestos survey. Results to-date indicate that asbestos-containing materials consisting mainly of transite sheet siding beneath the existing vinyl siding and linoleum flooring with underlying mastic are present in the housing. MACTEC observed a small amount of transite debris adjacent to the garage building at Farmhouse 2. Prior to demolition or renovation, asbestos-containing must be identified to ensure proper removal and disposal activities (Section 8.3).

- According to the lead-based paint survey prepared in June of 1997 and the 2005 risk assessment, lead-based paint was identified in various interior locations at the Greenwood Shores houses and in two samples of lead dust at Greenwood Shores; and on exterior surfaces at Greenwood Shores and the Farmhouses 2, 3, and 5; and Quarters W, X, Y, and Z. The April 2005 awning survey results indicated a lead hazard in the exterior lead-based paint. It is MACTEC's opinion that health and safety precautions may be required to protect workers during abatement and or renovation of these properties (Section 8.3).
- NSA Crane has a general moratorium on the removal of trees from April 15 through September 15 for the protection of the Federally-listed Endangered Indiana Bat. There is also a prohibition involving impact to air space over housing due to the potential effect to the Federally-listed Threatened Bald Eagle (Section 8.9).

## 11.0 CONCLUSIONS

MACTEC has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-00 of the Forest City Washington facility located in NSA Crane, Indiana. Any exceptions to or deletions from this practice are described in Section 12 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property except for the following:

- Sand-filled heating oil underground storage tanks are situated exterior to each of the houses on the subject property with the exception of the Quarters K, Q, and Z; and Farmhouses 2 and 5. The tanks were installed in 1941 to fuel the residential heating systems. The vent pipe remains at each house where a UST was abandoned-in-place. It is likely that USTs were also in use at Quarters K and Q at Greenwood Shores, based on the common date of construction for the housing. No information was provided indicating any soil testing was performed at the time the USTs were closed. Since no information regarding soil conditions at the time the tanks systems were close, MACTEC recommends further investigation to determine whether or not soils in the vicinity of the USTs have been environmentally impacted. (Section 6.4).
- Elevated levels of lead in soils were found at Quarters W where a gasoline spill was suspected. The soil testing was performed in 1997. This is an historic recognized environmental condition. No additional information was provided regarding the gasoline spill. MACTEC recommends further investigation to determine potential impact to the subject property (Section 8.3).

The following item is considered a potential recognized environmental condition that was identified during the course of the Phase I ESA:

- Based on the age of the buildings at Greenwood Shores; Farmhouses 2, 3, and 5; Quarters X, Y, W, and Z, it is possible that mercury switches and PCB-containing light ballasts and/or fluorescent lighting exist at the subject property. The potential that mercury switches and/or PCB-containing light ballasts and/or fluorescent lighting exist at the subject property should be considered to ensure property handling/disposal practices (Section 6.3).

The following item pertains to off-site locations at NSA Crane, Indiana:

- NSA Crane was identified on the regulatory database report as a large quantity generator of RCRA hazardous waste, a CORRACTS (Corrective Action Site), a registered underground storage tank (UST) facility, and a reported leaking UST facility. According to documents reviewed, 34 Solid Waste Management Units (SWMUs) exist on the base. The SWMUs appear to be situated at a distance from the subject property that should reduce the risk of environmental impact from these sites (Section 3.2).

The following items, while not considered to be a recognized environmental condition as defined by the ASTM E 1527-00, may pose a financial or other impact to the subject site:

- Based on MACTEC's site reconnaissance, water intrusion was observed in basements at Quarters F, K, I, S, R, W, and M. On the day MACTEC visited the subject site, heavy precipitation was occurring. MACTEC viewed evidence of past water intrusion in Quarters H although the basement was dry at the time of the site visit. Microbial growth (what appeared to be mold) was observed in the cellar of Quarters F and on the basement wall and in the cellar in Quarters M (Section 8.11).
- Based on past asbestos surveys and the date of construction of the housing, it is likely that asbestos-containing materials are present at the subject property. MACTEC is currently completing a comprehensive asbestos survey. Results to-date indicate that asbestos-containing materials consisting mainly of transite sheet siding beneath the existing vinyl siding and linoleum flooring with underlying mastic are present in the housing. MACTEC observed a small amount of transite debris adjacent to the garage building at Farmhouse 2 (Section 8.3).
- According to the lead-based paint survey prepared in June of 1997 and the 2005 risk assessment, lead-based paint was identified in various interior locations at the Greenwood Shores houses and in two samples of lead dust at Greenwood Shores; and on exterior surfaces at Greenwood Shores and the Farmhouses 2, 3, and 5; and Quarters W, X, Y, and Z. The April 2005 awning survey results indicated a lead hazard in the exterior lead-based paint (Section 8.3).
- NSA Crane has a general moratorium on the removal of trees from April 15 through September 15 for the protection of the Federally-listed Endangered Indiana Bat. There is also a prohibition involving impact to air space over housing due to the potential effect to the Federally-listed Threatened Bald Eagle (Section 8.9).

## **12.0 DEVIATIONS**

Since the use of the subject property had not changed over long periods of time, research of the history during those periods was conducted by reviewing materials available at greater than the ASTM specified five year intervals.

### 13.0 REFERENCES

- Aerial photographs dated 2003, were obtained from NSA Crane files.
- ASTM International's Standard Practice E 1527-00, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.
- United States Geological Survey (USGS), Indian Springs, Indiana Quadrangle Map, 7.5-Minute Topographic Series, dated 1990.
- United States Geological Survey (USGS), Koleen, Indiana Quadrangle Map, 7.5-Minute Topographic Series, dated 1990.
- *Environmental Baseline Survey, Public/Private Venture Housing Privatization, Naval Support Activity Crane, Crane, Indiana* prepared for Naval Facilities Engineering Command, Southern Division, North Charleston, South Carolina, dated May 2004.
- *UST/AST Underground Storage Tanks Inventory Volume 3, 2001*, provided by the Department of the Navy Environmental Program, NSA Crane.
- *Lead Activity Summary, Family Housing Community, Naval Weapons Support Center – Crane, Crane, Indiana*, prepared by Naval Training Center – Great Lakes Environmental Department, Code N45, 2703 Sheridan Road, Building 1A, Suite 120, Great Lakes, Illinois 60088-5600, dated June 1997.
- *Lead Management Plan, Farm Houses, Family Housing Community, Naval Weapons Support Center – Crane*, prepared by Naval Training Center – Great Lakes Environmental Department, Code N45, 2703 Sheridan Road, Building 1A, Suite 120, Great Lakes, Illinois 60088-5600, dated June 1997 Draft.
- *NSWC Crane, 2004 Potable Water Consumer Confidence Report, PWS-ID 5251003*, prepared by Stephen Reddick (812) 854-5225, NSWC Crane Water Utilities Branch, 300 Highway 361, Building 4 Code 09Z5, Crane, IN 47522-5001.
- *Lead Inspection Report, NSWC Crane*, Building Residences BB, K, Q, R, J, dated April 21, 2005.
- *Radon Sampling and Analysis Status Report for the Housing Quarters at NSWC Crane*, prepared for Crane Division, Naval Surface Warfare Center, Code 095, Delivery Order 0512, prepared by Science Applications International Corporation, Bloomfield, Indiana, December 2002.
- *Environmental Data Resources (EDR) Radius Map with GeoCheck*, Inquiry Number 01432723.3s, dated May 31, 2005.
- *EDR Radius Map with GeoCheck*, Inquiry Number 014332723.1r, NSA Crane Greenwood Shores Community, dated May 31, 2005.
- *EDR Radius Map with GeoCheck*, Inquiry Number 1432723.4s, NSA Crane Quarters W and Z, dated May 31, 2005.
- *EDR Radius Map with GeoCheck*, Inquiry Number 1432723.3s, NSA Crane Farmhouses 1, 2, and 3, dated May 31, 2005.
- *EDR Radius Map with GeoCheck*, Inquiry Number 1432723.2s, NSA Crane Farmhouse 5, dated May 31, 2005.

- On-site interview with Diana L. Byers, Crane Family Housing Manager, NSA Crane, August 16 and 17, 2005.
- On-site interview with James Hunsicker, NAVSEA, NSA Crane, August 16 and 17, 2005.
- On-site interview with Jimmy Colvin, NAVSEA, NSA Crane, August 17, 2005.
- On-site interview with Shashi Kumar, NAVSEA, NSA Crane, August 16 and 17, 2005.
- On-site interview with Nancy Alberson, Department of Natural Resources, NSA Crane, August 17, 2005.
- On-site interview with Trent Osmon, Department of Natural Resources, NSA Crane, August 17, 2005.
- On-site interview with John Allen, Department of Natural Resources, NSA Crane, August 17, 2005.
- On-site interview with Steve Andrews, Department of Natural Resources, NSA Crane, August 17, 2005.
- Mr. Tom Brent, NAVSEA, NSA Crane, provided information regarding Solid Waste Management Units at NSWC Crane.
- Mr. Stephen Reddick, NSWC Crane Water Utilities Branch, provided information regarding utilities and public works at the base.
- *Cultural Resources Survey of Navy Family Housing for Public/Private Venture (PPV)*, prepared for Department of the Navy, Naval Facilities Engineering Command, Engineering Field Division South, North Charleston, SC 29406, prepared by Hardlines Design Company, Columbus, Ohio, dated October 2004.

The following documents were received from the Indiana Department of Environmental Management (IDEM).

- *Work Plan and Task-Specific Site Safety and Health Plan for Interim Measures Cleanup at Solid Waste Management Units #23/00, #25/07D, and #26/08D, NSWC Crane*, dated August 25, 1995, Revision B, prepared for Southern Division, Naval Facilities Engineering Command, 2155 Eagle Drive, P.O. Box 190010, North Charleston, South Carolina 29419-9010.
- *Task-Specific Site Safety and Health Plan, Supplement to Work Plan for Solid Waste Management Units #23/00, #25/07D, and #26/08D, NSWC Crane*, dated August 25, 1995, Revision B, prepared for Southern Division, Naval Facilities Engineering Command, 2155 Eagle Drive, P.O. Box 190010, North Charleston, South Carolina 29419-9010.
- *Work Plan for Base-Wide Background Soil Investigation, Naval Surface Warfare Center, Crane Division, Crane, Indiana, Comprehensive Long-Term Environmental Action Navy (CLEAN) Contract*, dated May 1999, submitted to Southern Division, Naval Facilities Engineering Command, 2155 Eagle Drive, North Charleston, South Carolina 29406.
- Letter to Ms. Adrienne T. Wilson, Department of the Navy, South NAVFAVENGCOM Environmental, dated July 26, 1995, regarding Interim Measures Removal SWMUs 14/00 and 17/04, Naval Surface Warfare Center, Crane, Indiana, from Mr. Karl E. Bremer, Chief, RCRA Permitting Branch IDEM.
- *Quality Assurance Project Plan for RCRA Corrective Action Interim Measures at Naval Surface Warfare Center Crane*, dated December 29, 1995, Revision C, prepared for Southern

Division, Naval Facilities Engineering Command, 2155 Eagle Drive, P.O. Box 190010, North Charleston, South Carolina 29419-9010.

- Letter to Mr. Peter Ramanauskas, USEPA Waste, Pesticides, & Toxics Division Waste Management Branch, from Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, with enclosure *Environmental Monitoring Report for the Tank Farm at Crane Division Naval Surface Warfare Center*, dated September 2000, prepared for Crane Division, Naval Surface Warfare Center, 300 Highway 361, Crane, Indiana 47522-5000.
- Letter to Mr. Peter Ramanauskas, USEPA Waste, Pesticides, & Toxics Division Waste Management Branch, from Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, dated September 18, 2000, without enclosures.
- Letter to Mr. James Hunsicker, Naval Surface Warfare Center – Crane Division, regarding Fifth Significant Permit Modification to: Part 70 permit no.:T101-7341-00005, with attachment *Part 70 Operating Permit, Office of Air Quality, Naval Surface Warfare Center, Crane Division*, issued November 10, 2003.
- Letter to Mr. Shashi Kumar, Naval Surface Warfare Center, Crane Division from Ms. Janet Mobley, Permit Administration Section, Office of Air Management, IDEM, dated April 28, 1997.
- Letter to IDEM Cashier, Office of Air Management from Mr. James Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, dated May 4, 1999, with attachments regarding the Fuel Cell Power Plant.
- Title V/FESOP Annual Compliance Certification Review for Certification Year 2002. The Agency has included as an attachment the letter to Mr. Phil Perry, Chief, Compliance Branch, Office of Air Quality, IDEM from Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, with Enclosures 1 and 2 only.
- Letter Second Significant Permit Modification to: Part 70 permit no.:T101-7341-00005, with attachment *Part 70 Operating Permit, Office of Air Quality, Naval Surface Warfare Center, Crane Division*, issued June 12, 2002.
- Letter to Mr. James Hunsicker, Naval Surface Warfare Center – Crane Division, regarding First Administrative Amendment to: Part 70 permit no.:T101-7341-00005, with attachment *Part 70 Operating Permit, Office of Air Quality, Naval Surface Warfare Center, Crane Division*, issued December 13, 2002.
- Letter to Mr. James Hunsicker, Naval Surface Warfare Center – Crane Division, regarding First Minor Permit Modification to: Part 70 permit no.:T101-7341-00005, with attachment *Part 70 Operating Permit, Office of Air Quality, Naval Surface Warfare Center, Crane Division*, issued October 4, 2002.
- Notice of Decision: Approval – Effective Immediately regarding Third Minor Permit Modification to: Part 70 permit no.:T101-7341-00005, with attachment *Part 70 Operating Permit, Office of Air Quality, Naval Surface Warfare Center, Crane Division*, issued June 4, 2004.
- Letter to Mr. Gene Kelso, Air Compliance Inspector, Southwest Regional Office, Office of Air Quality, IDEM from Mr. James M. Hunsicker, Naval Surface Warfare Center – Crane

Division, dated September 12, 2002, regarding the attached Inspection Summary / Violation Letter received from IDEM on September 4, 2002.

- Letter to IDEM, Office of Air Quality, Compliance Section from Mr. James M. Hunsicker, Naval Surface Warfare Center – Crane Division, dated October 15, 2002, with enclosed quarterly report for the months July, August, and September 2002.
- Letter to Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, from Ms. Felicia R. George, Chief, Compliance Branch, Office of Air Management, IDEM, dated December 17, 1997, regarding approval of Variance APC-5959 from 326 IAC 4-1.
- Letter to Mr. Pat Powlen, IDEM, Office of Air Management, Compliance Branch, from Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, dated September 7, 1999, regarding Variance APC-6041.
- Letter to Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, from Ms. Felicia R. George, Chief, Compliance Branch, Office of Air Management, IDEM, dated August 21, 1997, regarding approval of Variance APC-5936 from 326 IAC 4-1.
- Letter to Mr. Bill Seifert, IDEM, Office of Air Management, from Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, dated May 28, 1997, regarding Variance APC-5790.
- Letter to Mr. Paul Dubenetzky, IDEM, Office of Air Management, from Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, dated December 13, 2000, regarding the construction of a Contained Detonation Chamber.
- Office of Air Management Field Inspection Report, for the inspection conducted on September 19, 2000, prepared by Gene Kelso, IDEM, was provided to Mr. Shashi Kumar, Code 095, NAVSURWARCENDIV.
- Letter to Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, from Mr. Richard Zeller, Chief, Compliance Branch, Office of Air Management, IDEM, dated November 10, 1998, regarding approval of Variance APC-6041 from 326 IAC 4-1.
- Letter to Ms. Yu-Lien Chu, Eastern Research Group, Inc. (copy to Mr. Duane Van Laningham – IDEM), from Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, dated April 4, 2003, regarding Notice of Deficiencies received on March 17, 2003, and March 26, 2003.
- Letter to Mr. Phil Keith, Naval Surface Warfare Center, Crane Division, from Ms. Michelle Williams, Engineer II, New Source Review Section, Office of Air Management, IDEM, dated March 20, 1996, regarding Construction Permit Application CP-101-4990, ID-101-00005, Notice of Deficiency #2.
- Letter to Ms. Michelle Williams, Engineer II, New Source Review Section, Office of Air Management, IDEM, from Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, dated April 23, 1996, regarding Construction Permit Application CP-101-4990, ID-101-00005, Notice of Deficiency #2.

- Letter to Mr. Phil Keith, Naval Surface Warfare Center, Crane Division, from Ms. Michelle Williams, Engineer II, New Source Review Section, Office of Air Management, IDEM, dated June 13, 1996, regarding Construction Permit Application CP-101-4990, ID-101-00005.
- Letter to Ms. Michelle Williams, Engineer II, New Source Review Section, Office of Air Management, IDEM, from L.A. Laws, Director, Public Works Directorate, Department of the Navy, Crane Division, dated July 9, 1996, regarding IDEM letter dated June 13, 1996.
- Letter to Mr. Phil Keith, Naval Surface Warfare Center, Crane Division, from Mr. Marco A. Salenda, Environmental Engineer, Permit Review Section 2, Office of Air Management, IDEM, dated February 14, 1996, regarding Construction Permit Application CP-101-4990, ID-101-00005, Notice of Deficiency #1.
- Letter to Mr. Marco A. Salenda, Environmental Engineer, Permit Review Section 2, Office of Air Management, IDEM, from Mr. Pedro J. DeJesus, Division Counsel, Department of the Navy, Crane Division, dated February 27, 1996, regarding Construction Permit Application CP-101-4990, ID-101-00005, Notice of Deficiency #1.
- Letter to Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, dated September 25, 2000, regarding approval of Variance APC-6236 from 326 IAC 4-1.
- Letter to Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, from Mr. Phil Perry, Chief, Compliance Branch, Office of Air Management, IDEM, dated October 7, 1999, regarding approval of Variance APC-6149 from 326 IAC 4-1.
- Letter to Office of Air Management, Compliance Branch, IDEM, from Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, dated June 30, 2000, regarding a variance from 326 IAC 4-1.
- USEPA Region 5 Hazardous Waste Management Permit, issued to United States Navy, Naval Surface Warfare Center – Crane Division, effective date January 13, 2000.
- Draft letter to Mr. James M. Hunsicker, Naval Surface Warfare Center, Crane Division, from Mr. Paul Dubenetzky, Chief, Permit Branch, Office of Air Management, IDEM, dated September 27, 1999, regarding Draft Air Emission Standard Conditions for RCRA Part B Permit for OB/CD Operations at Crane.
- Letter to Mr. James M. Hunsicker, Naval Surface Warfare Center, Crane Division, from Mr. John Crawford, Section Chief, Industrial Waste Compliance Section, Compliance & Response Branch, IDEM, dated September 23, 2004, regarding Referral to the Office of Enforcement, Naval Surface Warfare Center (NSWC), Crane, EPA ID # IN5170023498, Crane, Martin County, with enclosure IDEM Industrial/Hazardous Waste Inspection Report, for inspection performed June 28-29, July 20, 21, & 26, 2004.
- Letter to Mr. Mark Billington, Underground Storage Tank Section, IDEM, from G.K. Hill, Deputy Director, Public Works Directorate, Department of the Navy, Crane Division, dated December 4, 1992, regarding the permanent closure of USTs located at Buildings 3 and 22.
- Letter to Mr. Mark Billington, Underground Storage Tank Section, IDEM, from G.K. Hill, Deputy Director, Public Works Directorate, Department of the Navy, Crane Division, dated November 3, 1992, regarding the permanent closure of USTs located at Buildings 1818 and 1820.

- Letter to Mr. Mark Billington, Underground Storage Tank Section, IDEM, from J.W. Hays, Director, Public Works Directorate, Department of the Navy, Crane Division, dated August 17, 1992, regarding the permanent closure of USTs located at Building 9.
- Letter to Ms. Victoria Kelley, Office of Environmental Response, Underground Storage Tank Section, IDEM, from Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, dated October 27, 1997, regarding the Closure Report for the UST previously located at Building 4.
- Letter to Ms. Damon Ridley, Underground Storage Tank Section, IDEM, from Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, dated April 7, 1998, regarding the *UST System Closure Report Review Checklist* for the UST located at Building 4.
- Letter to Affidavit Program, Underground Storage Tank Section, IDEM, from Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, dated November 24, 1998, regarding the completed affidavits on all regulated USTs.
- Letter to Mr. John Gunther, UST Program, Office of Environmental Response, IDEM, from J.W. Hays, Commander, CEC, USN, Public Works Officer, Department of the Navy, Crane Division, dated February 5, 1992, regarding a status update of all regulated USTs.
- Initial Incident Report, Leaking Underground Storage Tank Section, IDEM, LUST Incident #: 92-09-503, dated September 9, 1992, for tank 1818-B.
- Letter to Ms. Victoria Kelley, Office of Environmental Response, Underground Storage Tank Section, IDEM, from Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, dated November 19, 1997, regarding the a *Notification for Underground Storage Tanks* form for the UST located at Building 4.
- Letter to Ms. Karla McDonald, UST Program, Office of Environmental Response, IDEM, from M.L. Frey, Commander, CEC, USN, Public Works Officer, Department of the Navy, Crane Division, dated May 31, 1990, regarding soil testing taken after excavation at Building 2941.
- Letter to Mr. Doug Bartz, Office of Environmental Response, UST Branch, IDEM, from Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, dated August 25, 1997, regarding permanent closure of the UST located at Building 4.
- Letter to Mr. James M. Hunsicker, Naval Surface Warfare Center, Crane Division, from IDEM, dated September 2, 1997, approving permanent closure of the UST located at Building 4.
- Letter to Mr. John Gunther, UST Program, Office of Environmental Response, IDEM, from Robert E. Lee, Environmental Protection Specialist, Department of the Navy, Crane Division, received by IDEM on September 3, 1992, regarding permanent closure and removal of USTs located at Buildings 1818, 1820, 4, 22, 3, 9, 7, and New and Old Oil/Water Separators.
- Letter to Mr. Robert E. Lee, Department of the Navy, Crane Division, from Mr. John Gunter, Chief, Underground Storage Tank Section, Office of Environmental Response, IDEM, dated September 17, 1992, approving permanent closure of the USTs [listed in Crane letter received September 3, 1992].
- Notification for Underground Storage Tanks, Building 4, dated September 4, 1992.

- Notification for Underground Storage Tanks, Building 9, dated August 18, 1992.
- Notification for Underground Storage Tanks, Tank No. 2941, dated September 26, 1990.
- Notification for Underground Storage Tanks, for 19 tanks, dated January 19, 1990.
- Notification for Underground Storage Tanks, Building 2694, dated May 30, 1990.
- Notification for Underground Storage Tanks, for 39 tanks, dated May 7, 1986.
- Notification for Underground Storage Tanks, Building 200, dated July 11, 1986.
- Underground Storage Tank Closure Notification Form for Tank B-7, dated September 23, 1992.
- IDEM Underground Storage Tank Section, *Field Inspection Accountability Report and Survey*, dated February 4, 1998.
- *Underground Storage Tank Removal, Closure Report, Former Building 1818, Naval Surface Warfare Center, Crane, Indiana*, dated November 2003, submitted to Officer in Charge of NAVFAC Contracts, Naval Surface Warfare Center, Crane, Indiana.
- Letter to Office of Environmental Response, UST Branch, IDEM, from Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, dated March 21, 2001, requesting closure of an UST at Building 2693.
- Letter to Naval Surface Warfare Center, from Nawal Hopkins, Closure Coordinator, Compliance and Response Branch, Office of Land Quality, IDEM, dated March 27, 2001, approving permanent closure of the UST at Building 2693.
- Letter to Office of Environmental Response, UST Branch, IDEM, from Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, dated July 9, 2003, requesting closure of an UST at Building 1818.
- Letter to Naval Surface Warfare Center, Crane Division, from Nawal Hopkins, Closure Coordinator, Compliance and Response Branch, Office of Land Quality, IDEM, dated August 4, 2003, approving permanent closure of the UST at Building 1818.
- UST Initial Incident Report Via Closure Report, Leaking Underground Storage Tank Program, IDEM, LUST Incident #: 199403517, dated June 9, 2004, for tank location at Building 3260.
- UST Initial Incident Report Via Closure Report, Leaking Underground Storage Tank Program, IDEM, LUST Incident #: 199403517, dated June 9, 2004, for tank at Building 3260.
- UST Initial Incident Report Via Closure Report, Leaking Underground Storage Tank Program, IDEM, LUST Incident #: ERR, dated March 10, 1998, for tank at Building 2716.
- Underground Storage Tank Closure Notification Form for tank located at Building 2941, dated March 7, 1990.
- Letter to Mr. Michael Scanlon, UST Program, Division of Land Pollution Control, IDEM, dated July 11, 1986, from M.L. Frey, Commander, CEC, USN, Public Works Officer, Department of the Navy, Crane Division, regarding submittal of a UST notification form.
- Letter to Mr. Michael Scanlon, UST Program, Division of Land Pollution Control, IDEM, dated May 7, 1986, from F.V. Bernhard, Assistant Public Works Officer, Department of the Navy, Crane Division, regarding submittal of a UST notification form.

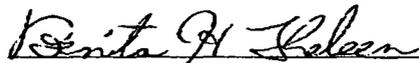
- Letter to Mr. Michael Scanlon, UST Program, Division of Land Pollution Control, IDEM, dated September 16, 1987, from Manager, Engineering Division, Public Works Department, Department of the Navy, Crane Division, regarding submittal of an updated information sheet regarding USTs.
- Letter to Mr. Michael Scanlon, UST Program, Division of Land Pollution Control, IDEM, dated January 12, 1988, from Department of the Navy, Crane Division, regarding submittal of additional UST information.
- NPDES Permit Application, for NPDES Permit No. IN0021539, dated February 22, 1994.
- NPDES Permit No. IN0021539, dated March 6, 2000, with an effective date of April 1, 2000.
- NPDES Permit No. IN0021539, revised, dated August 3, 2004, with amended provisions effective on August 3, 2004.
- Public Notice No. 2000-#A-F-P, Date of Notice: March 6, 2000, including Fact Sheet for NPDES Permit No. IN0021539.
- Letter to Office of Water Quality, IDEM, from Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, dated April 16, 2002, submitting comments to the draft NPDES permit modification.
- Letter to Office of Water Quality, Compliance Branch, IDEM, from Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, dated January 10, 2005, regarding Inspection Summary/Violation Letter, NPDES Permit No. IN0021539.
- Letter to Mr. James M. Hunsicker, Environmental Protection Department, Naval Surface Warfare Center, Crane Division, dated December 22, 2004, from Mr. Rick Roudebush, Inspections Section Chief, Compliance Branch, Office of Water Quality, regarding Inspection Summary/Violation Letter for October 20, 2004 inspection.
- Letter to Legal Ads Clerk, Loogootee Tribune – Martin County, dated May 20, 2004, from Ms. Damita J. Ivey, NPDES Permits, IDEM, regarding Public Notice, dated May 28, 2004, for Crane draft NPDES permit.
- Letter to Mr. James Hunsicker, Director, Environmental Protection Department, Naval Surface Warfare Center, Crane Division, dated May 10, 2002, from Mr. Timothy J. Method, Deputy Commissioner, Environmental Results, IDEM, regarding modification of NPDES Permit No. IN0021539.
- Letter to Mr. Gary Pavich, NPDES Permits Section, Office of Water Quality, IDEM, from Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, dated February 11, 2002, regarding revised pages to the application for permit modification, originally submitted on January 22, 2002.
- Letter to Mr. Gary Pavich, NPDES Permits Section, Office of Water Quality, IDEM, from Mr. James M. Hunsicker, Director, Environmental Protection Department, Department of the Navy, Crane Division, dated January 22, 2002, regarding submittal of an application for a NPDES permit modification.
- Letter to Mr. James Hunsicker, Director, Environmental Protection Department, Naval Surface Warfare Center, Crane Division, dated March 25, 1999, from Mr. Steven K. Roush, Section Chief, Industrial NPDES Permit Section, Office of Water Management, IDEM, regarding draft NPDES Permit No. IN0021539 and issuance of public notice.

#### 14.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

This report pertains to the subject property situated on a portion of the Naval Support Activity (NSA) Crane facility located approximately 25 miles southwest of Bloomington, within Martin, Greene and Lawrence Counties, in south-central Indiana. Our professional services have been performed using the degree of care and skill ordinarily exercised under similar circumstances by other environmental professionals practicing in this field.

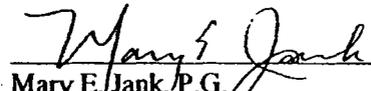
The representations made in this report are accurate and true to the best knowledge of the undersigned.

REPORT PREPARED BY:

  
Benita H. Theleen  
Senior Project Scientist  
773-693-6030

11-1-05  
Date

UNDER REVIEW BY:

  
Mary E. Jank, P.G.  
Principal Geologist  
773-693-6030

11-1-05  
Date

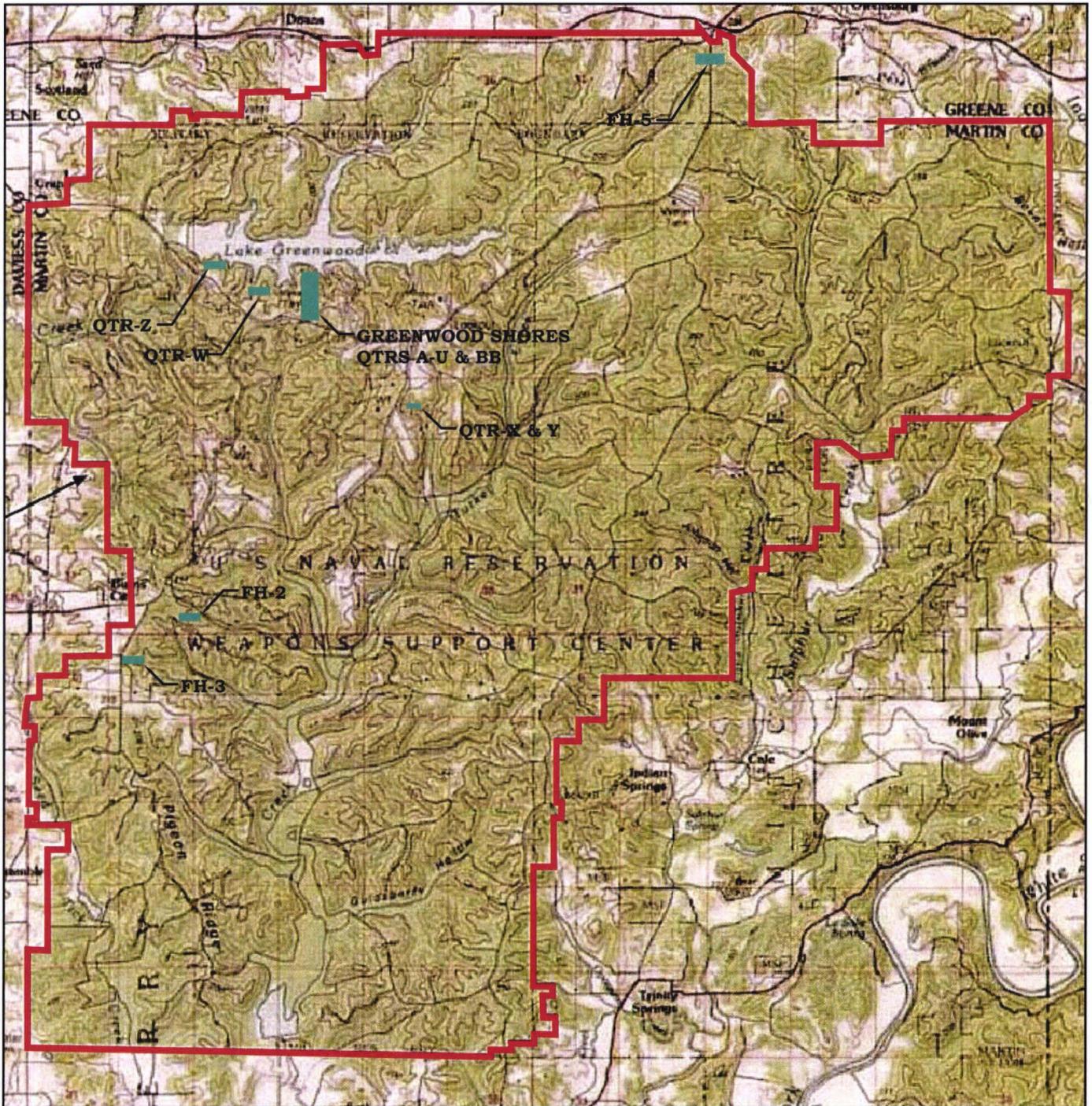
## **15.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS**

MACTEC is a multidisciplinary environmental consulting firm that has provided comprehensive environmental consulting services to industry since 1965. MACTEC offers the full range of technical disciplines to address environmental issues arising in air, soil, surface water, groundwater, or biota.

MACTEC is a major environmental subsidiary of MACTEC, Inc., a full service environmental management company ranked #8 in Engineering News Record annual 'Top 20 All Environmental Firms' listing, based in Golden, Colorado. MACTEC employs more than 1,000 professionals working out of a nationwide network of offices.

**APPENDIX A**

**Figures**



KEY

- = Approximate Site Boundary
- = Approximate Quarters & Farmhouse Locations



**MACTEC**  
Engineering and Consulting, Inc.

Site Location & Map

Naval Support Activity  
Crane, IN

FIGURE

**1**

DRAWN  
GAP

PROJECT NUMBER  
3205050441.04

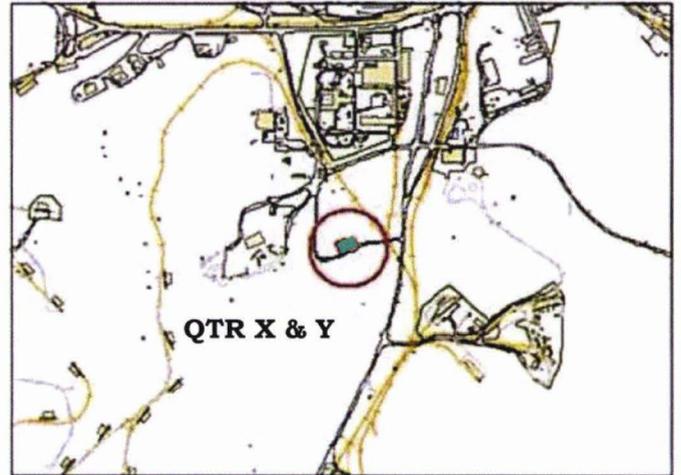
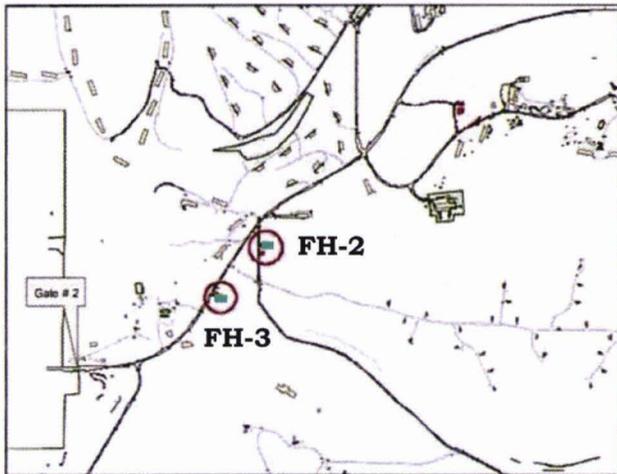
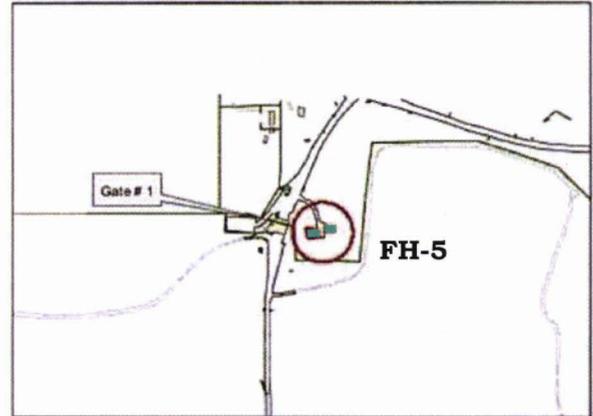
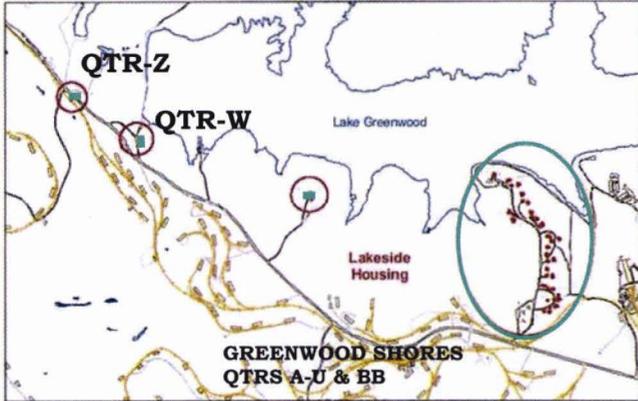
APPROVED

DATE  
09/12/05

REVISED DATE



SOURCE: MACTEC Engineering and Consulting, Inc.  
Field Notes.



KEY

- = Approximate Site Boundary
- = Quarters & Farmhouse Locations



**MACTEC**  
Engineering and Consulting, Inc.

DRAWN  
GAP

PROJECT NUMBER  
3205050472.04

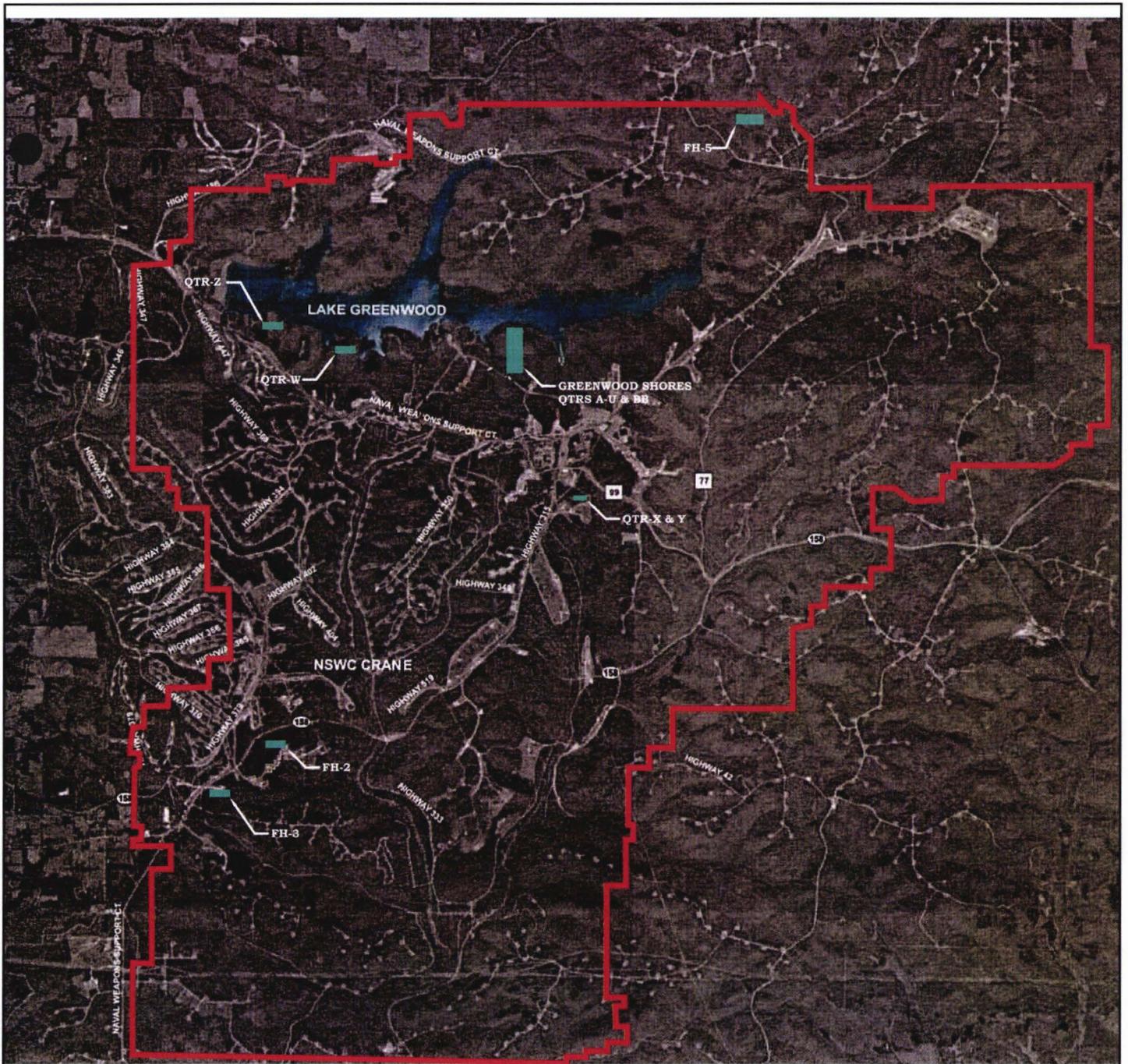
APPROVED

Site & Vicinity Map  
Details  
Naval Support Activity  
Crane, IN

DATE  
08/25/05

REVISED DATE

FIGURE  
**3**



KEY

- = Approximate Site Boundary
- = Approximate Quarters & Farmhouse Locations



**MACTEC**  
Engineering and Consulting, Inc.

DRAWN PROJECT NUMBER  
GAP 3205050472.04

Site Location & Aerial Photograph

Naval Support Activity  
Crane, IN

APPROVED

DATE  
08/25/05

REVISED DATE

FIGURE  
**4**

**APPENDIX B**

**Photographic Documentation**

Photograph #1	Remarks
 <p>A photograph showing the rear view of a stone building. A vent pipe extends from the roof down to a concrete pad where a sand-filled heating oil underground storage tank (UST) is located. A natural gas meter is visible on the wall near the UST. A blue trash bin is on the pad. A red timestamp '2005 6 16' is at the bottom right of the photo.</p>	<p>Rear view of Quarters D in Greenwood Shores. Note the vent pipe in the area of the natural gas meter (subject property). The vent pipe indicates the area of the sand-filled heating oil underground storage tank (UST). Vent pipes were visible at all residential units with the exception of K, Q, and Z.</p>

Photograph #2	Remarks
 <p>A photograph showing a typical vent pipe configuration on a stone building. The vent pipe extends vertically from the roof down the side of the building. A window is visible above the vent pipe. A red timestamp '2005 6 16' is at the bottom right of the photo.</p>	<p>View of typical vent pipe configuration at Quarters L in Greenwood Shores (subject property).</p>

Photograph #3	Remarks
 <p>A photograph showing the front view of a two-story house. The house has white horizontal siding on the upper level and a stone foundation on the lower level. It features a gabled roof with two dormer windows. A paved walkway leads from the foreground to the front door. The house is surrounded by lush green trees and a well-maintained lawn. A red date stamp '2005 8 16' is visible in the bottom right corner of the photo.</p>	<p>Front view of typical Greenwood Shores house (subject property).</p>

Photograph #4	Remarks
 <p>A photograph showing a detached garage with white horizontal siding and a dark roof. The garage is situated on a green lawn. A red pickup truck is parked on a paved driveway to the right of the garage. The background is filled with tall green trees. A red date stamp '2005 8 16' is visible in the bottom right corner of the photo.</p>	<p>View of typical detached garage at the Greenwood Shores community (subject property).</p>

Photograph #5	Remarks
	<p>View of sanitary sewer manholes in the grassy areas between the houses at Greenwood Shores.</p>

Photograph #6	Remarks
	<p>View of water stained area at the basement floor drain at Quarters S in Greenwood Shores. Moisture and water in the vicinity of the basement floor drain were observed in several of the houses.</p>

Photograph #7	Remarks
 <p>A photograph showing the rear view of a two-story yellow house with horizontal siding and dark shutters. A black pickup truck is parked on the left side of the house. A set of stairs leads up to the back entrance on the right. A red date stamp '2005 8 16' is visible in the bottom right corner of the photo.</p>	<p>Rear view of Quarters W (subject property).</p>

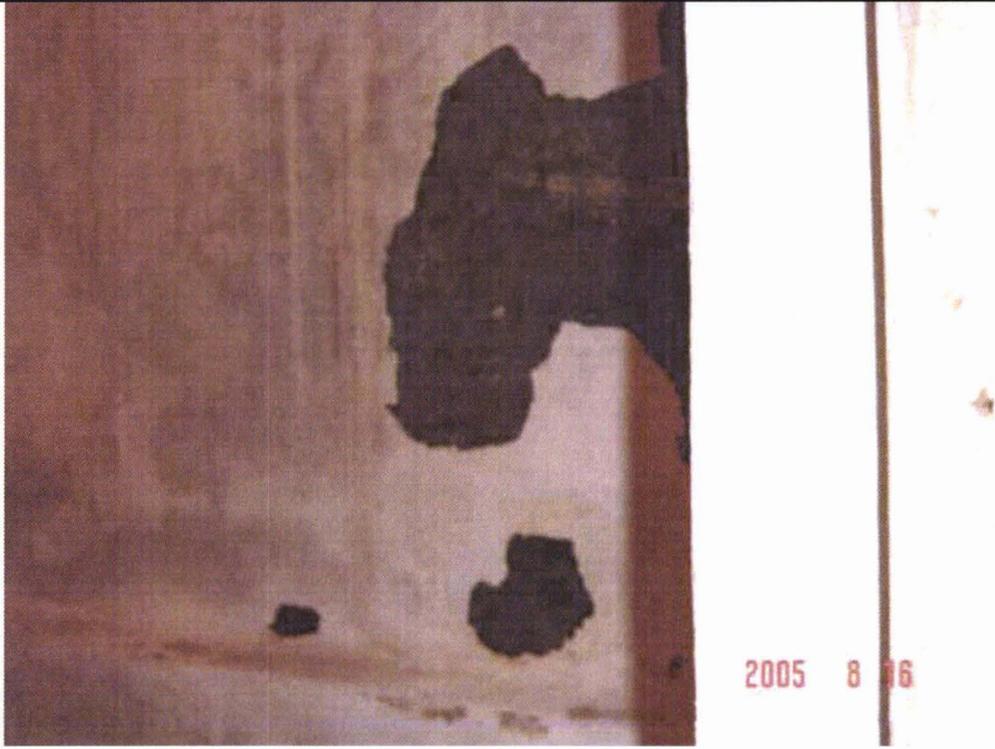
Photograph #8	Remarks
 <p>A photograph showing the rear view of a single-story house with a stone foundation and white upper walls. A picnic table is visible in the front yard. A person is standing in the background on the right. A red date stamp '2005 8 16' is visible in the bottom right corner of the photo.</p>	<p>Rear view of Quarters Z (subject property).</p>

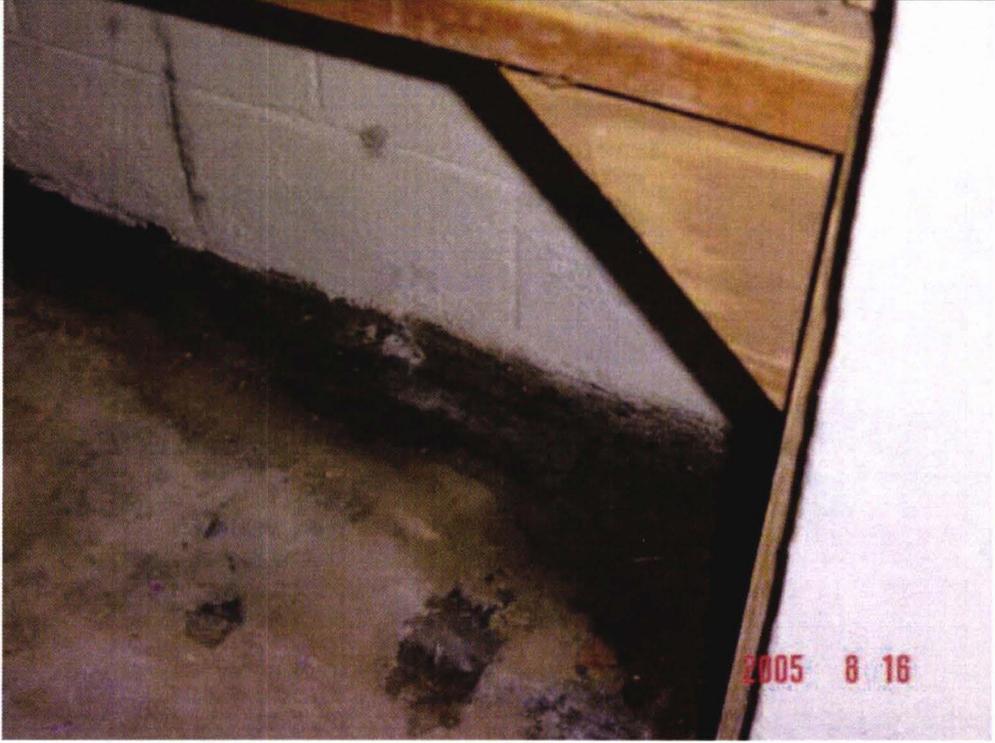
Photograph #9	Remarks
 <p>A photograph of an interior room. In the center is a dark, arched fireplace with a wooden mantel. The walls are light-colored with two small decorative items. To the right is a dark wood door with glass panes. The floor is polished wood. A red date stamp '2005 8 16' is visible in the bottom right corner of the photo.</p>	<p>Typical interior view at one of the unoccupied quarters in Greenwood Shores (subject property).</p>

Photograph #10	Remarks
 <p>A photograph of a hallway with dark wood paneling on the walls and ceiling. There are two windows with white blinds in the background. The floor is dark wood. A red date stamp '2005 8 16' is visible in the bottom right corner of the photo.</p>	<p>Typical interior view of one of the Greenwood Shores unoccupied units (subject property).</p>

Photograph #11	Remarks
	<p>Storm water drainage ditch along the road in Greenwood Shores.</p>

Photograph #12	Remarks
	<p>Front view of Quarters A in Greenwood Shores (subject property).</p>

Photograph #13	Remarks
	<p>Damaged, peeling paint in the cellar of Quarters M in Greenwood Shores. Peeling paint was also observed in Quarters S in Greenwood Shores.</p>

Photograph #14	Remarks
	<p>Microbial growth (possibly mold) in the cellar of Quarters F in Greenwood Shores (subject property).</p>

Photograph #15	Remarks
 <p>A photograph showing the interior of a cellar. The walls are heavily stained with brown and black mold, indicating water intrusion and microbial growth. The floor is dark and appears to be concrete. A red date stamp '2005 8 18' is visible in the bottom right corner of the photo.</p>	<p>Signs of water intrusion and microbial growth in the cellar of Quarters M in Greenwood Shores (subject property).</p>

Photograph #16	Remarks
 <p>A photograph showing the exterior of a white building with horizontal siding. In the foreground, there is a water well and pump system. The pump is a blue metal unit on a concrete base. A manhole cover is visible on the grass in the foreground. A red date stamp '2005 8 17' is visible in the bottom right corner of the photo.</p>	<p>Possible potable water well and pump at the rear of Farmhouse 2 (subject property).</p>

Photograph #17	Remarks
	<p>Transite debris adjacent to the garage building at Farmhouse 2 (subject property).</p>

Photograph #18	Remarks
	<p>View of Farmhouse 2 (subject property).</p>

Photograph #19	Remarks
	View of Farmhouse 5 (subject property).

Photograph #20	Remarks
	View of the possible potable water well at the rear of Farmhouse 5 (subject property).

**APPENDIX C**  
**Regulatory Information**



**EDR™** Environmental  
Data Resources Inc

## **The EDR Radius Map with GeoCheck®**

**NSA Crane Greenwood Shores Community  
NSA Crane  
Crane, IN 47522**

**Inquiry Number: 01432723.1r**

**May 31, 2005**

## **The Standard in Environmental Risk Management Information**

**440 Wheelers Farms Road  
Milford, Connecticut 06460**

### **Nationwide Customer Service**

**Telephone: 1-800-352-0050  
Fax: 1-800-231-6802  
Internet: [www.edrnet.com](http://www.edrnet.com)**

## TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
Executive Summary.....	ES1
Overview Map.....	2
Detail Map.....	3
Map Findings Summary.....	4
Map Findings.....	6
Orphan Summary.....	7
Government Records Searched/Data Currency Tracking.....	GR-1
 <b><u>GEOCHECK ADDENDUM</u></b>	
Physical Setting Source Addendum.....	A-1
Physical Setting Source Summary.....	A-2
Physical Setting Source Map.....	A-7
Physical Setting Source Map Findings.....	A-8
Physical Setting Source Records Searched.....	A-9

*Thank you for your business.*  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

### Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2005 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission. EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

### TARGET PROPERTY INFORMATION

#### ADDRESS

NSA CRANE  
CRANE, IN 47522

#### COORDINATES

Latitude (North): 38.871200 - 38° 52' 16.3"  
Longitude (West): 86.835100 - 86° 50' 6.4"  
Universal Transverse Mercator: Zone 16  
UTM X (Meters): 514305.2  
UTM Y (Meters): 4302289.0  
Elevation: 746 ft. above sea level

#### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property: 38086-G7 INDIAN SPRINGS, IN  
Source: USGS 7.5 min quad index

### TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

### DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ( "reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

#### FEDERAL ASTM STANDARD

NPL..... National Priority List  
Proposed NPL..... Proposed National Priority List Sites  
CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System  
CERC-NFRAP..... CERCLIS No Further Remedial Action Planned  
CORRACTS..... Corrective Action Report  
RCRA-TSDF..... Resource Conservation and Recovery Act Information  
RCRA-LQG..... Resource Conservation and Recovery Act Information  
RCRA-SQG..... Resource Conservation and Recovery Act Information  
ERNS..... Emergency Response Notification System.

#### STATE ASTM STANDARD

SHWS..... List of Hazardous Waste Response Sites Scored Using the Indiana Scoring Model

## EXECUTIVE SUMMARY

SWF/LF.....	Permitted Solid Waste Facilities
LUST.....	Lust Leaking Underground Storage Tank List
UST.....	Indiana Registered Underground Storage Tanks
VCP.....	Voluntary Remediation Program Site List

### FEDERAL ASTM SUPPLEMENTAL

CONSENT.....	Superfund (CERCLA) Consent Decrees
ROD.....	Records Of Decision
Delisted NPL.....	National Priority List Deletions
FINDS.....	Facility Index System/Facility Identification Initiative Program Summary Report
HMIRS.....	Hazardous Materials Information Reporting System
MLTS.....	Material Licensing Tracking System
MINES.....	Mines Master Index File
NPL Liens.....	Federal Superfund Liens
PADS.....	PCB Activity Database System
INDIAN RESERV.....	Indian Reservations
ODL.....	Open Dump Inventory
US ENG CONTROLS.....	Engineering Controls Sites List
UMTRA.....	Uranium Mill Tailings Sites
FUDS.....	Formerly Used Defense Sites
RAATS.....	RCRA Administrative Action Tracking System
TRIS.....	Toxic Chemical Release Inventory System
TSCA.....	Toxic Substances Control Act
SSTS.....	Section 7 Tracking Systems
FTTS INSP.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

### STATE OR LOCAL ASTM SUPPLEMENTAL

IN Spills.....	Spills Incidents
BULK.....	Registered Bulk Fertilizer and Pesticide Storage Facilities
DRYCLEANERS.....	Drycleaner Facility Listing

### EDR PROPRIETARY HISTORICAL DATABASES

Coal Gas.....	Former Manufactured Gas (Coal Gas) Sites
---------------	--

### BROWNFIELDS DATABASES

US BROWNFIELDS.....	A Listing of Brownfields Sites
US INST CONTROL.....	Sites with Institutional Controls
Brownfields.....	Brownfields Site List
AUL.....	Sites with Restrictions
VCP.....	Voluntary Remediation Program Site List

### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

## EXECUTIVE SUMMARY

### FEDERAL ASTM SUPPLEMENTAL

**Federal Lands:** Consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

A review of the DOD list, as provided by EDR, and dated 10/01/2003 has revealed that there is 1 DOD site within approximately 1 mile of the target property.

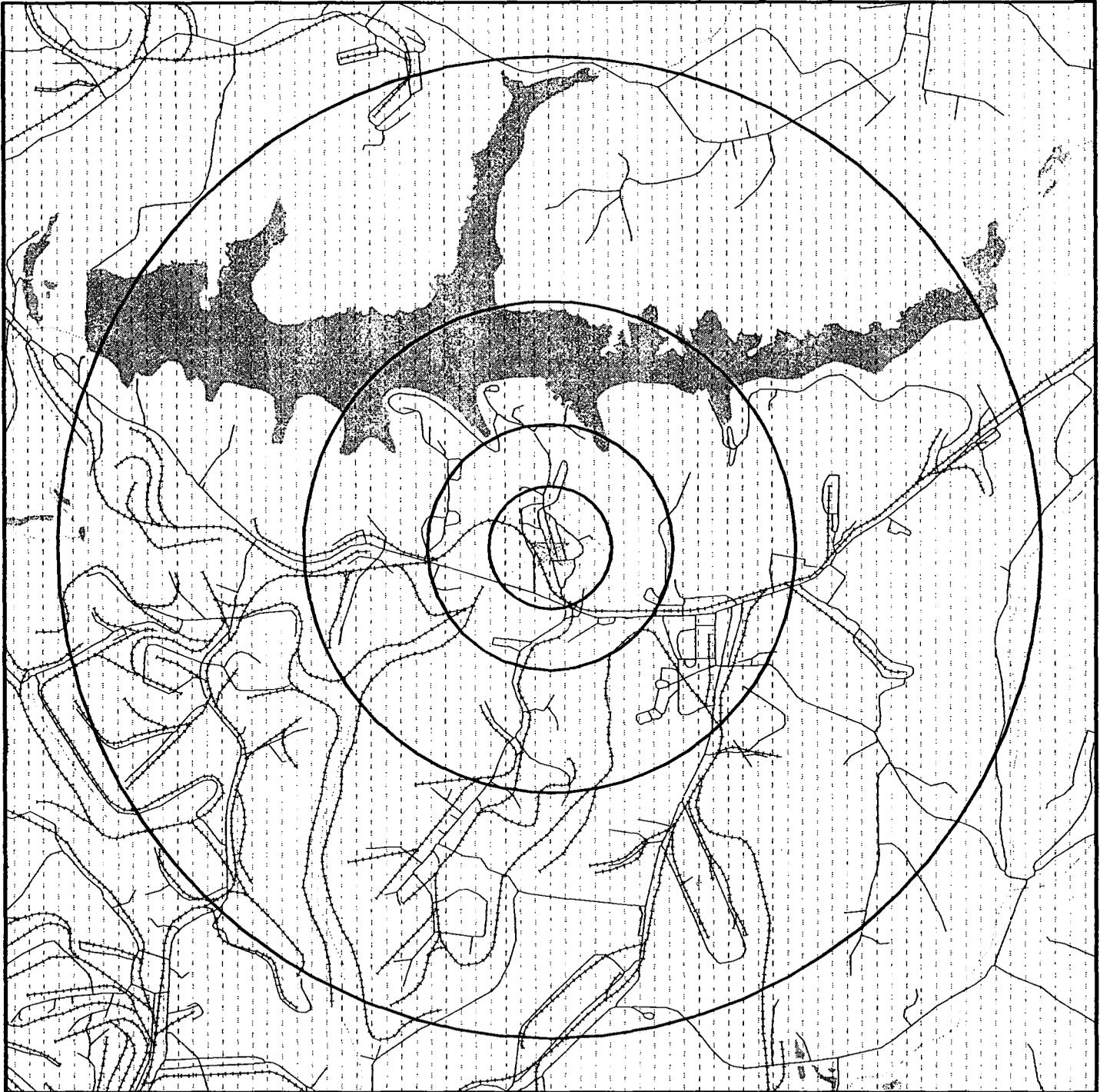
<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
CRANE NAVAL WEAPONS SUPPORT CE		0 - 1/8	0	6

## EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

<u>Site Name</u>	<u>Database(s)</u>
CRANE NAVAL WEAPONS SUPPORT CTR	FTTS INSP
CRANE NAVAL SUPPORT CTR	FTTS INSP
CRANE NAVAL WEAPONS SUPPORT CTR	FTTS INSP
US NAVAL SURFACE WARFARE CTR CRANE DIV	PADS, CERCLIS, FINDS, RCRA-LQG, RCRA-TSDF, CORRACTS
CRANE NAVAL SURFACE WARFARE CENTER LANDF	SWF/LF
GTE NORTH INC	LUST, UST
U.S. NAVY, NSWC CRANE	LUST, UST
CRANE NAVAL WEAPONS CENT. BLDG 69	ERNS
CRANE DIVISION 300 HWY 361	ERNS
CRANE DIVISION 300 HWY 361	ERNS
CRANE DIVISION 300 HWY 361	ERNS
CRANE 76 STA	FINDS
CRANE POST OFFICE	FINDS
U.S. NAVY NSWC CRANE DIV. RANGE FACILITY	TRIS

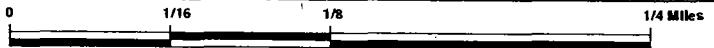
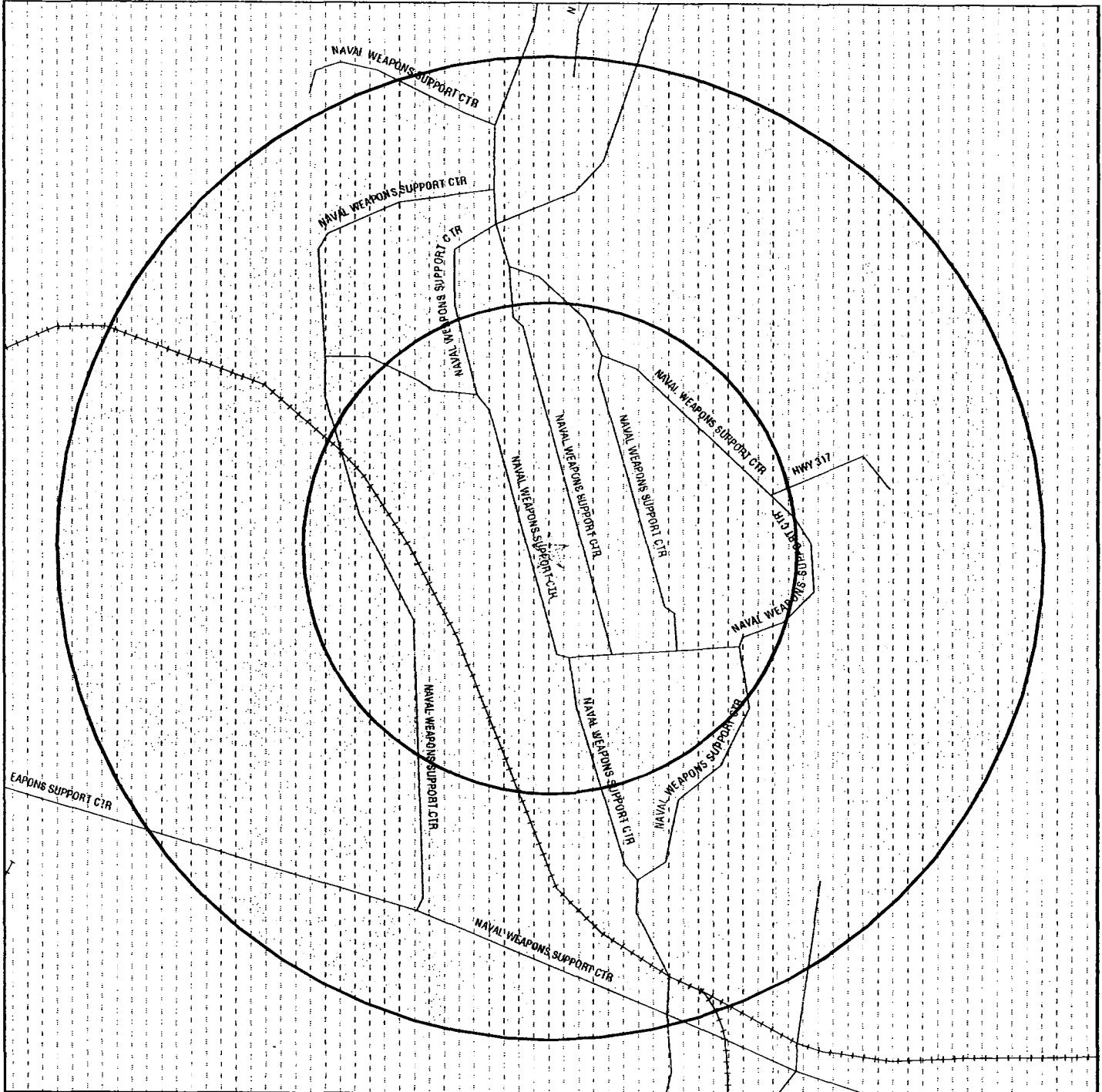
# OVERVIEW MAP - 01432723.1r - MACTEC, Inc.



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites
- ▨ National Priority List Sites
- ▩ Landfill Sites
- ▧ Dept. Defense Sites
- ▨ Indian Reservations BIA
- Oil & Gas pipelines
- ▨ Federal Wetlands

<b>TARGET PROPERTY:</b>	NSA Crane Greenwood Shores Community	<b>CUSTOMER:</b>	MACTEC, Inc.
<b>ADDRESS:</b>	NSA Crane	<b>CONTACT:</b>	Carmen Yung
<b>CITY/STATE/ZIP:</b>	Crane IN 47522	<b>INQUIRY #:</b>	01432723.1r
<b>LAT/LONG:</b>	38.8712 / 86.8351	<b>DATE:</b>	May 31, 2005 1:44 pm

**DETAIL MAP - 01432723.1r - MACTEC, Inc.**



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites
- ⚡ Sensitive Receptors
- ▨ National Priority List Sites
- ▨ Landfill Sites
- ▨ Dept. Defense Sites

- ▨ Indian Reservations BIA
- ⚡ Oil & Gas pipelines



<b>TARGET PROPERTY:</b> <b>ADDRESS:</b> <b>CITY/STATE/ZIP:</b> <b>LAT/LONG:</b>	NSA Crane Greenwood Shores Community NSA Crane Crane IN 47522 38.8712 / 86.8351	<b>CUSTOMER:</b> <b>CONTACT:</b> <b>INQUIRY #:</b> <b>DATE:</b>	MACTEC, Inc. Carmen Yung 01432723.1r May 31, 2005 1:44 pm
--	--	--	--

## MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b><u>FEDERAL ASTM STANDARD</u></b>								
	NPL	1.500	0	0	0	0	0	0
	Proposed NPL	1.500	0	0	0	0	0	0
	CERCLIS	1.000	0	0	0	0	NR	0
	CERC-NFRAP	0.750	0	0	0	0	NR	0
	CORRACTS	1.500	0	0	0	0	0	0
	RCRA TSD	1.000	0	0	0	0	NR	0
	RCRA Lg. Quan. Gen.	0.750	0	0	0	0	NR	0
	RCRA Sm. Quan. Gen.	0.750	0	0	0	0	NR	0
	ERNS	0.500	0	0	0	NR	NR	0
<b><u>STATE ASTM STANDARD</u></b>								
	State Haz. Waste	1.500	0	0	0	0	0	0
	State Landfill	1.000	0	0	0	0	NR	0
	LUST	1.000	0	0	0	0	NR	0
	UST	0.750	0	0	0	0	NR	0
	VCP	1.000	0	0	0	0	NR	0
<b><u>FEDERAL ASTM SUPPLEMENTAL</u></b>								
	CONSENT	1.000	0	0	0	0	NR	0
	ROD	1.000	0	0	0	0	NR	0
	Delisted NPL	1.000	0	0	0	0	NR	0
	FINDS	TP	NR	NR	NR	NR	NR	0
	HMIRS	TP	NR	NR	NR	NR	NR	0
	MLTS	TP	NR	NR	NR	NR	NR	0
	MINES	0.250	0	0	NR	NR	NR	0
	NPL Liens	TP	NR	NR	NR	NR	NR	0
	PADS	TP	NR	NR	NR	NR	NR	0
	DOD	1.000	1	0	0	0	NR	1
	INDIAN RESERV	1.000	0	0	0	0	NR	0
	ODI	1.000	0	0	0	0	NR	0
	US ENG CONTROLS	0.500	0	0	0	NR	NR	0
	UMTRA	1.000	0	0	0	0	NR	0
	FUDS	1.500	0	0	0	0	0	0
	RAATS	TP	NR	NR	NR	NR	NR	0
	TRIS	TP	NR	NR	NR	NR	NR	0
	TSCA	TP	NR	NR	NR	NR	NR	0
	SSTS	TP	NR	NR	NR	NR	NR	0
	FTTS	TP	NR	NR	NR	NR	NR	0
<b><u>STATE OR LOCAL ASTM SUPPLEMENTAL</u></b>								
	IN Spills	TP	NR	NR	NR	NR	NR	0
	BULK	TP	NR	NR	NR	NR	NR	0
	DRYCLEANERS	0.250	0	0	NR	NR	NR	0

## MAP FINDINGS SUMMARY

<u>Database</u>	<u>Target Property</u>	<u>Search Distance (Miles)</u>	<u>&lt; 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>&gt; 1</u>	<u>Total Plotted</u>
<b><u>EDR PROPRIETARY HISTORICAL DATABASES</u></b>								
Coal Gas		1.000	0	0	0	0	NR	0
<b><u>BROWNFIELDS DATABASES</u></b>								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
Brownfields		0.500	0	0	0	NR	NR	0
AUL		0.500	0	0	0	NR	NR	0
VCP		1.000	0	0	0	0	NR	0

**NOTES:**

AQUIFLOW - see EDR Physical Setting Source Addendum

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

**MAP FINDINGS**

Site \_\_\_\_\_ Database(s) \_\_\_\_\_ EDR ID Number \_\_\_\_\_  
EPA ID Number \_\_\_\_\_

**Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.**

DOD  
Region  
< 1/8  
1 ft.

**CRANE NAVAL WEAPONS SUPPORT CENTER  
MARTIN (County), IN**

DOD CDOD034102  
N/A

**FEDERAL LANDS:**

Feature 1: Navy DOD  
Feature 2: Not reported  
Feature 3: Not reported  
Agency: DOD  
URL: Not reported  
Name 1: Crane Naval Weapons Support Center  
Name 2: Not reported  
Name 3: Not reported  
State: IN

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CRANE	1004485187	CRANE 76 STA	US 231 & SR 558 3 MILES	47522	FINDS
CRANE	S106599777	CRANE NAVAL SURFACE WARFARE CENTER LANDF	300 HWY 361 BLDG 3260 CODE 095		SWF/LF
CRANE	1006814610	U.S. NAVY NSWC CRANE DIV. RANGE FACILITY	300 HWY. 361	47522	TRIS
CRANE	1004493103	CRANE POST OFFICE	SR 558 & LEAHY ST	47522	FINDS
CRANE	U003577527	GTE NORTH INC	SR 558	47522	LUST, UST
CRANE	1000307750	US NAVAL SURFACE WARFARE CTR CRANE DIV	BLDG 3260 CODE 095	47522	PADS, CERCLIS, FINDS, RCRA-LQG, RCRA-TSDF, CORRACTS
CRANE	1008178179	CRANE NAVAL WEAPONS SUPPORT CTR	BUILDING 2516	47522	FTTS INSP
CRANE	U001080078	U.S. NAVY, NSWC CRANE	CODE RP3, BLDG 3260, 300 HWY 361	47522	LUST, UST
CRANE	90186554	CRANE NAVAL WEAPONS CENT. BLDG 69	CRANE NAVAL WEAPONS CENT. BLDG 69		ERNS
CRANE	94356114	CRANE DIVISION 300 HWY 361	CRANE DIVISION 300 HWY 361	47522	ERNS
CRANE	93336466	CRANE DIVISION 300 HWY 361	CRANE DIVISION 300 HWY 361	47522	ERNS
CRANE	93325490	CRANE DIVISION 300 HWY 361	CRANE DIVISION 300 HWY 361	47522	ERNS
CRANE	1008178178	CRANE NAVAL SUPPORT CTR	CRANE NAVAL SUPPORT CTR	47522	FTTS INSP
CRANE	1007274593	CRANE NAVAL WEAPONS SUPPORT CTR	XXXXXXXXXXXXXXXX	47522	FTTS INSP

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Elapsed ASTM days:** Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

## FEDERAL ASTM STANDARD RECORDS

### **NPL: National Priority List**

Source: EPA

Telephone: N/A

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/28/05

Date Made Active at EDR: 05/16/05

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 05/04/05

Elapsed ASTM days: 12

Date of Last EDR Contact: 05/04/05

### **NPL Site Boundaries**

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

EPA Region 1

Telephone 617-918-1143

EPA Region 3

Telephone 215-814-5418

EPA Region 4

Telephone 404-562-8033

EPA Region 6

Telephone: 214-655-6659

EPA Region 8

Telephone: 303-312-6774

### **Proposed NPL: Proposed National Priority List Sites**

Source: EPA

Telephone: N/A

Date of Government Version: 04/27/05

Date Made Active at EDR: 05/16/05

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 05/04/05

Elapsed ASTM days: 12

Date of Last EDR Contact: 05/04/05

### **CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System**

Source: EPA

Telephone: 703-413-0223

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/15/05

Date Made Active at EDR: 04/06/05

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/22/05

Elapsed ASTM days: 15

Date of Last EDR Contact: 03/22/05

### **CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned**

Source: EPA

Telephone: 703-413-0223

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/22/05  
Date Made Active at EDR: 04/06/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 04/01/05  
Elapsed ASTM days: 5  
Date of Last EDR Contact: 04/01/05

## **CORRACTS:** Corrective Action Report

Source: EPA  
Telephone: 800-424-9346

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/29/05  
Date Made Active at EDR: 05/16/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 04/11/05  
Elapsed ASTM days: 35  
Date of Last EDR Contact: 03/07/05

## **RCRA:** Resource Conservation and Recovery Act Information

Source: EPA  
Telephone: 800-424-9346

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/13/05  
Date Made Active at EDR: 04/25/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/23/05  
Elapsed ASTM days: 33  
Date of Last EDR Contact: 03/23/05

## **ERNS:** Emergency Response Notification System

Source: National Response Center, United States Coast Guard  
Telephone: 202-260-2342

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/04  
Date Made Active at EDR: 03/24/05  
Database Release Frequency: Annually

Date of Data Arrival at EDR: 01/27/05  
Elapsed ASTM days: 56  
Date of Last EDR Contact: 04/25/05

## **FEDERAL ASTM SUPPLEMENTAL RECORDS**

### **BRS:** Biennial Reporting System

Source: EPA/NTIS  
Telephone: 800-424-9346

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/01/01  
Database Release Frequency: Biennially

Date of Last EDR Contact: 04/15/05  
Date of Next Scheduled EDR Contact: 06/13/05

### **CONSENT:** Superfund (CERCLA) Consent Decrees

Source: Department of Justice, Consent Decree Library  
Telephone: Varies

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/14/04  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/26/05  
Date of Next Scheduled EDR Contact: 07/25/05

**ROD: Records Of Decision**

Source: EPA  
Telephone: 703-416-0223

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 01/10/05  
Database Release Frequency: Annually

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

**DELISTED NPL: National Priority List Deletions**

Source: EPA  
Telephone: N/A

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/28/05  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 05/04/05  
Date of Next Scheduled EDR Contact: 08/01/05

**FINDS: Facility Index System/Facility Identification Initiative Program Summary Report**

Source: EPA  
Telephone: N/A

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/11/05  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

**HMIRS: Hazardous Materials Information Reporting System**

Source: U.S. Department of Transportation  
Telephone: 202-366-4555

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/04  
Database Release Frequency: Annually

Date of Last EDR Contact: 04/19/05  
Date of Next Scheduled EDR Contact: 07/18/05

**MLTS: Material Licensing Tracking System**

Source: Nuclear Regulatory Commission  
Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 01/12/05  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

**MINES: Mines Master Index File**

Source: Department of Labor, Mine Safety and Health Administration  
Telephone: 303-231-5959

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/11/05  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/30/05  
Date of Next Scheduled EDR Contact: 06/27/05

## **NPL LIENS:** Federal Superfund Liens

Source: EPA  
Telephone: 202-564-4267

Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91  
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 02/22/05  
Date of Next Scheduled EDR Contact: 05/23/05

## **PADS:** PCB Activity Database System

Source: EPA  
Telephone: 202-564-3887

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/30/05  
Database Release Frequency: Annually

Date of Last EDR Contact: 05/10/05  
Date of Next Scheduled EDR Contact: 08/08/05

## **DOD:** Department of Defense Sites

Source: USGS  
Telephone: 703-692-8801

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 10/01/03  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/08/05  
Date of Next Scheduled EDR Contact: 05/09/05

## **UMTRA:** Uranium Mill Tailings Sites

Source: Department of Energy  
Telephone: 505-845-0011

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized. In 1978, 24 inactive uranium mill tailings sites in Oregon, Idaho, Wyoming, Utah, Colorado, New Mexico, Texas, North Dakota, South Dakota, Pennsylvania, and on Navajo and Hopi tribal lands, were targeted for cleanup by the Department of Energy.

Date of Government Version: 12/29/04  
Database Release Frequency: Varies

Date of Last EDR Contact: 03/22/05  
Date of Next Scheduled EDR Contact: 06/20/05

## **ODI:** Open Dump Inventory

Source: Environmental Protection Agency  
Telephone: 800-424-9346

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/85  
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 05/23/95  
Date of Next Scheduled EDR Contact: N/A

## **FUDS:** Formerly Used Defense Sites

Source: U.S. Army Corps of Engineers  
Telephone: 202-528-4285

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/03  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

## **INDIAN RESERV:** Indian Reservations

Source: USGS

Telephone: 202-208-3710

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 10/01/03  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/08/05  
Date of Next Scheduled EDR Contact: 05/09/05

## **US ENG CONTROLS:** Engineering Controls Sites List

Source: Environmental Protection Agency

Telephone: 703-603-8867

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 01/10/05  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

## **RAATS:** RCRA Administrative Action Tracking System

Source: EPA

Telephone: 202-564-4104

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95  
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 03/07/05  
Date of Next Scheduled EDR Contact: 06/06/05

## **TRIS:** Toxic Chemical Release Inventory System

Source: EPA

Telephone: 202-566-0250

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/02  
Database Release Frequency: Annually

Date of Last EDR Contact: 03/22/05  
Date of Next Scheduled EDR Contact: 06/20/05

## **TSCA:** Toxic Substances Control Act

Source: EPA

Telephone: 202-260-5521

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/02  
Database Release Frequency: Every 4 Years

Date of Last EDR Contact: 04/05/05  
Date of Next Scheduled EDR Contact: 06/06/05

## **FTTS INSP:** FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Source: EPA

Telephone: 202-566-1667

Date of Government Version: 04/13/05  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/21/05  
Date of Next Scheduled EDR Contact: 06/20/05

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **SSTS: Section 7 Tracking Systems**

Source: EPA

Telephone: 202-564-5008

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/03

Database Release Frequency: Annually

Date of Last EDR Contact: 04/19/05

Date of Next Scheduled EDR Contact: 07/18/05

## **FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)**

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

Telephone: 202-566-1667

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/13/05

Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/21/05

Date of Next Scheduled EDR Contact: 06/20/05

## **STATE OF INDIANA ASTM STANDARD RECORDS**

### **SHWS: List of Hazardous Waste Response Sites Scored Using the Indiana Scoring Model**

Source: Department of Environmental Management

Telephone: 317-308-3052

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 03/16/05

Date Made Active at EDR: 04/29/05

Database Release Frequency: Annually

Date of Data Arrival at EDR: 04/01/05

Elapsed ASTM days: 28

Date of Last EDR Contact: 04/01/05

### **SWF/LF: Permitted Solid Waste Facilities**

Source: Department of Environmental Management

Telephone: 317-232-0066

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 04/18/05

Date Made Active at EDR: 05/20/05

Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 04/22/05

Elapsed ASTM days: 28

Date of Last EDR Contact: 04/15/05

### **LUST: Leaking Underground Storage Tank List**

Source: Department of Environmental Management

Telephone: 317-308-3008

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 03/14/05

Date Made Active at EDR: 04/19/05

Database Release Frequency: Annually

Date of Data Arrival at EDR: 03/29/05

Elapsed ASTM days: 21

Date of Last EDR Contact: 03/29/05

### **UST: Indiana Registered Underground Storage Tanks**

Source: Department of Environmental Management

Telephone: 317-308-3008

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/14/05  
Date Made Active at EDR: 04/19/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/29/05  
Elapsed ASTM days: 21  
Date of Last EDR Contact: 03/29/05

**VCP:** Voluntary Remediation Program Site List  
Source: Department of Environmental Management  
Telephone: 317-234-0966

A current list of Voluntary Remediation Program sites that are no longer confidential.

Date of Government Version: 03/01/05  
Date Made Active at EDR: 05/26/05  
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 05/10/05  
Elapsed ASTM days: 16  
Date of Last EDR Contact: 05/10/05

## STATE OF INDIANA ASTM SUPPLEMENTAL RECORDS

**SPILLS:** Spills Incidents  
Source: Department of Environmental Management  
Telephone: 317-308-3008

Date of Government Version: 03/14/05  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/29/05  
Date of Next Scheduled EDR Contact: 06/27/05

**BULK:** Registered Bulk Fertilizer and Pesticide Storage Facilities  
Source: Office of Indiana State Chemist  
Telephone: 765-494-0579

A listing of registered dry or liquid bulk fertilizer and pesticide storage facilities.

Date of Government Version: 04/11/05  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/11/05  
Date of Next Scheduled EDR Contact: 06/13/05

**DRYCLEANERS:** Drycleaner Facility Listing  
Source: Department of Environmental Management  
Telephone: 800-988-7901

A list of drycleaners involved in the Indiana 5-Star Environmental Recognition Program. It is a voluntary program that ranks participating drycleaners on a scale of one to five stars. The program recognizes those drycleaners willing to do more for the environment and worker safety than the rules require. These drycleaners are going above and beyond the rules to protect the environment, their employees and their neighbors and customers.

Date of Government Version: 07/31/04  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/13/05  
Date of Next Scheduled EDR Contact: 07/11/05

## EDR PROPRIETARY HISTORICAL DATABASES

**Former Manufactured Gas (Coal Gas) Sites:** The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

### **Disclaimer Provided by Real Property Scan, Inc.**

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **BROWNFIELDS DATABASES**

### **Brownfields: Brownfields Site List**

Source: Department of Environmental Management  
Telephone: 317-233-2570

A brownfield site is an industrial or commercial property that is abandoned, inactive, or underutilized, on which expansion or redevelopment is complicated due to the actual or perceived environmental contamination.

Date of Government Version: 03/28/05  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/28/05  
Date of Next Scheduled EDR Contact: 06/27/05

### **VCP: Voluntary Remediation Program Site List**

Source: Department of Environmental Management  
Telephone: 317-234-0966

A current list of Voluntary Remediation Program sites that are no longer confidential.

Date of Government Version: 03/01/05  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 05/10/05  
Date of Next Scheduled EDR Contact: 08/08/05

### **AUL: Sites with Restrictions**

Source: Department of Environmental Management  
Telephone: 317-232-8603

Activity and use limitations include both engineering controls and institutional controls. A listing of Comfort/Site Status Letter sites that have been issued with controls.

Date of Government Version: 03/28/05  
Database Release Frequency: Varies

Date of Last EDR Contact: 03/28/05  
Date of Next Scheduled EDR Contact: 06/27/05

### **US BROWNFIELDS: A Listing of Brownfields Sites**

Source: Environmental Protection Agency  
Telephone: 202-566-2777

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 01/10/05  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/14/05  
Date of Next Scheduled EDR Contact: 06/13/05

### **US INST CONTROL: Sites with Institutional Controls**

Source: Environmental Protection Agency  
Telephone: 703-603-8867

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/10/05  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

**Oil/Gas Pipelines:** This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

### **Electric Power Transmission Line Data**

Source: PennWell Corporation  
Telephone: (800) 823-6277

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

**Sensitive Receptors:** There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

### **AHA Hospitals:**

Source: American Hospital Association, Inc.  
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

### **Medical Centers: Provider of Services Listing**

Source: Centers for Medicare & Medicaid Services  
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

### **Nursing Homes**

Source: National Institutes of Health  
Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

### **Public Schools**

Source: National Center for Education Statistics  
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

### **Private Schools**

Source: National Center for Education Statistics  
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

### **Daycare Centers: child Care Listing**

Source: Family & Social Services Administration  
Telephone: 317-232-4740

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## STREET AND ADDRESS INFORMATION

© 2004 Geographic Data Technology, Inc., Rel. 07/2004. This product contains proprietary and confidential property of Geographic Data Technology, Inc. Unauthorized use, including copying for other than testing and standard backup procedures, of this product is expressly prohibited.

## GEOCHECK® - PHYSICAL SETTING SOURCE ADDENDUM

### TARGET PROPERTY ADDRESS

NSA CRANE GREENWOOD SHORES COMMUNITY  
NSA CRANE  
CRANE, IN 47522

### TARGET PROPERTY COORDINATES

Latitude (North):	38.871201 - 38° 52' 16.3"
Longitude (West):	86.835098 - 86° 50' 6.4"
Universal Tranverse Mercator:	Zone 16
UTM X (Meters):	514305.2
UTM Y (Meters):	4302289.0
Elevation:	746 ft. above sea level

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with ASTM 1527-00, Section 7.2.3. Section 7.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

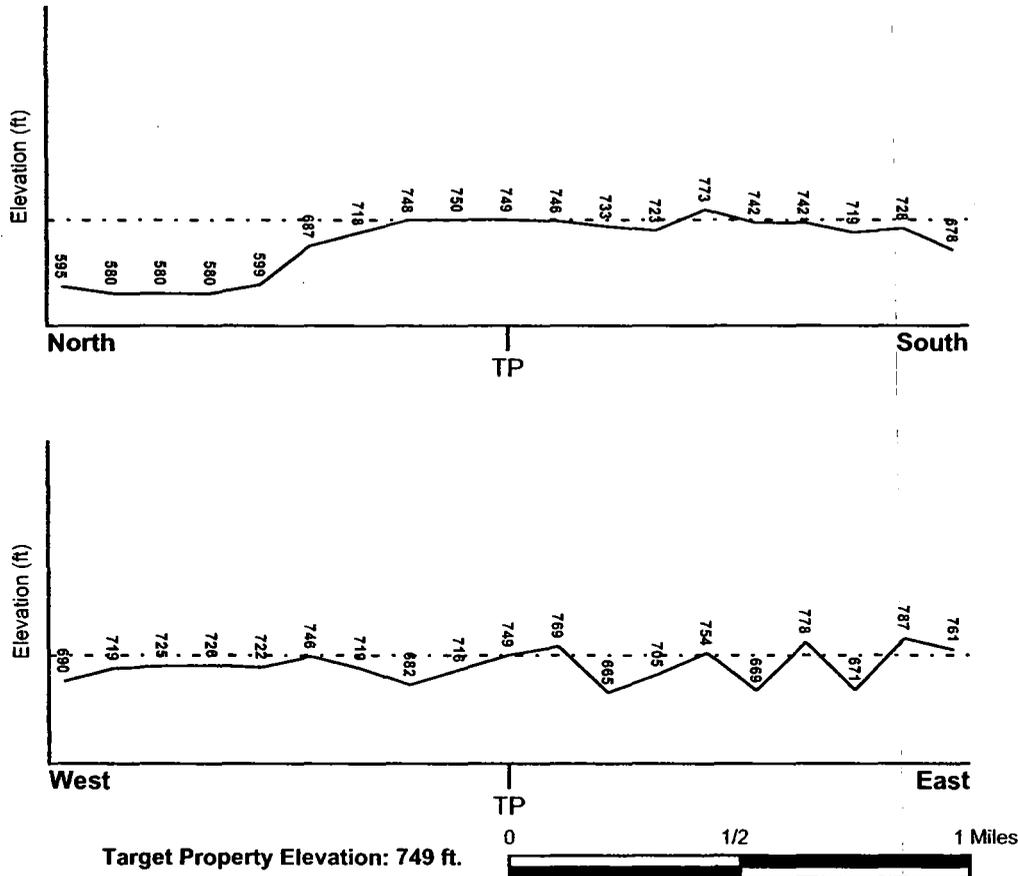
## TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## TARGET PROPERTY TOPOGRAPHY

USGS Topographic Map: 38086-G7 INDIAN SPRINGS, IN  
General Topographic Gradient: General East  
Source: USGS 7.5 min quad index

## SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

### FEMA FLOOD ZONE

Target Property County  
MARTIN, IN

FEMA Flood  
Electronic Data  
Not Available

Flood Plain Panel at Target Property:

Not Reported

Additional Panels in search area:

Not Reported

### NATIONAL WETLAND INVENTORY

NWI Quad at Target Property  
INDIAN SPRINGS

NWI Electronic  
Data Coverage  
YES - refer to the Overview Map and Detail Map

### HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

### AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

## GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

### ROCK STRATIGRAPHIC UNIT

### GEOLOGIC AGE IDENTIFICATION

Era:	Paleozoic	Category:	Stratified Sequence
System:	Pennsylvanian		
Series:	Atokan and Morrowan Series		
Code:	PP1 (decoded above as Era, System & Series)		

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

## DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:	ZANESVILLE
Soil Surface Texture:	silt loam
Hydrologic Group:	Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.
Soil Drainage Class:	Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.
Hydric Status:	Soil does not meet the requirements for a hydric soil.
Corrosion Potential - Uncoated Steel:	MODERATE
Depth to Bedrock Min:	> 40 inches
Depth to Bedrock Max:	> 40 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 2.00 Min: 0.60	Max: 6.00 Min: 4.50
2	7 inches	28 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 2.00 Min: 0.60	Max: 6.00 Min: 4.50
3	28 inches	39 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 0.60 Min: 0.06	Max: 6.00 Min: 4.50
4	39 inches	60 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 2.00 Min: 0.20	Max: 6.00 Min: 4.50
5	60 inches	64 inches	unweathered bedrock	Not reported	Not reported	Max: 0.20 Min: 0.00	Max: 0.00 Min: 0.00

### OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: No Other Soil Types

Surficial Soil Types: No Other Soil Types

Shallow Soil Types: channery - loam

Deeper Soil Types: weathered bedrock  
fine sandy loam  
stratified

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## ADDITIONAL ENVIRONMENTAL RECORD SOURCES

According to ASTM E 1527-00, Section 7.2.2, "one or more additional state or local sources of environmental records may be checked, in the discretion of the environmental professional, to enhance and supplement federal and state sources... Factors to consider in determining which local or additional state records, if any, should be checked include (1) whether they are reasonably ascertainable, (2) whether they are sufficiently useful, accurate, and complete in light of the objective of the records review (see 7.1.1); and (3) whether they are obtained, pursuant to local, good commercial or customary practice." One of the record sources listed in Section 7.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

## WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

## FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

## FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

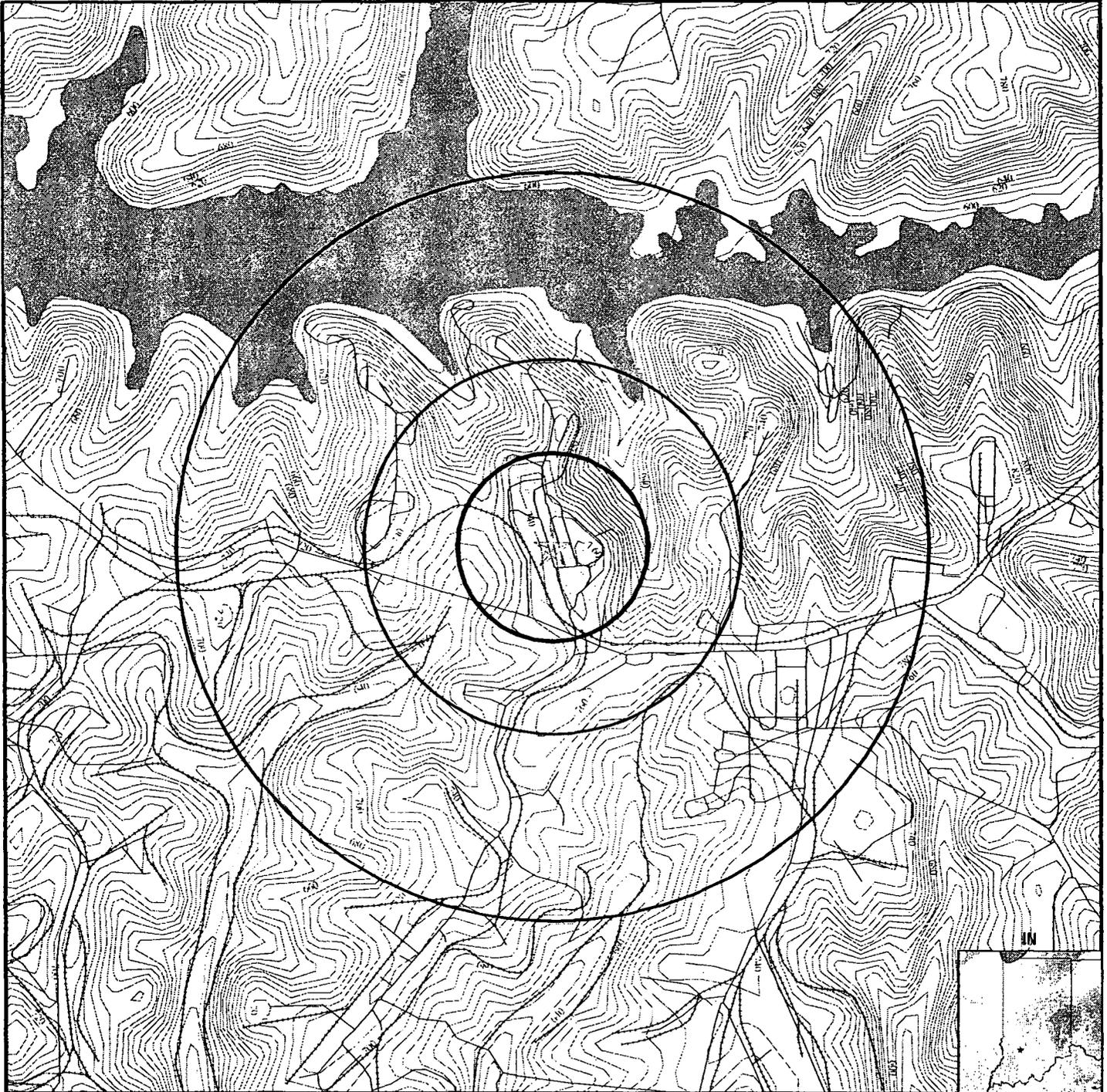
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

## STATE DATABASE WELL INFORMATION

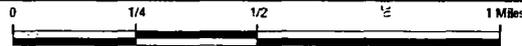
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

**PHYSICAL SETTING SOURCE MAP - 01432723.1r**



- ↖ County Boundary
- ↘ Major Roads
- ~ Contour Lines
- ⊙ Earthquake epicenter, Richter 5 or greater
- ⊙ Water Wells
- ⊙ Public Water Supply Wells
- Cluster of Multiple Icons

- ↑ Groundwater Flow Direction
- ⊙ Indeterminate Groundwater Flow at Location
- ⊙ Groundwater Flow Varies at Location



<b>TARGET PROPERTY:</b>	NSA Crane Greenwood Shores Community	<b>CUSTOMER:</b>	MACTEC, Inc.
<b>ADDRESS:</b>	NSA Crane	<b>CONTACT:</b>	Carmen Yung
<b>CITY/STATE/ZIP:</b>	Crane IN 47522	<b>INQUIRY #:</b>	01432723.1r
<b>LAT/LONG:</b>	38.8712 / 86.8351	<b>DATE:</b>	May 31, 2005 1:44 pm

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

Federal EPA Radon Zone for MARTIN County: 2

- Note: Zone 1 indoor average level > 4 pCi/L.  
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.  
 : Zone 3 indoor average level < 2 pCi/L.

### Federal Area Radon Information for MARTIN COUNTY, IN

Number of sites tested: 3

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.900 pCi/L	100%	0%	0%
Living Area - 2nd Floor	1.100 pCi/L	100%	0%	0%
Basement	2.633 pCi/L	100%	0%	0%

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## TOPOGRAPHIC INFORMATION

### **USGS 7.5' Digital Elevation Model (DEM)**

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002. 7.5-Minute DEMs correspond to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps.

## HYDROLOGIC INFORMATION

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

## HYDROGEOLOGIC INFORMATION

### **AQUIFLOW<sup>R</sup> Information System**

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

### **Geologic Age and Rock Stratigraphic Unit**

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### **STATSGO: State Soil Geographic Database**

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

## ADDITIONAL ENVIRONMENTAL RECORD SOURCES

### **FEDERAL WATER WELLS**

#### **PWS: Public Water Systems**

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

#### **PWS ENF: Public Water Systems Violation and Enforcement Data**

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

#### **USGS Water Wells: USGS National Water Inventory System (NWIS)**

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## STATE RECORDS

### Public Water Supply Wells

Source: Department of Environmental Management  
Telephone: 317-308-3323  
Community and non-community drinking water wells.

## RADON

### State Database: IN Radon

Source: Department of Health  
Telephone: 317-233-7148  
Radon Test Results

### Area Radon Information

Source: USGS  
Telephone: 703-356-4020  
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

### EPA Radon Zones

Source: EPA  
Telephone: 703-356-4020  
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

## OTHER

### Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

### Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration



**EDR™** Environmental  
Data Resources Inc

## **The EDR Radius Map with GeoCheck®**

**NSA Crane - Farmhouse 5  
NSA Crane  
Crane, IN 47453**

**Inquiry Number: 1432723.2s**

**May 31, 2005**

## **The Standard in Environmental Risk Management Information**

440 Wheelers Farms Road  
Milford, Connecticut 06460

### **Nationwide Customer Service**

Telephone: 1-800-352-0050  
Fax: 1-800-231-6802  
Internet: [www.edrnet.com](http://www.edrnet.com)

# TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
Executive Summary .....	ES1
Overview Map .....	2
Detail Map .....	3
Map Findings Summary .....	4
Map Findings .....	6
Orphan Summary .....	7
Government Records Searched/Data Currency Tracking .....	GR-1
 <b><u>GEOCHECK ADDENDUM</u></b>	
Physical Setting Source Addendum .....	A-1
Physical Setting Source Summary .....	A-2
Physical Setting Source Map .....	A-7
Physical Setting Source Map Findings .....	A-8
Physical Setting Source Records Searched .....	A-10

*Thank you for your business.*  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

**Disclaimer - Copyright and Trademark Notice**

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2005 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

### TARGET PROPERTY INFORMATION

#### ADDRESS

NSA CRANE  
CRANE, IN 47453

#### COORDINATES

Latitude (North): 38.918800 - 38° 55' 7.7"  
Longitude (West): 86.756200 - 86° 45' 22.3"  
Universal Transverse Mercator: Zone 16  
UTM X (Meters): 521135.7  
UTM Y (Meters): 4307586.5  
Elevation: 827 ft. above sea level

#### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property: 38086-H7 KOLEEN, IN  
Source: USGS 7.5 min quad index

### TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

### DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ( "reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

#### FEDERAL ASTM STANDARD

NPL..... National Priority List  
Proposed NPL..... Proposed National-Priority List Sites  
CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System  
CERC-NFRAP..... CERCLIS No Further Remedial Action Planned  
CORRACTS..... Corrective Action Report  
RCRA-TSDF..... Resource Conservation and Recovery Act Information  
RCRA-LQG..... Resource Conservation and Recovery Act Information  
RCRA-SQG..... Resource Conservation and Recovery Act Information  
ERNS..... Emergency Response Notification System

#### STATE ASTM STANDARD

SHWS..... List of Hazardous Waste Response Sites Scored Using the Indiana Scoring Model

## EXECUTIVE SUMMARY

SWF/LF.....	Permitted Solid Waste Facilities
LUST.....	Lust Leaking Underground Storage Tank List
UST.....	Indiana Registered Underground Storage Tanks
VCP.....	Voluntary Remediation Program Site List

### FEDERAL ASTM SUPPLEMENTAL

CONSENT.....	Superfund (CERCLA) Consent Decrees
ROD.....	Records Of Decision
Delisted NPL.....	National Priority List Deletions
FINDS.....	Facility Index System/Facility Identification Initiative Program Summary Report
HMIRS.....	Hazardous Materials Information Reporting System
MLTS.....	Material Licensing Tracking System
MINES.....	Mines Master Index File
NPL Liens.....	Federal Superfund Liens
PADS.....	PCB Activity Database System
INDIAN RESERV.....	Indian Reservations
ODL.....	Open Dump Inventory
US ENG CONTROLS.....	Engineering Controls Sites List
UMTRA.....	Uranium Mill Tailings Sites
FUDS.....	Formerly Used Defense Sites
RAATS.....	RCRA Administrative Action Tracking System
TRIS.....	Toxic Chemical Release Inventory System
TSCA.....	Toxic Substances Control Act
SSTS.....	Section 7 Tracking Systems
FTTS INSP.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

### STATE OR LOCAL ASTM SUPPLEMENTAL

IN Spills.....	Spills Incidents
BULK.....	Registered Bulk Fertilizer and Pesticide Storage Facilities
DRYCLEANERS.....	Drycleaner Facility Listing

### EDR PROPRIETARY HISTORICAL DATABASES

Coal Gas.....	Former Manufactured Gas (Coal Gas) Sites
---------------	--

### BROWNFIELDS DATABASES

US BROWNFIELDS.....	A Listing of Brownfields Sites
US INST CONTROL.....	Sites with Institutional Controls
Brownfields.....	Brownfields Site List
AUL.....	Sites with Restrictions
VCP.....	Voluntary Remediation Program Site List

### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

## EXECUTIVE SUMMARY

### **FEDERAL ASTM SUPPLEMENTAL**

**Federal Lands:** Consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

A review of the DOD list, as provided by EDR, and dated 10/01/2003 has revealed that there is 1 DOD site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
CRANE NAVAL WEAPONS SUPPORT CE		0 - 1/8	0	6

## EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name

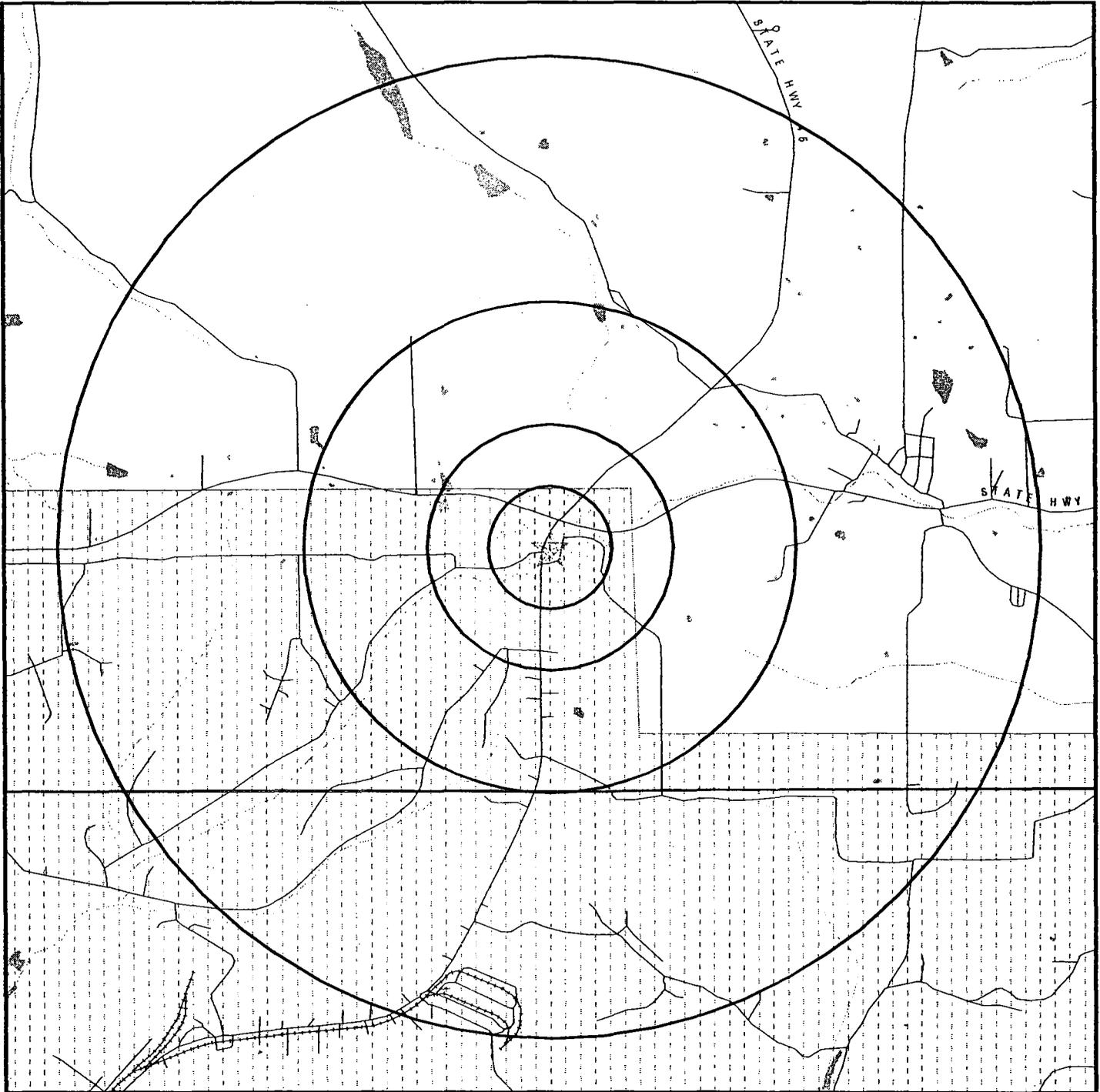
US NAVAL SURFACE WARFARE CTR CRANE DIV

CRANE NAVAL SURFACE WARFARE CENTER LANDF  
SAM OXLEY & CO ROGERS GROUP QUARRY  
CRANE NAVAL WEAPONS CENT. BLDG 69

Database(s)

PADS, CERCLIS, FINDS,  
RCRA-LQG, RCRA-TSDF,  
CORRACTS  
SWF/LF  
RCRA-SQG, FINDS  
ERNS

# OVERVIEW MAP - 1432723.2s - MACTEC, Inc.



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites
- ▨ National Priority List Sites
- ▩ Landfill Sites
- ▧ Dept. Defense Sites

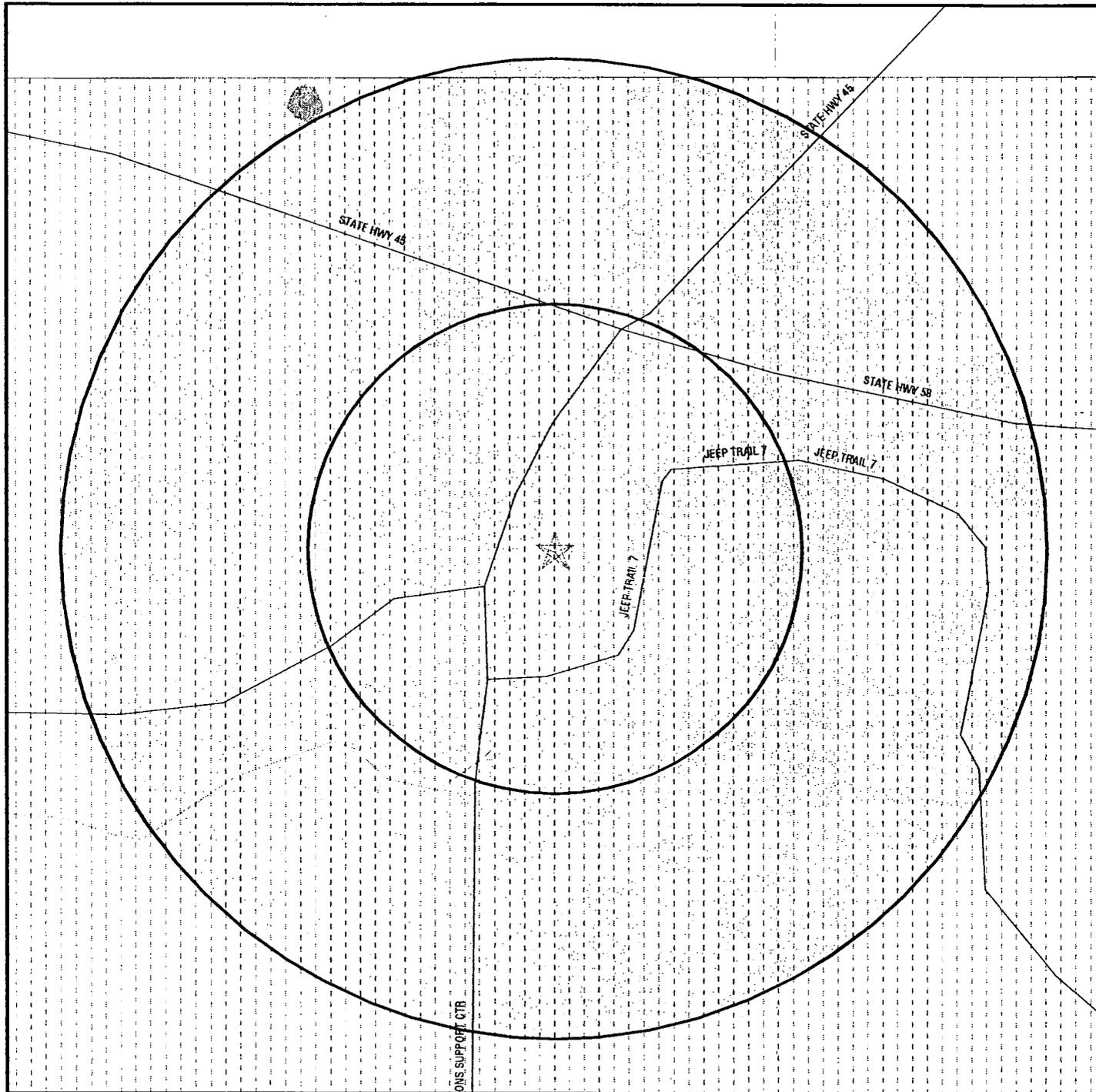
- ▭ Indian Reservations BIA
- ▭ County Boundary
- ▭ Oil & Gas pipelines
- ▭ Federal Wetlands



**TARGET PROPERTY:** NSA Crane - Farmhouse 5  
**ADDRESS:** NSA Crane  
**CITY/STATE/ZIP:** Crane IN 47453  
**LAT/LONG:** 38.9188 / 86.7562

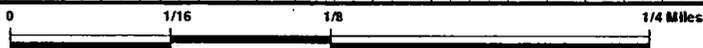
**CUSTOMER:** MACTEC, Inc.  
**CONTACT:** Carmen Yung  
**INQUIRY #:** 1432723.2s  
**DATE:** May 31, 2005 2:58 pm

# DETAIL MAP - 1432723.2s - MACTEC, Inc.



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites
- ⚡ Sensitive Receptors
- ▣ National Priority List Sites
- ▣ Landfill Sites
- ▣ Dept. Defense Sites

- ▣ Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- ▣ Federal Wetlands



**TARGET PROPERTY:** NSA Crane - Farmhouse 5  
**ADDRESS:** NSA Crane  
**CITY/STATE/ZIP:** Crane IN 47453  
**LAT/LONG:** 38.9188 / 86.7562

**CUSTOMER:** MACTEC, Inc.  
**CONTACT:** Carmen Yung  
**INQUIRY #:** 1432723.2s  
**DATE:** May 31, 2005 2:58 pm

## MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b><u>FEDERAL ASTM STANDARD</u></b>								
NPL		1.500	0	0	0	0	0	0
Proposed NPL		1.500	0	0	0	0	0	0
CERCLIS		1.000	0	0	0	0	NR	0
CERC-NFRAP		0.750	0	0	0	0	NR	0
CORRACTS		1.500	0	0	0	0	0	0
RCRA TSD		1.000	0	0	0	0	NR	0
RCRA Lg. Quan. Gen.		0.750	0	0	0	0	NR	0
RCRA Sm. Quan. Gen.		0.750	0	0	0	0	NR	0
ERNS		0.500	0	0	0	NR	NR	0
<b><u>STATE ASTM STANDARD</u></b>								
State Haz. Waste		1.500	0	0	0	0	0	0
State Landfill		1.000	0	0	0	0	NR	0
LUST		1.000	0	0	0	0	NR	0
UST		0.750	0	0	0	0	NR	0
VCP		1.000	0	0	0	0	NR	0
<b><u>FEDERAL ASTM SUPPLEMENTAL</u></b>								
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
HMIRS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
NPL Liens	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
DOD		1.000	1	0	0	0	NR	1
INDIAN RESERV		1.000	0	0	0	0	NR	0
ODI		1.000	0	0	0	0	NR	0
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
UMTRA		1.000	0	0	0	0	NR	0
FUDS		1.500	0	0	0	0	0	0
RAATS	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
<b><u>STATE OR LOCAL ASTM SUPPLEMENTAL</u></b>								
IN Spills	TP		NR	NR	NR	NR	NR	0
BULK	TP		NR	NR	NR	NR	NR	0
DRYCLEANERS		0.250	0	0	NR	NR	NR	0

## MAP FINDINGS SUMMARY

<u>Database</u>	<u>Target Property</u>	<u>Search Distance (Miles)</u>	<u>&lt; 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>&gt; 1</u>	<u>Total Plotted</u>
<b><u>EDR PROPRIETARY HISTORICAL DATABASES</u></b>								
Coal Gas		1.000	0	0	0	0	NR	0
<b><u>BROWNFIELDS DATABASES</u></b>								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
Brownfields		0.500	0	0	0	NR	NR	0
AUL		0.500	0	0	0	NR	NR	0
VCP		1.000	0	0	0	0	NR	0

**NOTES:**

AQUIFLOW - see EDR Physical Setting Source Addendum

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

**MAP FINDINGS**

Database(s) EDR ID Number  
EPA ID Number

**Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.**

DOD  
Region

**CRANE NAVAL WEAPONS SUPPORT CENTER  
MARTIN (County), IN**

DOD **CDOD034102**  
N/A

< 1/8  
1 ft.

**FEDERAL LANDS:**

Feature 1: Navy DOD  
Feature 2: Not reported  
Feature 3: Not reported  
Agency: DOD  
URL: Not reported  
Name 1: Crane Naval Weapons Support Center  
Name 2: Not reported  
Name 3: Not reported  
State: IN

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CRANE	S106599777	CRANE NAVAL SURFACE WARFARE CENTER LANDF	300 HWY 361 BLDG 3260 CODE 095		SWF/LF
CRANE	1000307750	US NAVAL SURFACE WARFARE CTR CRANE DIV	BLDG 3260 CODE 095	47522	PADS, CERCLIS, FINDS, RCRA-LQG, RCRA-TSDF, CORRACTS
CRANE	90186554	CRANE NAVAL WEAPONS CENT. BLDG 69	CRANE NAVAL WEAPONS CENT. BLDG 69		ERNS
OWENSBURG	1000226213	SAM OXLEY & CO ROGERS GROUP QUARRY	SR 58	47453	RCRA-SQG, FINDS

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Elapsed ASTM days:** Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

## FEDERAL ASTM STANDARD RECORDS

### **NPL: National Priority List**

Source: EPA

Telephone: N/A

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/28/05

Date Made Active at EDR: 05/16/05

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 05/04/05

Elapsed ASTM days: 12

Date of Last EDR Contact: 05/04/05

### **NPL Site Boundaries**

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

EPA Region 1

Telephone 617-918-1143

EPA Region 3

Telephone 215-814-5418

EPA Region 4

Telephone 404-562-8033

EPA Region 6

Telephone: 214-655-6659

EPA Region 8

Telephone: 303-312-6774

### **Proposed NPL: Proposed National Priority List Sites**

Source: EPA

Telephone: N/A

Date of Government Version: 04/27/05

Date Made Active at EDR: 05/16/05

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 05/04/05

Elapsed ASTM days: 12

Date of Last EDR Contact: 05/04/05

### **CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System**

Source: EPA

Telephone: 703-413-0223

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/15/05

Date Made Active at EDR: 04/06/05

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/22/05

Elapsed ASTM days: 15

Date of Last EDR Contact: 03/22/05

### **CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned**

Source: EPA

Telephone: 703-413-0223

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/22/05  
Date Made Active at EDR: 04/06/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 04/01/05  
Elapsed ASTM days: 5  
Date of Last EDR Contact: 04/01/05

## **CORRACTS:** Corrective Action Report

Source: EPA

Telephone: 800-424-9346

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/29/05  
Date Made Active at EDR: 05/16/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 04/11/05  
Elapsed ASTM days: 35  
Date of Last EDR Contact: 03/07/05

## **RCRA:** Resource Conservation and Recovery Act Information

Source: EPA

Telephone: 800-424-9346

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/13/05  
Date Made Active at EDR: 04/25/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/23/05  
Elapsed ASTM days: 33  
Date of Last EDR Contact: 03/23/05

## **ERNS:** Emergency Response Notification System

Source: National Response Center, United States Coast Guard

Telephone: 202-260-2342

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/04  
Date Made Active at EDR: 03/24/05  
Database Release Frequency: Annually

Date of Data Arrival at EDR: 01/27/05  
Elapsed ASTM days: 56  
Date of Last EDR Contact: 04/25/05

## **FEDERAL ASTM SUPPLEMENTAL RECORDS**

### **BRS:** Biennial Reporting System

Source: EPA/NTIS

Telephone: 800-424-9346

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/01/01  
Database Release Frequency: Biennially

Date of Last EDR Contact: 04/15/05  
Date of Next Scheduled EDR Contact: 06/13/05

### **CONSENT:** Superfund (CERCLA) Consent Decrees

Source: Department of Justice, Consent Decree Library

Telephone: Varies

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/14/04  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/26/05  
Date of Next Scheduled EDR Contact: 07/25/05

## **ROD: Records Of Decision**

Source: EPA  
Telephone: 703-416-0223

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 01/10/05  
Database Release Frequency: Annually

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

## **DELISTED NPL: National Priority List Deletions**

Source: EPA  
Telephone: N/A

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/28/05  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 05/04/05  
Date of Next Scheduled EDR Contact: 08/01/05

## **FINDS: Facility Index System/Facility Identification Initiative Program Summary Report**

Source: EPA  
Telephone: N/A

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/11/05  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

## **HMIRS: Hazardous Materials Information Reporting System**

Source: U.S. Department of Transportation  
Telephone: 202-366-4555

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/04  
Database Release Frequency: Annually

Date of Last EDR Contact: 04/19/05  
Date of Next Scheduled EDR Contact: 07/18/05

## **MLTS: Material Licensing Tracking System**

Source: Nuclear Regulatory Commission  
Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 01/12/05  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

## **MINES: Mines Master Index File**

Source: Department of Labor, Mine Safety and Health Administration  
Telephone: 303-231-5959

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/11/05  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/30/05  
Date of Next Scheduled EDR Contact: 06/27/05

## **NPL LIENS:** Federal Superfund Liens

Source: EPA  
Telephone: 202-564-4267

Federal Superfund Liens: Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91  
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 02/22/05  
Date of Next Scheduled EDR Contact: 05/23/05

## **PADS:** PCB Activity Database System

Source: EPA  
Telephone: 202-564-3887

PCB Activity Database. PADS identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/30/05  
Database Release Frequency: Annually

Date of Last EDR Contact: 05/10/05  
Date of Next Scheduled EDR Contact: 08/08/05

## **DOD:** Department of Defense Sites

Source: USGS  
Telephone: 703-692-8801

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 10/01/03  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/08/05  
Date of Next Scheduled EDR Contact: 05/09/05

## **UMTRA:** Uranium Mill Tailings Sites

Source: Department of Energy  
Telephone: 505-845-0011

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized. In 1978, 24 inactive uranium mill tailings sites in Oregon, Idaho, Wyoming, Utah, Colorado, New Mexico, Texas, North Dakota, South Dakota, Pennsylvania, and on Navajo and Hopi tribal lands, were targeted for cleanup by the Department of Energy.

Date of Government Version: 12/29/04  
Database Release Frequency: Varies

Date of Last EDR Contact: 03/22/05  
Date of Next Scheduled EDR Contact: 06/20/05

## **ODI:** Open Dump Inventory

Source: Environmental Protection Agency  
Telephone: 800-424-9346

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/85  
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 05/23/95  
Date of Next Scheduled EDR Contact: N/A

## **FUDS:** Formerly Used Defense Sites

Source: U.S. Army Corps of Engineers  
Telephone: 202-528-4285

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/03  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

## **INDIAN RESERV:** Indian Reservations

Source: USGS

Telephone: 202-208-3710

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 10/01/03  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/08/05  
Date of Next Scheduled EDR Contact: 05/09/05

## **US ENG CONTROLS:** Engineering Controls Sites List

Source: Environmental Protection Agency

Telephone: 703-603-8867

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 01/10/05  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

## **RAATS:** RCRA Administrative Action Tracking System

Source: EPA

Telephone: 202-564-4104

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95  
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 03/07/05  
Date of Next Scheduled EDR Contact: 06/06/05

## **TRIS:** Toxic Chemical Release Inventory System

Source: EPA

Telephone: 202-566-0250

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/02  
Database Release Frequency: Annually

Date of Last EDR Contact: 03/22/05  
Date of Next Scheduled EDR Contact: 06/20/05

## **TSCA:** Toxic Substances Control Act

Source: EPA

Telephone: 202-260-5521

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/02  
Database Release Frequency: Every 4 Years

Date of Last EDR Contact: 04/05/05  
Date of Next Scheduled EDR Contact: 06/06/05

## **FTTS INSP:** FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Source: EPA

Telephone: 202-566-1667

Date of Government Version: 04/13/05  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/21/05  
Date of Next Scheduled EDR Contact: 06/20/05

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **SSTS: Section 7 Tracking Systems**

Source: EPA

Telephone: 202-564-5008

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/03

Database Release Frequency: Annually

Date of Last EDR Contact: 04/19/05

Date of Next Scheduled EDR Contact: 07/18/05

## **FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)**

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

Telephone: 202-566-1667

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/13/05

Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/21/05

Date of Next Scheduled EDR Contact: 06/20/05

## **STATE OF INDIANA ASTM STANDARD RECORDS**

### **SHWS: List of Hazardous Waste Response Sites Scored Using the Indiana Scoring Model**

Source: Department of Environmental Management

Telephone: 317-308-3052

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 03/16/05

Date Made Active at EDR: 04/29/05

Database Release Frequency: Annually

Date of Data Arrival at EDR: 04/01/05

Elapsed ASTM days: 28

Date of Last EDR Contact: 04/01/05

### **SWF/LF: Permitted Solid Waste Facilities**

Source: Department of Environmental Management

Telephone: 317-232-0066

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 04/18/05

Date Made Active at EDR: 05/20/05

Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 04/22/05

Elapsed ASTM days: 28

Date of Last EDR Contact: 04/15/05

### **LUST: LUST Leaking Underground Storage Tank List**

Source: Department of Environmental Management

Telephone: 317-308-3008

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 03/14/05

Date Made Active at EDR: 04/19/05

Database Release Frequency: Annually

Date of Data Arrival at EDR: 03/29/05

Elapsed ASTM days: 21

Date of Last EDR Contact: 03/29/05

### **UST: Indiana Registered Underground Storage Tanks**

Source: Department of Environmental Management

Telephone: 317-308-3008

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/14/05  
Date Made Active at EDR: 04/19/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/29/05  
Elapsed ASTM days: 21  
Date of Last EDR Contact: 03/29/05

**VCP:** Voluntary Remediation Program Site List  
Source: Department of Environmental Management  
Telephone: 317-234-0966

A current list of Voluntary Remediation Program sites that are no longer confidential.

Date of Government Version: 03/01/05  
Date Made Active at EDR: 05/26/05  
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 05/10/05  
Elapsed ASTM days: 16  
Date of Last EDR Contact: 05/10/05

## STATE OF INDIANA ASTM SUPPLEMENTAL RECORDS

**SPILLS:** Spills Incidents  
Source: Department of Environmental Management  
Telephone: 317-308-3008

Date of Government Version: 03/14/05  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/29/05  
Date of Next Scheduled EDR Contact: 06/27/05

**BULK:** Registered Bulk Fertilizer and Pesticide Storage Facilities  
Source: Office of Indiana State Chemist  
Telephone: 765-494-0579

A listing of registered dry or liquid bulk fertilizer and pesticide storage facilities.

Date of Government Version: 04/11/05  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/11/05  
Date of Next Scheduled EDR Contact: 06/13/05

**DRYCLEANERS:** Drycleaner Facility Listing  
Source: Department of Environmental Management  
Telephone: 800-988-7901

A list of drycleaners involved in the Indiana 5-Star Environmental Recognition Program. It is a voluntary program that ranks participating drycleaners on a scale of one to five stars. The program recognizes those drycleaners willing to do more for the environment and worker safety than the rules require. These drycleaners are going above and beyond the rules to protect the environment, their employees and their neighbors and customers.

Date of Government Version: 07/31/04  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/13/05  
Date of Next Scheduled EDR Contact: 07/11/05

## EDR PROPRIETARY HISTORICAL DATABASES

**Former Manufactured Gas (Coal Gas) Sites:** The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

### **Disclaimer Provided by Real Property Scan, Inc.**

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## BROWNFIELDS DATABASES

### **Brownfields: Brownfields Site List**

Source: Department of Environmental Management  
Telephone: 317-233-2570

A brownfield site is an industrial or commercial property that is abandoned, inactive, or underutilized, on which expansion or redevelopment is complicated due to the actual or perceived environmental contamination.

Date of Government Version: 03/28/05  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/28/05  
Date of Next Scheduled EDR Contact: 06/27/05

### **VCP: Voluntary Remediation Program Site List**

Source: Department of Environmental Management  
Telephone: 317-234-0966

A current list of Voluntary Remediation Program sites that are no longer confidential.

Date of Government Version: 03/01/05  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 05/10/05  
Date of Next Scheduled EDR Contact: 08/08/05

### **AUL: Sites with Restrictions**

Source: Department of Environmental Management  
Telephone: 317-232-8603

Activity and use limitations include both engineering controls and institutional controls. A listing of Comfort/Site Status Letter sites that have been issued with controls.

Date of Government Version: 03/28/05  
Database Release Frequency: Varies

Date of Last EDR Contact: 03/28/05  
Date of Next Scheduled EDR Contact: 06/27/05

### **US BROWNFIELDS: A Listing of Brownfields Sites**

Source: Environmental Protection Agency  
Telephone: 202-566-2777

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities—especially those without EPA Brownfields Assessment Demonstration Pilots—minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients—States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 01/10/05  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/14/05  
Date of Next Scheduled EDR Contact: 06/13/05

### **US INST CONTROL: Sites with Institutional Controls**

Source: Environmental Protection Agency  
Telephone: 703-603-8867

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/10/05  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

**Oil/Gas Pipelines:** This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

### **Electric Power Transmission Line Data**

Source: PennWell Corporation

Telephone: (800) 823-6277

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

**Sensitive Receptors:** There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

### **AHA Hospitals:**

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

### **Medical Centers: Provider of Services Listing**

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

### **Nursing Homes**

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

### **Public Schools**

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

### **Private Schools**

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

### **Daycare Centers: child Care Listing**

Source: Family & Social Services Administration

Telephone: 317-232-4740

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **STREET AND ADDRESS INFORMATION**

© 2004 Geographic Data Technology, Inc., Rel. 07/2004. This product contains proprietary and confidential property of Geographic Data Technology, Inc. Unauthorized use, including copying for other than testing and standard backup procedures, of this product is expressly prohibited.

## GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE ADDENDUM

### TARGET PROPERTY ADDRESS

NSA CRANE - FARMHOUSE 5  
NSA CRANE  
CRANE, IN 47453

### TARGET PROPERTY COORDINATES

Latitude (North):	38.918800 - 38° 55' 7.7"
Longitude (West):	86.756203 - 86° 45' 22.3"
Universal Transverse Mercator:	Zone 16
UTM X (Meters):	521135.7
UTM Y (Meters):	4307586.5
Elevation:	827 ft. above sea level

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with ASTM 1527-00, Section 7.2.3. Section 7.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

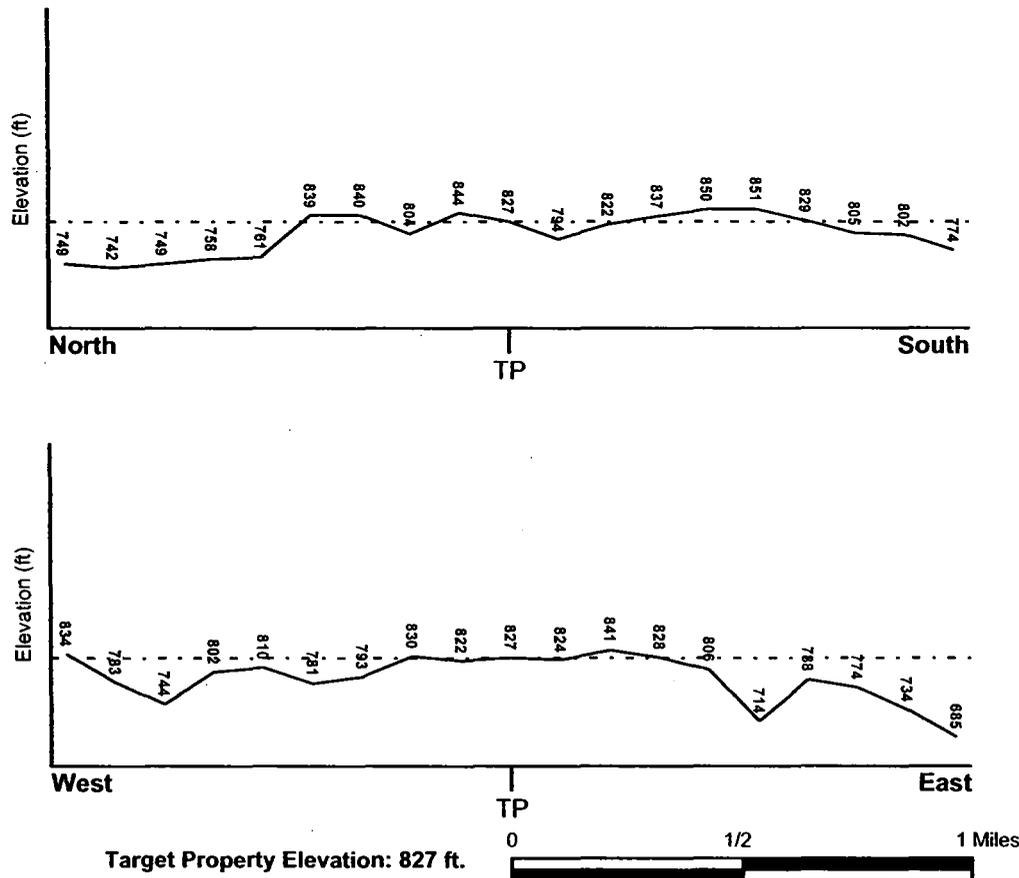
## TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

### TARGET PROPERTY TOPOGRAPHY

USGS Topographic Map: 38086-H7 KOLEEN, IN  
General Topographic Gradient: General NNW  
Source: USGS 7.5 min quad index

### SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

### FEMA FLOOD ZONE

Target Property County  
GREENE, IN

FEMA Flood  
Electronic Data  
Not Available

Flood Plain Panel at Target Property: Not Reported

Additional Panels in search area: Not Reported

### NATIONAL WETLAND INVENTORY

NWI Quad at Target Property  
KOLEEN

NWI Electronic  
Data Coverage  
YES - refer to the Overview Map and Detail Map

### HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

### AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

### GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### ROCK STRATIGRAPHIC UNIT

Era: Paleozoic  
System: Mississippian  
Series: Chesterian Series  
Code: M3 (decoded above as Era, System & Series)

#### GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: ZANESVILLE

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: MODERATE

Depth to Bedrock Min: > 40 inches

Depth to Bedrock Max: > 40 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 2.00 Min: 0.60	Max: 6.00 Min: 4.50
2	7 inches	28 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 2.00 Min: 0.60	Max: 6.00 Min: 4.50
3	28 inches	39 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 0.60 Min: 0.06	Max: 6.00 Min: 4.50
4	39 inches	60 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 2.00 Min: 0.20	Max: 6.00 Min: 4.50
5	60 inches	64 inches	unweathered bedrock	Not reported	Not reported	Max: 0.20 Min: 0.00	Max: 0.00 Min: 0.00

### OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: No Other Soil Types

Surficial Soil Types: No Other Soil Types

Shallow Soil Types: channery - loam

Deeper Soil Types: weathered bedrock  
fine sandy loam  
stratified

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## ADDITIONAL ENVIRONMENTAL RECORD SOURCES

According to ASTM E 1527-00, Section 7.2.2, "one or more additional state or local sources of environmental records may be checked, in the discretion of the environmental professional, to enhance and supplement federal and state sources... Factors to consider in determining which local or additional state records, if any, should be checked include (1) whether they are reasonably ascertainable, (2) whether they are sufficiently useful, accurate, and complete in light of the objective of the records review (see 7.1.1), and (3) whether they are obtained, pursuant to local, good commercial or customary practice." One of the record sources listed in Section 7.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

## WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

## FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	USGS2337538	0 - 1/8 Mile WSW

## FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

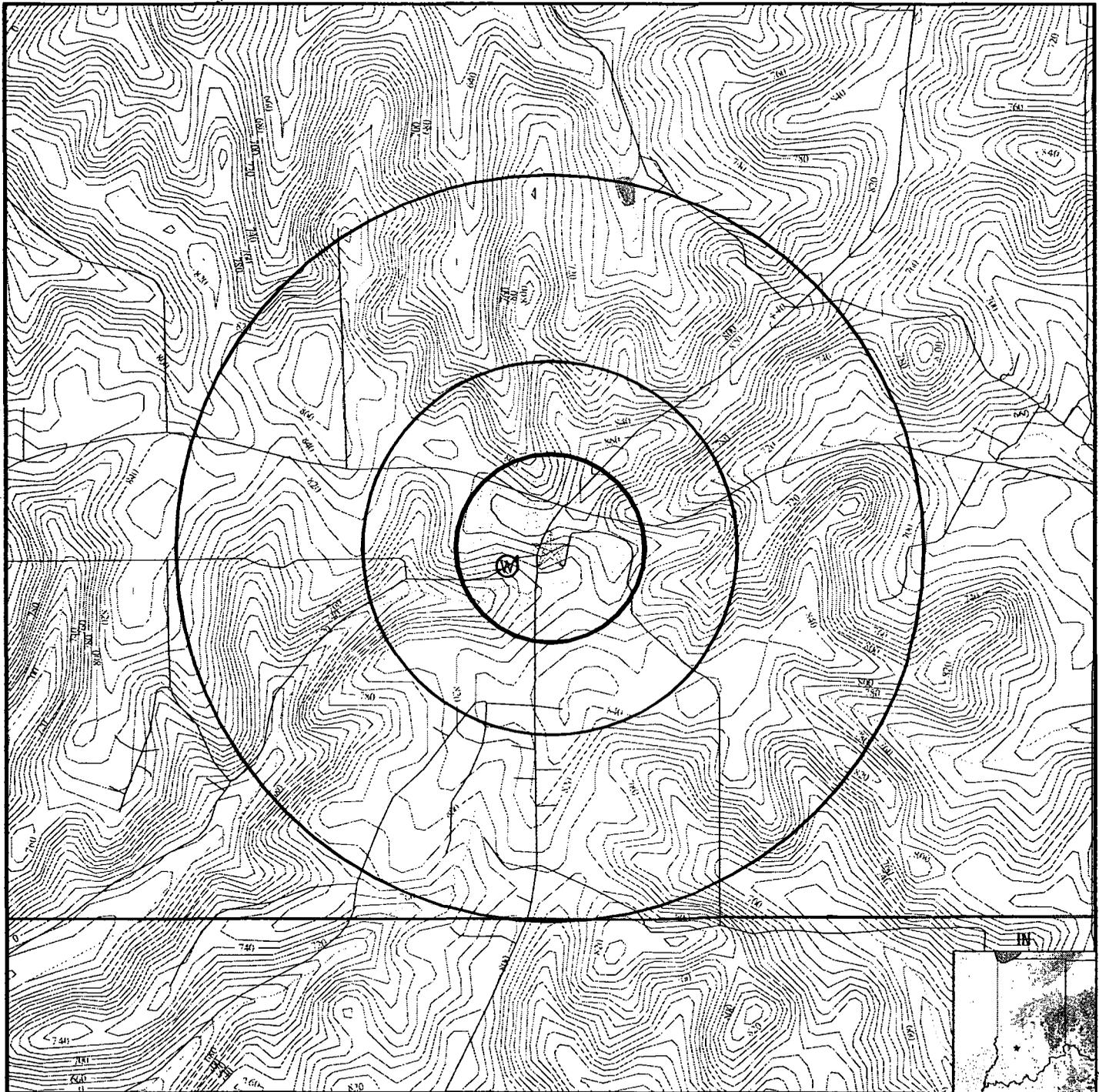
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

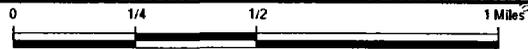
## STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

# PHYSICAL SETTING SOURCE MAP - 1432723.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons



- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location



**TARGET PROPERTY:** NSA Crane - Farmhouse 5  
**ADDRESS:** NSA Crane  
**CITY/STATE/ZIP:** Crane IN 47453  
**LAT/LONG:** 38.9188 / 86.7562

**CUSTOMER:** MACTEC, Inc.  
**CONTACT:** Carmen Yung  
**INQUIRY #:** 1432723.2s  
**DATE:** May 31, 2005 2:58 pm

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**1**  
**WSW**  
**0 - 1/8 Mile**  
**Lower**

**FED USGS      USGS2337538**

Agency cd:	USGS	Site no:	385505086453001
Site name:	CRANE NAD #1 BG	3001	
Latitude:	385505		
Longitude:	0864530	Dec lat:	38.91810353
Dec lon:	-86.75833483	Coord meth:	M
Coord accr:	U	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	18
State:	18	County:	101
Country:	US	Land net:	Not Reported
Location map:	KOLEEN      159B	Map scale:	24000
Altitude:	Not Reported	Altitude method:	Not Reported
Altitude accuracy:	Not Reported	Altitude datum:	Not Reported
Hydrologic:	Lower White. Indiana. Area = 1650 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N	Type of ground water site:	Single well, other than collector or Ranney type
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported		
Source of depth data:	Not Reported		
Real time data flag:	0	Hole depth:	Not Reported
Daily flow data end date:	0000-00-00	Project number:	ISBH-PWS
Peak flow data begin date:	0000-00-00	Daily flow data begin date:	0000-00-00
Peak flow data count:	0	Daily flow data count:	0
Water quality data end date:	1970-07-09	Peak flow data end date:	0000-00-00
Ground water data begin date:	0000-00-00	Water quality data begin date:	1960-06-23
Ground water data count:	0	Water quality data count:	5
		Ground water data end date:	0000-00-00

Ground-water levels, Number of Measurements: 0

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

Federal EPA Radon Zone for GREENE County: 2

- Note: Zone 1 indoor average level > 4 pCi/L.  
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.  
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 47453

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	Not Reported	Not Reported	Not Reported	Not Reported
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	0.600 pCi/L	100%	0%	0%

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## TOPOGRAPHIC INFORMATION

### **USGS 7.5' Digital Elevation Model (DEM)**

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002. 7.5-Minute DEMs correspond to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps.

## HYDROLOGIC INFORMATION

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

## HYDROGEOLOGIC INFORMATION

### **AQUIFLOW<sup>R</sup> Information System**

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

### **Geologic Age and Rock Stratigraphic Unit**

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### **STATSGO: State Soil Geographic Database**

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

## ADDITIONAL ENVIRONMENTAL RECORD SOURCES

### **FEDERAL WATER WELLS**

#### **PWS: Public Water Systems**

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

#### **PWS ENF: Public Water Systems Violation and Enforcement Data**

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

#### **USGS Water Wells: USGS National Water Inventory System (NWIS)**

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## STATE RECORDS

### Public Water Supply Wells

Source: Department of Environmental Management  
Telephone: 317-308-3323  
Community and non-community drinking water wells.

## RADON

### State Database: IN Radon

Source: Department of Health  
Telephone: 317-233-7148  
Radon Test Results

### Area Radon Information

Source: USGS  
Telephone: 703-356-4020  
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

### EPA Radon Zones

Source: EPA  
Telephone: 703-356-4020  
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

## OTHER

### Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

### Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration



**EDR™** Environmental  
Data Resources Inc

## **The EDR Radius Map with GeoCheck®**

**NSA Crane - Farmhouses 1, 2 & 3  
NSA Crane  
Crane, IN 47522**

**Inquiry Number: 1432723.3s**

**May 31, 2005**

**The Standard in  
Environmental Risk  
Management Information**

440 Wheelers Farms Road  
Milford, Connecticut 06460

**Nationwide Customer Service**

Telephone: 1-800-352-0050  
Fax: 1-800-231-6802  
Internet: [www.edrnet.com](http://www.edrnet.com)

# TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
Executive Summary.....	ES1
Overview Map.....	2
Detail Map.....	3
Map Findings Summary.....	4
Map Findings.....	6
Orphan Summary.....	7
Government Records Searched/Data Currency Tracking.....	GR-1
 <u>GEOCHECK ADDENDUM</u>	
Physical Setting Source Addendum.....	A-1
Physical Setting Source Summary.....	A-2
Physical Setting Source Map.....	A-7
Physical Setting Source Map Findings.....	A-8
Physical Setting Source Records Searched.....	A-9

*Thank you for your business.*  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

#### Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2005 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

### TARGET PROPERTY INFORMATION

#### ADDRESS

NSA CRANE  
CRANE, IN 47522

#### COORDINATES

Latitude (North): 38.825800 - 38° 49' 32.9"  
Longitude (West): 86.874900 - 86° 52' 29.6"  
Universal Transverse Mercator: Zone 16  
UTM X (Meters): 510859.4  
UTM Y (Meters): 4297245.5  
Elevation: 717 ft. above sea level

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property: 38086-G7 INDIAN SPRINGS, IN  
Source: USGS 7.5 min quad index

### TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

### DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ( "reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

#### FEDERAL ASTM STANDARD

NPL..... National Priority List  
Proposed NPL..... Proposed National Priority List Sites  
CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System  
CERC-NFRAP..... CERCLIS No Further Remedial Action Planned  
CORRACTS..... Corrective Action Report  
RCRA-TSDF..... Resource Conservation and Recovery Act Information  
RCRA-LQG..... Resource Conservation and Recovery Act Information  
RCRA-SQG..... Resource Conservation and Recovery Act Information  
ERNS..... Emergency Response Notification System

#### STATE ASTM STANDARD

SHWS..... List of Hazardous Waste Response Sites Scored Using the Indiana Scoring Model

## EXECUTIVE SUMMARY

SWF/LF.....	Permitted Solid Waste Facilities
LUST.....	Lust Leaking Underground Storage Tank List
UST.....	Indiana Registered Underground Storage Tanks
VCP.....	Voluntary Remediation Program Site List

### FEDERAL ASTM SUPPLEMENTAL

CONSENT.....	Superfund (CERCLA) Consent Decrees
ROD.....	Records Of Decision
Delisted NPL.....	National Priority List Deletions
FINDS.....	Facility Index System/Facility Identification Initiative Program Summary Report
HMIRS.....	Hazardous Materials Information Reporting System
MLTS.....	Material Licensing Tracking System
MINES.....	Mines Master Index File
NPL Liens.....	Federal Superfund Liens
PADS.....	PCB Activity Database System
INDIAN RESERV.....	Indian Reservations
ODL.....	Open Dump Inventory
US ENG CONTROLS.....	Engineering Controls Sites List
UMTRA.....	Uranium Mill Tailings Sites
FUDS.....	Formerly Used Defense Sites
RAATS.....	RCRA Administrative Action Tracking System
TRIS.....	Toxic Chemical Release Inventory System
TSCA.....	Toxic Substances Control Act
SSTS.....	Section 7 Tracking Systems
FTTS INSP.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

### STATE OR LOCAL ASTM SUPPLEMENTAL

IN Spills.....	Spills Incidents
BULK.....	Registered Bulk Fertilizer and Pesticide Storage Facilities
DRYCLEANERS.....	Drycleaner Facility Listing

### EDR PROPRIETARY HISTORICAL DATABASES

Coal Gas.....	Former Manufactured Gas (Coal Gas) Sites
---------------	--

### BROWNFIELDS DATABASES

US BROWNFIELDS.....	A Listing of Brownfields Sites
US INST CONTROL.....	Sites with Institutional Controls
Brownfields.....	Brownfields Site List
AUL.....	Sites with Restrictions
VCP.....	Voluntary Remediation Program Site List

### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

## EXECUTIVE SUMMARY

### FEDERAL ASTM SUPPLEMENTAL

**Federal Lands:** Consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

A review of the DOD list, as provided by EDR, and dated 10/01/2003 has revealed that there is 1 DOD site within approximately 1 mile of the target property.

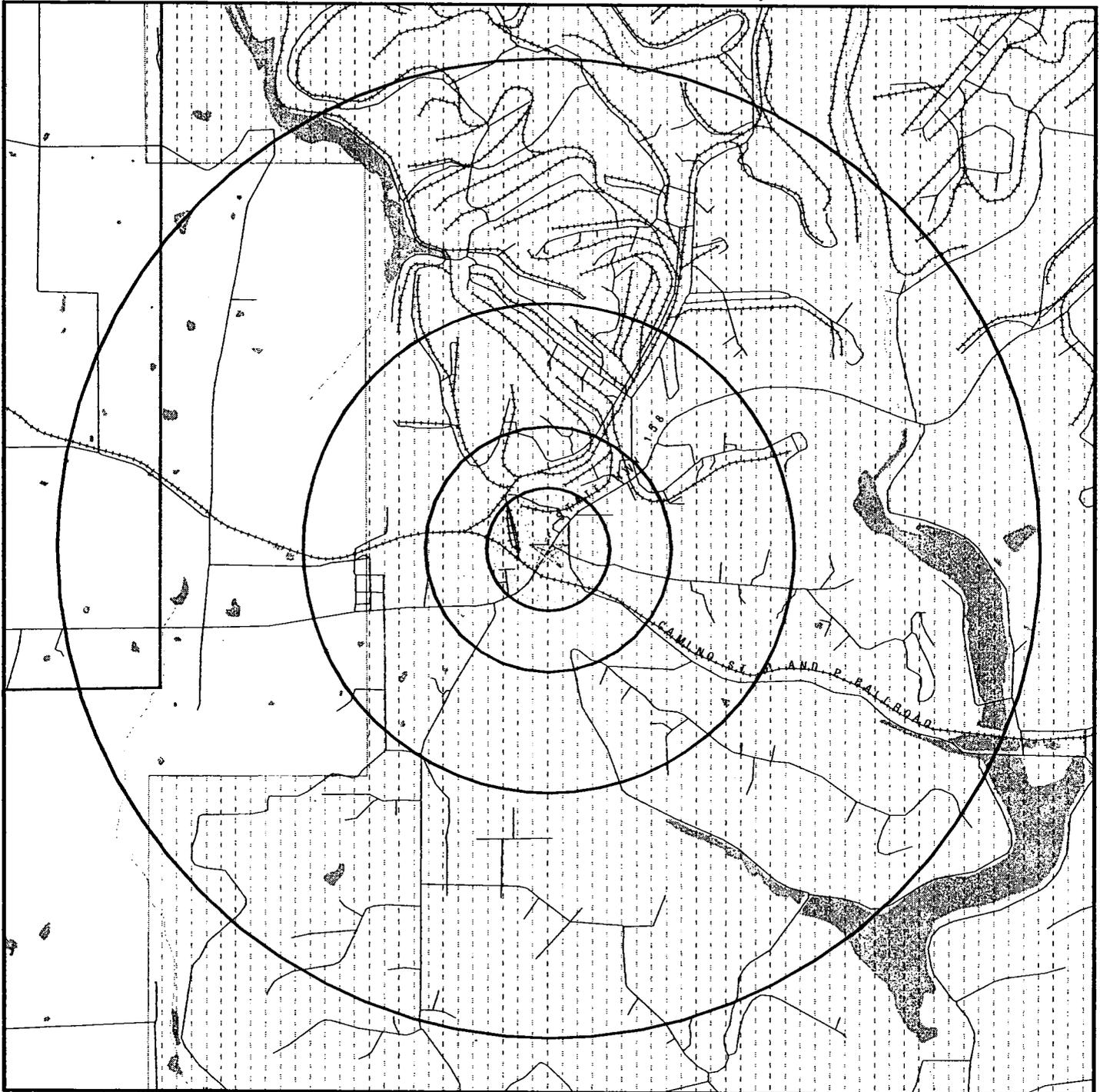
<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
	CRANE NAVAL WEAPONS SUPPORT CE	0 - 1/8	0	6

## EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

<u>Site Name</u>	<u>Database(s)</u>
CRANE NAVAL WEAPONS SUPPORT CTR	FTTS INSP
CRANE NAVAL SUPPORT CTR	FTTS INSP
CRANE NAVAL WEAPONS SUPPORT CTR	FTTS INSP
US NAVAL SURFACE WARFARE CTR CRANE DIV	PADS, CERCLIS, FINDS, RCRA-LQG, RCRA-TSDF, CORRACTS
OSBOURNE TIRE FIRE	CERCLIS, FINDS
CRANE NAVAL SURFACE WARFARE CENTER LANDF	SWF/LF
GTE NORTH INC	LUST, UST
U.S. NAVY, NSWC CRANE	LUST, UST
LOOGOOTEE SHELL FOOD MART	LUST
LOOGOOTEE SHELL FOOD MART	UST
BURCH'S MARATHON	UST
PSI MGP - LOOGOOTEE	VCP
CRANE NAVAL WEAPONS CENT. BLDG 69	ERNS
CRANE DIVISION 300 HWY 361	ERNS
CRANE DIVISION 300 HWY 361	ERNS
CRANE DIVISION 300 HWY 361	ERNS
US HIGHWAY 231, MILE MARKER UNKNOWN, 2 MILE NORTH OF COUNTY	ERNS
CRANE 76 STA	FINDS
CRANE POST OFFICE	FINDS
U.S. NAVY NSWC CRANE DIV. RANGE FACILITY	TRIS

# OVERVIEW MAP - 1432723.3s - MACTEC, Inc.



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites
- ▨ National Priority List Sites
- ▩ Landfill Sites
- ▧ Dept. Defense Sites

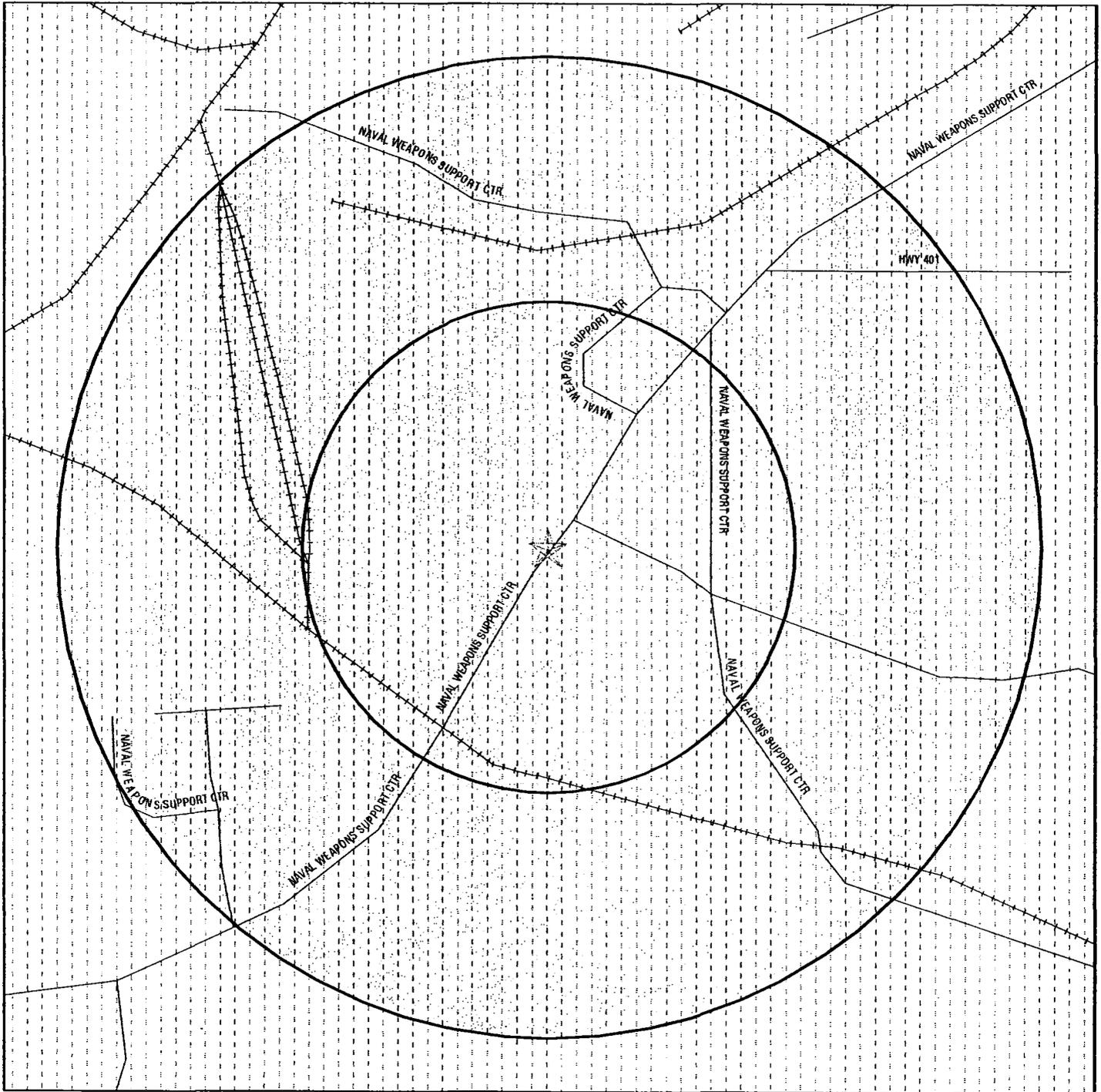
- ▨ Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- ▩ Federal Wetlands



TARGET PROPERTY: NSA Crane - Farmhouses 1, 2 & 3  
 ADDRESS: NSA Crane  
 CITY/STATE/ZIP: Crane IN 47522  
 LAT/LONG: 38.8258 / 86.8749

CUSTOMER: MACTEC, Inc.  
 CONTACT: Carmen Yung  
 INQUIRY #: 1432723.3s  
 DATE: May 31, 2005 2:58 pm

# DETAIL MAP - 1432723.3s - MACTEC, Inc.



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites
- ⚡ Sensitive Receptors
- ☒ National Priority List Sites
- ☒ Landfill Sites
- ☒ Dept. Defense Sites
- ☒ Indian Reservations BIA
- ⚡ County Boundary
- ⚡ Oil & Gas pipelines

<b>TARGET PROPERTY:</b> NSA Crane - Farmhouses 1, 2 & 3	<b>CUSTOMER:</b> MACTEC, Inc.
<b>ADDRESS:</b> NSA Crane	<b>CONTACT:</b> Carmen Yung
<b>CITY/STATE/ZIP:</b> Crane IN 47522	<b>INQUIRY #:</b> 1432723.3s
<b>LAT/LONG:</b> 38.8258 / 86.8749	<b>DATE:</b> May 31, 2005 2:58 pm

## MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b><u>FEDERAL ASTM STANDARD</u></b>								
NPL		1.500	0	0	0	0	0	0
Proposed NPL		1.500	0	0	0	0	0	0
CERCLIS		1.000	0	0	0	0	NR	0
CERC-NFRAP		0.750	0	0	0	0	NR	0
CORRACTS		1.500	0	0	0	0	0	0
RCRA TSD		1.000	0	0	0	0	NR	0
RCRA Lg. Quan. Gen.		0.750	0	0	0	0	NR	0
RCRA Sm. Quan. Gen.		0.750	0	0	0	0	NR	0
ERNS		0.500	0	0	0	NR	NR	0
<b><u>STATE ASTM STANDARD</u></b>								
State Haz. Waste		1.500	0	0	0	0	0	0
State Landfill		1.000	0	0	0	0	NR	0
LUST		1.000	0	0	0	0	NR	0
UST		0.750	0	0	0	0	NR	0
VCP		1.000	0	0	0	0	NR	0
<b><u>FEDERAL ASTM SUPPLEMENTAL</u></b>								
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
HMIRS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
NPL Liens	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
DOD		1.000	1	0	0	0	NR	1
INDIAN RESERV		1.000	0	0	0	0	NR	0
ODI		1.000	0	0	0	0	NR	0
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
UMTRA		1.000	0	0	0	0	NR	0
FUDS		1.500	0	0	0	0	0	0
RAATS	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
<b><u>STATE OR LOCAL ASTM SUPPLEMENTAL</u></b>								
IN Spills	TP		NR	NR	NR	NR	NR	0
BULK	TP		NR	NR	NR	NR	NR	0
DRYCLEANERS		0.250	0	0	NR	NR	NR	0

## MAP FINDINGS SUMMARY

<u>Database</u>	<u>Target Property</u>	<u>Search Distance (Miles)</u>	<u>&lt; 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>&gt; 1</u>	<u>Total Plotted</u>
<b><u>EDR PROPRIETARY HISTORICAL DATABASES</u></b>								
Coal Gas		1.000	0	0	0	0	NR	0
<b><u>BROWNFIELDS DATABASES</u></b>								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
Brownfields		0.500	0	0	0	NR	NR	0
AUL		0.500	0	0	0	NR	NR	0
VCP		1.000	0	0	0	0	NR	0

**NOTES:**

AQUIFLOW - see EDR Physical Setting Source Addendum

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

**MAP FINDINGS**

Site

Database(s)

EDR ID Number  
EPA ID Number

Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.

DOD  
Region

CRANE NAVAL WEAPONS SUPPORT CENTER  
MARTIN (County), IN

DOD CDOD034102  
N/A

< 1/8  
1 ft.

FEDERAL LANDS:

Feature 1:	Navy DOD
Feature 2:	Not reported
Feature 3:	Not reported
Agency:	DOD
URL:	Not reported
Name 1:	Crane Naval Weapons Support Center
Name 2:	Not reported
Name 3:	Not reported
State:	IN

## ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
ALFORDSVILLE	1001970003	OSBOURNE TIRE FIRE	CR 550 SOUTH & CR 1200 EAST	47553	CERCLIS, FINDS
CRANE	1004485187	CRANE 76 STA	US 231 & SR 558 3 MILES	47522	FINDS
CRANE	S106599777	CRANE NAVAL SURFACE WARFARE CENTER LANDF	300 HWY 361 BLDG 3260 CODE 095		SWF/LF
CRANE	1006814610	U.S. NAVY NSWC CRANE DIV. RANGE FACILITY	300 HWY. 361	47522	TRIS
CRANE	1004493103	CRANE POST OFFICE	SR 558 & LEAHY ST	47522	FINDS
CRANE	U003577527	GTE NORTH INC	SR 558	47522	LUST, UST
CRANE	1000307750	US NAVAL SURFACE WARFARE CTR CRANE DIV	BLDG 3260 CODE 095	47522	PADS, CERCLIS, FINDS, RCRA-LQG, RCRA-TSDF, CORRACTS
CRANE	1008178179	CRANE NAVAL WEAPONS SUPPORT CTR	BUILDING 2516	47522	FTTS INSP
CRANE	U001080078	U.S. NAVY, NSWC CRANE	CODE RP3, BLDG 3260, 300 HWY 361	47522	LUST, UST
CRANE	90186554	CRANE NAVAL WEAPONS CENT. BLDG 69	CRANE NAVAL WEAPONS CENT. BLDG 69		ERNS
CRANE	94356114	CRANE DIVISION 300 HWY 361	CRANE DIVISION 300 HWY 361	47522	ERNS
CRANE	93336466	CRANE DIVISION 300 HWY 361	CRANE DIVISION 300 HWY 361	47522	ERNS
CRANE	93325490	CRANE DIVISION 300 HWY 361	CRANE DIVISION 300 HWY 361	47522	ERNS
CRANE	1008178178	CRANE NAVAL SUPPORT CTR	CRANE NAVAL SUPPORT CTR	47522	FTTS INSP
CRANE	96514313	US HIGHWAY 231, MILE MARKER UNKNOWN, 2 MILE NORTH OF COUNTY	US HIGHWAY 231, MILE MARKER UNKNOWN, 2 MILE NORTH OF COUNTY		ERNS
CRANE	1007274593	CRANE NAVAL WEAPONS SUPPORT CTR	XXXXXXXXXXXXXXXXXX	47522	FTTS INSP
LOGOOTE	S106351540	LOGOOTE SHELL FOOD MART	HWY 50 E	47553	LUST
LOGOOTE	U003951709	LOGOOTE SHELL FOOD MART	HWY 50 E	47553	UST
LOGOOTE	U003969437	BURCH'S MARATHON	106 BROADWAY ST/US 231 & SR 50	47553	UST
LOGOOTE	S106341795	PSI MGP - LOGOOTE	SHERMAN / S. THIRD ST.	47553	VCP

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Elapsed ASTM days:** Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

## **FEDERAL ASTM STANDARD RECORDS**

### **NPL: National Priority List**

Source: EPA

Telephone: N/A

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/28/05

Date Made Active at EDR: 05/16/05

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 05/04/05

Elapsed ASTM days: 12

Date of Last EDR Contact: 05/04/05

### **NPL Site Boundaries**

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

EPA Region 1

Telephone 617-918-1143

EPA Region 3

Telephone 215-814-5418

EPA Region 4

Telephone 404-562-8033

EPA Region 6

Telephone: 214-655-6659

EPA Region 8

Telephone: 303-312-6774

### **Proposed NPL: Proposed National Priority List Sites**

Source: EPA

Telephone: N/A

Date of Government Version: 04/27/05

Date Made Active at EDR: 05/16/05

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 05/04/05

Elapsed ASTM days: 12

Date of Last EDR Contact: 05/04/05

### **CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System**

Source: EPA

Telephone: 703-413-0223

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/15/05

Date Made Active at EDR: 04/06/05

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/22/05

Elapsed ASTM days: 15

Date of Last EDR Contact: 03/22/05

### **CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned**

Source: EPA

Telephone: 703-413-0223

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/22/05  
Date Made Active at EDR: 04/06/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 04/01/05  
Elapsed ASTM days: 5  
Date of Last EDR Contact: 04/01/05

## **CORRACTS:** Corrective Action Report

Source: EPA

Telephone: 800-424-9346

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/29/05  
Date Made Active at EDR: 05/16/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 04/11/05  
Elapsed ASTM days: 35  
Date of Last EDR Contact: 03/07/05

## **RCRA:** Resource Conservation and Recovery Act Information

Source: EPA

Telephone: 800-424-9346

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/13/05  
Date Made Active at EDR: 04/25/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/23/05  
Elapsed ASTM days: 33  
Date of Last EDR Contact: 03/23/05

## **ERNS:** Emergency Response Notification System

Source: National Response Center, United States Coast Guard

Telephone: 202-260-2342

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/04  
Date Made Active at EDR: 03/24/05  
Database Release Frequency: Annually

Date of Data Arrival at EDR: 01/27/05  
Elapsed ASTM days: 56  
Date of Last EDR Contact: 04/25/05

## **FEDERAL ASTM SUPPLEMENTAL RECORDS**

### **BRS:** Biennial Reporting System

Source: EPA/NTIS

Telephone: 800-424-9346

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/01/01  
Database Release Frequency: Biennially

Date of Last EDR Contact: 04/15/05  
Date of Next Scheduled EDR Contact: 06/13/05

### **CONSENT:** Superfund (CERCLA) Consent Decrees

Source: Department of Justice, Consent Decree Library

Telephone: Varies

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/14/04  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/26/05  
Date of Next Scheduled EDR Contact: 07/25/05

## **ROD: Records Of Decision**

Source: EPA  
Telephone: 703-416-0223

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 01/10/05  
Database Release Frequency: Annually

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

## **DELISTED NPL: National Priority List Deletions**

Source: EPA  
Telephone: N/A

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/28/05  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 05/04/05  
Date of Next Scheduled EDR Contact: 08/01/05

## **FINDS: Facility Index System/Facility Identification Initiative Program Summary Report**

Source: EPA  
Telephone: N/A

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/11/05  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

## **HMIRS: Hazardous Materials Information Reporting System**

Source: U.S. Department of Transportation  
Telephone: 202-366-4555

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/04  
Database Release Frequency: Annually

Date of Last EDR Contact: 04/19/05  
Date of Next Scheduled EDR Contact: 07/18/05

## **MLTS: Material Licensing Tracking System**

Source: Nuclear Regulatory Commission  
Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 01/12/05  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

## **MINES: Mines Master Index File**

Source: Department of Labor, Mine Safety and Health Administration  
Telephone: 303-231-5959

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/11/05  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/30/05  
Date of Next Scheduled EDR Contact: 06/27/05

## **NPL LIENS:** Federal Superfund Liens

Source: EPA  
Telephone: 202-564-4267

Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91  
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 02/22/05  
Date of Next Scheduled EDR Contact: 05/23/05

## **PADS:** PCB Activity Database System

Source: EPA  
Telephone: 202-564-3887

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/30/05  
Database Release Frequency: Annually

Date of Last EDR Contact: 05/10/05  
Date of Next Scheduled EDR Contact: 08/08/05

## **DOD:** Department of Defense Sites

Source: USGS  
Telephone: 703-692-8801

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 10/01/03  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/08/05  
Date of Next Scheduled EDR Contact: 05/09/05

## **UMTRA:** Uranium Mill Tailings Sites

Source: Department of Energy  
Telephone: 505-845-0011

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized. In 1978, 24 inactive uranium mill tailings sites in Oregon, Idaho, Wyoming, Utah, Colorado, New Mexico, Texas, North Dakota, South Dakota, Pennsylvania, and on Navajo and Hopi tribal lands, were targeted for cleanup by the Department of Energy.

Date of Government Version: 12/29/04  
Database Release Frequency: Varies

Date of Last EDR Contact: 03/22/05  
Date of Next Scheduled EDR Contact: 06/20/05

## **ODI:** Open Dump Inventory

Source: Environmental Protection Agency  
Telephone: 800-424-9346

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/85  
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 05/23/95  
Date of Next Scheduled EDR Contact: N/A

## **FUDS:** Formerly Used Defense Sites

Source: U.S. Army Corps of Engineers  
Telephone: 202-528-4285

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/03  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

## **INDIAN RESERV:** Indian Reservations

Source: USGS  
Telephone: 202-208-3710

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 10/01/03  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/08/05  
Date of Next Scheduled EDR Contact: 05/09/05

## **US ENG CONTROLS:** Engineering Controls Sites List

Source: Environmental Protection Agency  
Telephone: 703-603-8867

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 01/10/05  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

## **RAATS:** RCRA Administrative Action Tracking System

Source: EPA  
Telephone: 202-564-4104

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95  
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 03/07/05  
Date of Next Scheduled EDR Contact: 06/06/05

## **TRIS:** Toxic Chemical Release Inventory System

Source: EPA  
Telephone: 202-566-0250

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/02  
Database Release Frequency: Annually

Date of Last EDR Contact: 03/22/05  
Date of Next Scheduled EDR Contact: 06/20/05

## **TSCA:** Toxic Substances Control Act

Source: EPA  
Telephone: 202-260-5521

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/02  
Database Release Frequency: Every 4 Years

Date of Last EDR Contact: 04/05/05  
Date of Next Scheduled EDR Contact: 06/06/05

## **FTTS INSP:** FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Source: EPA  
Telephone: 202-566-1667

Date of Government Version: 04/13/05  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/21/05  
Date of Next Scheduled EDR Contact: 06/20/05

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **SSTS: Section 7 Tracking Systems**

Source: EPA

Telephone: 202-564-5008

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/03

Date of Last EDR Contact: 04/19/05

Database Release Frequency: Annually

Date of Next Scheduled EDR Contact: 07/18/05

## **FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)**

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

Telephone: 202-566-1667

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/13/05

Date of Last EDR Contact: 03/21/05

Database Release Frequency: Quarterly

Date of Next Scheduled EDR Contact: 06/20/05

## **STATE OF INDIANA ASTM STANDARD RECORDS**

### **SHWS: List of Hazardous Waste Response Sites Scored Using the Indiana Scoring Model**

Source: Department of Environmental Management

Telephone: 317-308-3052

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 03/16/05

Date of Data Arrival at EDR: 04/01/05

Date Made Active at EDR: 04/29/05

Elapsed ASTM days: 28

Database Release Frequency: Annually

Date of Last EDR Contact: 04/01/05

### **SWF/LF: Permitted Solid Waste Facilities**

Source: Department of Environmental Management

Telephone: 317-232-0066

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 04/18/05

Date of Data Arrival at EDR: 04/22/05

Date Made Active at EDR: 05/20/05

Elapsed ASTM days: 28

Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/15/05

### **LUST: LUST Leaking Underground Storage Tank List**

Source: Department of Environmental Management

Telephone: 317-308-3008

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 03/14/05

Date of Data Arrival at EDR: 03/29/05

Date Made Active at EDR: 04/19/05

Elapsed ASTM days: 21

Database Release Frequency: Annually

Date of Last EDR Contact: 03/29/05

### **UST: Indiana Registered Underground Storage Tanks**

Source: Department of Environmental Management

Telephone: 317-308-3008

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/14/05  
Date Made Active at EDR: 04/19/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/29/05  
Elapsed ASTM days: 21  
Date of Last EDR Contact: 03/29/05

**VCP:** Voluntary Remediation Program Site List  
Source: Department of Environmental Management  
Telephone: 317-234-0966

A current list of Voluntary Remediation Program sites that are no longer confidential.

Date of Government Version: 03/01/05  
Date Made Active at EDR: 05/26/05  
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 05/10/05  
Elapsed ASTM days: 16  
Date of Last EDR Contact: 05/10/05

## STATE OF INDIANA ASTM SUPPLEMENTAL RECORDS

**SPILLS:** Spills Incidents  
Source: Department of Environmental Management  
Telephone: 317-308-3008

Date of Government Version: 03/14/05  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/29/05  
Date of Next Scheduled EDR Contact: 06/27/05

**BULK:** Registered Bulk Fertilizer and Pesticide Storage Facilities  
Source: Office of Indiana State Chemist  
Telephone: 765-494-0579

A listing of registered dry or liquid bulk fertilizer and pesticide storage facilities.

Date of Government Version: 04/11/05  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/11/05  
Date of Next Scheduled EDR Contact: 06/13/05

**DRYCLEANERS:** Drycleaner Facility Listing  
Source: Department of Environmental Management  
Telephone: 800-988-7901

A list of drycleaners involved in the Indiana 5-Star Environmental Recognition Program. It is a voluntary program that ranks participating drycleaners on a scale of one to five stars. The program recognizes those drycleaners willing to do more for the environment and worker safety than the rules require. These drycleaners are going above and beyond the rules to protect the environment, their employees and their neighbors and customers.

Date of Government Version: 07/31/04  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/13/05  
Date of Next Scheduled EDR Contact: 07/11/05

## EDR PROPRIETARY HISTORICAL DATABASES

**Former Manufactured Gas (Coal Gas) Sites:** The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

### **Disclaimer Provided by Real Property Scan, Inc.**

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **BROWNFIELDS DATABASES**

### **Brownfields: Brownfields Site List**

Source: Department of Environmental Management  
Telephone: 317-233-2570

A brownfield site is an industrial or commercial property that is abandoned, inactive, or underutilized, on which expansion or redevelopment is complicated due to the actual or perceived environmental contamination.

Date of Government Version: 03/28/05  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/28/05  
Date of Next Scheduled EDR Contact: 06/27/05

### **VCP: Voluntary Remediation Program Site List**

Source: Department of Environmental Management  
Telephone: 317-234-0966

A current list of Voluntary Remediation Program sites that are no longer confidential.

Date of Government Version: 03/01/05  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 05/10/05  
Date of Next Scheduled EDR Contact: 08/08/05

### **AUL: Sites with Restrictions**

Source: Department of Environmental Management  
Telephone: 317-232-8603

Activity and use limitations include both engineering controls and institutional controls. A listing of Comfort/Site Status Letter sites that have been issued with controls.

Date of Government Version: 03/28/05  
Database Release Frequency: Varies

Date of Last EDR Contact: 03/28/05  
Date of Next Scheduled EDR Contact: 06/27/05

### **US BROWNFIELDS: A Listing of Brownfields Sites**

Source: Environmental Protection Agency  
Telephone: 202-566-2777

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities—especially those without EPA Brownfields Assessment Demonstration Pilots—minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 01/10/05  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/14/05  
Date of Next Scheduled EDR Contact: 06/13/05

### **US INST CONTROL: Sites with Institutional Controls**

Source: Environmental Protection Agency  
Telephone: 703-603-8867

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/10/05  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

**Oil/Gas Pipelines:** This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

### **Electric Power Transmission Line Data**

Source: PennWell Corporation

Telephone: (800) 823-6277

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

**Sensitive Receptors:** There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

### **AHA Hospitals:**

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

### **Medical Centers: Provider of Services Listing**

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

### **Nursing Homes**

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

### **Public Schools**

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

### **Private Schools**

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

### **Daycare Centers: child Care Listing**

Source: Family & Social Services Administration

Telephone: 317-232-4740

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## STREET AND ADDRESS INFORMATION

© 2004 Geographic Data Technology, Inc., Rel. 07/2004. This product contains proprietary and confidential property of Geographic Data Technology, Inc. Unauthorized use, including copying for other than testing and standard backup procedures, of this product is expressly prohibited.

## **GEOCHECK® - PHYSICAL SETTING SOURCE ADDENDUM**

### **TARGET PROPERTY ADDRESS**

NSA CRANE - FARMHOUSES 1, 2 & 3  
NSA CRANE  
CRANE, IN 47522

### **TARGET PROPERTY COORDINATES**

Latitude (North):	38.825802 - 38° 49' 32.9"
Longitude (West):	86.874901 - 86° 52' 29.6"
Universal Transverse Mercator:	Zone 16
UTM X (Meters):	510859.4
UTM Y (Meters):	4297245.5
Elevation:	717 ft. above sea level

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with ASTM 1527-00, Section 7.2.3. Section 7.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

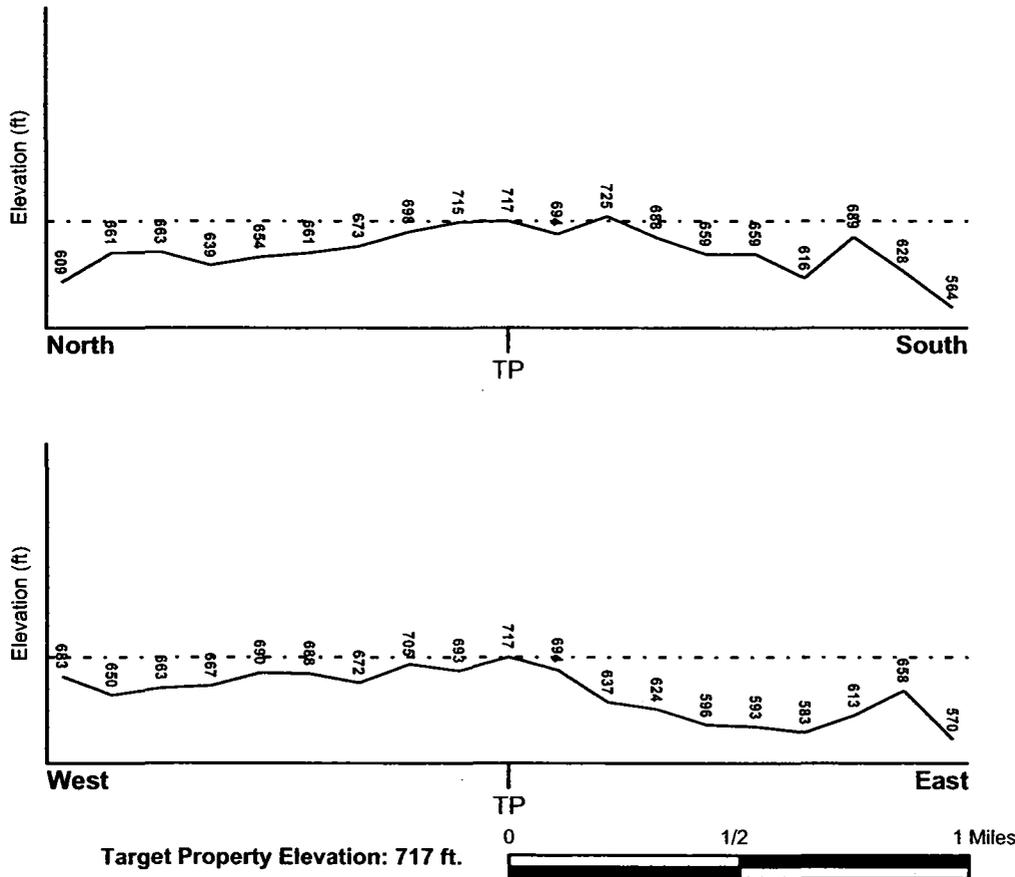
## TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## TARGET PROPERTY TOPOGRAPHY

USGS Topographic Map: 38086-G7 INDIAN SPRINGS, IN  
 General Topographic Gradient: General ENE  
 Source: USGS 7.5 min quad index

## SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

## **FEMA FLOOD ZONE**

<u>Target Property County</u>	FEMA Flood
MARTIN, IN	<u>Electronic Data</u>
	Not Available

Flood Plain Panel at Target Property: Not Reported

Additional Panels in search area: Not Reported

## **NATIONAL WETLAND INVENTORY**

<u>NWI Quad at Target Property</u>	NWI Electronic
INDIAN SPRINGS	<u>Data Coverage</u>
	YES - refer to the Overview Map and Detail Map

## HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## **AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

## **GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY**

### **GROUNDWATER FLOW VELOCITY INFORMATION**

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

### **GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY**

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### **ROCK STRATIGRAPHIC UNIT**

Era: Paleozoic  
System: Pennsylvanian  
Series: Atokan and Morrowan Series  
Code: PP1 (*decoded above as Era, System & Series*)

#### **GEOLOGIC AGE IDENTIFICATION**

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### **DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY**

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: ZANESVILLE

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: MODERATE

Depth to Bedrock Min: > 40 inches

Depth to Bedrock Max: > 40 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 2.00 Min: 0.60	Max: 6.00 Min: 4.50
2	7 inches	28 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 2.00 Min: 0.60	Max: 6.00 Min: 4.50
3	28 inches	39 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 0.60 Min: 0.06	Max: 6.00 Min: 4.50
4	39 inches	60 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 2.00 Min: 0.20	Max: 6.00 Min: 4.50
5	60 inches	64 inches	unweathered bedrock	Not reported	Not reported	Max: 0.20 Min: 0.00	Max: 0.00 Min: 0.00

### OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: No Other Soil Types

Surficial Soil Types: No Other Soil Types

Shallow Soil Types: channery - loam

Deeper Soil Types: weathered bedrock  
fine sandy loam  
stratified

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## ADDITIONAL ENVIRONMENTAL RECORD SOURCES

According to ASTM E 1527-00, Section 7.2.2, "one or more additional state or local sources of environmental records may be checked, in the discretion of the environmental professional, to enhance and supplement federal and state sources... Factors to consider in determining which local or additional state records, if any, should be checked include (1) whether they are reasonably ascertainable, (2) whether they are sufficiently useful, accurate, and complete in light of the objective of the records review (see 7.1.1), and (3) whether they are obtained, pursuant to local, good commercial or customary practice." One of the record sources listed in Section 7.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

## WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

## **FEDERAL USGS WELL INFORMATION**

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

## **FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION**

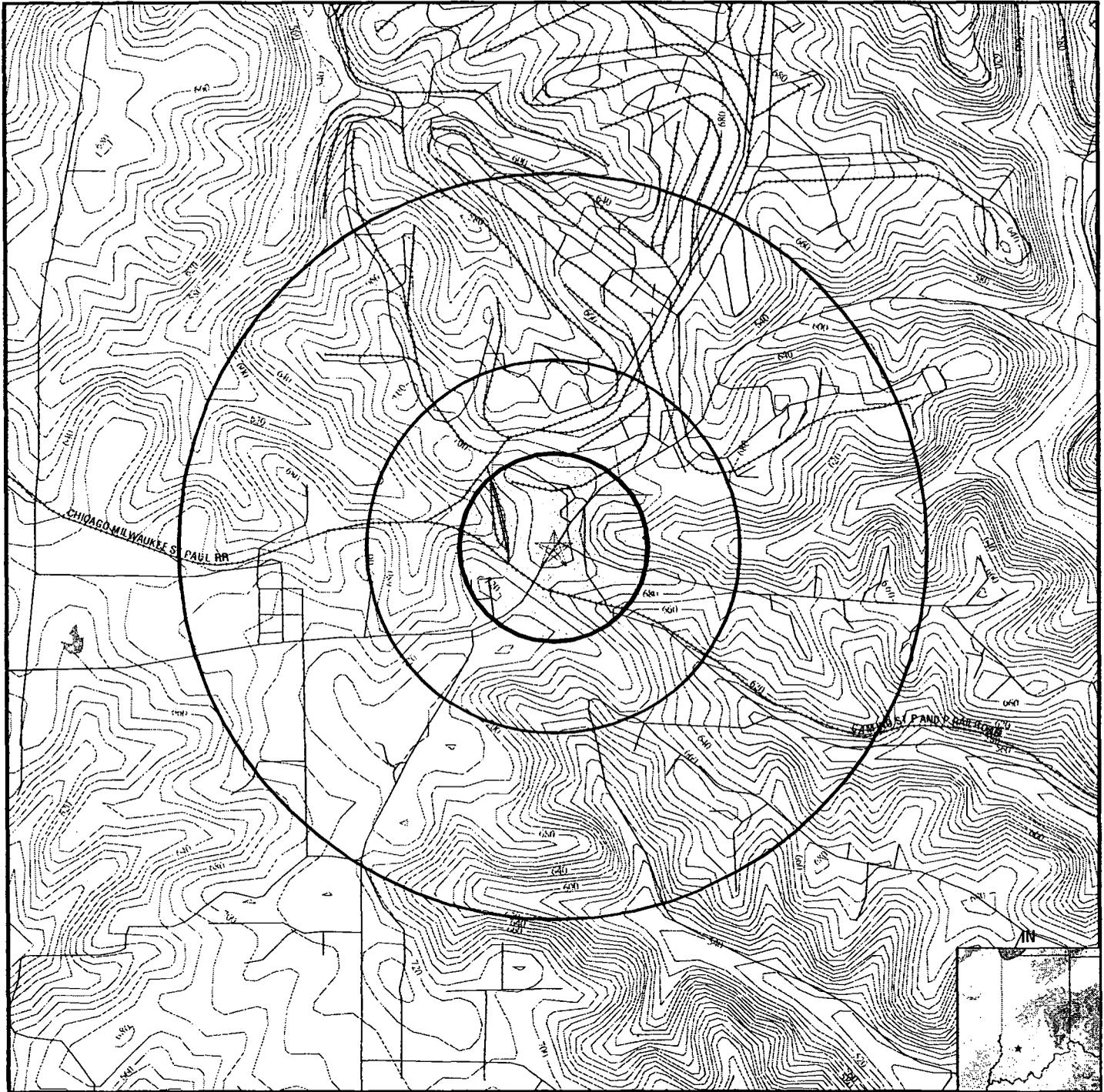
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

## **STATE DATABASE WELL INFORMATION**

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

# PHYSICAL SETTING SOURCE MAP - 1432723.3s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location



**TARGET PROPERTY:** NSA Crane - Farmhouses 1, 2 & 3  
**ADDRESS:** NSA Crane  
**CITY/STATE/ZIP:** Crane IN 47522  
**LAT/LONG:** 38.8258 / 86.8749

**CUSTOMER:** MACTEC, Inc.  
**CONTACT:** Carmen Yung  
**INQUIRY #:** 1432723.3s  
**DATE:** May 31, 2005 2:58 pm

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

Federal EPA Radon Zone for MARTIN County: 2

Note: Zone 1 indoor average level > 4 pCi/L.  
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.  
: Zone 3 indoor average level < 2 pCi/L.

---

Federal Area Radon Information for MARTIN COUNTY, IN

Number of sites tested: 3

<u>Area</u>	<u>Average Activity</u>	<u>% &lt;4 pCi/L</u>	<u>% 4-20 pCi/L</u>	<u>% &gt;20 pCi/L</u>
Living Area - 1st Floor	0.900 pCi/L	100%	0%	0%
Living Area - 2nd Floor	1.100 pCi/L	100%	0%	0%
Basement	2.633 pCi/L	100%	0%	0%

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## TOPOGRAPHIC INFORMATION

### **USGS 7.5' Digital Elevation Model (DEM)**

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002. 7.5-Minute DEMs correspond to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps.

## HYDROLOGIC INFORMATION

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

## HYDROGEOLOGIC INFORMATION

### **AQUIFLOW<sup>R</sup> Information System**

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

### **Geologic Age and Rock Stratigraphic Unit**

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### **STATSGO: State Soil Geographic Database**

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

## ADDITIONAL ENVIRONMENTAL RECORD SOURCES

### **FEDERAL WATER WELLS**

#### **PWS: Public Water Systems**

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

#### **PWS ENF: Public Water Systems Violation and Enforcement Data**

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

#### **USGS Water Wells: USGS National Water Inventory System (NWIS)**

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

### STATE RECORDS

#### Public Water Supply Wells

Source: Department of Environmental Management  
Telephone: 317-308-3323  
Community and non-community drinking water wells.

### RADON

#### State Database: IN Radon

Source: Department of Health  
Telephone: 317-233-7148  
Radon Test Results

#### Area Radon Information

Source: USGS  
Telephone: 703-356-4020  
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

#### EPA Radon Zones

Source: EPA  
Telephone: 703-356-4020  
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

### OTHER

#### Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

#### Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration



**EDR™** Environmental  
Data Resources Inc

## **The EDR Radius Map with GeoCheck®**

**NSA Crane - Quarters W & Z  
NSA Crane  
Crane, IN 47522**

**Inquiry Number: 1432723.4s**

**May 31, 2005**

## **The Standard in Environmental Risk Management Information**

440 Wheelers Farms Road  
Milford, Connecticut 06460

### **Nationwide Customer Service**

Telephone: 1-800-352-0050  
Fax: 1-800-231-6802  
Internet: [www.edrnet.com](http://www.edrnet.com)

# TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
Executive Summary .....	ES1
Overview Map .....	2
Detail Map .....	3
Map Findings Summary .....	4
Map Findings .....	6
Orphan Summary .....	7
Government Records Searched/Data Currency Tracking .....	GR-1
 <u>GEOCHECK ADDENDUM</u>	
Physical Setting Source Addendum .....	A-1
Physical Setting Source Summary .....	A-2
Physical Setting Source Map .....	A-7
Physical Setting Source Map Findings .....	A-8
Physical Setting Source Records Searched .....	A-9

*Thank you for your business.*  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

#### Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2005 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

### TARGET PROPERTY INFORMATION

#### ADDRESS

NSA CRANE  
CRANE, IN 47522

#### COORDINATES

Latitude (North): 38.882300 - 38° 52' 56.3"  
Longitude (West): 86.869800 - 86° 52' 11.3"  
Universal Transverse Mercator: Zone 16  
UTM X (Meters): 511293.2  
UTM Y (Meters): 4303516.0  
Elevation: 589 ft. above sea level

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property: 38086-H7 KOLEEN, IN  
Source: USGS 7.5 min quad index

### TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

### DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ( "reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

#### FEDERAL ASTM STANDARD

**NPL**..... National Priority List  
**Proposed NPL**..... Proposed National Priority List Sites  
**CERCLIS**..... Comprehensive Environmental Response, Compensation, and Liability Information System  
**CERC-NFRAP**..... CERCLIS No Further Remedial Action Planned  
**CORRACTS**..... Corrective Action Report  
**RCRA-TSDF**..... Resource Conservation and Recovery Act Information  
**RCRA-LQG**..... Resource Conservation and Recovery Act Information  
**RCRA-SQG**..... Resource Conservation and Recovery Act Information  
**ERNS**..... Emergency Response Notification System

#### STATE ASTM STANDARD

**SHWS**..... List of Hazardous Waste Response Sites Scored Using the Indiana Scoring Model

## EXECUTIVE SUMMARY

SWF/LF.....	Permitted Solid Waste Facilities
LUST.....	Lust Leaking Underground Storage Tank List
UST.....	Indiana Registered Underground Storage Tanks
VCP.....	Voluntary Remediation Program Site List

### FEDERAL ASTM SUPPLEMENTAL

CONSENT.....	Superfund (CERCLA) Consent Decrees
ROD.....	Records Of Decision
Delisted NPL.....	National Priority List Deletions
FINDS.....	Facility Index System/Facility Identification Initiative Program Summary Report
HMIRS.....	Hazardous Materials Information Reporting System
MLTS.....	Material Licensing Tracking System
MINES.....	Mines Master Index File
NPL Liens.....	Federal Superfund Liens
PADS.....	PCB Activity Database System
INDIAN RESERV.....	Indian Reservations
ODI.....	Open Dump Inventory
US ENG CONTROLS.....	Engineering Controls Sites List
UMTRA.....	Uranium Mill Tailings Sites
FUDS.....	Formerly Used Defense Sites
RAATS.....	RCRA Administrative Action Tracking System
TRIS.....	Toxic Chemical Release Inventory System
TSCA.....	Toxic Substances Control Act
SSTS.....	Section 7 Tracking Systems
FTTS INSP.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

### STATE OR LOCAL ASTM SUPPLEMENTAL

IN Spills.....	Spills Incidents
BULK.....	Registered Bulk Fertilizer and Pesticide Storage Facilities
DRYCLEANERS.....	Drycleaner Facility Listing

### EDR PROPRIETARY HISTORICAL DATABASES

Coal Gas.....	Former Manufactured Gas (Coal Gas) Sites
---------------	--

### BROWNFIELDS DATABASES

US BROWNFIELDS.....	A Listing of Brownfields Sites
US INST CONTROL.....	Sites with Institutional Controls
Brownfields.....	Brownfields Site List
AUL.....	Sites with Restrictions
VCP.....	Voluntary Remediation Program Site List

### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

## EXECUTIVE SUMMARY

### FEDERAL ASTM SUPPLEMENTAL

**Federal Lands:** Consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

A review of the DOD list, as provided by EDR, and dated 10/01/2003 has revealed that there is 1 DOD site within approximately 1 mile of the target property.

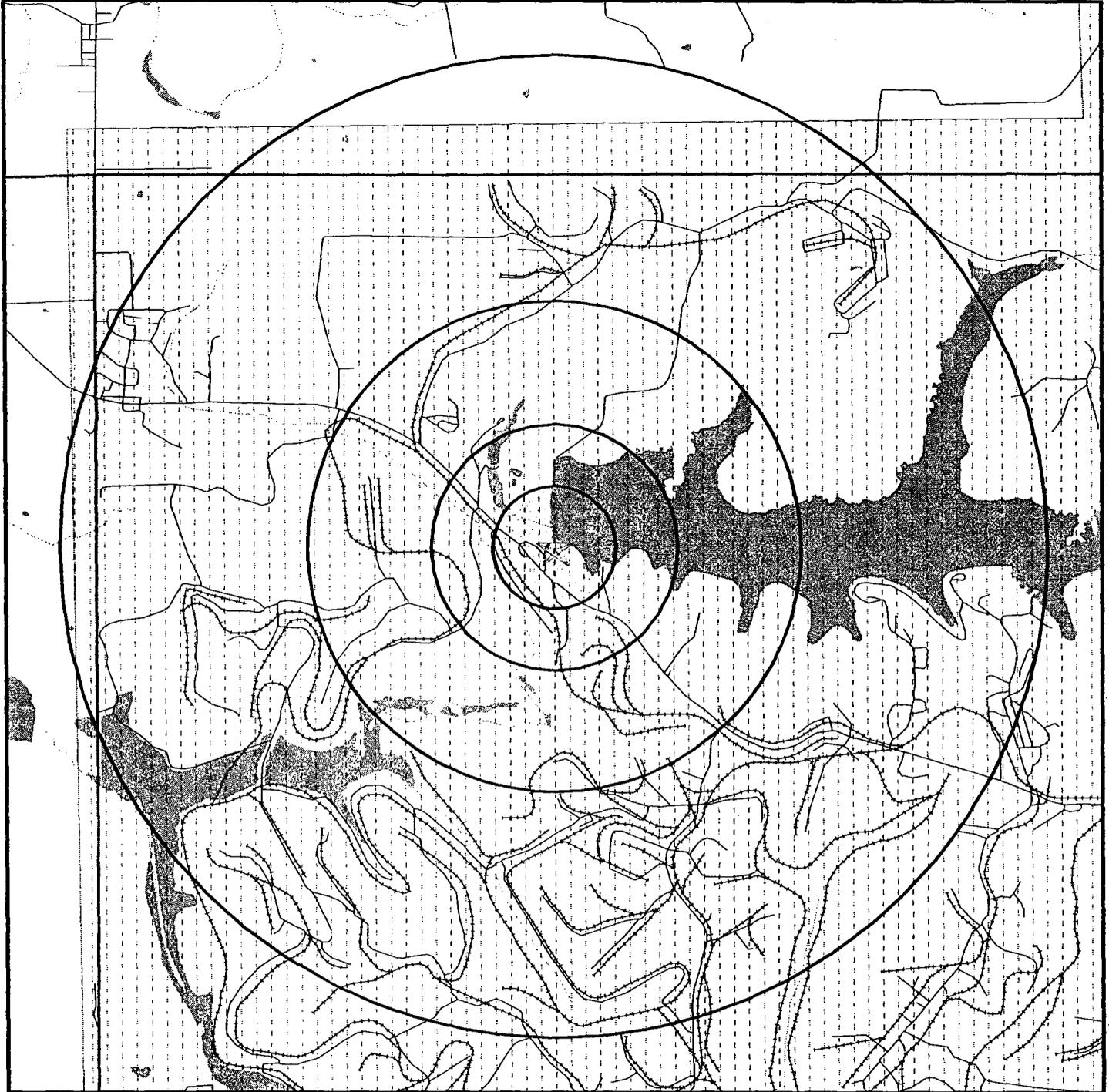
<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
	CRANE NAVAL WEAPONS SUPPORT CE	0 - 1/8	0	6

## EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

<u>Site Name</u>	<u>Database(s)</u>
CRANE NAVAL WEAPONS SUPPORT CTR	FTTS INSP
CRANE NAVAL SUPPORT CTR	FTTS INSP
CRANE NAVAL WEAPONS SUPPORT CTR	FTTS INSP
US NAVAL SURFACE WARFARE CTR CRANE DIV	PADS, CERCLIS, FINDS, RCRA-LQG, RCRA-TSDF, CORRACTS
CRANE NAVAL SURFACE WARFARE CENTER LANDF	SWF/LF
GTE NORTH INC	LUST, UST
U.S. NAVY, NSWC CRANE	LUST, UST
CRANE NAVAL WEAPONS CENT. BLDG 69	ERNS
CRANE DIVISION 300 HWY 361	ERNS
CRANE DIVISION 300 HWY 361	ERNS
CRANE DIVISION 300 HWY 361	ERNS
CRANE 76 STA	FINDS
CRANE POST OFFICE	FINDS
U.S. NAVY NSWC CRANE DIV. RANGE FACILITY	TRIS

**OVERVIEW MAP - 1432723.4s - MACTEC, Inc.**



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

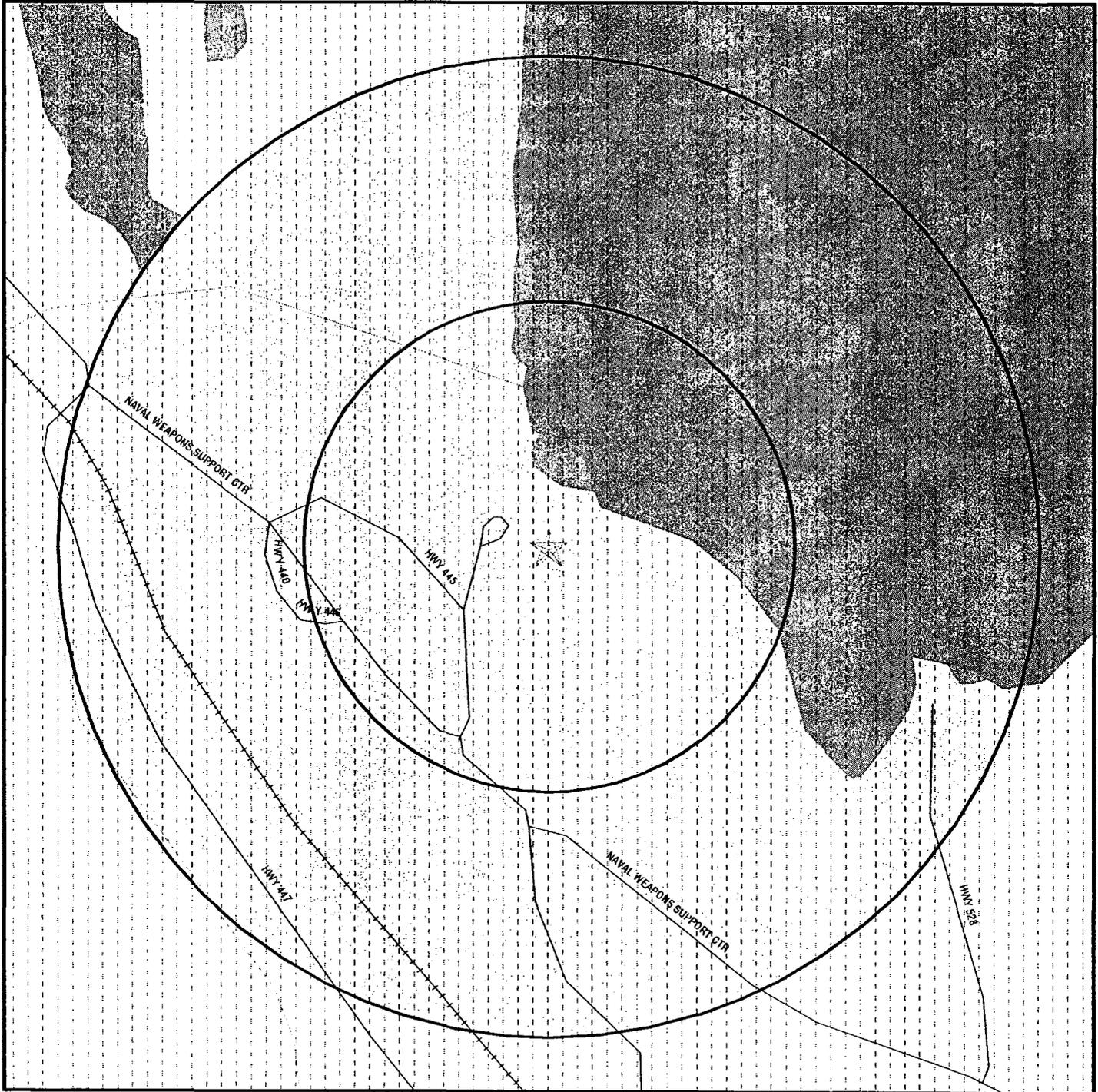
- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- Federal Wetlands



**TARGET PROPERTY:** NSA Crane - Quarters W & Z  
**ADDRESS:** NSA Crane  
**CITY/STATE/ZIP:** Crane IN 47522  
**LAT/LONG:** 38.8823 / 86.8698

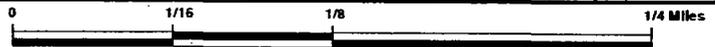
**CUSTOMER:** MACTEC, Inc.  
**CONTACT:** Carmen Yung  
**INQUIRY #:** 1432723.4s  
**DATE:** May 31, 2005 2:58 pm

**DETAIL MAP - 1432723.4s - MACTEC, Inc.**



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites
- ♣ Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- Federal Wetlands



**TARGET PROPERTY:** NSA Crane - Quarters W & Z  
**ADDRESS:** NSA Crane  
**CITY/STATE/ZIP:** Crane IN 47522  
**LAT/LONG:** 38.8823 / 86.8698

**CUSTOMER:** MACTEC, Inc.  
**CONTACT:** Carmen Yung  
**INQUIRY #:** 1432723.4s  
**DATE:** May 31, 2005 2:58 pm

## MAP FINDINGS SUMMARY

<u>Database</u>	<u>Target Property</u>	<u>Search Distance (Miles)</u>	<u>&lt; 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>&gt; 1</u>	<u>Total Plotted</u>
<b><u>FEDERAL ASTM STANDARD</u></b>								
NPL		1.500	0	0	0	0	0	0
Proposed NPL		1.500	0	0	0	0	0	0
CERCLIS		1.000	0	0	0	0	NR	0
CERC-NFRAP		0.750	0	0	0	0	NR	0
CORRACTS		1.500	0	0	0	0	0	0
RCRA TSD		1.000	0	0	0	0	NR	0
RCRA Lg. Quan. Gen.		0.750	0	0	0	0	NR	0
RCRA Sm. Quan. Gen.		0.750	0	0	0	0	NR	0
ERNS		0.500	0	0	0	NR	NR	0
<b><u>STATE ASTM STANDARD</u></b>								
State Haz. Waste		1.500	0	0	0	0	0	0
State Landfill		1.000	0	0	0	0	NR	0
LUST		1.000	0	0	0	0	NR	0
UST		0.750	0	0	0	0	NR	0
VCP		1.000	0	0	0	0	NR	0
<b><u>FEDERAL ASTM SUPPLEMENTAL</u></b>								
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
HMIRS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
NPL Liens	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
DOD		1.000	1	0	0	0	NR	1
INDIAN RESERV		1.000	0	0	0	0	NR	0
ODI		0.500	0	0	0	NR	NR	0
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
FUDS		1.000	0	0	0	0	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
<b><u>STATE OR LOCAL ASTM SUPPLEMENTAL</u></b>								
IN Spills	TP		NR	NR	NR	NR	NR	0
BULK	TP		NR	NR	NR	NR	NR	0
DRYCLEANERS		0.250	0	0	NR	NR	NR	0

## MAP FINDINGS SUMMARY

<u>Database</u>	<u>Target Property</u>	<u>Search Distance (Miles)</u>	<u>&lt; 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>&gt; 1</u>	<u>Total Plotted</u>
<b><u>EDR PROPRIETARY HISTORICAL DATABASES</u></b>								
Coal Gas		1.000	0	0	0	0	NR	0
<b><u>BROWNFIELDS DATABASES</u></b>								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
Brownfields		0.500	0	0	0	NR	NR	0
AUL		0.250	0	0	NR	NR	NR	0
VCP		1.000	0	0	0	0	NR	0

**NOTES:**

AQUIFLOW - see EDR Physical Setting Source Addendum

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

**MAP FINDINGS**

Site \_\_\_\_\_ Database(s) \_\_\_\_\_ EDR ID Number  
EPA ID Number

**Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.**

DOD  
Region

**CRANE NAVAL WEAPONS SUPPORT CENTER  
MARTIN (County), IN**

DOD **CDOD034102**  
N/A

< 1/8  
1 ft.

**FEDERAL LANDS:**

Feature 1: Navy DOD  
Feature 2: Not reported  
Feature 3: Not reported  
Agency: DOD  
URL: Not reported  
Name 1: Crane Naval Weapons Support Center  
Name 2: Not reported  
Name 3: Not reported  
State: IN

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CRANE	1004485187	CRANE 76 STA	US 231 & SR 558 3 MILES	47522	FINDS
CRANE	S106599777	CRANE NAVAL SURFACE WARFARE CENTER LANDF	300 HWY 361 BLDG 3260 CODE 095		SWF/LF
CRANE	1006814610	U.S. NAVY NSWC CRANE DIV. RANGE FACILITY	300 HWY. 361	47522	TRIS
CRANE	1004493103	CRANE POST OFFICE	SR 558 & LEAHY ST	47522	FINDS
CRANE	U003577527	GTE NORTH INC	SR 558	47522	LUST, UST
CRANE	1000307750	US NAVAL SURFACE WARFARE CTR CRANE DIV	BLDG 3260 CODE 095	47522	PADS, CERCLIS, FINDS, RCRA-LQG, RCRA-TSDF, CORRACTS
CRANE	1008178179	CRANE NAVAL WEAPONS SUPPORT CTR	BUILDING 2516	47522	FTTS INSP
CRANE	U001080078	U.S. NAVY, NSWC CRANE	CODE RP3, BLDG 3260, 300 HWY 361	47522	LUST, UST
CRANE	90186554	CRANE NAVAL WEAPONS CENT. BLDG 69	CRANE NAVAL WEAPONS CENT, BLDG 69		ERNS
CRANE	94356114	CRANE DIVISION 300 HWY 361	CRANE DIVISION 300 HWY 361	47522	ERNS
CRANE	93336466	CRANE DIVISION 300 HWY 361	CRANE DIVISION 300 HWY 361	47522	ERNS
CRANE	93325490	CRANE DIVISION 300 HWY 361	CRANE DIVISION 300 HWY 361	47522	ERNS
CRANE	1008178178	CRANE NAVAL SUPPORT CTR	CRANE NAVAL SUPPORT CTR	47522	FTTS INSP
CRANE	1007274593	CRANE NAVAL WEAPONS SUPPORT CTR	XXXXXXXXXXXXXXXX	47522	FTTS INSP

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Elapsed ASTM days:** Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

## **FEDERAL ASTM STANDARD RECORDS**

### **NPL: National Priority List**

Source: EPA  
Telephone: N/A

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/28/05  
Date Made Active at EDR: 05/16/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 05/04/05  
Elapsed ASTM days: 12  
Date of Last EDR Contact: 05/04/05

### **NPL Site Boundaries**

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)  
Telephone: 202-564-7333

EPA Region 1  
Telephone 617-918-1143

EPA Region 6  
Telephone: 214-655-6659

EPA Region 3  
Telephone 215-814-5418

EPA Region 8  
Telephone: 303-312-6774

EPA Region 4  
Telephone 404-562-8033

### **Proposed NPL: Proposed National Priority List Sites**

Source: EPA  
Telephone: N/A

Date of Government Version: 04/27/05  
Date Made Active at EDR: 05/16/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 05/04/05  
Elapsed ASTM days: 12  
Date of Last EDR Contact: 05/04/05

### **CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System**

Source: EPA  
Telephone: 703-413-0223

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/15/05  
Date Made Active at EDR: 04/06/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/22/05  
Elapsed ASTM days: 15  
Date of Last EDR Contact: 03/22/05

### **CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned**

Source: EPA  
Telephone: 703-413-0223

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/22/05  
Date Made Active at EDR: 04/06/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 04/01/05  
Elapsed ASTM days: 5  
Date of Last EDR Contact: 04/01/05

## **CORRACTS:** Corrective Action Report

Source: EPA

Telephone: 800-424-9346

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/29/05  
Date Made Active at EDR: 05/16/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 04/11/05  
Elapsed ASTM days: 35  
Date of Last EDR Contact: 03/07/05

## **RCRA:** Resource Conservation and Recovery Act Information

Source: EPA

Telephone: 800-424-9346

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/13/05  
Date Made Active at EDR: 04/25/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/23/05  
Elapsed ASTM days: 33  
Date of Last EDR Contact: 03/23/05

## **ERNS:** Emergency Response Notification System

Source: National Response Center, United States Coast Guard

Telephone: 202-260-2342

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/04  
Date Made Active at EDR: 03/24/05  
Database Release Frequency: Annually

Date of Data Arrival at EDR: 01/27/05  
Elapsed ASTM days: 56  
Date of Last EDR Contact: 04/25/05

## **FEDERAL ASTM SUPPLEMENTAL RECORDS**

### **BRS:** Biennial Reporting System

Source: EPA/NTIS

Telephone: 800-424-9346

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/01/01  
Database Release Frequency: Biennially

Date of Last EDR Contact: 04/15/05  
Date of Next Scheduled EDR Contact: 06/13/05

### **CONSENT:** Superfund (CERCLA) Consent Decrees

Source: Department of Justice, Consent Decree Library

Telephone: Varies

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/14/04  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/26/05  
Date of Next Scheduled EDR Contact: 07/25/05

## **ROD: Records Of Decision**

Source: EPA  
Telephone: 703-416-0223

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 01/10/05  
Database Release Frequency: Annually

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

## **DELISTED NPL: National Priority List Deletions**

Source: EPA  
Telephone: N/A

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/28/05  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 05/04/05  
Date of Next Scheduled EDR Contact: 08/01/05

## **FINDS: Facility Index System/Facility Identification Initiative Program Summary Report**

Source: EPA  
Telephone: N/A

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/11/05  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

## **HMIRS: Hazardous Materials Information Reporting System**

Source: U.S. Department of Transportation  
Telephone: 202-366-4555

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/04  
Database Release Frequency: Annually

Date of Last EDR Contact: 04/19/05  
Date of Next Scheduled EDR Contact: 07/18/05

## **MLTS: Material Licensing Tracking System**

Source: Nuclear Regulatory Commission  
Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 01/12/05  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

## **MINES: Mines Master Index File**

Source: Department of Labor, Mine Safety and Health Administration  
Telephone: 303-231-5959

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/11/05  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/30/05  
Date of Next Scheduled EDR Contact: 06/27/05

## **NPL LIENS:** Federal Superfund Liens

Source: EPA  
Telephone: 202-564-4267

Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91  
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 02/22/05  
Date of Next Scheduled EDR Contact: 05/23/05

## **PADS:** PCB Activity Database System

Source: EPA  
Telephone: 202-564-3887

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/30/05  
Database Release Frequency: Annually

Date of Last EDR Contact: 05/10/05  
Date of Next Scheduled EDR Contact: 08/08/05

## **DOD:** Department of Defense Sites

Source: USGS  
Telephone: 703-692-8801

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 10/01/03  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/08/05  
Date of Next Scheduled EDR Contact: 05/09/05

## **UMTRA:** Uranium Mill Tailings Sites

Source: Department of Energy  
Telephone: 505-845-0011

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized. In 1978, 24 inactive uranium mill tailings sites in Oregon, Idaho, Wyoming, Utah, Colorado, New Mexico, Texas, North Dakota, South Dakota, Pennsylvania, and on Navajo and Hopi tribal lands, were targeted for cleanup by the Department of Energy.

Date of Government Version: 12/29/04  
Database Release Frequency: Varies

Date of Last EDR Contact: 03/22/05  
Date of Next Scheduled EDR Contact: 06/20/05

## **ODI:** Open Dump Inventory

Source: Environmental Protection Agency  
Telephone: 800-424-9346

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/85  
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 05/23/95  
Date of Next Scheduled EDR Contact: N/A

## **FUDS:** Formerly Used Defense Sites

Source: U.S. Army Corps of Engineers  
Telephone: 202-528-4285

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/03  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

## **INDIAN RESERV:** Indian Reservations

Source: USGS  
Telephone: 202-208-3710

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 10/01/03  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 02/08/05  
Date of Next Scheduled EDR Contact: 05/09/05

## **US ENG CONTROLS:** Engineering Controls Sites List

Source: Environmental Protection Agency  
Telephone: 703-603-8867

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 01/10/05  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

## **RAATS:** RCRA Administrative Action Tracking System

Source: EPA  
Telephone: 202-564-4104

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95  
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 03/07/05  
Date of Next Scheduled EDR Contact: 06/06/05

## **TRIS:** Toxic Chemical Release Inventory System

Source: EPA  
Telephone: 202-566-0250

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/02  
Database Release Frequency: Annually

Date of Last EDR Contact: 03/22/05  
Date of Next Scheduled EDR Contact: 06/20/05

## **TSCA:** Toxic Substances Control Act

Source: EPA  
Telephone: 202-260-5521

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/02  
Database Release Frequency: Every 4 Years

Date of Last EDR Contact: 04/05/05  
Date of Next Scheduled EDR Contact: 06/06/05

## **FTTS INSP:** FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Source: EPA  
Telephone: 202-566-1667

Date of Government Version: 04/13/05  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/21/05  
Date of Next Scheduled EDR Contact: 06/20/05

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **SSTS: Section 7 Tracking Systems**

Source: EPA

Telephone: 202-564-5008

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/03

Database Release Frequency: Annually

Date of Last EDR Contact: 04/19/05

Date of Next Scheduled EDR Contact: 07/18/05

## **FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)**

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

Telephone: 202-566-1667

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/13/05

Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/21/05

Date of Next Scheduled EDR Contact: 06/20/05

## **STATE OF INDIANA ASTM STANDARD RECORDS**

### **SHWS: List of Hazardous Waste Response Sites Scored Using the Indiana Scoring Model**

Source: Department of Environmental Management

Telephone: 317-308-3052

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 03/16/05

Date Made Active at EDR: 04/29/05

Database Release Frequency: Annually

Date of Data Arrival at EDR: 04/01/05

Elapsed ASTM days: 28

Date of Last EDR Contact: 04/01/05

### **SWF/LF: Permitted Solid Waste Facilities**

Source: Department of Environmental Management

Telephone: 317-232-0066

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 04/18/05

Date Made Active at EDR: 05/20/05

Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 04/22/05

Elapsed ASTM days: 28

Date of Last EDR Contact: 04/15/05

### **LUST: LUST Leaking Underground Storage Tank List**

Source: Department of Environmental Management

Telephone: 317-308-3008

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 03/14/05

Date Made Active at EDR: 04/19/05

Database Release Frequency: Annually

Date of Data Arrival at EDR: 03/29/05

Elapsed ASTM days: 21

Date of Last EDR Contact: 03/29/05

### **UST: Indiana Registered Underground Storage Tanks**

Source: Department of Environmental Management

Telephone: 317-308-3008

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/14/05  
Date Made Active at EDR: 04/19/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/29/05  
Elapsed ASTM days: 21  
Date of Last EDR Contact: 03/29/05

**VCP: Voluntary Remediation Program Site List**  
Source: Department of Environmental Management  
Telephone: 317-234-0966

A current list of Voluntary Remediation Program sites that are no longer confidential.

Date of Government Version: 03/01/05  
Date Made Active at EDR: 05/26/05  
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 05/10/05  
Elapsed ASTM days: 16  
Date of Last EDR Contact: 05/10/05

## STATE OF INDIANA ASTM SUPPLEMENTAL RECORDS

**SPILLS: Spills Incidents**  
Source: Department of Environmental Management  
Telephone: 317-308-3008

Date of Government Version: 03/14/05  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/29/05  
Date of Next Scheduled EDR Contact: 06/27/05

**BULK: Registered Bulk Fertilizer and Pesticide Storage Facilities**  
Source: Office of Indiana State Chemist  
Telephone: 765-494-0579  
A listing of registered dry or liquid bulk fertilizer and pesticide storage facilities.

Date of Government Version: 04/11/05  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/11/05  
Date of Next Scheduled EDR Contact: 06/13/05

**DRYCLEANERS: Drycleaner Facility Listing**  
Source: Department of Environmental Management  
Telephone: 800-988-7901

A list of drycleaners involved in the Indiana 5-Star Environmental Recognition Program. It is a voluntary program that ranks participating drycleaners on a scale of one to five stars. The program recognizes those drycleaners willing to do more for the environment and worker safety than the rules require. These drycleaners are going above and beyond the rules to protect the environment, their employees and their neighbors and customers.

Date of Government Version: 07/31/04  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/13/05  
Date of Next Scheduled EDR Contact: 07/11/05

## EDR PROPRIETARY HISTORICAL DATABASES

**Former Manufactured Gas (Coal Gas) Sites:** The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

### **Disclaimer Provided by Real Property Scan, Inc.**

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **BROWNFIELDS DATABASES**

### **Brownfields: Brownfields Site List**

Source: Department of Environmental Management  
Telephone: 317-233-2570

A brownfield site is an industrial or commercial property that is abandoned, inactive, or underutilized, on which expansion or redevelopment is complicated due to the actual or perceived environmental contamination.

Date of Government Version: 03/28/05  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/28/05  
Date of Next Scheduled EDR Contact: 06/27/05

### **VCP: Voluntary Remediation Program Site List**

Source: Department of Environmental Management  
Telephone: 317-234-0966

A current list of Voluntary Remediation Program sites that are no longer confidential.

Date of Government Version: 03/01/05  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 05/10/05  
Date of Next Scheduled EDR Contact: 08/08/05

### **AUL: Sites with Restrictions**

Source: Department of Environmental Management  
Telephone: 317-232-8603

Activity and use limitations include both engineering controls and institutional controls. A listing of Comfort/Site Status Letter sites that have been issued with controls.

Date of Government Version: 03/28/05  
Database Release Frequency: Varies

Date of Last EDR Contact: 03/28/05  
Date of Next Scheduled EDR Contact: 06/27/05

### **US BROWNFIELDS: A Listing of Brownfields Sites**

Source: Environmental Protection Agency  
Telephone: 202-566-2777

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities—especially those without EPA Brownfields Assessment Demonstration Pilots—minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients—States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 01/10/05  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/14/05  
Date of Next Scheduled EDR Contact: 06/13/05

### **US INST CONTROL: Sites with Institutional Controls**

Source: Environmental Protection Agency  
Telephone: 703-603-8867

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/10/05  
Database Release Frequency: Varies

Date of Last EDR Contact: 04/04/05  
Date of Next Scheduled EDR Contact: 07/04/05

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

**Oil/Gas Pipelines:** This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

### **Electric Power Transmission Line Data**

Source: PennWell Corporation

Telephone: (800) 823-6277

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

**Sensitive Receptors:** There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

### **AHA Hospitals:**

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

### **Medical Centers: Provider of Services Listing**

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

### **Nursing Homes**

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

### **Public Schools**

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

### **Private Schools**

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

### **Daycare Centers: child Care Listing**

Source: Family & Social Services Administration

Telephone: 317-232-4740

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### STREET AND ADDRESS INFORMATION

© 2004 Geographic Data Technology, Inc., Rel. 07/2004. This product contains proprietary and confidential property of Geographic Data Technology, Inc. Unauthorized use, including copying for other than testing and standard backup procedures, of this product is expressly prohibited.

## **GEOCHECK® - PHYSICAL SETTING SOURCE ADDENDUM**

### **TARGET PROPERTY ADDRESS**

NSA CRANE - QUARTERS W & Z  
NSA CRANE  
CRANE, IN 47522

### **TARGET PROPERTY COORDINATES**

Latitude (North): 38.882301 - 38° 52' 56.3"  
Longitude (West): 86.869797 - 86° 52' 11.3"  
Universal Transverse Mercator: Zone 16  
UTM X (Meters): 511293.2  
UTM Y (Meters): 4303516.0  
Elevation: 589 ft. above sea level

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with ASTM 1527-00, Section 7.2.3. Section 7.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.



# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

## **FEMA FLOOD ZONE**

Target Property County  
MARTIN, IN

FEMA Flood  
Electronic Data  
Not Available

Flood Plain Panel at Target Property: Not Reported

Additional Panels in search area: Not Reported

## **NATIONAL WETLAND INVENTORY**

NWI Quad at Target Property  
KOLEEN

NWI Electronic  
Data Coverage  
YES - refer to the Overview Map and Detail Map

## HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## **AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

### GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### ROCK STRATIGRAPHIC UNIT

Era: Paleozoic  
System: Pennsylvanian  
Series: Atokan and Morrowan Series  
Code: PP1 (decoded above as Era, System & Series)

#### GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: ZANESVILLE

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: MODERATE

Depth to Bedrock Min: > 40 inches

Depth to Bedrock Max: > 40 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 2.00 Min: 0.60	Max: 6.00 Min: 4.50
2	7 inches	28 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 2.00 Min: 0.60	Max: 6.00 Min: 4.50
3	28 inches	39 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 0.60 Min: 0.06	Max: 6.00 Min: 4.50
4	39 inches	60 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 2.00 Min: 0.20	Max: 6.00 Min: 4.50
5	60 inches	64 inches	unweathered bedrock	Not reported	Not reported	Max: 0.20 Min: 0.00	Max: 0.00 Min: 0.00

### OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: No Other Soil Types

Surficial Soil Types: No Other Soil Types

Shallow Soil Types: channery - loam

Deeper Soil Types: weathered bedrock  
fine sandy loam  
stratified

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## ADDITIONAL ENVIRONMENTAL RECORD SOURCES

According to ASTM E 1527-00, Section 7.2.2, "one or more additional state or local sources of environmental records may be checked, in the discretion of the environmental professional, to enhance and supplement federal and state sources... Factors to consider in determining which local or additional state records, if any, should be checked include (1) whether they are reasonably ascertainable, (2) whether they are sufficiently useful, accurate, and complete in light of the objective of the records review (see 7.1.1), and (3) whether they are obtained, pursuant to local, good commercial or customary practice." One of the record sources listed in Section 7.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

## WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

## FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

## FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

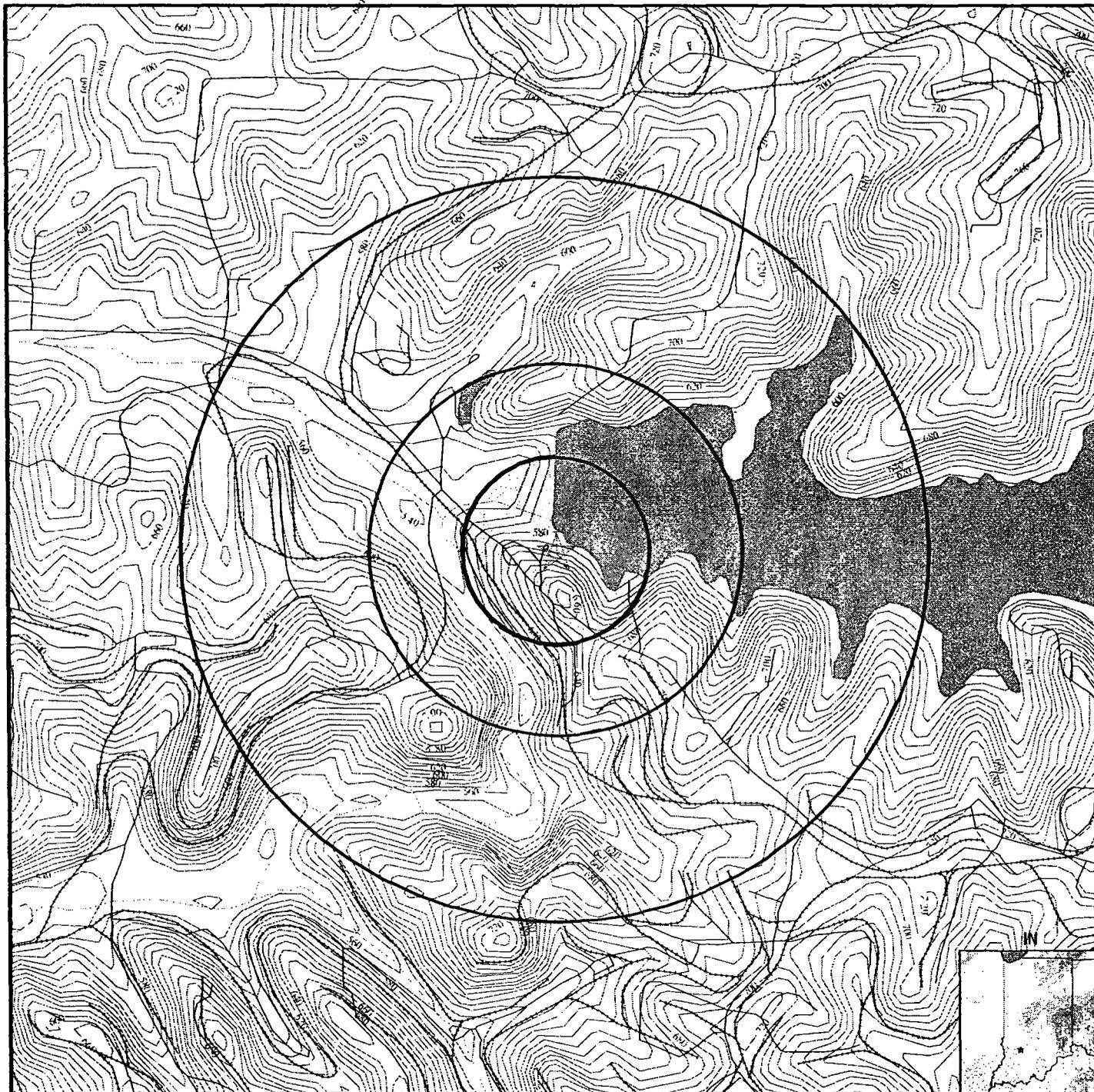
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

## STATE DATABASE WELL INFORMATION

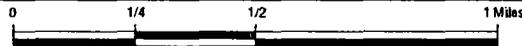
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

# PHYSICAL SETTING SOURCE MAP - 1432723.4s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location



TARGET PROPERTY: NSA Crane - Quarters W & Z  
 ADDRESS: NSA Crane  
 CITY/STATE/ZIP: Crane IN 47522  
 LAT/LONG: 38.8823 / 86.8698

CUSTOMER: MACTEC, Inc.  
 CONTACT: Carmen Yung  
 INQUIRY #: 1432723.4s  
 DATE: May 31, 2005 2:58 pm

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

Federal EPA Radon Zone for MARTIN County: 2

- Note: Zone 1 indoor average level > 4 pCi/L.  
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.  
 : Zone 3 indoor average level < 2 pCi/L.

### Federal Area Radon Information for MARTIN COUNTY, IN

Number of sites tested: 3

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.900 pCi/L	100%	0%	0%
Living Area - 2nd Floor	1.100 pCi/L	100%	0%	0%
Basement	2.633 pCi/L	100%	0%	0%

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## TOPOGRAPHIC INFORMATION

### **USGS 7.5' Digital Elevation Model (DEM)**

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002. 7.5-Minute DEMs correspond to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps.

## HYDROLOGIC INFORMATION

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

## HYDROGEOLOGIC INFORMATION

### **AQUIFLOW<sup>R</sup> Information System**

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

### **Geologic Age and Rock Stratigraphic Unit**

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### **STATSGO: State Soil Geographic Database**

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

## ADDITIONAL ENVIRONMENTAL RECORD SOURCES

### **FEDERAL WATER WELLS**

#### **PWS: Public Water Systems**

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

#### **PWS ENF: Public Water Systems Violation and Enforcement Data**

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

#### **USGS Water Wells: USGS National Water Inventory System (NWIS)**

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## STATE RECORDS

### Public Water Supply Wells

Source: Department of Environmental Management

Telephone: 317-308-3323

Community and non-community drinking water wells.

## RADON

### State Database: IN Radon

Source: Department of Health

Telephone: 317-233-7148

Radon Test Results

### Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

### EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

## OTHER

### Airport Landing Facilities: Private and public use landing facilities

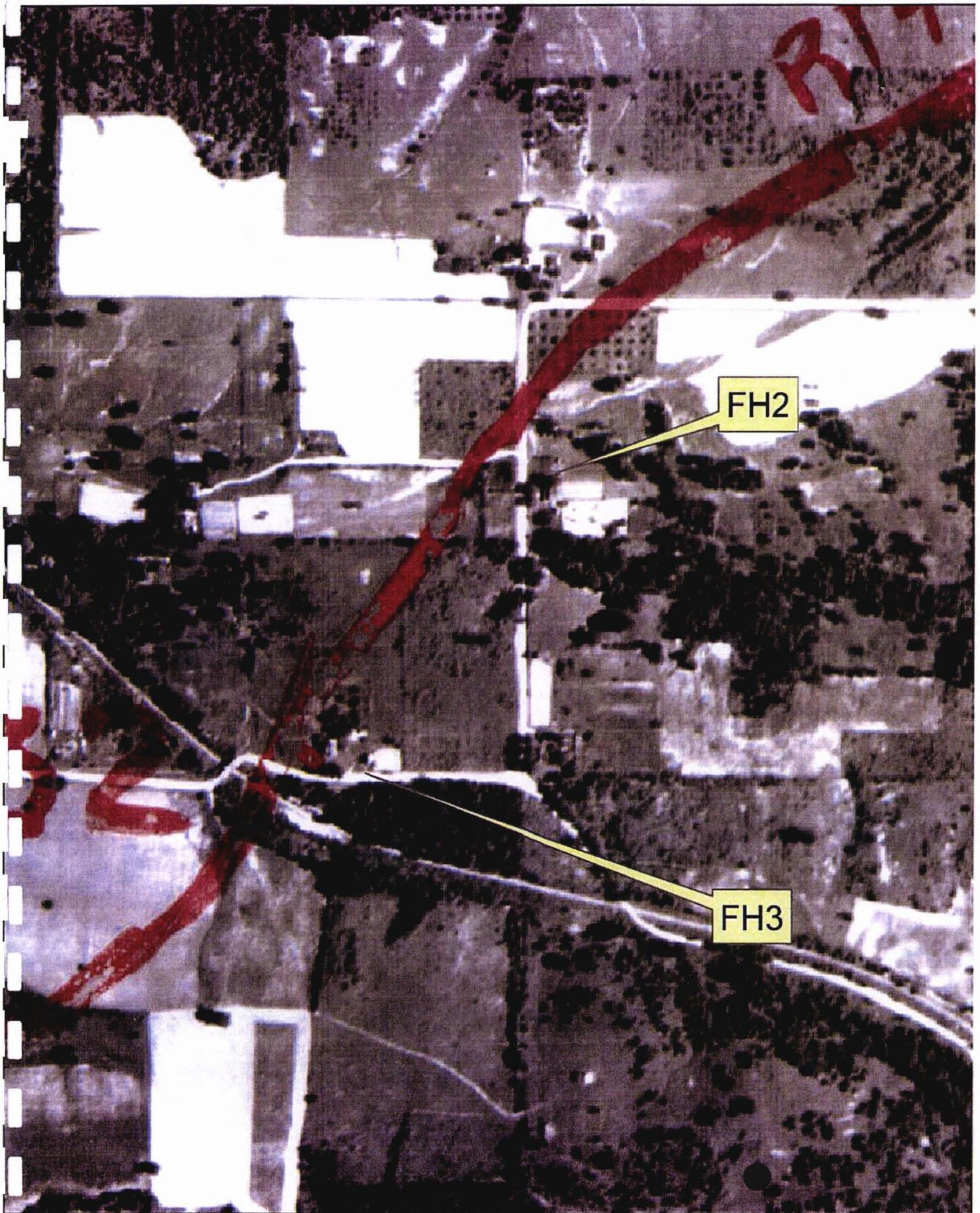
Source: Federal Aviation Administration, 800-457-6656

### Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

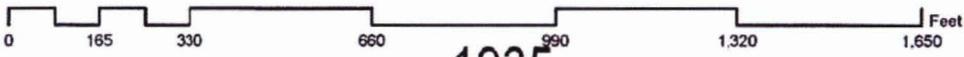
**APPENDIX D**

**Historical Aerial Photographs**

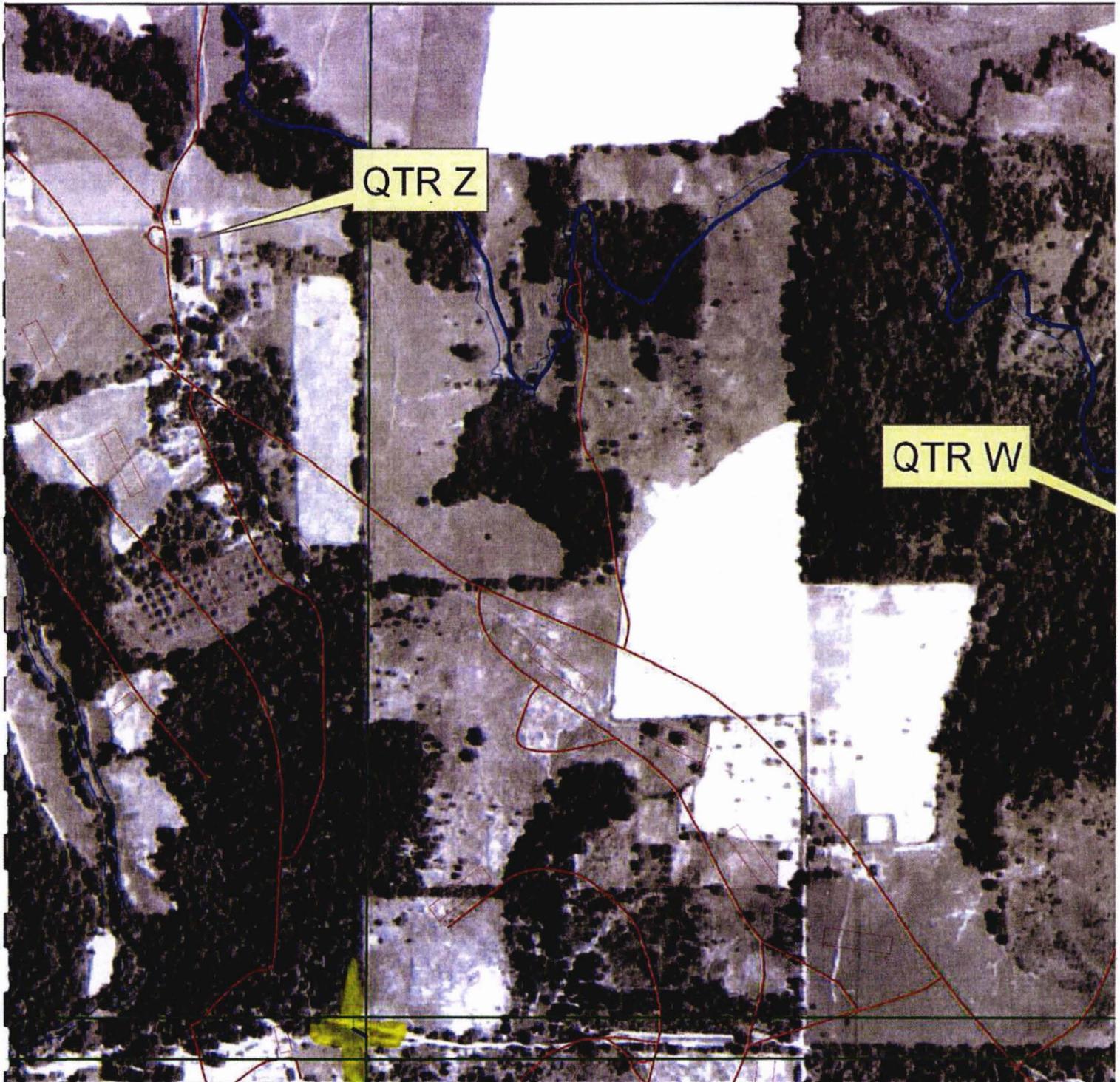


FH2

FH3







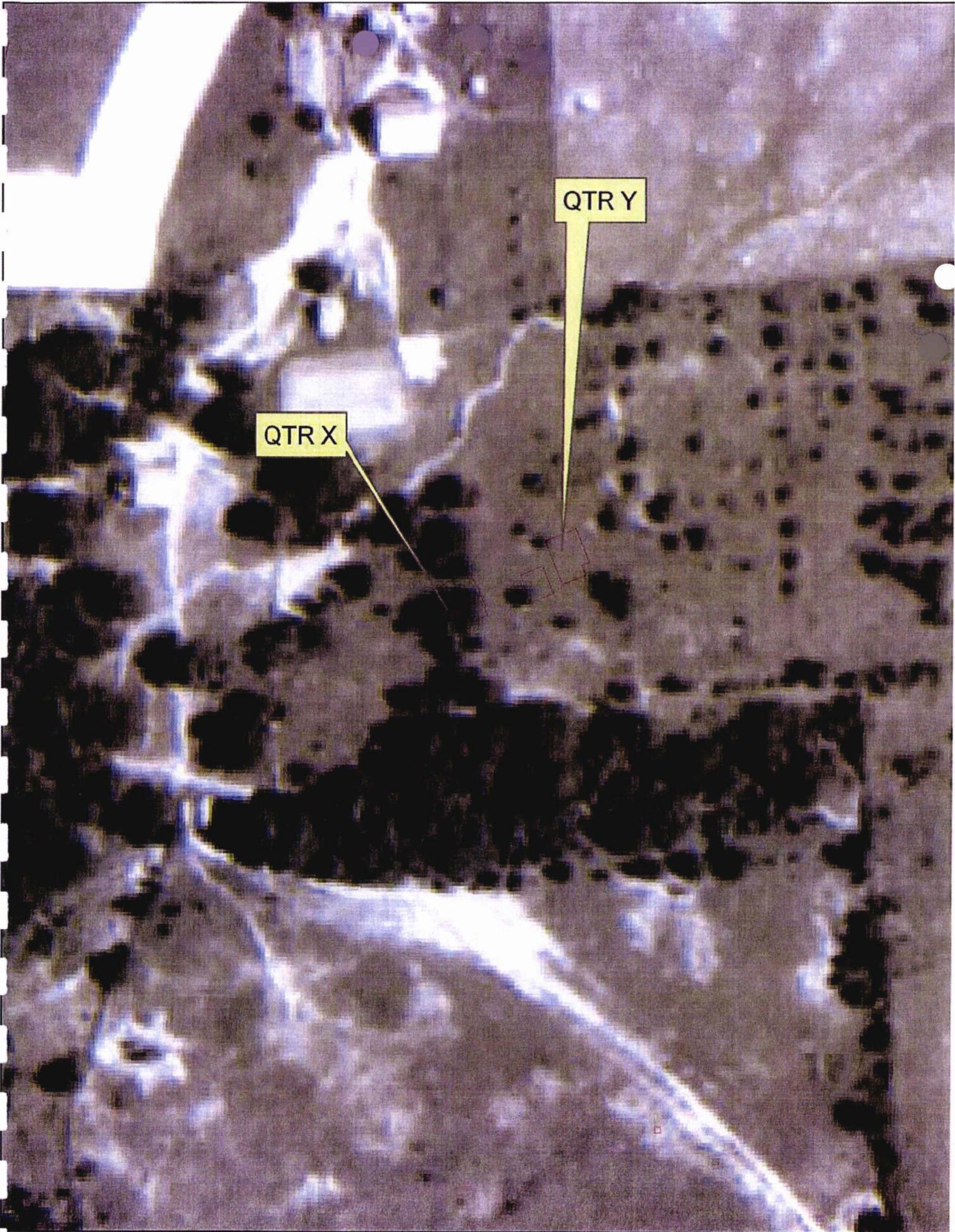
QTR Z

QTR W

0 160 320 640 960 1,280 1,600 Feet

1935





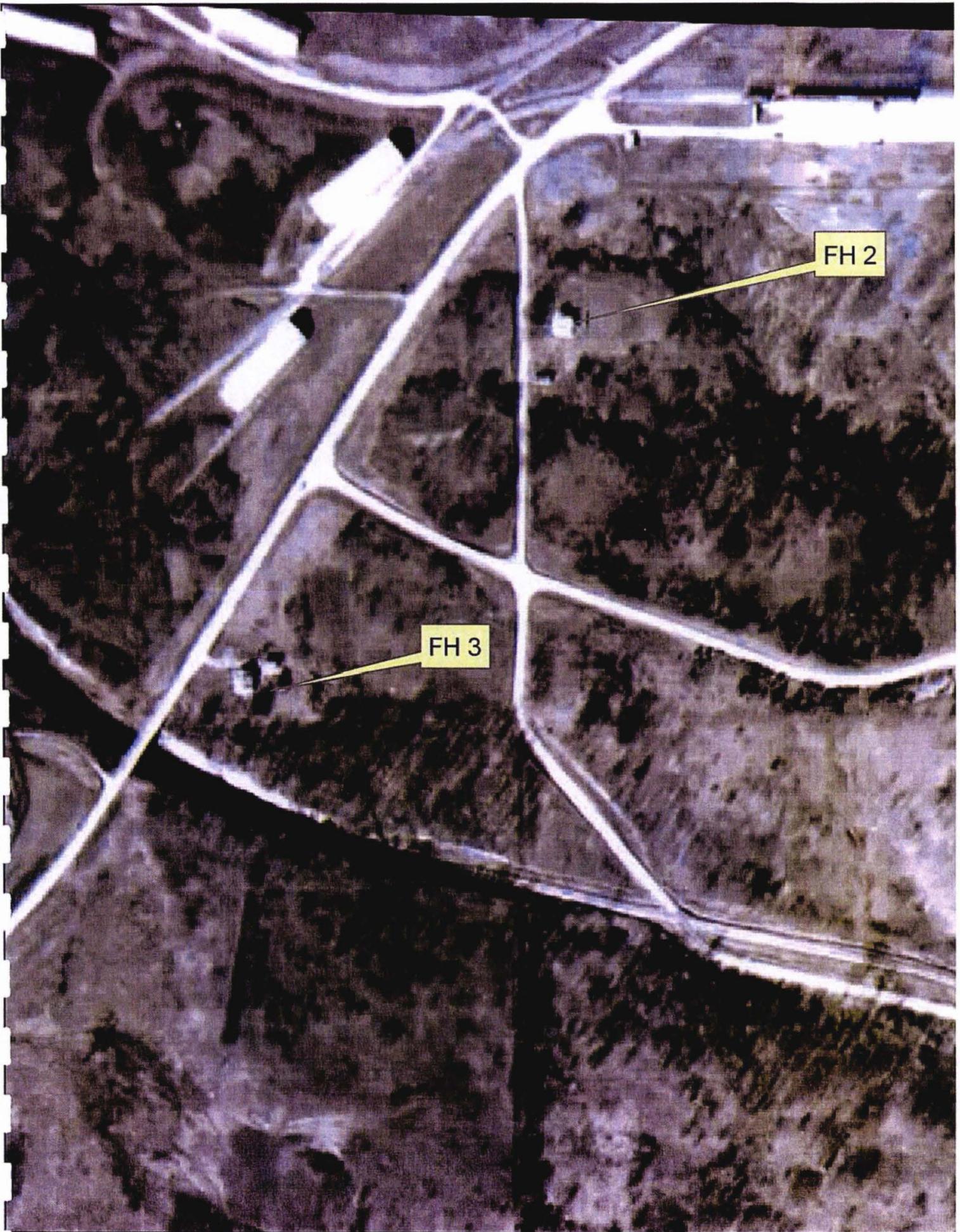
QTR Y

QTR X

0 40 80 160 240 320 400 Feet

N

QTR X - QTR Y 1005



FH 2

FH 3



0 85 170 340 510 650 Feet

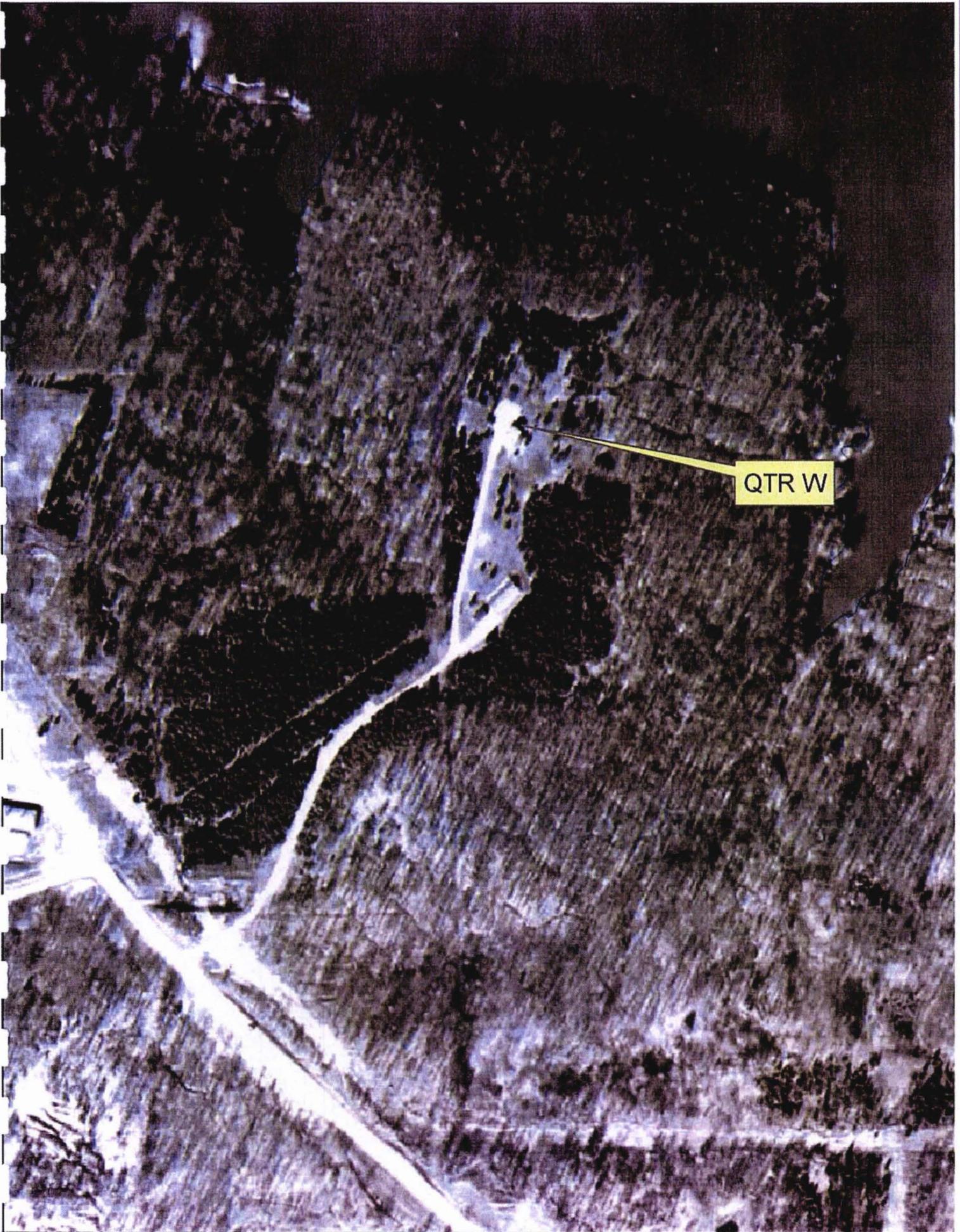


N

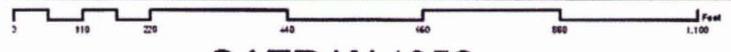
N

0 100 200 300 400 500 600 700 800 900 1000



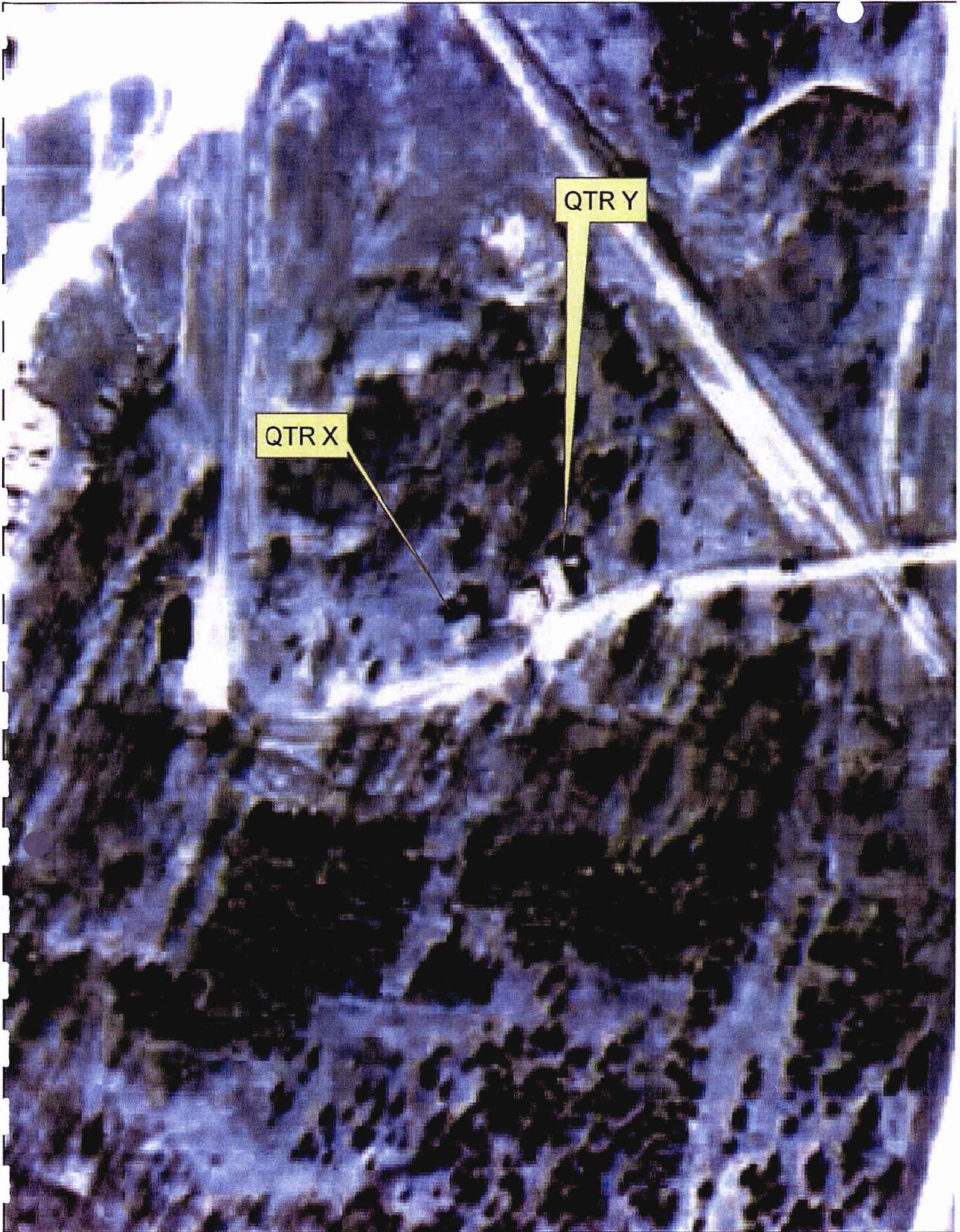


QTR W



N

QTR W 1950



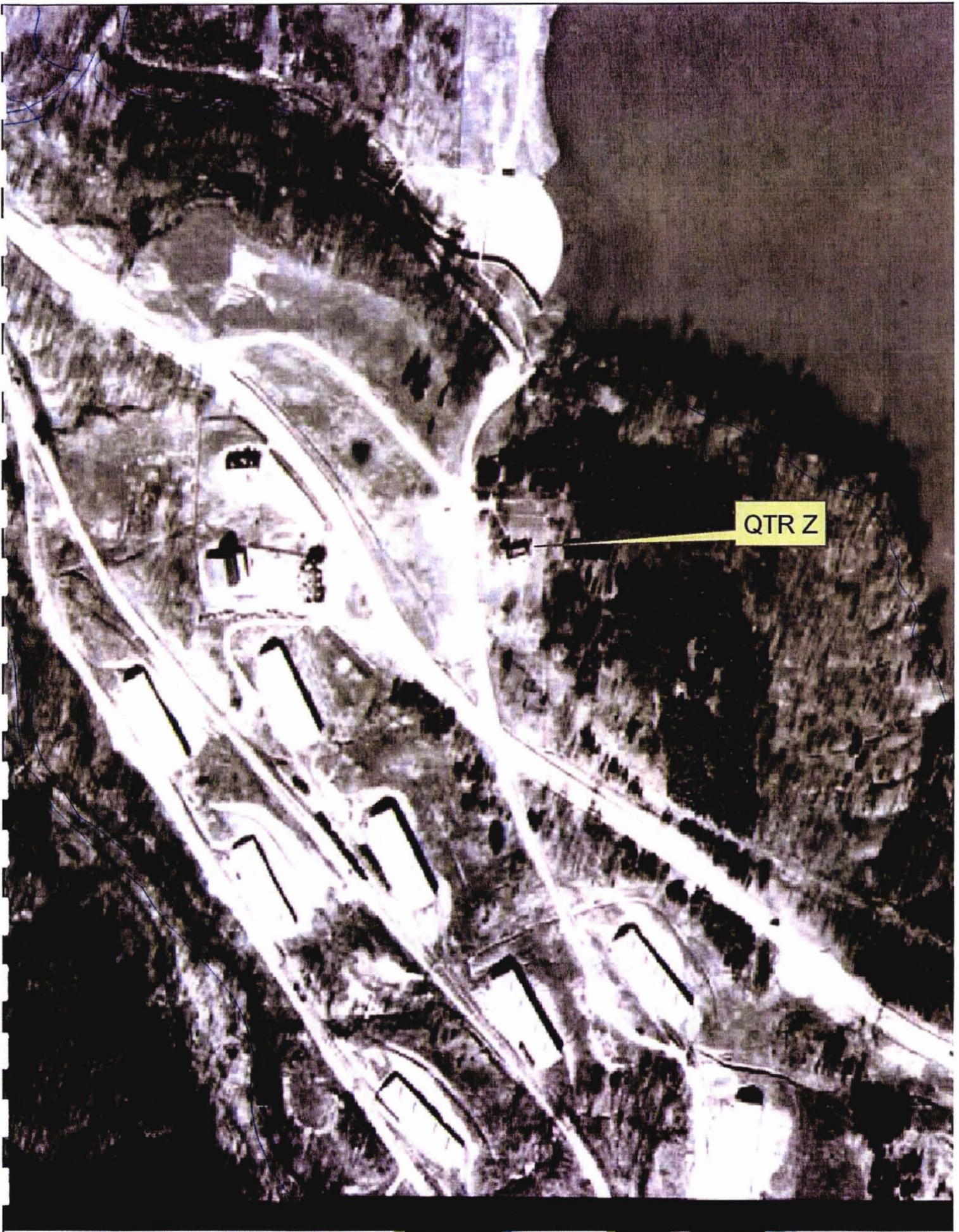
QTR X

QTR Y

0 40 80 160 240 320 400 Feet

QTR Y LOTRY 1050

N

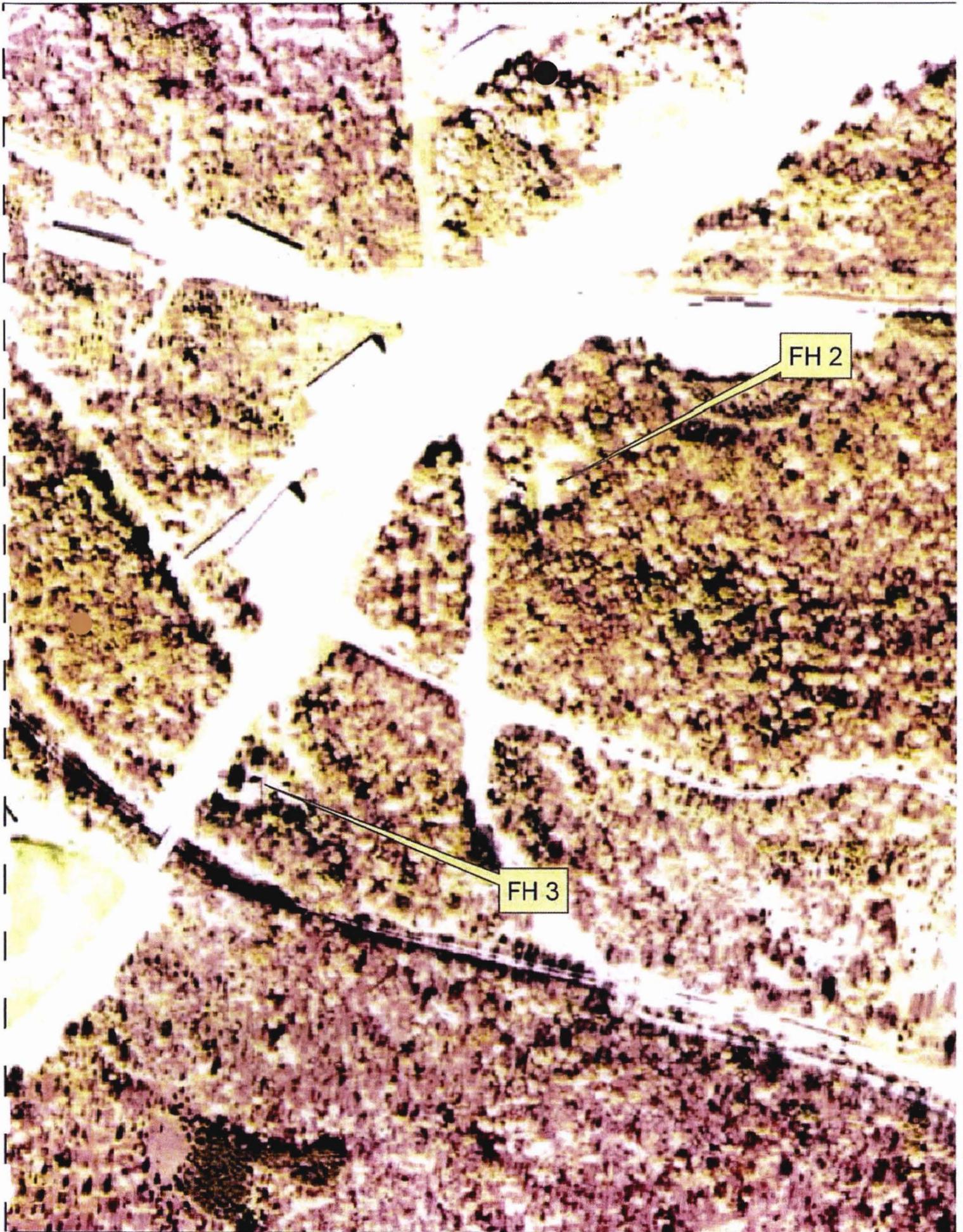


QTR Z



QATD 7 1052





0 95 190 285 380 475 570 665 760 855 950 Feet

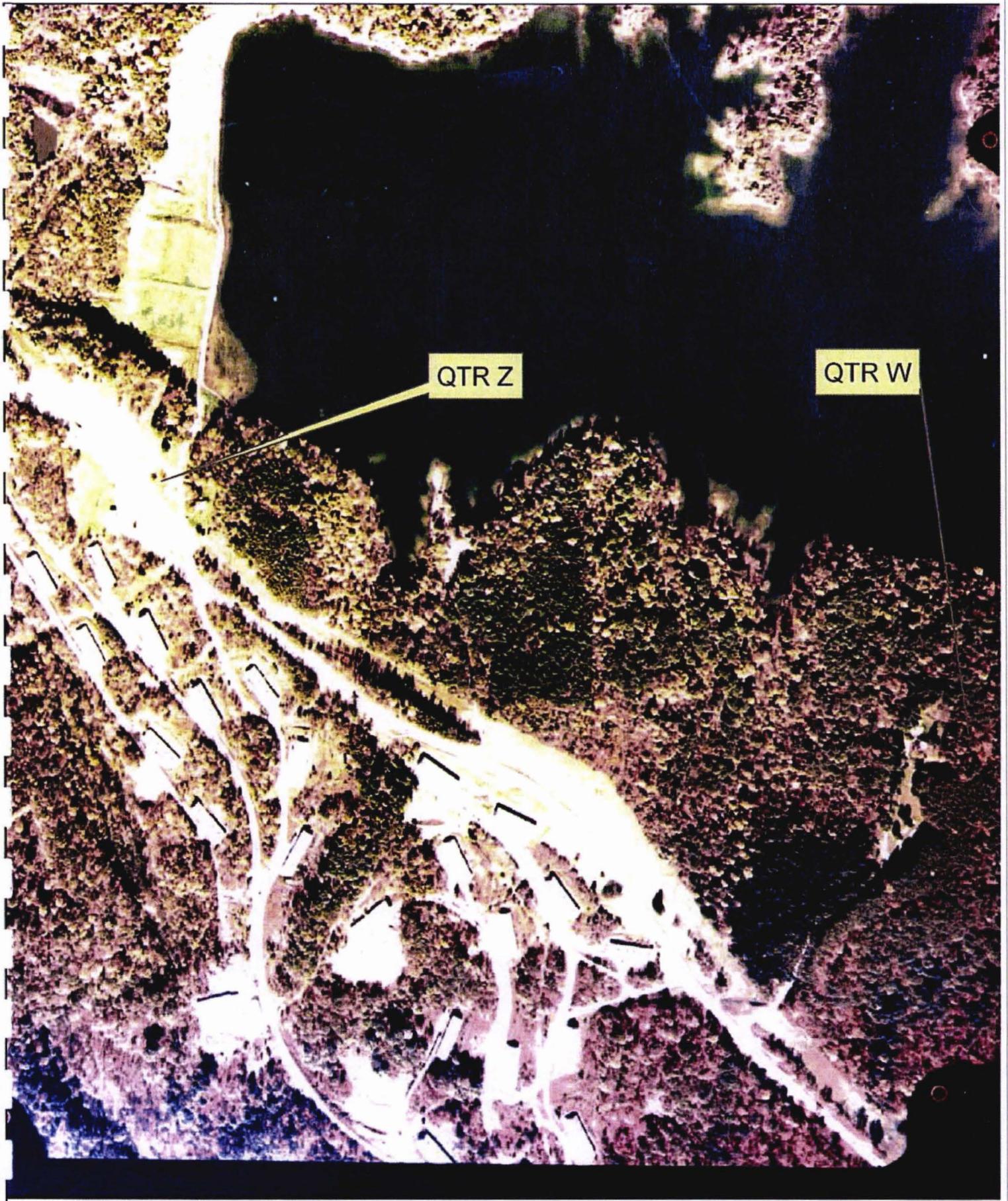
N



0 137.5 275 550 825 1,100 1,375 Feet

Greenwood Class 4004





QTR Z

QTR W

0 187.5 375 750 1,125 1,500 1,875 Feet

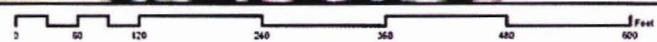
QTR W and QTR Z 1004





QTR Y

QTR X



QTR Y - QTR X 1004



**APPENDIX E**

**Threatened and Endangered Species**



June 7, 2005

US Fish and Wildlife Service  
620 South Walker Street  
Bloomington, Indiana 47403

**RE: Freedom of Information Request for  
Naval Support Activity Crane  
Crane, Indiana**

Dear Sir/Madam:

MACTEC Engineering and Consulting, Inc. (MACTEC) requests a search of the US Fish and Wildlife Service database for the presence of endangered and threatened species, for the above referenced property and immediately surrounding area. The site is located in Martin County Indiana.

Thank you for your assistance in this matter.

Sincerely,

**MACTEC Engineering and Consulting, Inc.**

A handwritten signature in black ink that reads "Carmen Y. Yung".

Carmen Y. Yung  
Senior Environmental Scientist  
MACTEC Engineering and Consulting, Inc.  
1200 Jorie Boulevard, Suite 230  
Oak Brook, Illinois 60523  
Phone: 630-571-2162 Fax: 630-571-0439



June 16, 2005

US Fish and Wildlife Service  
620 South Walker Street  
Bloomington, Indiana 47403  
Via Facsimile 812-334-4273

**Attention: Mr. Mike Litwin**

**RE: Freedom of Information Request for  
Naval Support Activity Crane  
Crane, Indiana**

Dear Mr. Litwin:

Per our telephone conversation on June 15, 2005 and our letter dated June 7, 2005, MACTEC Engineering and Consulting, Inc. (MACTEC) is performing a Phase I Environmental Site Assessment of 30 Navy family housing units located within Naval Support Activity Crane in Indiana. The Navy is privatizing the family housing at NSA Crane. Attached is a site map showing the approximate locations of the housing unit. We are requesting a search of the Indiana Department of Natural Resources Database for the presence of endangered and threatened species, at these housing units and immediately surrounding area.

Thank you for your assistance in this matter. Should you have any questions regarding this request or require additional information, please feel free to call me.

Sincerely,

**MACTEC Engineering and Consulting, Inc.**

A handwritten signature in black ink, appearing to read "Carmen Y. Yung". The signature is fluid and cursive, with a large initial "C" and "Y".

Carmen Y. Yung  
Senior Environmental Scientist  
MACTEC Engineering and Consulting, Inc.  
1200 Jorie Boulevard, Suite 230  
Oak Brook, Illinois 60523  
Phone: 630-571-2162 Fax: 630-571-0439



United States Department of the Interior  
Fish and Wildlife Service



Bloomington Field Office (ES)  
620 South Walker Street  
Bloomington, IN 47403-2121  
Phone: (812) 334-4261 Fax: (812) 334-4273

June 17, 2005

Ms. Carmen Y. Yung  
MACTEC Engineering and Consulting  
1200 Jorie Boulevard, Suite 230  
Oak Brook, IL 60523

Project No: Environmental Site Assessment of 30 Navy family housing units at NSA Crane  
County(ies): Greene & Martin

Dear Ms. Yung:

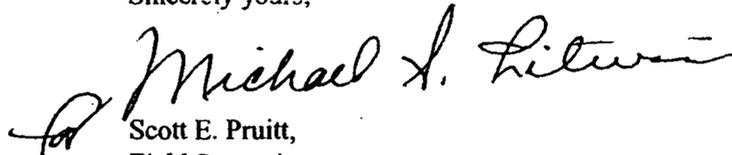
This responds to your letter dated June 16, 2005, requesting our comments on the aforementioned project.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

The proposed project will have no significant effect on wetlands and will not affect any Federally endangered species. Other project impacts will be minor in nature. Based on a review of the information you provided, the U.S. Fish and Wildlife Service has no objections to the project as currently proposed.

We appreciate the opportunity to comment at this early stage of project planning. If project plans change such that fish and wildlife habitat may be affected, please recoordinate with our office as soon as possible. If you have any questions about our recommendations, please call (812)334-4261.

Sincerely yours,

  
Scott E. Pruitt,  
Field Supervisor

# **DNR** Indiana Department of Natural Resources

Mitchell E. Daniels, Jr., Governor  
Kyle J. Hupfer, Director

Division of Nature Preserves  
402 W. Washington St., Rm W267  
Indianapolis IN 46204-2739

June 14, 2005

Carmen Yung  
MACTEC Engineering and Consulting, Inc.  
1200 Jorie Boulevard Suite 230  
Oak Brook, IL 60523

Dear Carmen Yung:

I am responding to your request for information on the endangered, threatened, or rare (ETR) species, high quality natural communities, and natural areas documented from the Crane Naval Weapon Support Center and proximity, Indiana. The Indiana Natural Heritage Data Center has been checked and enclosed you will find information on the ETR species documented from the project area.

For more information on the animal species mentioned, please contact Katie Smith, Nongame Supervisor, Division of Fish and Wildlife, 402 W. Washington Room W273, Indianapolis, Indiana 46204, (317)232-4080.

The information I am providing does not preclude the requirement for further consultation with the U.S. Fish and Wildlife Service as required under Section 7 of the Endangered Species Act of 1973. You should contact the Service at their Bloomington, Indiana office.

U.S. Fish and Wildlife Service  
620 South Walker St.  
Bloomington, Indiana 47403-2121  
(812)334-4261

At some point, you may need to contact the Department of Natural Resources' Environmental Review Coordinator so that other divisions within the department have the opportunity to review your proposal. For more information, please contact:

Kyle Hupfer, Director  
Department of Natural Resources  
attn: Christie Kiefer  
Environmental Coordinator  
Division of Water  
402 W. Washington Street, Room W264  
Indianapolis, IN 46204  
(317)232-4160

Please note that the Indiana Natural Heritage Data Center relies on the observations of many individuals for our data. In most cases, the information is not the result of comprehensive field surveys conducted at particular sites. Therefore, our statement that there are no documented significant natural features at a site should not be interpreted to mean that the site does not support special plants or animals.

Due to the dynamic nature and sensitivity of the data, this information should not be used for any project other than that for which it was originally intended. It may be necessary for you to request updated material from us in order to base your planning decisions on the most current information.

Thank you for contacting the Indiana Natural Heritage Data Center. You may reach me at (317)232-8059 if you have any questions or need additional information.

Sincerely,

*Ronald P. Hellmich*  
Ronald P. Hellmich  
Indiana Natural Heritage Data Center

enclosure:      data sheet  
                    invoice

Endangered, Threatened and Rare Species and High Quality Natural Communities documented from the Crane  
Naval Weapon Support Center and proximity, Indiana

<u>TYPE</u>	<u>SPECIES NAME</u>	<u>COMMON NAME</u>	<u>FED</u>	<u>STATE</u>	<u>TOWN RANGE</u>	<u>DATE</u>	<u>COMMENTS</u>
Bird	<i>Ardea herodias</i>	Great Blue Heron			004N003W 16	1993-04-23	
Bird	<i>Haliaeetus leucocephalus</i>	Bald Eagle		SE	004N005W 11 NH SWQ	2002-03-04	
Mammal	<i>Myotis sodalis</i>	Indiana Bat or Social Myotis	LE	SE	006N004W 28	2004-06-06	
Mammal	<i>Taxidea taxus</i>	American Badger		SE	005N005W 36 SWQ	2003-03-20	
Mammal	<i>Lynx rufus</i>	Bobcat		SE	004N003W 17	NO DATE	
Mammal	<i>Lynx rufus</i>	Bobcat		SE	006N003W 25 SWQ NEQ SEQ	1998-11-20	
Mammal	<i>Lynx rufus</i>	Bobcat		SE	006N004W 24 NEQ SEQ	1998-10-14	
Mammal	<i>Lynx rufus</i>	Bobcat		SE	006N003W 28	2002-03-23	
Mammal	<i>Lynx rufus</i>	Bobcat		SE	006N003W 28	2002-03-23	
Mammal	<i>Lynx rufus</i>	Bobcat		SE	003N004W 6	2002-10-24	
Crustacea:	<i>Sagittocythere barri</i>	Barr's Commensal Cave Ostracod		WL	005N002W 19 SWQ NEQ NEQ	1970-02 21	
Ostracoda:							
Mollusca:	<i>Ptychobranthus fasciolaris</i>	Kidneyshell		SSC	006N003W 36	2003-08-14	Live
Bivalvia (Mussels)							
Mollusca:	<i>Ptychobranthus fasciolaris</i>	Kidneyshell		SSC	005N002W 18	2003-08-05	Weathered dead
Bivalvia (Mussels)							
Mollusca:	<i>Villosa lienosa</i>	Little Spectaclecase		SSC	006N003W 36	2003-08-14	Weathered dead
Bivalvia (Mussels)							
Mollusca:	<i>Villosa lienosa</i>	Little Spectaclecase		SSC	003N004W 9	2003-08-21	fresh dead
Bivalvia (Mussels)							
Vascular Plant	<i>Panicum yadkinense</i>	A Panic-grass		SE	004N005W 14	1949-05-30	
<b>RARE NAVAL WEAPONS SUPPORT CENTER</b>							
Bird	<i>Ardea herodias</i>	Great Blue Heron			004N004W 03	1981-07-10	
Bird	<i>Ardea herodias</i>	Great Blue Heron			005N004W 18 NEQ SWQ	1993-04-18	
Bird	<i>Nyctanassa violacea</i>	Yellow-crowned Night-heron		SE	005N004W CRANE NWSC	1975-05-06	
Bird	<i>Nyctanassa violacea</i>	Yellow-crowned Night-heron		SE	004N004W BOGGS CREEK	1986	
Bird	<i>Pandion haliaetus</i>	Osprey		SE	005N004W 11 NWQ SWQ NEQ	1987-06-27	
Bird	<i>Haliaeetus leucocephalus</i>	Bald Eagle		SE	005N004W 11 WH SWQ NWQ	2002-03-04	NEST SITE
Bird	<i>Haliaeetus leucocephalus</i>	Bald Eagle		SE	004N004W 28 NWQ NWQ NWQ	2002-03-04	NEST SITE
Bird	<i>Haliaeetus leucocephalus</i>	Bald Eagle		SE	005N004W 10	1993-01	WINTER USE SIT
Bird	<i>Haliaeetus leucocephalus</i>	Bald Eagle		SE	004N004W 28 NEQ	2003-05-27	WINTER USE SIT
Bird	<i>Accipiter striatus</i>	Sharp-shinned Hawk		SSC	005N004W 01 NWQ NEQ	1989-07-09	
Bird	<i>Buteo lineatus</i>	Red-shouldered Hawk		SSC	005N003W 11	1987	
Bird	<i>Buteo platypterus</i>	Broad-winged Hawk		SSC	006N003W 33	1987	
Bird	<i>Dendroica cerulea</i>	Cerulean Warbler		SSC	005N003W 11 WH	1987	NESTING
Bird	<i>Mniotilta varia</i>	Black-and-white Warbler		SSC	004N004W 25	1987	
Bird	<i>Helmitheros vermivorus</i>	Worm-eating Warbler		SSC	004N003W 06	1987	
Bird	<i>Wilsonia citrina</i>	Hooded Warbler		SSC	005N003W 11 NWQ	1987	
Bird	<i>Wilsonia citrina</i>	Hooded Warbler		SSC	005N003W 04 NWQ	1987	

Fed: LE = Endangered; LT = Threatened

State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern;

SX = state extirpated; SG = state significant; WL = watch list

## Endangered, Threatened and Rare Species and High Quality Natural Communities documented from the Crane Naval Weapon Support Center and proximity, Indiana

<u>TYPE</u>	<u>SPECIES NAME</u>	<u>COMMON NAME</u>	<u>FED</u>	<u>STATE</u>	<u>TOWN RANGE</u>	<u>DATE</u>	<u>COMMENTS</u>
Bird	Wilsonia citrina	Hooded Warbler		SSC	005N004W 01 NEQ	1987	
Bird	Wilsonia citrina	Hooded Warbler		SSC	004N003W 06 SWQ	1987	
Bird	Wilsonia citrina	Hooded Warbler		SSC	004N004W 07 SWQ	1987	
Bird	Ammodramus henslowii	Henslow's Sparrow		SE		1987-06-16	
Fish	Polyodon spathula	Paddlefish			004N004W 15	1988-10-15	
Mammal	Myotis sodalis	Indiana Bat or Social Myotis	LE	SE	005N004W 27 NWQ SWQ SWQ	1987-07-18	
Mammal	Myotis sodalis	Indiana Bat or Social Myotis	LE	SE	005N004W 02 SEQ	1998-07-01	
Mammal	Myotis sodalis	Indiana Bat or Social Myotis	LE	SE	005N003W 06 SEQ	1998-05-20	
Mammal	Myotis sodalis	Indiana Bat or Social Myotis	LE	SE	004N004W 28 NEQ	1998-05-28	
Mammal	Myotis sodalis	Indiana Bat or Social Myotis	LE	SE	005N003W 10 WH	1998-06-30	
Mammal	Myotis sodalis	Indiana Bat or Social Myotis	LE	SE	005N003W 12 SEQ	1998-07-10	
Mammal	Lynx rufus	Bobcat		SE	004N005W 32	1994-01	
Mammal	Lynx rufus	Bobcat		SE	004N004W 14	1993-03-23	
Mammal	Lynx rufus	Bobcat		SE	004N004W 26	1994-02-10	
Mammal	Lynx rufus	Bobcat		SE	004N004W 15 SEQ	1997-12-12	
Mammal	Lynx rufus	Bobcat		SE	005N004W 08 SWQ	1999-03-17	
Mammal	Lynx rufus	Bobcat		SE	005N003W 22	2001-12-01	
Mammal	Lynx rufus	Bobcat		SE	006N003W 32	2002-12-20	
Mammal	Lynx rufus	Bobcat		SE	006N003W 32	2002-12-20	
Reptile	Crotalus horridus	Timber Rattlesnake		SE	005N004W CRANE	NO DATE	
High Quality Natural Community	Forest - floodplain mesic	Mesic Floodplain Forest		SG	005N004W 17 NH	1987-05-12	
High Quality Natural Community	Forest - upland dry-mesic	Dry-mesic Upland Forest		SG	005N004W 25 NWQ	1987-06-22	
High Quality Natural Community	Forest - upland dry-mesic	Dry-mesic Upland Forest		SG	005N003W 14 NWQ	1987-04-16	
High Quality Natural Community	Forest - upland dry-mesic	Dry-mesic Upland Forest		SG	005N003W 29	1987-05-11	
High Quality Natural Community	Forest - upland dry-mesic	Dry-mesic Upland Forest		SG	005N004W 25	1987-04-29	
High Quality Natural Community	Forest - upland dry-mesic	Dry-mesic Upland Forest		SG	005N004W 17 NH	1987-05-12	
High Quality Natural Community	Forest - upland dry	Dry Upland Forest		SG	005N004W 25 NWQ	1987-06-22	
High Quality Natural Community	Forest - upland dry	Dry Upland Forest		SG	005N003W 28	1987-05-11	
High Quality Natural Community	Forest - upland dry	Dry Upland Forest		SG	005N004W 25	1987-04-29	

Fed: LE = Endangered; LT = Threatened

State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern;

SX = state extirpated; SG = state significant; WL = watch list

Endangered, Threatened and Rare Species and High Quality Natural Communities documented from the Crane  
Naval Weapon Support Center and proximity, Indiana

<u>TYPE</u>	<u>SPECIES NAME</u>	<u>COMMON NAME</u>	<u>FED</u>	<u>STATE</u>	<u>TOWN RANGE</u>	<u>DATE</u>	<u>COMMENTS</u>
High Quality Natural Community	Forest - upland mesic	Mesic Upland Forest		SG	005N003W 14 NWQ	1987-04-16	
High Quality Natural Community	Forest - upland mesic	Mesic Upland Forest		SG	005N003W 28	1987-05-11	
High Quality Natural Community	Forest - upland mesic	Mesic Upland Forest		SG	005N004W 17 NH	1987-05-12	
High Quality Natural Community	Primary - cliff sandstone	Sandstone Cliff		SG	005N003W 28	1987-05-11	
High Quality Natural Community	Primary - cliff sandstone	Sandstone Cliff		SG	005N004W 17 NH	1987-05-12	
Vascular Plant	<i>Panax quinquefolius</i>	American Ginseng		WL	005N004W 25 NWQ	1987-06-22	
Vascular Plant	<i>Panax quinquefolius</i>	American Ginseng		WL	005N003W 28	1987-05-11	
Vascular Plant	<i>Panax quinquefolius</i>	American Ginseng		WL	005N004W 26	1987-06-22	
Vascular Plant	<i>Panax quinquefolius</i>	American Ginseng		WL	004N004W 19 NEQ	1987-05-12	
Vascular Plant	<i>Juglans cinerea</i>	Butternut		WL	005N003W 21	1939-07-15	
Vascular Plant	<i>Trichostema dichotomum</i>	Forked Bluecurl		SR	005N004W CRANE NWSC	1965-08	
Vascular Plant	<i>Hydrastis canadensis</i>	Golden Seal		WL	005N004W 26 NEQ	1987-06-22	
Vascular Plant	<i>Hydrastis canadensis</i>	Golden Seal		WL	005N003W 14 NWQ	1987-04-16	
Vascular Plant	<i>Hydrastis canadensis</i>	Golden Seal		WL	005N003W 29	1987-05-11	
Vascular Plant	<i>Hydrastis canadensis</i>	Golden Seal		WL	005N004W 25	1987-04-29	
Vascular Plant	<i>Hydrastis canadensis</i>	Golden Seal		WL	005N004W 01 NEQ	1987-05-06	
Vascular Plant	<i>Hydrastis canadensis</i>	Golden Seal		WL	005N003W 09 SEQ	1987-06-02	
Vascular Plant	<i>Hydrastis canadensis</i>	Golden Seal		WL	NWQ 005N004W 36	1987-07-02	
<b>HOOSIER NATIONAL FOREST</b>							
Crustacea: Malacostraca	<i>Orconectes inermis</i> <i>inermis</i>	A Troglitic Crayfish			005N002W 19 SWQ	1972	
					NEQ NEQ		

Fed: LE = Endangered; LT = Threatened

State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern;

SX = state extirpated; SG = state significant; WL = watch list

**APPENDIX F**  
**Environmental Documents**

# Navy Family Housing Survey

## N00164 Naval Surface Warfare Center, Crane Division

### General Information Detail - Non-Historic Facilities

Property Record Number	Facility Number	Address
<b>202991</b>	<b>FH2</b>	<b>329 HWY 361</b>

Neighborhood: Near Burns City Gate

Date of Building Construction: 1943      Type of Unit: Single Family

Number of Stories: 1      Square Footage: 1,032      Basement?: No

Number of Bedrooms: 2      Number of Baths: 1      Garage: Detached

Recorder Name: Vivian Majtenyi      Category: II

Notes: Built ca. 1880-1900. Side-gabled roof, vernacular style with vinyl and some wood siding and enclosed porch. Siding and windows replaced.



Property Record Number	Facility Number	Address
<b>203062</b>	<b>FH5</b>	<b>333 HWY 361</b>

Neighborhood: Near Bloomington Gate

Date of Building Construction: 1941      Type of Unit: Single Family

Number of Stories: 1.5      Square Footage: 1,790      Basement?: Yes

Number of Bedrooms: 2      Number of Baths:      Garage: Detached

Recorder Name: Vivian Majtenyi      Category: II

Notes: Dates from before 1941 when Navy acquired it. Cross-gabled roof, vernacular style with vinyl siding. Siding and windows replaced.



Property Record Number	Facility Number	Address
<b>203204</b>	<b>B</b>	<b>302 HWY 361</b>

Neighborhood: Greenwood Shores

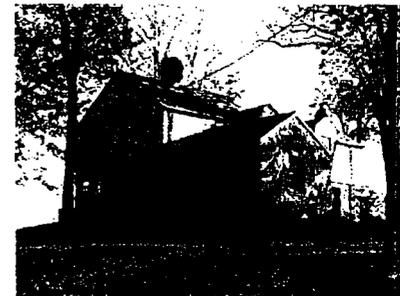
Date of Building Construction: 1941      Type of Unit: Single Family

Number of Stories: 2      Square Footage: 2,956      Basement?: Yes

Number of Bedrooms: 4      Number of Baths: 3.5      Garage: Detached

Recorder Name: S. Popovich      Category: II

Notes: Side-gabled roof, minimal traditional style with aluminum siding and stone veneer. Siding and windows altered.



# Navy Family Housing Survey

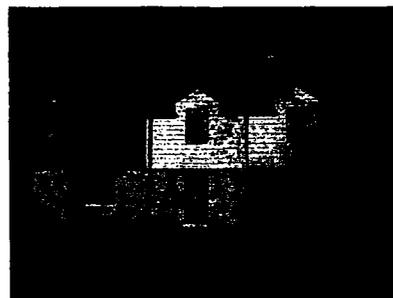
## N00164 Naval Surface Warfare Center, Crane Division

### General Information Detail - Non-Historic Facilities

**Property Record Number**      **Facility Number**      **Address**  
**203215**                              **M**                              **314 HWY 361**

Neighborhood:              Greenwood Shores  
Date of Building Construction:    1941                      Type of Unit    Single Family  
Number of Stories:    2              Square Footage:    2,330              Basement?    Yes  
Number of Bedooms:    3              Number of Baths:    1.5              Garage:    Detached  
Recorder Name:    S. Popovich                      Category:    II

Notes:    Side-gabled roof, minimal traditional style with aluminum siding and stone veneer. Siding and windows altered.



**Property Record Number**      **Facility Number**      **Address**  
**203229**                              **BB**                              **303 HWY 361**

Neighborhood:              Greenwood Shores  
Date of Building Construction:    1941                      Type of Unit    Single Family  
Number of Stories:    2              Square Footage:    2,956              Basement?    Yes  
Number of Bedooms:    4              Number of Baths:    3.5              Garage:    Detached  
Recorder Name:    S. Popovich                      Category:    II

Notes:    Side-gabled roof, minimal traditional style with aluminum siding and stone veneer. Siding and windows altered.



**Property Record Number**      **Facility Number**      **Address**  
**203312**                              **Y**                              **326 HWY 361**

Neighborhood:              1000' South Of Building 122  
Date of Building Construction:    1938                      Type of Unit    Single Family  
Number of Stories:    1              Square Footage:    1,856              Basement?    Yes  
Number of Bedooms:    2              Number of Baths:    1              Garage:    Detached  
Recorder Name:    R. Hampton                      Category:    II

Notes:    Side-gabled roof, minimal traditional style with aluminum siding. Siding and windows replaced.



# Navy Family Housing Survey

## N00164 Naval Surface Warfare Center, Crane Division

### General Information Detail - Non-Historic Facilities

**Property Record Number**      **Facility Number**      **Address**  
**203337**      **A**      **301 HWY 361**

Neighborhood: Greenwood Shores

Date of Building Construction: 1941      Type of Unit: Single Family

Number of Stories: 2      Square Footage: 5,483      Basement? Yes

Number of Bedrooms: 6      Number of Baths: 4      Garage: Detached

Recorder Name: Vivian Majtenyi      Category: II

Notes: Side-gabled roof, minimal traditional style with aluminum siding and stone veneer. Siding and windows altered.



**Property Record Number**      **Facility Number**      **Address**  
**203361**      **FH1**      **329 HWY 361**

Neighborhood: Near Burns City Gate

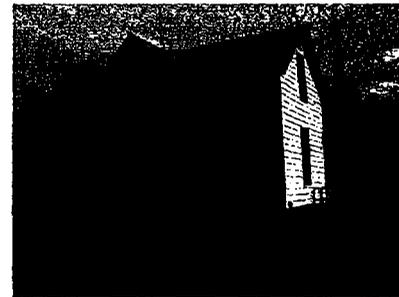
Date of Building Construction: 1946      Type of Unit: Single Family

Number of Stories: 1.5      Square Footage: 3,435      Basement? Yes

Number of Bedrooms: 3      Number of Baths: 1.5      Garage: Detached

Recorder Name: S. Popovich      Category: II

Notes: Constructed ca. 1900, 1946 is when Navy acquired building. Side-gabled roof, vernacular style with aluminum siding and enclosed porch. Windows, trim, and siding altered.



**Property Record Number**      **Facility Number**      **Address**  
**203398**      **FH3**      **331 HWY 361**

Neighborhood: Near Burns City Gate

Date of Building Construction: 1944      Type of Unit: Single Family

Number of Stories: 1.5      Square Footage: 2,576      Basement? No

Number of Bedrooms: 2      Number of Baths: 2      Garage: Detached

Recorder Name: S. Popovich      Category: II

Notes: Constructed ca. 1925-1935. 1944 is date Navy acquired building. Front-gabled roof, vernacular style with vinyl siding. Siding, trim, and windows altered.



# Navy Family Housing Survey

## N00164 Naval Surface Warfare Center, Crane Division

### General Information Detail - Non-Historic Facilities

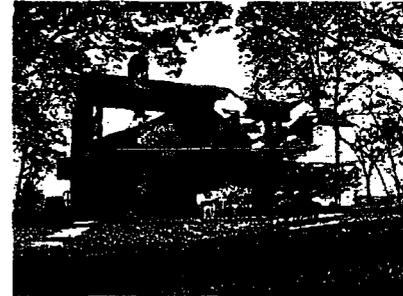
**Property Record Number**      **Facility Number**      **Address**  
**203448**      **U**      **322 HWY 361**

Neighborhood:      Greenwood Shores  
Date of Building Construction:      1941      Type of Unit      Single Family  
Number of Stories:      2      Square Footage:      2,330      Basement?      Yes  
Number of Bedooms:      3      Number of Baths:      1.5      Garage:      Detached  
Recorder Name:      Vivian Majtenyi      Category:      II  
Notes:      Side-gabled roof, minimal traditional style with aluminum siding and stone veneer. Siding and windows altered.



**Property Record Number**      **Facility Number**      **Address**  
**203585**      **C**      **304 HWY 361**

Neighborhood:      Greenwood Shores  
Date of Building Construction:      1941      Type of Unit      Single Family  
Number of Stories:      2      Square Footage:      2,956      Basement?      Yes  
Number of Bedooms:      4      Number of Baths:      3.5      Garage:      Detached  
Recorder Name:      S. Popovich      Category:      II  
Notes:      Side-gabled roof, minimal traditional style with aluminum siding and stone veneer. Siding and windows altered.



**Property Record Number**      **Facility Number**      **Address**  
**203586**      **E**      **306 HWY 361**

Neighborhood:      Greenwood Shores  
Date of Building Construction:      1941      Type of Unit      Single Family  
Number of Stories:      2      Square Footage:      2,956      Basement?      Yes  
Number of Bedooms:      4      Number of Baths:      3.5      Garage:      Detached  
Recorder Name:      S. Popovich      Category:      II  
Notes:      Side-gabled roof, minimal traditional style with aluminum siding and stone veneer. Siding and windows altered.



# Navy Family Housing Survey

## N00164 Naval Surface Warfare Center, Crane Division

### General Information Detail - Non-Historic Facilities

Property Record Number	Facility Number	Address
<b>203587</b>	<b>G</b>	<b>308 HWY 361</b>

Neighborhood: Greenwood Shores

Date of Building Construction: 1941      Type of Unit: Single Family

Number of Stories: 2      Square Footage: 2,956      Basement? Yes

Number of Bedooms: 4      Number of Baths: 3.5      Garage: Detached

Recorder Name: Vivian Majtenyi      Category: II

Notes: Side-gabled roof, minimal traditional style with aluminum siding and stone veneer. Siding and windows altered.



Property Record Number	Facility Number	Address
<b>203588</b>	<b>I</b>	<b>310 HWY 361</b>

Neighborhood: Greenwood Shores

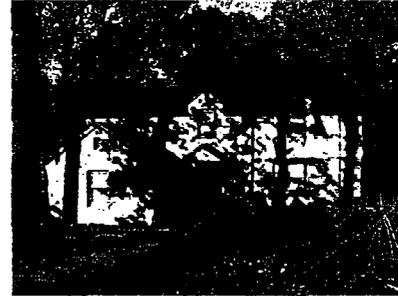
Date of Building Construction: 1941      Type of Unit: Single Family

Number of Stories: 2      Square Footage: 2,956      Basement? Yes

Number of Bedooms: 4      Number of Baths: 3.5      Garage: Detached

Recorder Name: S. Popovich      Category: II

Notes: Side-gabled roof, minimal traditional style with aluminum siding and stone veneer. Siding and windows altered.



Property Record Number	Facility Number	Address
<b>203589</b>	<b>J</b>	<b>311 HWY 361</b>

Neighborhood: Greenwood Shores

Date of Building Construction: 1941      Type of Unit: Single Family

Number of Stories: 2      Square Footage: 2,330      Basement? Yes

Number of Bedooms: 3      Number of Baths: 1.5      Garage: Detached

Recorder Name: R. Hampton      Category: II

Notes: Side-gabled roof, minimal traditional style with aluminum siding and stone veneer. Siding and windows altered.



# Navy Family Housing Survey

## N00164 Naval Surface Warfare Center, Crane Division

### General Information Detail - Non-Historic Facilities

**Property Record Number**      **Facility Number**      **Address**  
**203590**      **K**      **312 HWY 361**

Neighborhood: Greenwood Shores

Date of Building Construction: 1941      Type of Unit: Single Family

Number of Stories: 2      Square Footage: 2,330      Basement? Yes

Number of Bedooms: 3      Number of Baths: 1.5      Garage: Detached

Recorder Name: S. Popovich      Category: II

Notes: Side-gabled roof, minimal traditional style with aluminum siding and stone veneer. Siding and windows altered.



**Property Record Number**      **Facility Number**      **Address**  
**203591**      **L**      **313 HWY 361**

Neighborhood: Greenwood Shores

Date of Building Construction: 1941      Type of Unit: Single Family

Number of Stories: 2      Square Footage: 2,330      Basement? Yes

Number of Bedooms: 3      Number of Baths: 1.5      Garage: Detached

Recorder Name: S. Popovich      Category: II

Notes: Side-gabled roof, minimal traditional style with aluminum siding and stone veneer. Siding and windows altered.



**Property Record Number**      **Facility Number**      **Address**  
**203592**      **N**      **315 HWY 361**

Neighborhood: Greenwood Shores

Date of Building Construction: 1941      Type of Unit: Single Family

Number of Stories: 2      Square Footage: 2,330      Basement? Yes

Number of Bedooms: 3      Number of Baths: 1.5      Garage: Detached

Recorder Name: S. Popovich      Category: II

Notes: Side-gabled roof, minimal traditional style with aluminum siding and stone veneer. Siding and windows altered.



# Navy Family Housing Survey

## N00164 Naval Surface Warfare Center, Crane Division

### General Information Detail - Non-Historic Facilities

<b>Property Record Number</b>	<b>Facility Number</b>	<b>Address</b>
<b>203593</b>	<b>O</b>	<b>316 HWY 361</b>

Neighborhood: Greenwood Shores

Date of Building Construction: 1941      Type of Unit: Single Family

Number of Stories: 2      Square Footage: 2,330      Basement? Yes

Number of Bedrooms: 3      Number of Baths: 1.5      Garage: Detached

Recorder Name: S. Popovich      Category: II

Notes: Side-gabled roof, minimal traditional style with aluminum siding and stone veneer. Siding and windows altered.



<b>Property Record Number</b>	<b>Facility Number</b>	<b>Address</b>
<b>203594</b>	<b>P</b>	<b>317 HWY 361</b>

Neighborhood: Greenwood Shores

Date of Building Construction: 1941      Type of Unit: Single Family

Number of Stories: 2      Square Footage: 2,330      Basement? Yes

Number of Bedrooms: 3      Number of Baths: 1.5      Garage: Detached

Recorder Name: S. Popovich      Category: II

Notes: Side-gabled roof, minimal traditional style with aluminum siding and stone veneer. Siding and windows altered.



<b>Property Record Number</b>	<b>Facility Number</b>	<b>Address</b>
<b>203595</b>	<b>Q</b>	<b>318 Hwy 361</b>

Neighborhood: Greenwood Shores

Date of Building Construction: 1941      Type of Unit: Single Family

Number of Stories: 2      Square Footage: 2,330      Basement? Yes

Number of Bedrooms: 3      Number of Baths: 1.5      Garage: Detached

Recorder Name: S. Popovich      Category: II

Notes: Side-gabled roof, minimal traditional style with aluminum siding and stone veneer. Siding and windows altered.



# Navy Family Housing Survey

## N00164 Naval Surface Warfare Center, Crane Division

### General Information Detail - Non-Historic Facilities

**Property Record Number**      **Facility Number**      **Address**  
**203596**      **R**      **319 HWY 361**

Neighborhood:      Greenwood Shores  
Date of Building Construction:      1941      Type of Unit      Single Family  
Number of Stories:      2      Square Footage:      2,330      Basement?      Yes  
Number of Bedrooms:      3      Number of Baths:      1.5      Garage:      Detached  
Recorder Name:      S. Popovich      Category:      II  
Notes:      Side-gabled roof, minimal traditional style with aluminum siding and stone veneer. Siding and windows altered.



**Property Record Number**      **Facility Number**      **Address**  
**203597**      **S**      **320 HWY 361**

Neighborhood:      Greenwood Shores  
Date of Building Construction:      1941      Type of Unit      Single Family  
Number of Stories:      2      Square Footage:      2,330      Basement?      Yes  
Number of Bedrooms:      3      Number of Baths:      1.5      Garage:      Detached  
Recorder Name:      Vivian Majtenyi      Category:      II  
Notes:      Side-gabled roof, minimal traditional style with aluminum siding and stone veneer. Siding and windows altered.



**Property Record Number**      **Facility Number**      **Address**  
**203598**      **T**      **361 HWY 361**

Neighborhood:      Greenwood Shores  
Date of Building Construction:      1941      Type of Unit      Single Family  
Number of Stories:      2      Square Footage:      2,330      Basement?      Yes  
Number of Bedrooms:      3      Number of Baths:      1.5      Garage:      Detached  
Recorder Name:      R. Hampton      Category:      II  
Notes:      Side-gabled roof, minimal traditional style with aluminum siding and stone veneer. Siding and windows altered.



# Navy Family Housing Survey

## N00164 Naval Surface Warfare Center, Crane Division

### General Information Detail - Non-Historic Facilities

<b>Property Record Number</b>	<b>Facility Number</b>	<b>Address</b>
<b>203599</b>	<b>X</b>	<b>325 HWY 361</b>

Neighborhood: 1000' South Of Building 122

Date of Building Construction: 1944      Type of Unit: Single Family

Number of Stories: 1      Square Footage: 1,600      Basement? Yes

Number of Bedrooms: 2      Number of Baths: 1      Garage: Detached

Recorder Name: Vivian Majtenyi      Category: II

Notes: Front-gabled roof, minimal traditional style with aluminum siding. Siding and windows replaced.



<b>Property Record Number</b>	<b>Facility Number</b>	<b>Address</b>
<b>203600</b>	<b>Z</b>	<b>327 HWY 361</b>

Neighborhood: West Of Greenwood Shores

Date of Building Construction: 1938      Type of Unit: Single Family

Number of Stories: 1      Square Footage: 1,937      Basement? Yes

Number of Bedrooms: 2      Number of Baths: 1      Garage: Detached

Recorder Name: S. Popovich      Category: II

Notes: Side-gabled roof, minimal traditional style with aluminum siding. Siding and windows altered.



<b>Property Record Number</b>	<b>Facility Number</b>	<b>Address</b>
<b>203825</b>	<b>W</b>	<b>323 HWY 361</b>

Neighborhood: West Of Greenwood Shores

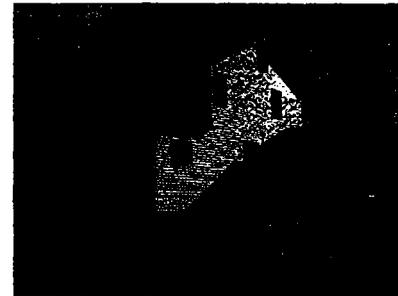
Date of Building Construction: 1944      Type of Unit: Single Family

Number of Stories: 2      Square Footage: 2,593      Basement? Yes

Number of Bedrooms: 5      Number of Baths: 3      Garage: Detached

Recorder Name: S. Popovich      Category: II

Notes: Front-gabled roof, vernacular style with vinyl siding. Cladding, doors, and windows have been altered.



**NSWC Crane  
2004 Potable Water Consumer Confidence Report  
PWS-ID 5251003**

This is an annual report on the quality of water delivered by Naval Surface Warfare Center, Crane Division (NSWC Crane). It meets the Federal Safe Drinking Water Act (SDWA) requirement for "Consumer Confidence Reports" and contains information on the source of our water, its constituents, and the health risks associated with any contaminants. Safe water is vital to our community. Our water meets or exceeds all Federal and State quality standards. Please read this report carefully and, if you have questions, call the number listed below.

**We are proud to report that the water provided by NSWC Crane meets or exceeds established water-quality standards.**

Stephen Reddick (812) 854-5225  
NSWC Crane Water Utilities Branch  
300 Hwy 361, Bldg 4 Code 09Z5  
Crane, IN 47522-5001

**Improvements Since 2000**

From September 2000 through the present NAVSEA Crane's Water Intake Structure at Lake Greenwood has been completely remodeled. The new pump station has potassium permanganate feed capability, which increases water quality in the spring and fall during lake "turnover" (stratification) events. It can also be used to combat zebra mussels should Lake Greenwood ever become infested. We have installed turbidity meters on all the filter effluents along with Radio Telemetry for information and control of some functions at all the storage tanks on the facility. We have installed a new computer software program for the operation of the water plant that also allows for the automatic capturing of certain testing and generation of required reports. This system now allows for a wider range of computer-generated operation of the plant equipment along with more detailed operating data.

We have installed monitoring equipment for turbidity that meets the new standards for 15 minute sampling. We have installed new Radio Telemetry devices for controlling the Lake High Service Pumps and associated equipment. The computer software program has been updated to improve the operational functions of the treatment plant along with the ability to store historical data on all the plant operations.

**Water Source**

NSWC Crane is supplied by surface water from Lake Greenwood. The facility has not prepared a source water assessment.

**How to Read This Table**

This table shows the results of our water-quality analyses conducted by an independent lab. Every regulated contaminant that we detected in the water, even in the minutest traces, is listed here. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health, the amount detected, the usual sources of such contamination, and a key to units of measurement.

**Test Results**

Contaminant (units)	Violation (Y/N)	Detected Level	Date Tested	MCL	MCLG	Major Sources in Drinking Water
<b>Radioactive Contaminants</b>						
Beta-photon emitters (pCi/l)	N	12.4	06/12/02	50	0	Decay of natural and man-made deposits <b>Only required every 5 years. Next test due 2006.</b>
Alpha emitters (pCi/l)	N	3.8	06/12/02	15	0	Erosion of natural deposits <b>Only required every 5 years. Next test due in 2006.</b>
				IDEM AL=5		
<b>Inorganic Contaminants</b>						
Arsenic	N	.8 ppb	05/04	50 ppb	0	Erosion of natural deposits
Barium (ppm)	N	.0353	05/27/04	2,000	0	Discharges from drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Copper (ppm)	N	0.121 ppm 90th percentile	2002	AL=1.3	1.3	Corrosion of household plumbing systems Erosion of natural deposits; Leaching from wood preservatives. <b>Only required every 4 years. Next test due 2005.</b>
		No samples were above AL				
Fluoride (ppm)	N		daily	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
		Average = 0.93 Range = .23 to 1.45				
Lead	N	3 ppb	09/02	15 ppb	0	Corrosion from household plumbing and runoff from natural deposits
Nitrate (ppm)	N	.040	05/20/04	10,000	0	Runoff from fertilizer use; Leaching from septic tanks, sewage. Erosion of natural deposits
Sodium (ppm)	N	5.116 mg/l	05/27/04	n/a	n/a	
Turbidity (NTU)	N	.63 (highest)	6 samples per day *	TT*	TT*	Soil runoff *Highest test on 10/15/04
This is not an immediate risk. If it had been you would have been notified immediately. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.						
<b>Organic Contaminants</b>						
Bromodichloro-methane ppb	N	.008	02/06/04	n/a	n/a	By-product of drinking water chlorination
		Average = .0056 Range = .0027 to .008				
Chloroform ppb	N	.0377	02/06/04	n/a	n/a	By-product of drinking water chlorination
		Average = .028 Range = .0076 to .0685				
Chlorodibromo-methane ppb	N	.0012	02/06/04	n/a	n/a	By-product of drinking water chlorination

The IDEM allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

### **Unregulated Contaminants**

NSWC Crane did not test its potable water for Cryptosporidium or Radon. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

### **Required Additional Health Information**

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.
- (D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.
- (E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Some people may be more vulnerable to contaminants in drinking water than is the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.



[www.saic.com](http://www.saic.com)

16 September 2002

Attention: Mr. Jim Hunsicker  
Public Works  
Environmental Protection Department, Code 095  
Crane Division, Naval Surface Warfare Center  
300 Highway 361, Building 3260  
Crane, Indiana 47522-5001

Subject: DO 0512, TDL 21

Dear Mr. Hunsicker:

As requested by Code 095 in Technical Direction Letter 21 to Science Applications International Corporation (SAIC), please find the Radon Sampling & Analysis Status Report for the radon sampling completed at the Crane Division, Naval Surface Warfare Center (NSWC Crane) Housing Quarters (HQs) to date. This report includes a complete status of all Radon Sampling completed at the facility's HQs to date; as well as references to discussions and final determinations per the meeting with program managers as held September 11, 2002.

Any further questions can be directed to Mrs. Amy Yeager of Science Applications International Corporation (SAIC) at (812)384-3587 ext.280.

Sincerely,

Amy L. Yeager  
Environmental Protection Specialist  
Science Applications International Corporation (SAIC)  
[amy.yeager@saic.com](mailto:amy.yeager@saic.com)

**Radon Sampling and Analysis Status Report  
for the Housing Quarters (HQs)  
at Naval Surface Warfare Center, Crane Division  
(NSWC Crane)**



**September 2002**

**Prepared for:**

**Crane Division, Naval Surface Warfare Center  
Code 095  
Delivery Order 0512**

**Prepared by:**

**Science Applications International Corporation (SAIC)  
R.R. #6, Box 28  
Bloomfield, IN 47424  
(812) 384-3587**

**1.0 Introduction**

Science Applications International Corporation (SAIC) has been tasked by the Commander, Naval Surface Warfare Center, Crane Division (NSWC Crane) to conduct Radon Sampling at the facility's housing quarters (HQs) in accordance with established state, federal and Navy regulations and protocols. Furthermore, Radon sampling and analysis completed by SAIC to date has been performed as allowed by the NSWC Crane Public Works Directorate construction and renovation schedule.

**2.0 Radon Sampling & Analysis Status as of 13 September 2002.**

Alpha trak Radon detectors were placed in the basements of each HQ described below. These alpha trak units were allowed to remain in place for a maximum of one year. The analysis of each of these units provides an annual average concentration level of Radon for each HQ. Regulatory guidance provides that mitigation is only required when the measured Radon concentration exceeds the established action level of four (4) pico Curies per Liter (4 pCi/L). Table 1 depicts the Radon Sampling Schedule and Analysis Status for those NSWC Crane HQs completed to date.

<b>Table 1: NSWC Crane HQ Sampling &amp; Analysis Status as of September 2002</b>			
<b>HQ(s)</b>	<b>Placement (Date)</b>	<b>Retrieval (Date)</b>	<b>Analysis (pCi/L)</b>
<b>A</b>	13 March 2000	6 March 2001	1.3
<b>C</b>	13 March 2000	6 March 2001	2.7
<b>D</b>	13 June 2001	12 June 2002	3.3
<b>E</b>	13 March 2000	6 March 2001	2.6
<b>F</b>	13 March 2000	6 March 2001	2.6
<b>H</b>	13 June 2001	12 June 2002	2.7
<b>I</b>	13 March 2000	6 March 2001	2.6
<b>J</b>	13 March 2000	6 March 2001	1.3
<b>K</b>	9 January 2001	8 January 2002	1.9
<b>L</b>	9 January 2001	8 January 2002	2.8
<b>M</b>	13 March 2000	6 March 2001	1.6
<b>O</b>	9 January 2001	8 January 2002	1.4
<b>P</b>	13 June 2001	12 June 2002	1.7

<b>Table 1 (Cont'd.): NSWC Crane HQ Sampling &amp; Analysis Status as of September 2002</b>			
<b>HQ(s)</b>	<b>Placement (Date)</b>	<b>Retrieval (Date)</b>	<b>Analysis (pCi/L)</b>
<b>O</b>	9 January 2001	8 January 2002	1.4
<b>P</b>	13 June 2001	12 June 2002	1.7
<b>Q</b>	9 January 2001	8 January 2002	1.2
<b>U</b>	13 June 2001	N/A*	N/A*
<b>Z</b>	13 March 2000	6 March 2001	1.3

\*The alpha trak unit placed in Housing Quarter unit U was placed on 13 June 2001, and scheduled for retrieval on 12 June 2002. However, the resident of Housing Quarter unit U was not present during the scheduled retrieval date and refused to allow access in their absence. Therefore, the alpha trak unit in place was unable to be retrieved before the expiration date.

### **3.0 Remaining Housing Quarters Renovation Schedule at NSWC Crane**

The remainder of the facility's HQs having completed renovations recently at NSWC Crane includes the following: B, N, R, S, T and BB. Housing Quarters G is currently undergoing renovations which are expected to be completed by October 31, 2002. NSWC Crane also maintains several outlying farmhouses on center, of which the only houses scheduled for renovation include W1 and W2, which are currently being renovated and expected to be completed in early 2003.

### **4.0 Sampling Requirements & Recommendations**

NSWC Crane has completed Radon sampling at a statistically significant number of its housing quarters on center to date, as required. Continuance with the current sampling and analysis schedule in accordance with the facility's construction and renovation schedule as discussed above was expected pending the results of all analysis completed for those HQs sampled to date. Further sampling would be required if the analytical results for any of the HQs sampled were determined to be at or above the established action level of 4 pCi/L. Each of the analytical results received to date were under the established action level, and require no further action. However, it should be noted that alpha trak detectors provide an annual average of radon concentration, which provides that radon levels can reasonably be expected to increase during winter months when residences are typically more closed off from outside ventilation, while decrease during warmer months when residential ventilation is expected to increase. Therefore, for those HQs whose results broached the 4 pCi/L level, as illustrated in HQ D which recorded an annual average of 3.3 pCi/L, winter radon levels may meet or exceed the established

action level of 4 pCi/L. However, NSWC Crane has fulfilled the necessary Radon sampling requirements for the facility's HQs, and ensured that all analysis were below the established action level of 4 pCi/L.

Per discussions held September 11, 2002, it was determined that NSWC Crane's Public Housing Directorate will be under the responsibility of the Northeast Region CINCLANTFLT as of October 1, 2002. Therefore, it is recommended that the Northeast Region CINCLANTFLT determine if additional sampling of the remaining HQs having undergone recent renovations be performed to determine average annual radon concentration levels to ensure that radon levels do not meet nor exceed the 4 pCi/L action level, as well as serve to identify other potential residences where winter levels may be of concern. Pending the results of such, Northeast Region CINCLANTFLT may further determine any necessary mitigation measures to be undertaken where the action level is met or exceeded; or select to employ minor measures such as increasing ventilation during winter months or reducing exposure levels for residents in those residences where radon levels are determined to be elevated.

**APPENDIX G**

**Freedom of Information Act Request and Responses**

**APPENDIX G**

**Freedom of Information Act Request and Responses**



May 25, 2005

Ms. Cathy Estell  
Indiana Department of Environmental Management  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, IN 46206-6015  
Via Facsimile: 317-232-8659

**Subject: File Review – Navy Support Activity Crane, Indiana  
Martin, Greene, Lawrence Counties, Indiana**

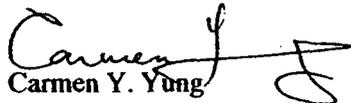
Dear Ms. Estell:

Further to our telephone conversation today, I am writing to inquire about the availability of files for the Navy Support Activity Crane site in Indiana. I am interested in files regarding environmental conditions at the site including information kept in IDEM's air, land and water department, information regarding above-ground storage tanks, underground storage tanks, and spills or releases of petroleum products or hazardous substances. Please let me know in general the nature and volume of files available. A visit to your office will be scheduled to view those files.

I can be reached at 630-420-0913 or 630-664-4372. Your attention in this matter will be greatly appreciated.

Sincerely,

**MACTEC Engineering and Consulting, Inc.**

  
Carmen Y. Yung  
Senior Environmental Professional

# FAX COVER

TO: Carmen Yung fax # 630-571-0439  
phone # 630-420-0913

FROM: Kathy Estell

COMMENTS Carmen - I'm faxing you a print-out of some of the files for Crane. I didn't measure these files. The files for air (54") RCRA/solid waste (138") water (30") DFRD (56") CERCLIS (1") - the measurements are approximate.

NUMBER OF PAGES 9 including cover sheet.

If you have any questions - please call me @ 317-233-5944.

Kep.

Kathy  
:)

Carmen please bring these sheets with you when you come. Kep.



## U.S. Environmental Protection Agency Facility Registry System (FRS)

[Recent Additions](#) | [Contact Us](#) | [Print Version](#) | [EF Search:](#)    
[EPA Home](#) > [Envirofacts](#) > [FRS](#) > [Report](#)



FRS

### Facility Detail Report

Facility Name:	CRANE DIVISION NAVAL SURFACE WARFARE CENTER
Location Address:	300 SR 361
Supplemental Address:	
City Name:	CRANE
State:	IN
County Name:	MARTIN
ZIP/Postal Code:	475224000
EPA Region:	05
Congressional District Number:	08
Legislative District Number:	
HUC Code:	05120208
Federal Facility:	YES
Federal Agency:	U.S. NAVY
Tribal Land:	
Latitude:	38.841611
Longitude:	-86.848306
Method:	GPS - UNSPECIFIED
Reference Point Description:	FACILITY CENTROID
Duns Number:	792488199
Registry ID:	110000403359

[Map this facility](#)

### Environmental Interests

Information System	Information System ID	Environmental Interest Type	Data Source	Last Updated Date	Supplemental Environmental Interests:
AIRS/AFS	IN0781032	AIR MAJOR	AIRS/AFS	04/03/2002	
CERCLIS	IN5170023498	SUPERFUND	CERCLIS		
					SPILL-199009083 RELEASE ASSESSMENT

<u>IN-FRS</u>	330015648553	STATE MASTER	IN-FRS	SPILL-199101025 RELEASE ASSESSMENT SPILL-199104073 RELEASE ASSESSMENT UST-9207 UNDERGROUND STORAGE TANK PROGRAM SPILL-199008189 RELEASE ASSESSMENT ACES-CP-2806 AIR PROGRAM ACES-OP- 10100005 AIR PROGRAM CRTK-1034 EPCRA LUST-198604059 LEAKING STORAGE TANK LUST-199202512 LEAKING STORAGE TANK LUST-199209503 LEAKING STORAGE TANK LUST-199403517 LEAKING STORAGE TANK	
<u>NCDB</u>	C05#0715920609901	COMPLIANCE ACTIVITY	NCDB		
<u>NCDB</u>	I05#198906151791 1	COMPLIANCE ACTIVITY	NCDB		
<u>NCDB</u>	I05#1989082104567 2	COMPLIANCE ACTIVITY	NCDB		
<u>NCDB</u>	I05#1991032105GRG 1	COMPLIANCE ACTIVITY	NCDB		
<u>NCDB</u>	I05#19910830RV008 1	COMPLIANCE ACTIVITY	NCDB		
<u>NCDB</u>	I05#1992071506099 1	COMPLIANCE ACTIVITY	NCDB		
<u>NEI</u>	NEIIN1010000	CRITERIA AND HAZADOUS AIR POLLUTANT INVENTORY	NEI		
<u>NEI</u>	NEIINLF4757	CRITERIA AND HAZADOUS AIR POLLUTANT INVENTORY	NEI		
<u>PCS</u>	IN0021539	NPDES MAJOR	NPDES PERMIT	03/22/1994	
<u>RCRAINFO</u>	IN5170023498	HAZARDOUS WASTE BIENNIAL	RCRAINFO	03/28/2002	

		REPORTER			
RCRAINFO	IN5170023498	LOG	STATE INSPECTION	05/07/1992	
RCRAINFO	IN5170023498	TRANSPORTER	STATE INSPECTION	05/07/1992	
RCRAINFO	IN5170023498	TSD	STATE INSPECTION	05/07/1992	
SDMS	IN5251003	COMMUNITY WATER SYSTEM	SDMS	09/05/2002	
TRIS	47522NVLSR300HW	TRI REPORTER	TRI REPORTING FORM	07/02/2001	
TRIS	47522SNVYN300HW	TRI REPORTER	TRI REPORTING FORM	07/02/2002	

### Facility Mailing Addresses

Affiliation Type	Delivery Point	City Name	State	Postal Code	Information System
CONTACT/GENERAL	300 HWY 361	CRANE	IN	475225009	RCRAINFO
CONTACT/GENERAL	BLDG 2694 CODE 095	CRANE	IN	475225001	PCS
CONTACT/GENERAL	CODE 095 BLDG. 3260	CRANE	IN	47522-5001	TRIS
CONTACT/GENERAL	CODE 095, B-3260 300 HIGHWAY361	CRANE	IN	475225001	AIRS/AFS
CONTACT/GENERAL		CRANE	IN	475225001	SDMS
CONTACT/OPERATOR	300 SR 361	CRANE	IN	475225001	PCS
CONTACT/OWNER	NAVY SURFACE WARFARE CENTER	CRANE	IN	475225001	PCS
CONTACT/OWNER		CRANE	IN	475225001	SDMS
CONTACT/REGULATORY	300 HWY 361	CRANE	IN	475225009	RCRAINFO

### NAICS Codes

Data Source	NAICS Code	Description	Primary
NEI	562212	SOLID WASTE LANDFILL	
NEI	92811		
RCRAINFO	92811		

### SIC Codes

Data Source	SIC Code	Description	Primary
NEI	3489	ORDNANCE AND ACCESSORIES, NOT ELSEWHERE CLASSIFIED	
NEI	4953	REFUSE SYSTEMS	

AIRS/AFS	9711	NATIONAL SECURITY	
NEI	9711	NATIONAL SECURITY	
PCS	9711	NATIONAL SECURITY	
NCDB	GF		

## Contacts

Affiliation Type	Full Name	Office Phone	Information System	Mailing Address
COGNIZANT OFFICIAL	MS. NANN STONE, CODE 0953	8128543114	PCS	
CONTACT/COMPLIANCE	PHIL KEITH	8128541132	AIRS/AFS	
CONTACT/GENERAL	STONE, NANN	8128543382	SDWIS	<a href="#">View</a>
CONTACT/GENERAL	SUE WEBSTER	8128541495	TRIS	
CONTACT/OWNER	HUNSICKER, JAMES		SDWIS	<a href="#">View</a>
CONTACT/REGULATORY	JAMES HUNSICKER	8128543233	RCRAINFO	<a href="#">View</a>
CONTACT/TECHNICAL	NANNETTE L. STONE	8128543382	TRIS	

## Organizations

Affiliation Type	Name	DUNS Number	Information System	Mailing Address
CONTACT/OPERATOR	CRANE NAVAL WARFARE CENTER		PCS	<a href="#">View</a>
CONTACT/OPERATOR	US NAVAL SURFACE WARFARE CTR CRANE DIV		RCRAINFO	
CONTACT/OWNER	US NAVAL SURFACE WARFARE CTR CRANE DIV		RCRAINFO	
CONTACT/OWNER	US DEPT OF NAVY		PCS	<a href="#">View</a>

## Alternative Names

Alternative Name
CRANE NAVAL SUPPORT CTR
CRANE NAVAL WEAPONS SUPPORT
CRANE NAVAL WEAPONS SUPPORT CTR
CRANE NSWC LANDFILL
NAVAL SURFACE WARFARE CENTER
NAVAL SURFACE WARFARE CENTER CRANE
NSWC CRANE
U.S. NAVY NAVAL SURFACE WARFARE CENTER CRANE DIV.
U.S. NAVY NAVSURFWARCENDIV CRANE DIV.
U.S. NAVY NSWC CRANE DIV. RANGE FACILITY

US Naval Surface Warfare Center
US NAVAL SURFACE WARFARE CTR CRANE DIV
US NAVY COMMANDING OFFICER
US NAVY NAVAL WEAPONS SUPPORT CTR

Query executed on: MAY-26-2005

---

[EPA Home](#) | [Privacy and Security Notice](#) | [Contact Us](#)

Last updated on Thursday, May 26th, 2005  
[http://oaspub.epa.gov/enviro/fii\\_query\\_dtl\\_disp\\_program\\_facility](http://oaspub.epa.gov/enviro/fii_query_dtl_disp_program_facility)

**Selection Criteria:**

Field	Operator	Value	Condition
Facility Name	LIKE	Crane	AND
Facility County	=	Greene	

**EPA ID: INS000072832**

CRANE NAVAL BASE  
300 HWY 361  
CRANE, IN 47522-500

**SPILLS: 200111157**

---

**Totals**

Rows: 1 Row

## Selection Criteria:

Facility Name	LIKE	Crane	AND
Facility County	=	Martin	

**EPA ID: IN5170023498**

U.S. Navy, NSWC Crane  
 Code RP3, Bldg 3280, 300 HWY 361  
 Crane, IN 47522-500

✱

**CRTK: 24266**  
**LUST: 198604059**  
**LUST: 199202512**  
**LUST: 199209503**  
**LUST: 199403517**  
**SPILLS: 199101024**  
**SPILLS: 199104073**  
**UST: 9207**

**EPA ID: IND984996991**

Crane Post Office  
 Leany St  
 Crane, IN 47522-

**UST: 17701**

**EPA ID: INS000069610**

Crane Village North  
 Jacobson Street & County Line Road  
 Crane, IN 47522-

**VRP: INS000069610**

**EPA ID: INS000073802**

CRANE NAVAL BASE  
 300 HWY 361  
 CRANE, IN 47522-500

✱

**SPILLS: 200203029**

**EPA ID: INS000074629**

CRANE NAVAL BASE  
 300 HWY 361  
 CRANE, IN 47522-500

✱

**SPILLS: 200204280**

**EPA ID: INS000075141**

CRANE NAVAL BASE  
300 HWY 361  
CRANE, IN 47522-500

\*

**SPILLS: 200206122**

---

**EPA ID: INS000077715**

Naval Surface Warfare Center/Crane Division  
300 Highway 361, Bldg. 3260  
Crane, IN 47522-

\*

**SPILLS: 200303045**

---

**EPA ID: INS000078223**

CRANE NAVAL BASE  
300 HWY 361  
CRANE, IN 47522-500

\*

**SPILLS: 200304087**

---

**EPA ID: INS000080488**

Crane North Navy Base  
Crane North Navy Base  
Shoals, IN 47581-

\*

**BROWNFIELDS: 4030025**

---

**EPA ID: INS000080973**

Naval Surface Warfare Center/Crane Division  
300 Highway 361, Bldg. 3260  
Crane, IN 47522-

\*

**SPILLS: 200401020**

---

Totals  
Rows: 17 Rows

**APPENDIX H**

**Resumes**

**BENITA H. THELEEN, B.S.**

**AREAS OF SPECIALIZATION**

Project Management, Site Investigations, Regulatory Compliance Issues, Environmental Audits, Technical Writing and Editing, Graphic Design.

**EXPERIENCE**

Ms. Theleen has more than 14 years of professional experience in project design and management focusing on Phase I Environmental Assessments. She has written, reviewed, and or managed more than one thousand Phase I projects. She has been involved in marketing environmental services and management responsibilities for diverse environmental projects including site assessments, environmental compliance assessments, storm water pollution prevention plans, spill prevention control and countermeasure plans, soil testing, underground storage tank removal, and consultation.

Project Scientist, Environmental Science & Engineering, Inc., Chicago, Illinois, 1993 - Present

**Phase I Environmental Assessments, Project Manager**--Performed multiple Phase I Environmental Site Assessments associated with property transactions for industry, law firms, financial institutions, real estate development companies, and private owners. Assessment activities included visual inspections for potential environmental liabilities such as underground storage tanks, chemical and drum storage, suspect asbestos-containing building materials, suspected water/waster contamination and hazardous materials/waste storage. Performed extensive historical/regulatory research associated with Environmental Site Assessments. Research activities have included review of Office of the State Fire Marshal (OSFM) listing of registered underground storage tanks, U.S. EPA CERCLA listing of Superfund sites, Sanborn Fire Insurance Maps, National Wetlands Inventory, chain of title search and historical aerial photographs. Prepared final reports for Environmental Site Assessments documenting findings, compliance requirements, historical and regulatory information, and conclusions and recommendations.

**Phase I Environmental Assessments, Confidential National Pharmaceutical Company, Ohio and Illinois, Project Manager**--Performed Phase I Environmental Site Assessments for large pharmaceutical company with intent to purchase adjacent railroad property. Extensive historical research was conducted in conjunction with these site assessments to address the unique requirements of railroad property (i.e., freight or commuter tracks; if freight, type of goods transported on tracks; staining, age and conditions of tracks; etc.

**Phase I Environmental Assessment, Confidential Real Estate Investment Company, Huntley, Illinois, Project Manager**--Performed Phase I Environmental Site Assessment of 2500 acre agricultural tract. Visual assessment was performed via all terrain vehicle for areas accessible by road; and aerial reconnaissance utilizing a helicopter to view inaccessible areas of the site. The aerial reconnaissance was conducted in a grid pattern. Historical and regulatory research revealed several former "garbage dumps" and landfills which posed potential financial liability and health risks.

**Phase I Environmental Assessments, European-based Chemical Company, Illinois and Mississippi, Project Manager**--Performed Phase I Environmental Site Assessments on large agricultural research stations formerly used for testing herbicides, fungicides, and insecticides. Through visual assessment, records review, and regulatory research, an environmental report was prepared which enabled the owner to sell the properties.

**Phase I Environmental Assessments, Fortune 200 Manufacturing Facility in Chicago, Illinois, Project Manager**--Performed Phase I Environmental Site Assessment of approximately ten-acre Chicago area manufacturing facility. This 100+ year old facility historically utilized large quantities of chemicals and petroleum-related products in its gasket manufacturing. The report was prepared to identify environmental issues for sale of the property.

**Phase I Environmental Assessments, Muffler and Brake Shops, Metropolitan Chicago, Illinois, Project Manager**--Performed thirty to forty Phase I Environmental Site Assessments of various franchise-owned muffler and brake shops.

**Phase I Environmental Assessments, Confidential Plastic Manufacturing Facilities, Metropolitan Chicago, Illinois, Project Manager**--Performed Phase I Environmental Site Assessments at plastic extrusion and injection molding facilities.

**Phase I Environmental Assessments, Confidential Law Firm, Metropolitan Chicago, Illinois, Project Manager**--Performed Phase I Environmental Site Assessments at various large shopping centers in Chicago suburbs.

**Storm Water Pollution Prevention Plan, Chicago, Illinois, Project Scientist**--Assisted in the development of a Storm Water Pollution Prevention Plan associated with National Pollutant Discharge Elimination System (NPDES) permitting. Work was performed for a private industrial facility in the Chicago area. Project development included site analysis, compliance analysis, spill identification and response procedures.

**Storm Water Pollution Prevention Plan, Multi-site, United States, Project Manager** -- Provided oversight and direction in the initial development of Storm Water Pollution Prevention Plans associated with National Pollutant Discharge Elimination System (NPDES) permitting for ten facilities based nationwide. Work was performed for a private industrial client. Project management included review of the storm water plans, site analysis, compliance analysis, spill identification and response procedures.

**Storm Water Pollution Prevention Plan, Chicago O'Hare Airport, Chicago Department of Aviation, Environmental Scientist**--Performed annual facility inspection of all tenant and DOA facilities as required by the airport's NPDES permit.

**Private Well Sampling, U.S. Army Corps of Engineers, Environmental Scientist**--Conducted private well sampling to assess water quality. Sampling was performed for business in the vicinity of O'Hare International Airport.

**SARA Title III Reporting, Chicago, Illinois, Project Scientist**--Prepared information for and completed SARA Title III R Forms for various facilities in Chicago, Central Illinois, Indiana, and Alabama.

**Phase I Environmental Assessments, Project Manager and Department**

**Supervisor**--Directed and coordinated performance of Phase I Environmental Site Assessments associated with property transactions for private individuals, law firms, and financial institutions. Reviewed, edited, and directed preparation of final reports.

**Multiple Phase I Environmental Assessments, Project Manager**--Coordinated the efforts of environmental investigators, researchers, and field crews in site assessment activities in order to complete, in one week, eleven Phase I Environmental Assessment reports. This work was performed for a real estate management firm submitting reports to the Department of Housing and Urban Development (HUD) in Chicago, Illinois. Designed and managed Phase II activities for the eleven sites.

**Indoor Air Quality Investigation, Project Coordinator**--Coordinated business development efforts. Participated in project design with industrial hygienist and professional engineer. Involvement in several projects including suburban fire department, large office building in Chicago, Illinois, and suburban medical facility.

**Underground Storage Tanks Evaluations, Environmental Scientist**--Prepared underground storage tanks evaluations and management plans for private industry and public institutions.

**Environmental Compliance Assessments, Project Manager**--Managed a multi-facility project including environmental compliance assessments for private industry with corporate offices in Chicago, Illinois.

**EDUCATION**

B.S. English, Northwestern University, 1986

Environmental Audits of Real Estate, Moraine Valley Community College, 1990

Environmental Site Assessments: Case Studies and Strategies, National Ground Water Association, Columbus, Ohio, 1991

Environmental Site Assessments: Case Studies and Strategies, National Ground Water Association, Orlando, Florida, 1992

A Theory for Management by Dr. W. Edwards Deming, St. Louis, Missouri, 1992

Senate Bill 41. The Illinois Innocent Landowner Defense, Environmental Data Resources, Inc., Chicago, Illinois, 1994

Certified Hazardous Materials Managers (professional review course), Arlington Heights, Illinois, 1995

Title V Review, U.S. Environmental Protection Agency, Chicago, Illinois, 1995

**REGISTRATIONS AND AFFILIATIONS**

Accredited Hazardous Waste Site Worker, 2002

Certified OSHA Hazardous Waste Site Supervisor, 2002

Association of Ground Water Scientists and Engineers, 1991 - 1993

AHERA Accredited Building Inspector, State of Illinois

Licensed Asbestos Professional, State of Illinois

Licensed Asbestos Professional, State of Wisconsin

**PUBLICATIONS AND PRESENTATIONS**

Theleen, B.H. and Solovey, M.T., U.S. Environmental Testing and Consultants, Inc., 1991.  
Understanding Environmental Property Assessments. Presented for financial institutions during 1991,  
Chicago, Illinois.

**Mary E. Jank, C.P.G.  
Principal Geologist**

**Biosketch**

Ms. Jank has more than 18 years of experience as a professional geologist and project manager. Her experience has included Phase I and Phase II site assessments, well site supervision, borehole logging, soil sampling, water sampling, soil vapor surveys, dye studies in fractured bedrock, XRF of lead in soils, and UST removal and site closure. Her experience has encompassed CERCLA and RCRA projects, as well as voluntary cleanups under several state programs. Her responsibilities have included site and project management activities. Ms. Jank is experienced at hydrogeological interpretation and the mapping of constituent migration in numerous types of subsurface environments including karst and discontinuous tills. Her client and agency interface experience is extensive and Ms. Jank has been a key contributor during negotiations with the EPA, the Corps of Engineers and other state and local government agencies.

Ms. Jank has prepared quality assurance documentation under both CERCLA and RCRA for both industrial and government clients. Ms. Jank also has completed TACO Tier 2 risk assessments and has assisted in Tier 3 risk assessments at several sites. Ms. Jank has also completed CERCLA risk assessment and feasibility study documents, and participated in CERCLA community relations activities including preparation of community relation plans and public meetings.

**Education**

M.S., Geology, Michigan State University, East Lansing, MI  
B.A., with Honors in Geology, Skidmore College, Saratoga Springs, NY

**Licenses/Registrations/Certifications**

Certified Professional Geologist, American Institute of Professional Geologists, #CPG-9941  
Registered Geologist (RG), Missouri, #816  
Professional Geologist (PG), Wisconsin, #891  
Licensed Professional Engineer Geologist (LPG), Illinois, #196-000721  
Licensed Professional Geologist (LPG), Indiana, #1966

**Project Experience**

**Project Manager, Site Remediation Program Closure, 445 N. Sacramento**

Project Manager for site investigation, remediation and closure activities under the Illinois Environmental Protection Agency (IEPA) Site Remediation Program (SRP) for two parcels at this address. The front portion of the site, a former manufacturing facility, is occupied by a former office building which was re-developed as a "green building". due to the "green building" concept, MACTEC was required to gain approval from the IEPA for engineered barriers which differed from the usual asphalt and concrete barriers. The City of Chicago submitted this site in 2002 for the Phoenix Awards competition for brownfield redevelopment. The site was recognized with the Region 5 Award and was a runner-up for the Grand Prize.

The second parcel is a vacant lot which was used as a construction debris dump by a former property owner. A Site Investigation Report has been submitted and a Remedial Objectives Report and Remedial Action Plan have been prepared. Removal of tar and associated soils, and excavation and removal of PNA and lead hot spots has occurred. Confirmation sampling was performed and additional soil removal will need to be performed.

**Project Geologist, Hydrogeologic Investigation, Former Truck Cleaning Facility Site, South Bend, Indiana**

Responsible for environmental investigation of soil and groundwater affected by volatile organic compounds for an industrial client in Indiana. Developed work plan, QAPP, Data Management Plan, and Health and Safety Plan. Implemented and completed project. Project involved extensive contact and presentations to USEPA Region V and other public agencies.

Client: Confidential Industrial Client

**Site Manager, Pre-Design Investigation, Ninth Avenue Superfund Site, Gary, Indiana**

Pre-design investigation consisting of soil borings, geotechnical testing, groundwater testing, in support of Interim Site Remedy of slurry wall and groundwater treatment system.

Client: PRP Group

**Project Geologist, Remedial Investigation/Feasibility Study, Production Area of Former Ordnance Works, St. Charles, Missouri**

Site manager for last phase of well installation, soil sampling, air monitoring and other activities at COE Weldon Spring Training Area site. Used fracture trace analysis and dye trace results to choose optimal placement of bedrock monitoring wells. Assisted in preparation of Feasibility Study and Risk Assessment.

Client: U.S. Army Corps of Engineers, Kansas City District

**Project Geologist, Hazardous Waste Site Characterizations, Eight DERA sites, Illinois and Wisconsin**

Supervising project geologist for evaluation of COE DERA sites in Illinois and Wisconsin. Responsible for preparation of work plans, field investigation, and report preparation for seven former NIKE missile bases and one former ordnance works burning ground.

Client: U.S. Army Corps of Engineers, Buffalo District

**Sampling Team Leader, Soil Vapor Survey, Chemical Plant Site, Detroit, Michigan**

Supervised sampling activities for large soil vapor survey (more than 2000 points) for industrial client.

Client: Confidential Industrial Client

**Training**

Technical Marketing and Proposal Preparation, in-house seminar--IT Corporation, H. Silver and Associates, Inc. September, 1991 Itasca, Illinois

Health and Safety Training (40 hours), 8 hour Refreshers and Supervision of Hazardous Waste Operations (as required by OSHA 29 CFR 1910.120)

Red Cross First Aid and CPR, 2000

Practical Karst Hydrogeology with Emphasis on Ground Water Monitoring, Short Course NWWA, November 27-December 1, 1989. 3.0 CEU

The Engineer as Manager, Battelle Seminars Program, October 10-11, 1990, Chicago, Illinois

**Employment History**

Principal, MACTEC Engineering and Consulting, Inc.(formerly Harding ESE, Inc., formerly Environmental Science and Engineering, Inc.) Chicago, Illinois, 1996 to Present

Project Manager/Group Leader, IT Corporation, Chicago, Illinois, 1988 to 1996

Geologist, Chevron USA, 1982 to 1985

Client: City of Chicago, Department of Environment

**Project Manager, Site Remediation Program Closure of Cicero Site**

Prepared all SRP program documentation for large industrial facility in Cicero, Illinois which is being redeveloped into a Junior High School. Site was divided into seven zones based on the construction schedule so that remediation and closure of each zone could be performed separately to meet construction needs. Work was performed as a subcontractor to another consultant. Remediation activities included the excavation and disposal of soil from all seven zones and gridded confirmation sampling to show that remediation was complete of Site is 2003 Phoenix Award winner for Community Impact.

Client: Mattson Associates, Limited

**Project Manager, Site Remediation Program Closure**

MACTEC has prepared Remedial Objectives Reports and Remedial Action Plans, overseen the remediation activities which consisted of soil excavation and removal, and the installation of engineered barriers, and completed Remedial Action Completion Reports for three Chicago Public Schools sites. MACTEC was asked to complete activities at these sites after the previous consultant had performed most site investigation activities and the sites had been entered into the Site Remediation Program.

Client: Chicago Public Schools

**Project Manager, Spill Remediation and Closure**

MACTEC performed investigation activities and prepared Remedial Objectives Reports and Remedial Action Plans for two ortho-xylene spills occurring within 3 months of one another at this manufacturing facility along Interstate 55 near Chicago. The remedial objectives reports used TACO Tier 2 risk assessment to reduce the amount of soil which would need to be remediated. Soil was remediated by excavation and removal. Confirmation sampling was performed based on a statistical formula which increased grid spacing as the size of the area increased. A closure report is being prepared.

Client: Confidential Manufacturer

**Reviewer**

Program Manager and reviewer for Phase I and Phase II Environmental Site Assessments, and other due diligence for clients including industrial, commercial and local government.

Client: Various

**Technical Lead/Reviewer**

Lead technical resource and reviewer for Phase I and Phase II Environmental Site Assessments, other due diligence, lift removals and remediation projects for major retailer.

Client: Confidential

**RCRA Closure of former Oil Storage Area, Confidential Client, Indiana, Project Manager--**Project involved additional investigation of former oil storage area found to be contaminated with chlorinated solvents. Remedial Action Plan was accepted by IDEM and the design of soil vapor extraction system was completed. MACTEC prepared specifications and obtained contractor bids. MACTEC was then asked to oversee system construction on a turnkey basis. Construction of the remedial system was completed.

Client: Confidential

**Lead Geologist, Site Remediation Program Closure of Former Manufacturing Facility**

Site underwent extensive remediation and a risk assessment was conducted previously. A draft NFR was issued with a provision for quarterly groundwater monitoring. The groundwater monitoring indicated that offsite impacts were present from groundwater which is not migrating in a down gradient flow direction. Fracture flow was suspected in the dolomite/limestone bedrock underlying the site. Geophysical data was

examined and a dye study completed. Based on these results, a remediation pilot study was recently completed and oxygen release compounds have been injected to begin remediation.  
Client: Avaya, Inc. formerly Lucent Technologies

**Technical Lead, Site Remediation Program Closure of Two Sites**

Reviewed previous consultant documents, and entered the sites into the SRP program. At New Sullivan School, the site was entered into the SRP in June 2000. A previous Phase I and Phase II had been completed at the property which was an entire city block in extent. No additional sampling was determined to be necessary after consultation with the IEPA in the context of developing the Remedial Objectives Report/ Remedial Action Plan for the property. Removal of soil, (the soil removal was necessary for construction), and backfill with clean soil were the planned remedial activities. These activities were completed and documented the site was given a "No Further Remediation" letter in November 2000. At the Moos School site, entry into the SRP was only accomplished in January 2001 as the Chicago Public Schools did not acquire the property until December 2000. A previous Phase I and Phase II had been completed at the property. Additional sampling was completed in 2000 and in February 2001. The site was remediated and a No Further Remediation letter obtained in October 2001. MACTEC is currently performing services under the SRP program for three other Chicago Public School sites.

Client: Chicago Public Schools

**Task Manager, Remediation of former Gas Station, Confidential Location**

Responsible for coordination of field activities and confirmation sampling for large gas station remediation project. Over 8,000 cubic yards of soil were excavated and removed for clean closure. Gridded confirmation sampling was performed to verify clean closure. Also responsible for investigation and closure of offsite contamination and groundwater issues. Prepared closure documentation and LUST reimbursement package

Client: Confidential

**Task Manager, Environmental Services at FUDS, Chicago, Illinois**

Responsible for task order management of multiple environmental investigations and sampling activity at Chicago area sites. Prepared work plans for field investigation, performed data interpretation and prepared project reports. The eleven projects-to-date have included: Brownfields, UST classification, geophysical investigation, groundwater sampling, well installation, sump investigation and sampling, soil sampling and sediment sampling. Two of the projects involved multiple sampling rounds. The most recent project involved the decommissioning of a former FDA laboratory contaminated with asbestos, mercury, dioxin and perchlorate. The project was completed within a very tight timeframe despite additions to the scope.

Client: U.S. Army Corps of Engineers, Chicago District

**Project Manager, Warehouse Parcel, Chicago, Illinois**

Completed a SRP Site Characterization and Remedial Objectives report for this Brownfields site which is to be re-developed. IEPA SRP accepted the Site Characterization and the Remedial Objectives report. Free product at the site has been removed and confirmation sampling was completed. Final NFR letter received in August 2001. Client has requested assistance with an adjacent parcel which was entered into the SRP in June 2001. Remediation of this site has been performed and confirmation sampling completed. A completion report was submitted to the IEPA and a NFR letter was received.

Client: Confidential

**Rosemont, Illinois Facility – Technical Support, Review**

Provided technical support and review of alternatives evaluation and risk assessment for a former adhesives manufacturing facility contaminated with approximately 7,000 gallons of 1,1,1-trichloroethane leaked from underground storage tanks. Risk assessment was completed after groundwater treatment and removal of free product at the site.

Client: DAP Incorporated

**Geologic and Hydrogeologic Pre-Design Investigation, Fort Wayne, Indiana, Supervisor--**Oversaw personnel performing site investigations at former manufactured gas plant (MGP) site. The investigation included soil boring and monitoring well nest installation, plus hydraulic conductivity testing efforts as part of remedial design investigations involving DNAPL containment and recovery systems. Reviewed project documents including work plans and final report.

Client: Confidential Electric Utility

**Geologic and Hydrogeologic Pre-Design Investigation, Hammond, Indiana, Supervisor--**Oversaw personnel performing site investigations at former manufactured gas plant (MGP) site. The investigation included soil boring and monitoring well nest installation and sampling. Soil, DNAPL and ground water sampling were performed. Reviewed work plan and QAPP, and final report.

Client: Confidential Electric Utility

**TACO Evaluation, North and Cicero Site, Chicago, Illinois**

Primary author of TACO Tier 2 and Tier 3 evaluation prepared as a supplement to previous site risk assessment. IEPA has reviewed and accepted the evaluation and provided closure documentation for this former Brownfields site.

Client: Chicago Transit Authority (CTA)

**Project Manager, Remedial Investigation/Feasibility Study, National Priorities List Landfill, Joliet, Illinois**

Project Manager for an RI/FS at an NPL Landfill in Joliet, Illinois for a major PRP. Ms. Jank developed an alternative, focused RI scope of work; and helped the client with IEPA, USEPA Region V and Illinois Attorney General acceptance and revision of the Consent Decree. Limited and focused feasibility study has also been recommended and accepted by the client. The first round of sampling activities was completed and based on those results, a significant reduction in scope for the second round of sampling was negotiated with the IEPA and USEPA Region V.

Client: Confidential Chemical Manufacturer

**Summary Report and TACO Evaluation, 74th and Wood, Chicago, Illinois**

Primary author of summary report and TACO evaluation for this site which was remediated to allow construction to proceed in 1992 and 1993. Current evaluation was for a potential sale and lease-back

Client: Chicago Transit Authority

**TACO Evaluation, Coatings Manufacturing Facility, Oak Forest, Illinois**

Primary author of TACO Tier 2 evaluation prepared following previous UST removals and investigation.

Client: Confidential Coatings Manufacturer

**Task Manager, RCRA Facility Investigation, Pharmaceutical Manufacturer Plant, Illinois**

Task manager and primary author for Phase II RFI report for this large, integrated manufacturing plant with six SWMUs remaining in the Corrective Action process. Performed TACO evaluation resulting in proposed closure of all six SWMUs with little or no Corrective Action. Closure documentation was approved by the IEPA.

Client: Confidential Pharmaceutical Manufacturer

**Project Geologist, RCRA Facility Investigation, Solvent Distribution Facility, Illinois**

Conducted RFI investigation at chlorinated solvent distribution facility. RFI activities consist of the installation of 12 soil borings, soil and groundwater sampling. The purpose of the investigation was to complete the horizontal and vertical delineation of soils impacted with chlorinated solvents resulting from operations at the facility's three SWMUs.

Client: Confidential Solvent Distributor

**Project Manager, Phase I and Phase II Site Assessments, Chemical Manufacturing Facilities, Seven States**

Project Manager for fast-track Phase I and Phase II site assessments for a confidential industrial client. Draft Phase I and Phase II assessments were performed at 7 sites across the United States in four weeks in December 1993. From these assessments, remedial action recommendations and cost estimates were prepared.

Client: Confidential Chemical Manufacturer

**Project Manager, Remedial Investigation/Feasibility Study, Former Ordnance Works (17,000 acres), St. Charles, Missouri**

Site Manager and RI report manager for WSOW Superfund site in St. Louis, MO. Responsible for preparation of planning documents. Supervised sampling activities which included the completion of over 100 soil borings, surface water and sediment sampling and over 2,000 surface soil samples. Used results of dye trace, contaminant mapping, and conductivity testing to determine predominant contaminant migration pathways in karstic, fractured limestone. Primary author of RI report. Project Manager for continuing work at the Weldon Spring Ordnance Works NPL Site. Project work involved: the completion of a Conceptual Program Plan, Community Relations Plan, two Final RI reports (one for the Training Area), and a combined Risk Assessment. Assisted in implementing Community Relations Program for the site including production of newsletters, setting up an information repository and public meetings.

Assisted with Feasibility Study, Proposed Plan and ROD preparation. Supervised on-going groundwater studies and completed pre-design XRF survey of identified lead-contaminated areas. Responsible for providing assistance to the Corps of Engineers for joint RI report and FS for Operable Unit 2 Groundwater at the Weldon Spring Ordnance Works NPL site. Work was being performed jointly with the Department of Energy whose contractor is the primary author of both reports.

Client: U.S. Army Corps of Engineers, Kansas City District

**Project Manager, RCRA Facility Investigation, Abandoned Lead Smelter and Battery Breaking Site, North Chicago, Indiana**

Responsible for preparation of Work Plan and implementation of a RFI at an abandoned former lead smelter and battery breaking operation in Indiana. Developed and gained IDEM approval of an alternative scope of work incorporating x-ray fluorescence field measurements of lead in soils with confirmatory analytical testing.

Client: Confidential Industrial Client

**Geologist and Task Manager, Design of Groundwater Pump and Treat System, New Jersey**

Responsible for preparation of planning documents for the design and construction of a groundwater withdrawal treatment and reinjection system for the Goose Farm NPL site in New Jersey. Evaluated and helped develop alternative design and operating approaches needed to address cemented sand unit discovered at the site.

Client: Confidential Industrial Client