300502-0605100002

CH2M HILL Mound, Inc.
1075 Mound Road
P.O. Box 750
Miamisburg, OH 45343-0750

CH2MHILL

SMO-106/06
February 9, 2006

Mr. Don Pfister, Director
Miamisburg Closure Project
U. S. Department of Energy
175 Tri-County Parkway
Springdale, OH 45246

ATTENTION: Paul Lucas

SUBJECT: **Contract No. DE-AC24-03OH20152:** Deliverable #36 Building Data Package; Section C.2.1.1 Facility Demolition; T East, T West, and B Stack Structures OSC Report, Final

Dear Mr. Pfister:

Attached is the following Final document for your records:

- T East, T West, and B Stack Structures Structure OSC Report, Final

If you or members of your staff have any questions regarding the document, or if additional support is needed, please contact Dave Rakel at 937-865-4203.

Sincerely,

Michael D. Ebben
Site Manager

JL/jg

Enclosures

cc: T. Fischer, USEPA, (1) w/attachments
B. Nickel, OEPA, (1) w/attachments
R. Vandegrift, ODH, (1) w/attachments
J. Webb, ODH, (1) w/attachments
M. Wojciechowski, Tetra Tech, (1) w/attach
G. Gorsuch, DOE/MCP, (1) w/attachments
R. Tormey, DOE/OH, (1) w/attachments
G. Desai, DOE/HQ, (1) w/attachments
C. Kline, CH2M Hill, (1) w/attachments
F. Bullock, MMCIC (2) w/attachments
Public Reading Room (1) w/attachments
Admin Records, CH2M Hill, (2) w/attachs
ER Records, CH2M Hill, (1) w/attachs
DCC (1) w/attachments
M. Ebben, CH2M Hill, w/o attachments
K. Armstrong, CH2M Hill, w/o attachments
D. Rakel, CH2M Hill, w/o attachments
D. Kramer, CH2M Hill, w/o attachments
A. Upshaw, CH2M Hill, w/o attachments
MOAT Coordinator, CH2M Hill, w/o attachs
S. Barr, CH2M Hill, w/o attachments
M. McDougal, CH2M Hill, w/o attachments
file, CH2M Hill, w/o attachments

T EAST, T WEST, AND B STACK STRUCTURES REMOVAL ACTION

No PRSs are closed via this OSC Report

OSC REPORT

February 2006

Final

Department of Energy
Miamisburg Closure Project

CH2MHILL

Bldg 68 was demolished via E Bldg Action Memo (final, April 2000).

Bldg 62 is considered part of Bldg SW.

PRS 234 (EG-6 tank) is listed in R/SW AM, but was previously NFA on 8/23/96; the remaining soil in the vicinity will be verified via the SUD.

Some PRSs are listed in multiple work plans because the work was performed in phases.

Bldgs R, SW, 58, 68, 62, B & T Stacks, and Slabs for Bldgs R, SW, 68, 62, & B, & T Stacks, and PRSs 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143 (EG-1 tank), 144, 145, 146, 209, 234* (EG-6 tank), 249, 250, 251, 252, 253, 254, 327, 328, & 329.

Includes work planning & verification of PRSs 425 & 437 and a portion of PRS 438.

Authorization

Action Memo — B Bldg — COMPLETE
Auth for B Bldg Slab & Soil only. *AM includes other activities.*

Action Memo — UGL — COMPLETE
Auth for PRSs 425, 437, & 438 only. *AM includes other activities.*

Addendum 1 T Stacks
Action Memo — R/SW/58 Bldgs, and 68 Slab AM — COMPLETE

Includes Bldgs R, SW, 62*, & 58.
Includes PRSs 142, 143 (EG-1 tank), 144, 145, 146, 327, 328, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 209, 234 (EG-6 tank)*, 249, 250, 251, 252 (B Stack), & 329.
Includes Bldgs R, SW, 62 & 68* slabs. Includes conatminated soils below Bldgs. R, SW, 58, 68, & 62

Add 1 Includes PRSs 253 and 254 (T Stacks East & West)

structures only.

Planning & Execution

Work Plan — Bldg R Breezeway — COMPLETE

Work Plan — Bldg R Superstructure — COMPLETE
incl PRS 142, 144, 145, 146

Work Plan — Bldg SW Superstructure — COMPLETE
incl Bldg 62, SW exhaust stack, PRSs 134, 140, 141, 142, 249, & 250

Work Plan — Bldg 58 Superstructure — COMPLETE
incl PRS 251/ HEFS stack

slabs, soils & PRSs

Work Plan — B Stack Superstructure — COMPLETE

Work Plan — T East Stack Superstructure — COMPLETE

Work Plan — T West Stack Superstructure — COMPLETE

See separate B Building and UGL activities flowcharts.

Partially or completely removed before or during Safe Shutdown: PRS 132, 133, 134,135, 136, 137, 138, 139, 140, 141, 142, 144, 145, 146, 209, 327, 328, & 329

EG-1 (PRS 143) & EG-6 (PRS 234) were removed via BUSTR-approved work plans.

EG-1 (PRS 143) verification sampling performed per BUSTR removal; verification data included in R/SW/58 Area Data Report.

Pre-Ex SUD SUs 1-12
Work Plan — Bldg R, SW, 68, 58 slabs, bgs structures & soil — COMPLETE
Includes slabs & bgs structures & soil for Bldgs R, SW, 68, 58, B, & B stack. Includes PRSs 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 144, 145, 146, 209, 234*, 249, 250, 251, 252 (B Stack), 327, 328, 329, 425, & 437, & a portion of PRS 438.

Post-Ex SUD — SUs 9 & 10 only (B Bldg Soil) — APPROVED

Post-Ex SUD — SUs 1-8 & 11-12 only

Pre-Ex SUD
Work Plan — T Stacks Slab & Soil — APPROVED
Includes soil below T Stacks (PRSs 253 and 254)

Post-Ex SUD — T Stacks Slab & Soil

You Are Here

Completion

T Stacks Data Report
R/SW/58 & B Stack Area Data Report
SOIL OSC Report — Bldgs R, SW, 58 area and B & T Stacks
Includes closure of PRSs 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 209, 234**, 249, 250, 251, 252, 253, 254, 327, 328, & 329.

PRS Package — PRS 234** NFA — COMPLETE

STRUCTURE OSC Report*** — Bldg R — COMPLETE
STRUCTURE OSC Report*** — Bldg SW — COMPLETE
STRUCTURE OSC Report*** — Bldg 58 — COMPLETE
STRUCTURE OSC Report*** — T Stacks and B Stack — COMPLETE

***No PRSs are closed via the four Structure OSC Reports.

The R/SW/58 Data Report will also be included in the Bldg B and UGL OSC Reports to document verification of PRS 252 & B Slab/Soil, and PRSs 425, 437, & 438, respectively.

OSC Report — Bldg B — Will close B Slab/Soil.

OSC Report — UGL — Will close PRSs 425, 437, & 438.

8Feb06dck

Table of Contents

Figures

Tables

Appendices

Table of Contents

(continued)

Acronyms

AHR	Annex, High-Risk
ALR	Annex, Low-Risk
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
cy	cubic yard
DAC	derived air concentration
DOE	Department of Energy
HEPA	High Efficiency Particulate Air
LSA	Low Specific Activity
MCP	Miamisburg Closure Project
NTS	Nevada Test Site
OEPA	Ohio Environmental Protection Agency
OSC	On-Scene Coordinator
PRP	Potentially Responsible Party
PRS	Potential Release Site
RA	Removal Action
T	Technical Building
USEPA	United States Environmental Protection Agency
WD	Waste Disposal

Recommendation

The T East and T West Stack Structures Removal Action (authorized via the Action Memorandum EE/CA Buildings R, SW, 58, and 68 Slab Removal Action, Addendum 1, September 2004) was performed based on radiological contamination from low specific activity (LSA) radioactive materials used in processes/activities that occurred within Buildings T, R, and SW. The B Stack Structures Removal Action (authorized via the Action Memorandum EE/CA Buildings R, SW, 58, and 68 Slab Removal Action, Revision 1 (Final), June 2003) was performed based on radiological contamination from low specific activity (LSA) radioactive material used in processes/activities that occurred within Building B. The Action Memos (Final and addendum) included the demolition and disposal of Buildings R, SW, 58, T East stack and fanhouse, T West stack and fanhouse, B stack and fanhouse, Building 68 slab and 33 PRSs (PRSs 129 thru 146, 209, 234, 244, 249 thru 254, 327 thru 329, 425 437, and 438).

The structure portion of the T East, T West, and B Stack removal actions resulted in the disposal of approximately 1,471 cubic yards (cy) of material. The radioactive waste (approximately 779 cy) was sent to Envirocare and the Nevada Test Site (NTS), and the waste meeting release criteria (approximate 692 cy) was reused onsite as fill material. This OSC Report closes out the removal of the T East stack and fanhouse, T West stack and fanhouse, and the B stack and fanhouse above ground structures. The removal of the below ground structures of the T West Stack and fanhouse, T East stack and fanhouse, and B Stack and fanhouse, as well as the remediation and verification of the soil below and around these structures will be closed out in a separate OSC Report.

Recommendation:

After a thorough review of the T East, T West, and B Stack Structure Removal Action On-Scene Coordinator report, the Core Team agrees that the removal of the T East, T West, and B stack above ground structures is complete, and all previously existing environmental issues associated with these structures have been resolved. No PRSs associated with of the T East, T West, and B stacks are closed via this OSC report.

Paul Lucas 8/3/05

Paul Lucas, OSC
U.S. Department of Energy
Springdale, Ohio

Timothy J. Fischer 8/9/05

Timothy J. Fischer, Remedial Project Manager
USEPA
Chicago, Illinois

[signature] 7/3/05

Brian K. Nickel, Project Manager
OEPA
Dayton, Ohio

1.0 SUMMARY OF EVENTS

This section describes the background and events leading up to the removal action, parties involved in supporting the removal action, chronological narrative of the removal action, and resources committed to complete the project.

1.1 Site Conditions and Background

The Action Memorandum, Buildings R, SW, 58, and 68 Slab Removal Action, Addendum 1, September 2004, authorized the removal of T East and T West stacks. The Action Memorandum, Buildings R, SW, 58, and 68 Slab Removal Action, Revision 1 (Final), June 2003, authorized the removal of the B stack. This Structure On-Scene Coordinator (OSC) Report documents only the removal of the T East, T West, and B Building stacks and above ground structures (including the removal the T East, T West, and B Building stack fanhouses). The levels of radiological contamination present in Buildings B, T, R, and SW warranted a Removal Action (RA) under CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) and subsequent demolition of the T East, T West, and B Building stacks and associated structures.

The removal of below grade structures and soils and verification of soils in the vicinity of the T East, T West, and B Building stack structures (including closure of PRSs 252, 253, and 254) will be performed per the Buildings R, SW, 58, and 68 Slab Removal Action, Revision 1 (Final), June 2003, and Buildings R, SW, 58, and 68 Slab Removal Action, Addendum 1, September 2004, Action Memos, and closed via the Buildings R, SW, 58, and 68 Slab and Soil OSC Report.

T East Stack Background

Constructed in 1948, the T East stack was a masonry process exhaust stack, which served T Building. The stack was constructed of bricks and mortar. It was 200 feet (ft.) tall with an outer diameter of approximately 15-½ ft. at the base that tapered to an outer diameter of approximately 9 ft. at the top. There were two openings in the stack: a 2 ft. x 3 ft. man way at the base of the stack and a 8 ft. x 4 ft. air inlet duct opening at the 20 ft-to-28 ft. elevation. An 8 ft. x 4 ft. curved steel duct connected the T East stack to its fanhouse. An 8 ft. deep reinforced concrete base pad supported the stack. This concrete base will be removed with the soil portion of this Removal Action. Pre-demolition radiological surveys indicated that the T East Stack and Fanhouse were not radiologically contaminated. Appendix D provides photographs of the T East Stack and Fanhouse before, during, and after structure demolition.

T West Stack Background

Constructed in 1948, the T West stack was a masonry process exhaust stack, which originally served T and R Buildings. The stack was also connected to SW Building at a later date when SW Building was constructed. The stack was constructed of bricks and mortar. It was 200 ft. tall with an outer diameter of approximately 16-½ ft. at the base that tapered

to an outer diameter of approximately 11 ft. at the top. There were two openings in the stack: a 2 ft. x 3 ft. man way at the base of the stack and a 10 ft. x 6-½ ft. air inlet duct opening at the 30 ft-to-40 ft. elevation. A 10 ft. x 6-½ ft. curved steel duct connected the T West stack to its fanhouse. A 6 ft. deep reinforced concrete base pad supported the stack. This concrete base will be removed with the soil portion of this Removal Action. Pre-demolition radiological surveys of T West stack and Fanhouse revealed low levels of ^{238}Pu contamination. Appendix D provides photographs of the T West Stack and Fanhouse before, during, and after structure demolition.

B Stack Background

Constructed in 1948, the B stack was a masonry process exhaust stack, which originally exhausted areas of B Building where radiological studies of Polonium-210 and Actinium-227 were conducted. Radiological operations in B Building ceased in approximately 1955. A few years later, B stack was connected to SW Building to exhaust tritium areas. The stack was taken out of service in approximately 1970.

The stack was constructed of bricks and mortar. It was 100 ft. tall with an outer diameter of approximately 9 ft. at the base that tapered to an outer diameter of approximately 5 ft. at the top. There were two openings in the stack: a 2 ft. x 3 ft. man way at the base of the stack and a 4 ft. x 2 ft. air inlet duct opening at the 20 ft-to-24 ft. elevation. A 4 ft. x 2 ft. curved steel duct connected the B stack to its fanhouse. A 4 ft. deep reinforced concrete base pad supported the stack. This concrete base will be removed with the soil portion of this Removal Action. Pre-demolition radiological surveys indicated that the superstructures of B stack and fanhouse were not radiologically contaminated. However, radiological contamination was found in the fanhouse fan assembly. Appendix D provides photographs of the B stack and fanhouse before, during, and after structure demolition.

Associated Potential Release Sites (PRSs) and Previous Investigations.

T East stack is PRS 254, T West stack is PRS 253, and B stack is PRS 252. No PRSs are closed out via this T East, T West, and B Stack Structures Removal Action OSC Report. The stack PRSs will be closed following completion of the soil portion of this RA and will be documented in the Slab and Soil OSC Report.

Removal Action. The RA for T East and T West stack structures was authorized in the Action Memorandum EE/CA Buildings R, SW, 58, and 68 Slab Removal Action, Addendum 1, September 2004. The RA for the B stack structures was authorized in the Action Memorandum EE/CA Buildings R, SW, 58, and 68 Slab Removal Action, Revision 1 (Final), June 2003.

Since DOE is the sole responsible party for cleanup of contamination in the T East, T West, and B stack structures, no Potentially Responsible Parties (PRPs) were sought to clean up the site. Monsanto Research Corporation, EG&G Mound Applied Technologies, and BWXT of Ohio, Inc. were the operating contractors at the site from 1948 to 30 September 1988, from 1 October 1988 until 30 September 1997, and from 1

October 1997 until 31 December 2002 respectively. CH2M Hill Mound, Inc. became the site contractor for the Miamisburg Closure Project (MCP) effective January 1, 2003.

1.2 Organization of the Removal Action

Table 1 (Appendix B) lists the parties supporting the removal action and their responsibilities.

1.3 Objectives

Documentation Objective. The objective of this T East, T West, and B Stack Structures Removal Action OSC Report is to describe the removal action fieldwork, report the air monitoring results, and document successful completion of the structure portion of the RA. Demolition debris quantities and disposition locations are presented in Tables 2, 3, and 4 in Appendix B.

CH2M Hill, Inc. has elected to cluster financial data for multiple buildings together. T East, T West, and B stacks are included in the cluster that includes Buildings SW, R, and 58. As a result, costs for individual demolitions are not available. When the cluster is completed, the total cost for the cluster will be reported in the final OSC Report for Buildings R, SW, and 58. Therefore no cost breakdown of the RA is presented in Appendix B.

Remediation and verification of the soils under and around the T East, T West, and B stack structures and removal of their below grade structures are included in the scope of this RA but are not included in this Structure OSC Report. The removal of the of below grade structures and soil remediation and verification will be closed out via the Buildings R, SW, 58, and 68 Slab and Soil OSC Report.

T Stacks (East and West) Removal Action Objectives. The objectives of this removal action included:

- Phase I - Buildings (structure) R, SW, 58, T West, and T East Stack Decontamination (Includes demolition and disposal)

The following activities will be documented in the Buildings R, SW, 58, and 68 Slab and Soil OSC Report:

- Phase II - Remove Associated Foundations and Soils
- Phase II - Verification
- Phase II - Site Restoration
- Phase II - Documentation of Completion

Verification of the structure removals is provided in the photographs included in Appendix D.

B Stack Removal Action Objectives. The objectives of this removal action included:

- Project Planning
- Public Participation
- Phase I - Establish Work Zones
- Phase I – Buildings R, SW, 58, and B Stack Decontamination
- Phase II - Demolition Buildings (structures)

The following activities will be documented in the Buildings R, SW, 58, and 68 Slab and Soil OSC Report:

- Phase II – Remove Associated Foundations and Soils
- Phase II - Verification

Verification of the structure removals is provided in the photographs included in Appendix D.

1.4 Chronological Narrative of the Removal Action

The following is a chronological narrative of events surrounding the structure portion of the T East, T West, and B stack RAs.

Timeframe	Activity
1948	Initial construction of the T East, T West, and B Building Stacks complete
1970	B Stack operations ceased
June 2003	Buildings R, SW, 58, and 68 Slab Final Action Memorandum issued (B stack structures RA authorization)
January - February 2004	B Stack demolition complete
June 2004	T East stack operations ceased
September 2004	Buildings R, SW, 58, and 68 Slab Addendum 1 Action Memorandum issued (T East and T West stack structures RA authorization)
November 2004	T West stack operations ceased
November - December 2004	T East stack demolition complete

Timeframe	Activity
January - March 2005	T West stack demolition complete
May 2005	Structure OSC Report generated

The removal of the below grade structures and soil remediation and verification will be closed out via the Buildings R, SW, 58, and 68 Slab and Soil OSC Report.

2.0 EFFECTIVENESS OF THE REMOVAL ACTION

The T East, T West, and B stack above ground structures (including fanhouses) have been demolished and the debris removed and/or properly dispositioned per the Work Package. Photographs taken before, during and after demolition are included in Appendix D.

2.1 Actions Taken by Site Contractor

CH2M HILL Mound, Inc. personnel planned and performed removal action oversight, building decontamination, building dismantlement and demolition, and onsite transportation and staging of debris as outlined in the demolition work plans, Removal of the T Building Stacks, Fanhouses and External Ductwork and Stack Demolition Job Specific Work Plan (for demolishing the Building HH stack and the B Building stack and fanhouse). The project met the removal action objectives for the T East, T West, and B stack above ground structures as outlined in the Action Memorandums (Final), Revision 1, dated June 2003 and Addendum 1, dated September 2004. CH2M Hill Mound, Inc. personnel prepared the Structure OSC Report, which shows that the structure portion of the Removal Action objectives were achieved.

In accordance with the RA, the following actions were taken: public notification of the RA, demolition of the T East, T West, and B stack above ground structures, and proper disposal of the debris. This Structure OSC Report provides the documentation of completion for the removal of the T East, T West, and B stack above ground structures. Below ground structures and soils below the T East, T West, and B stack structures will be closed out via the Buildings R, SW, 58, and 68 Slab and Soil OSC Report.

T East Stack and Fanhouse Demolition

To prevent the generation of airborne fugitive dust emissions during demolition activities, engineering controls were employed. These controls included (but were not limited to) using water misting inside and outside the stack to prevent fugitive dust emissions and using HEPA filtered air-movers to redirect airflow downward in the stack. Water misting was also used during demolition of the fanhouse.

Prior to demolition, Radiological Controls performed an evaluation of the radiological history of the stack and fanhouse and also performed pre-demolition Radiological surveys. After demolition, debris pile surveys were performed on the stack and

fanhouse debris. The survey results indicated that the debris met surface release criteria. The brick and mortar debris was reused onsite as fill material (see Table 2 of Appendix B).

T East stack and fanhouse above ground structures were removed; photograph documentation is contained in Appendix D.

T West Stack and Fanhouse Demolition

To prevent the generation of airborne fugitive dust emissions and/or radioactive contamination during demolition activities, engineering controls were employed. These controls included (but were not limited to) fixing contamination using liquid fixatives, and using water misting to prevent fugitive dust emissions. All wastewater generated during demolition activities was sampled to assure compliance with release criteria and released or packaged for disposal in accordance with Mound Waste Management Procedures.

Liquid fixatives were used inside the lower section of the T West stack (~ bottom 20 ft.; this area was believed to have the highest levels of radiological contamination). In addition, water misting was used during demolition of the stack and fanhouse to prevent any dust emissions and/or contamination from becoming airborne during demolition. The resulting debris from the stack and fanhouse was disposed of as low-level waste. Any contamination potentially spread by fugitive dust will be found during the soil sampling effort in the verification sampling portion of this Removal Action and documented in the Slab and Soil OSC Report.

Prior to demolition, Radiological Controls performed an evaluation of the radiological history of the stack and fanhouse and performed radiological surveys of accessible areas within the stack and fanhouse. All radioactively contaminated debris was size reduced and packaged to meet the Envirocare or NTS waste acceptance criteria (see Table 3 of Appendix B).

T West stack and fanhouse above ground structures were removed; photograph documentation is contained in Appendix D.

B Stack and Fanhouse Demolition

To prevent the generation of airborne fugitive dust emissions during demolition activities, engineering controls were employed. These controls included (but were not limited to) using water misting during demolition of the stack and fanhouse to prevent fugitive dust.

Prior to demolition, Radiological Controls performed an evaluation of the radiological history of the building, and additional radiological surveys to identify areas within the building that met surface release criteria. Historical radiological surveys indicated that the stack and fanhouse, except for the fanhouse blower housing, were below release criteria levels. The historical surveys also indicated that the fanhouse blower

housing/fan was above release criteria levels, and that the fanhouse blower housing had been isolated from the fanhouse duct system at that time. Just prior to demolition additional surveys were performed that confirmed the previous results. The fanhouse blower housing was resealed and protected (with tarping) such that the fanhouse could be demolished without damaging the blower housing. After demolition, debris pile surveys were performed on the stack and fanhouse debris (brick and mortar). The survey results indicated that the debris met surface release criteria. The brick and mortar debris was reused onsite as fill material. The radioactively contaminated fanhouse blower housing was removed and put into a sea land container to be shipped to the NTS for disposal (see Table 4 of Appendix B).

B stack and fanhouse above ground structures were removed; photograph documentation is contained in Appendix D.

Air Monitoring for Worker Safety

No air monitoring was required during demolition activities for the T East and B stacks and their respective fanhouses. Predemolition radiological surveys indicated that these structures (except for the B stack fanhouse blower housing, which was isolated from its fanhouse ducting and sealed) were not Rad contaminated.

During demolition activities for the T West stack and fanhouse, the Mound Radiological Control organization performed air monitoring to confirm a safe work environment, in accordance with 10 CFR 835. Air monitoring for the stack and fanhouse demolition was done as part of the air monitoring for the Buildings R, SW, 58, and 68 Slab Removal Action. Air monitoring results (including the monitor locations relative to the demolition activities and wind direction) from the stack and fanhouse demolition are provided in Appendix E. On each day that demolition activities were performed, at least two air monitors were used at any given time (one upwind of the radiological work area and the other downwind of the radiological work area. Reference the Air Monitoring Stations Map in Appendix A for locations of the air monitoring stations).

On March 7, 2005 of these demolition activities, the low volume air monitoring station located at the southwest corner of the demolition control area (station #6) indicated a higher than expected demolition zone airborne concentration reading of 1.052 DAC (gross Alpha analysis). Subsequent alpha spectroscopy analysis resulted in an airborne concentration reading of 1.75 DAC. A self-assessment (SA ID Number: SDT-SA05-008) was performed by the Rad Con manager in response to the higher than expected airborne concentration reading. A review of the day's work activities from the Job Supervisors pre-job briefing record indicated that demolition material was being moved from the south end of the project to the north end for subsequent load out and hauling to the rail spur. During these activities, the engineering control of constant water application from a two-inch fire hose operated from an aerial lift above the work area had been utilized. The prevailing wind direction was from the North/North West. Although the monitor near the work site indicated slightly increased emissions, personnel air monitor data indicate that no worker received an elevated dose.

The average of the air monitoring results at the demolition boundary was below 0.02 derived air concentration (DAC), which means that worker exposure was less than the Mound Administrative Control level of 100 mrem/year, based on 10 CFR 835. The air monitoring results from the site perimeter monitors were all below the 0.3 DAC Mound posting criteria. No MCP worker or environmental exposure limits were exceeded, therefore the demolition activities did not pose any additional risk to human health or the environment. (Appendix E).

2.2 Actions Taken by Local, State, and Federal Agencies

The Department of Energy (DOE)/MCP, the United States Environmental Protection Agency (USEPA), and Ohio EPA (OEPA) had oversight responsibility for the removal action. The DOE/MCP was the lead agency for the RA and provided the funding and oversight for the RA. The USEPA and OEPA had oversight responsibility for the RA and review of the Action Memorandum and OSC Reports to ensure that the objectives are/were met.

2.3 Actions Taken by Subcontractors

Subcontractors involved in the project included the following:

- Cleveland Wrecking Company, Covina, California for demolition of the T East and T West stack structures.
- Safety and Ecology Corporation, Oak Ridge, Tennessee for demolition of the B stack structures.
- International Chimney Corporation, Williamsville, New York for demolition of the T East, T West, and B stack structures.
- Hayden Safety Engineers, Dayton, Ohio for subcontractor safety oversight during T East and T West stacks demolition activities.

3.0 DIFFICULTIES ENCOUNTERED

3.1 Items that Affect the Removal Action

No difficulties were encountered that affected the removal action.

3.2 Issues of Intergovernmental Coordination

All DOE/USEPA/OEPA interactions were good. The agencies were updated informally on a regular basis, and formally at monthly Core Team meetings. The Mound 2000 Process worked well.

4.0 RECOMMENDATIONS

4.1 Means to Prevent a Recurrence

The debris from the stack and fanhouse structures were removed and/or properly dispositioned per the Core Team-approved work plans; therefore, the spread of contamination was prevented. Removal of the above ground structures of the T East, T West, and B stacks (and their respective fanhouses) concludes the scope of the structure portion of this RA.

The below grade structures and soil below the T East, T West, and B stack/fanhouse structures and surrounding areas will be remediated and verified in accordance with the Buildings R, SW, 58, and 68 Slab Removal Action, Revision 1 (Final), June 2003 and Buildings R, SW, 58, and 68 Slab Removal Action, Addendum 1, September 2004 Action Memorandums, and will be closed out via the Buildings R, SW, 58, and 68 Slab and Soil OSC Report. After both removal actions and the CERCLA process for the parcel are complete, the area will be transferred from federal to private ownership. All State and Federal disposal rules will apply.

APPENDIX A

FIGURES

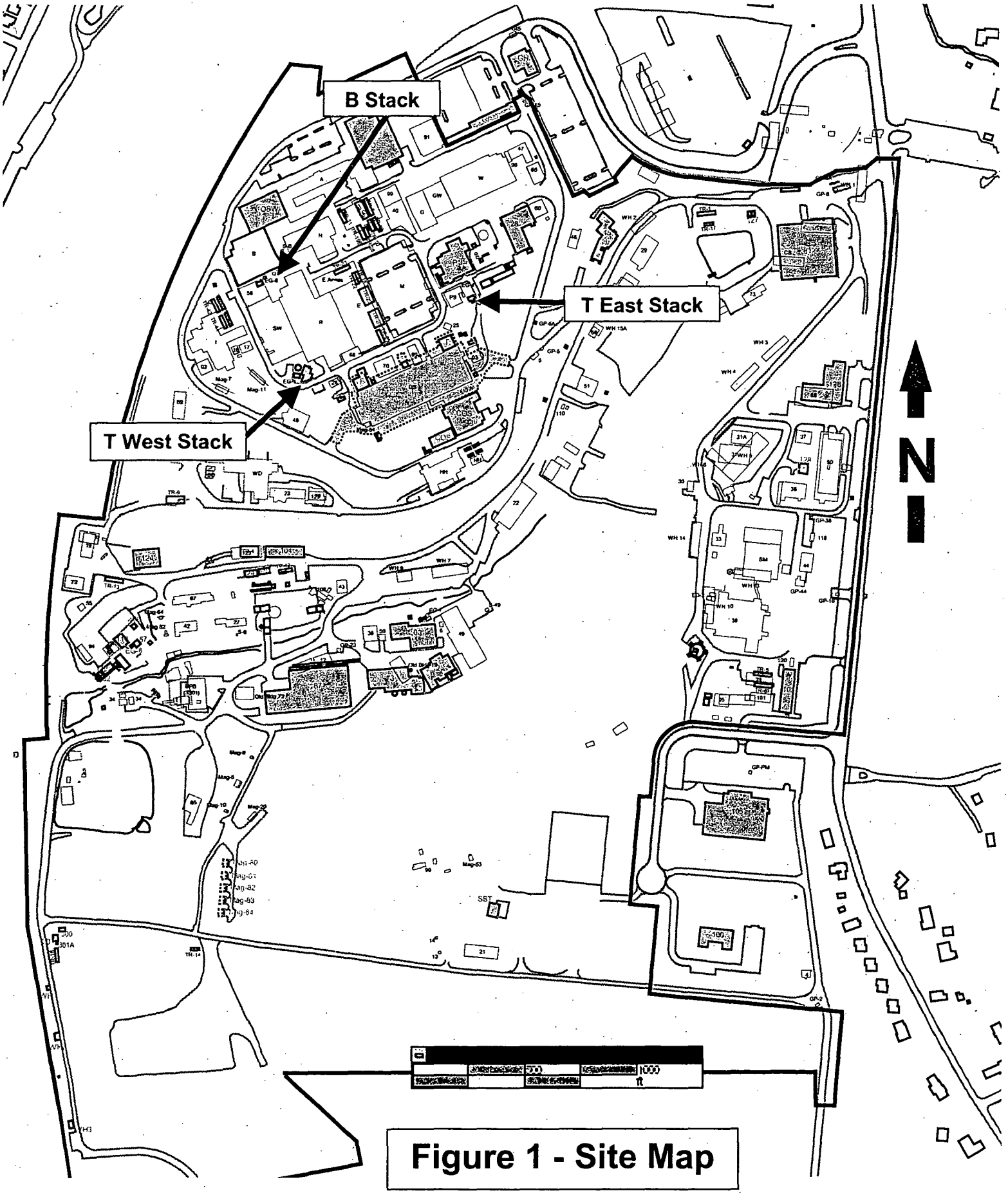


Figure 1 - Site Map

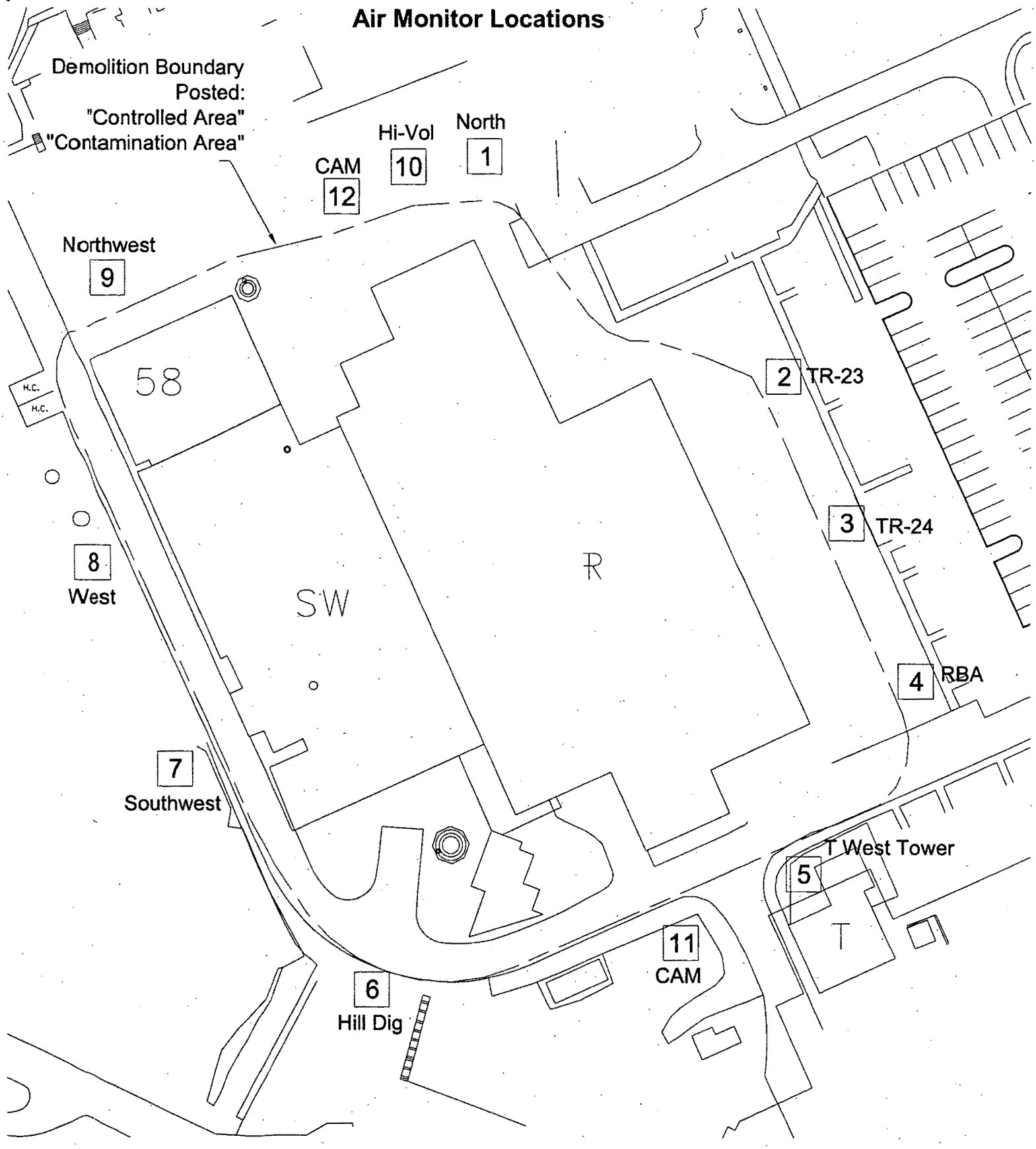


Figure 2 – Air Monitoring Station Map

APPENDIX B

TABLES

Table 1: Organization of the Removal Action

Agency or Party Involved	Contact	Description of Participation
US EPA (SR-6J) 77 W. Jackson Chicago, IL 60604 312-886-7058	Timothy Fischer USEPA Remedial Project Manager	Federal agency responsible for MCP oversight.
Ohio EPA 410 E. Fifth Street Dayton, OH 45402-2911 937-285-6468	Brian Nickel OEPA Remedial Project Manager	State agency responsible for MCP oversight.
DOE/ MCP 175 Tri-County Parkway Springdale, OH 45246 513-246-0071	Paul Lucas DOE/MCP Remedial Project Manager	DOE is responsible for project oversight and success.
CH2M Hill Mound, Inc. P.O. Box 3030 1 Mound Road Miamisburg, OH 45343-3030 937-608-8007	Chris Watson	Performed demolition, provided the DOE/ MCP Project Manager with technical assistance, administrative support, sampling, decontamination, site safety, and report preparation.

Table 2: T East Stack Materials and Disposition

Debris	Quantity	Method	Location
Construction Debris	535 cubic yards	Concrete Crusher	Reused onsite as fill material

Table 3: T West Stack Materials and Disposition

Debris	Quantity	Method	Location
Radioactive Waste (demolition debris/other waste)	753 cubic yards	Rail/Truck	Envirocare of Utah/ Nevada Test Site of Nevada

Table 4: B Stack Materials and Disposition

Debris	Quantity	Method	Location
Construction Debris	157 cubic yards	Concrete Crusher	Reused onsite as fill material
Radioactive Waste (Fanhouse fan/blower assembly)	26 cubic yards	SeaLand/ Rail/Truck	Envirocare of Utah/ Nevada Test Site of Nevada

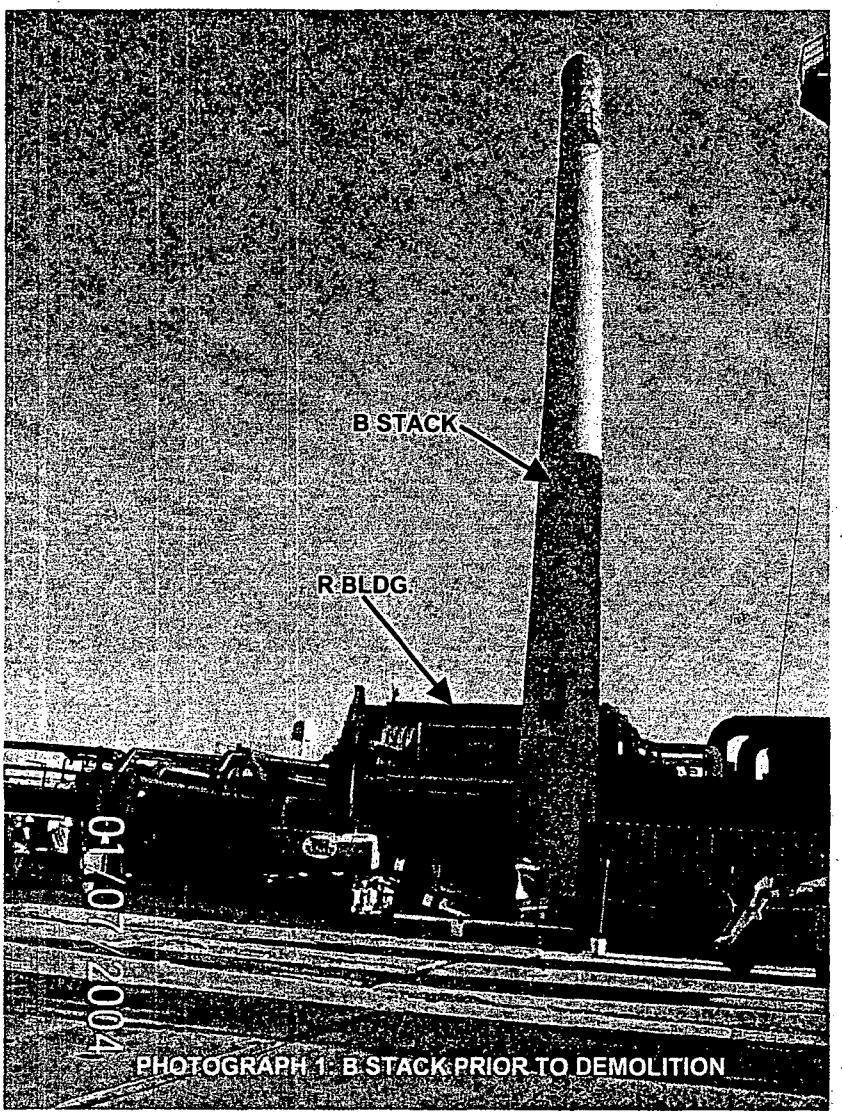
APPENDIX C

GENERAL MEDIA INFORMATION

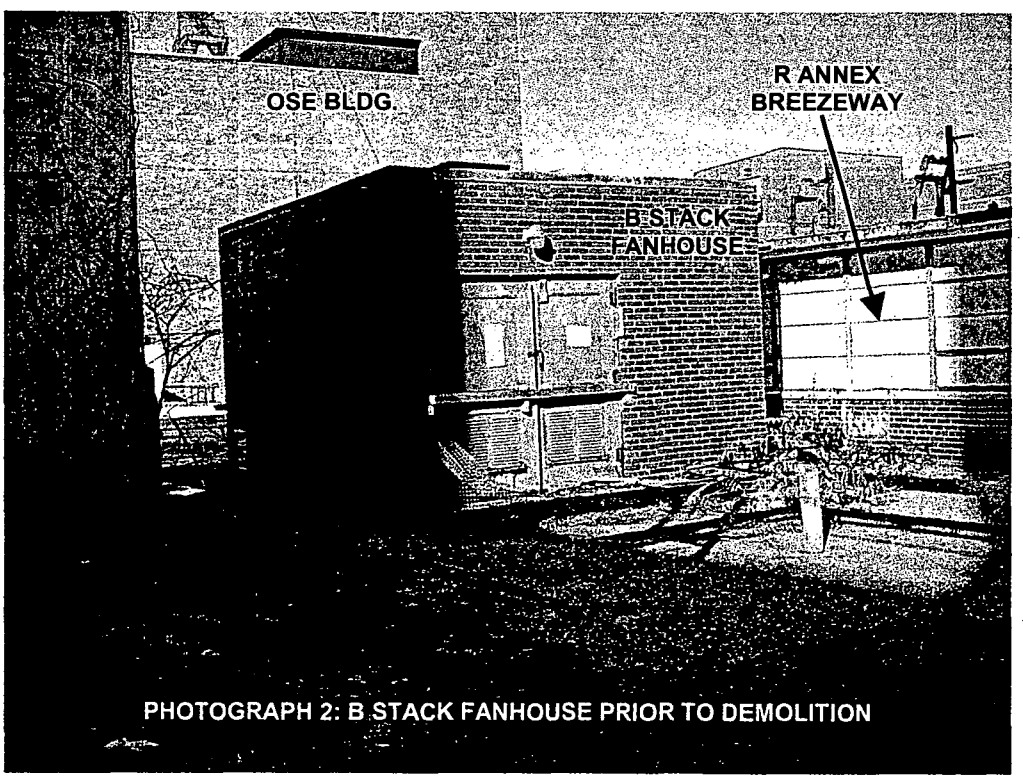
No Media Information Exists

APPENDIX D

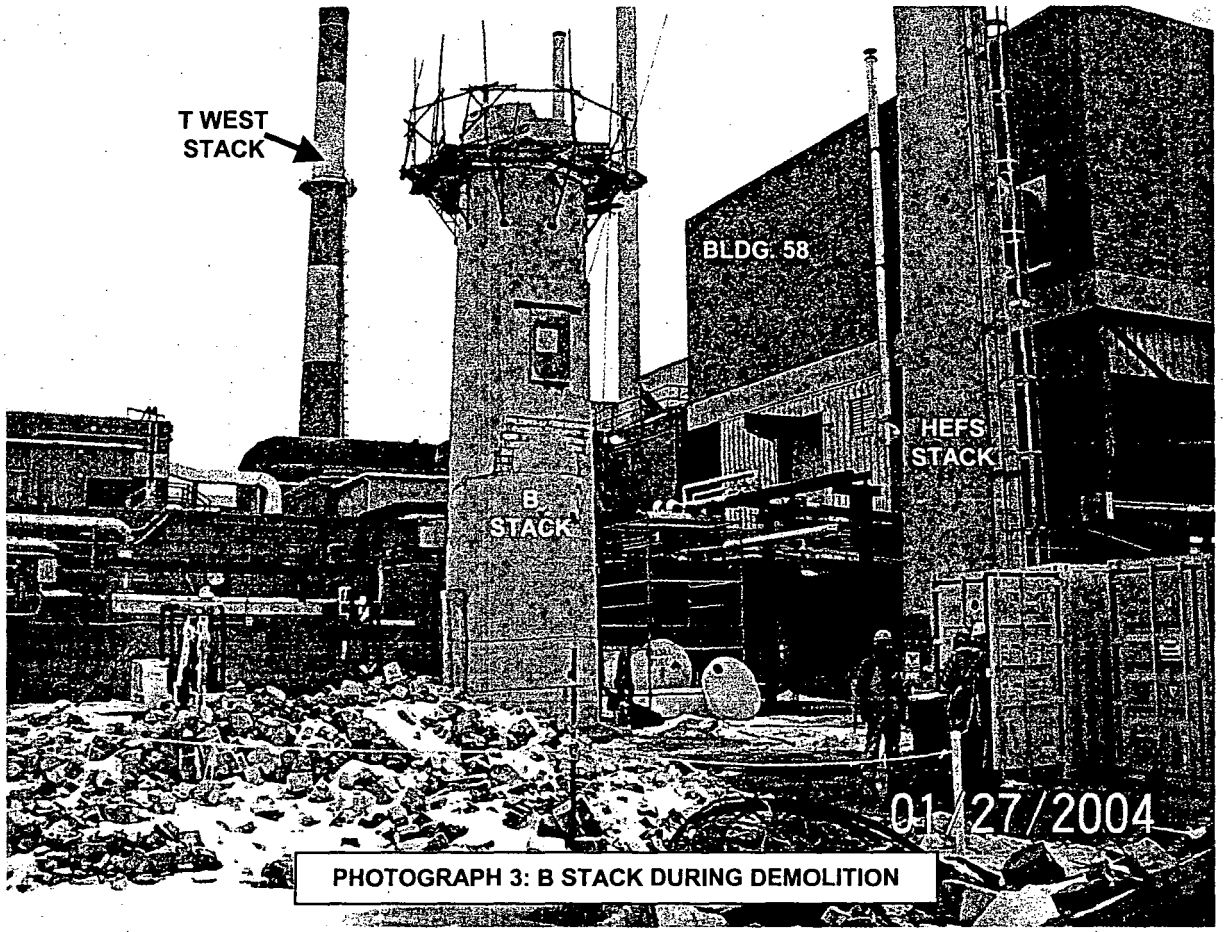
PHOTOGRAPH DOCUMENTATION



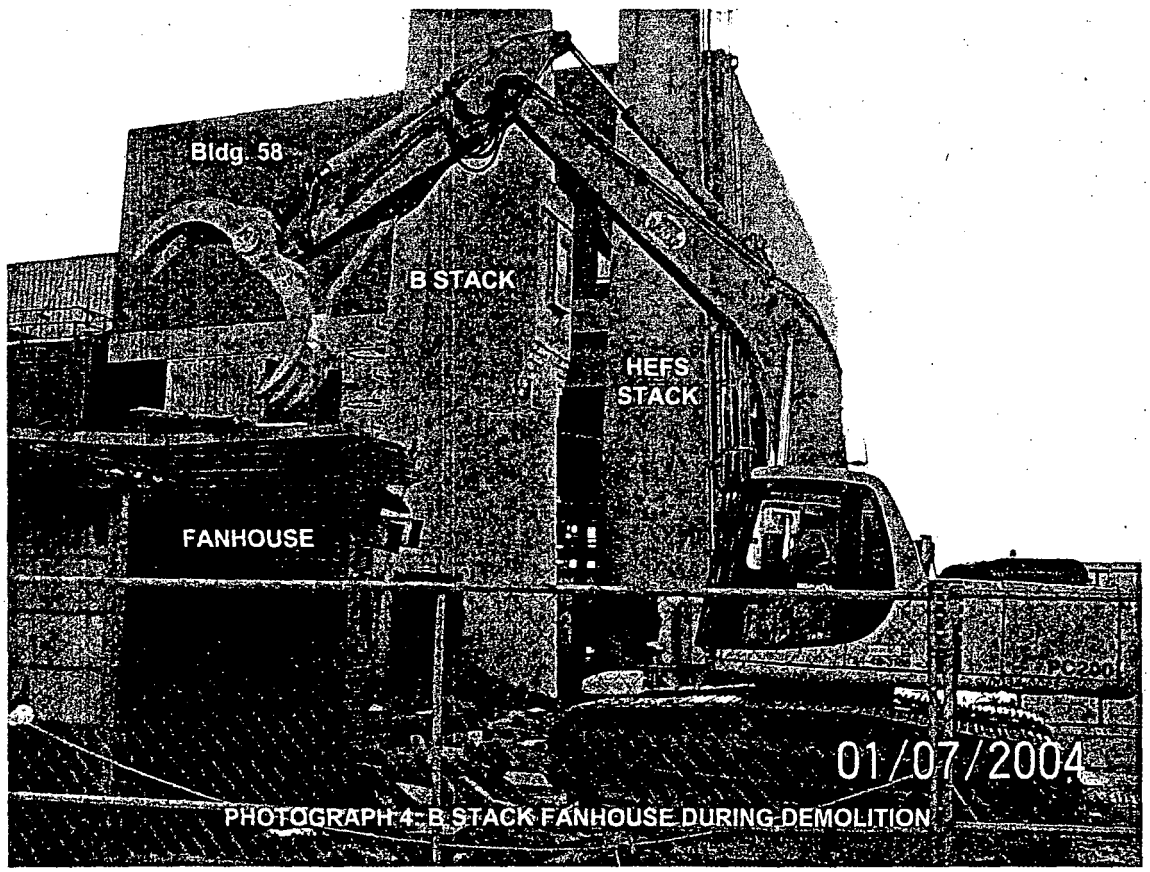
PHOTOGRAPH 1: B STACK PRIOR TO DEMOLITION



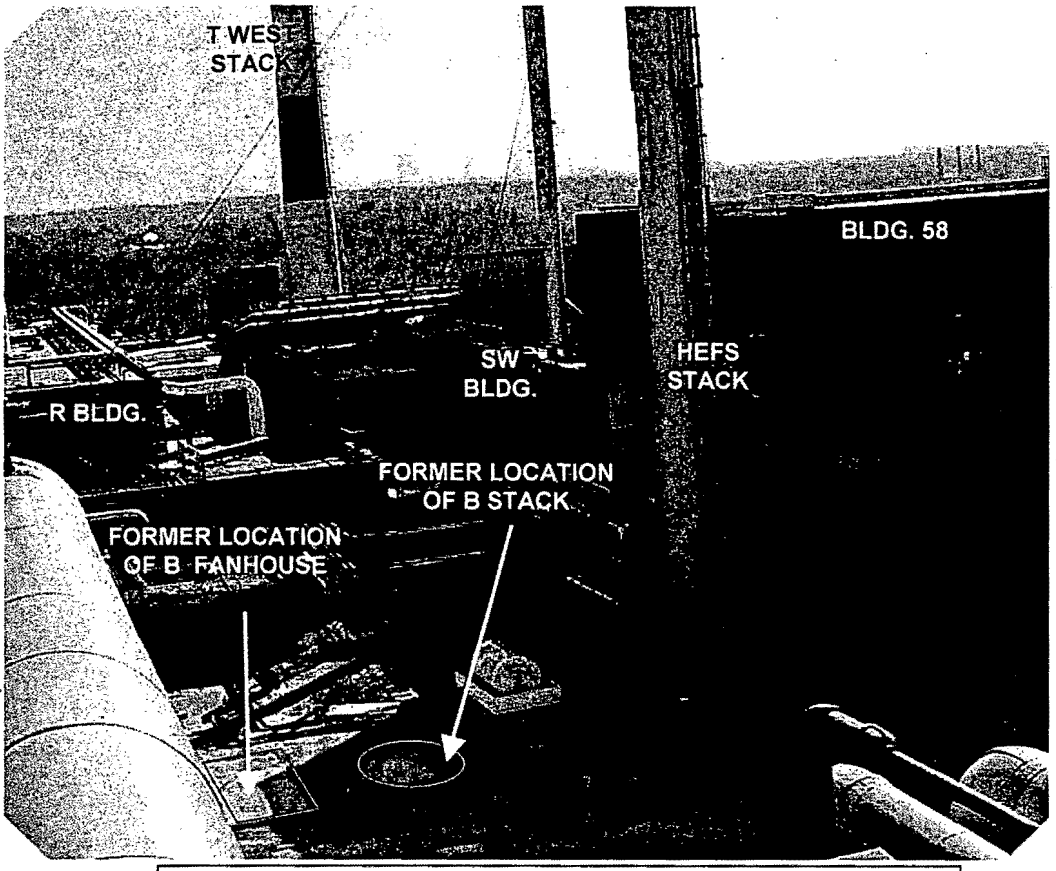
PHOTOGRAPH 2: B STACK FANHOUSE PRIOR TO DEMOLITION



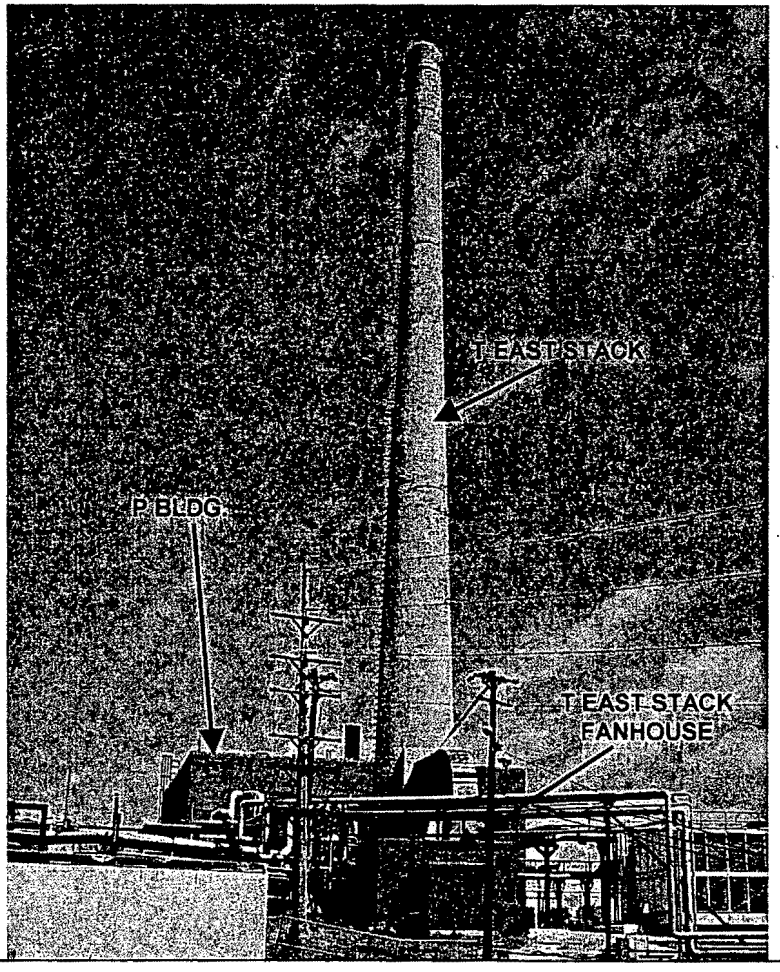
PHOTOGRAPH 3: B STACK DURING DEMOLITION



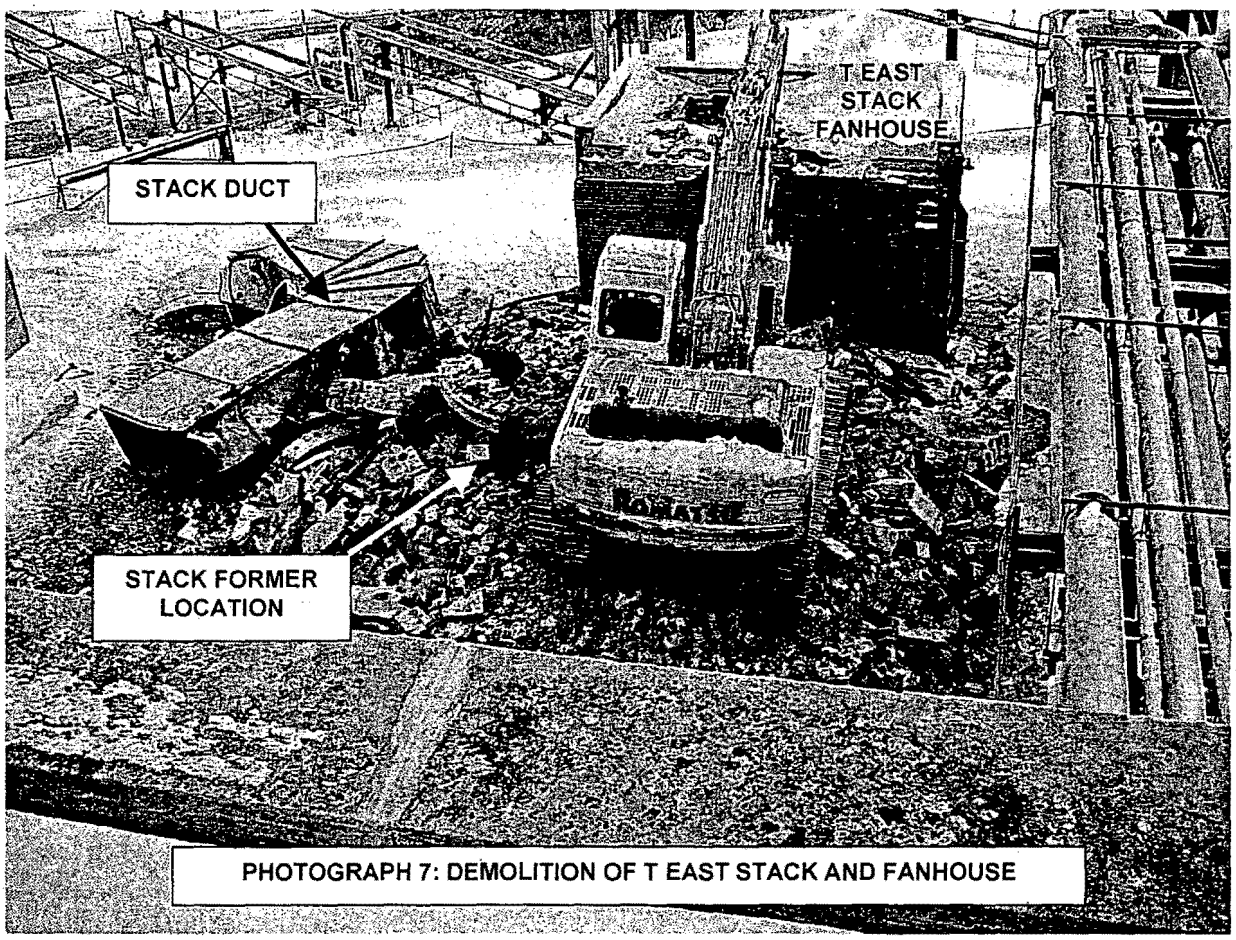
PHOTOGRAPH 4- B STACK FANHOUSE DURING DEMOLITION



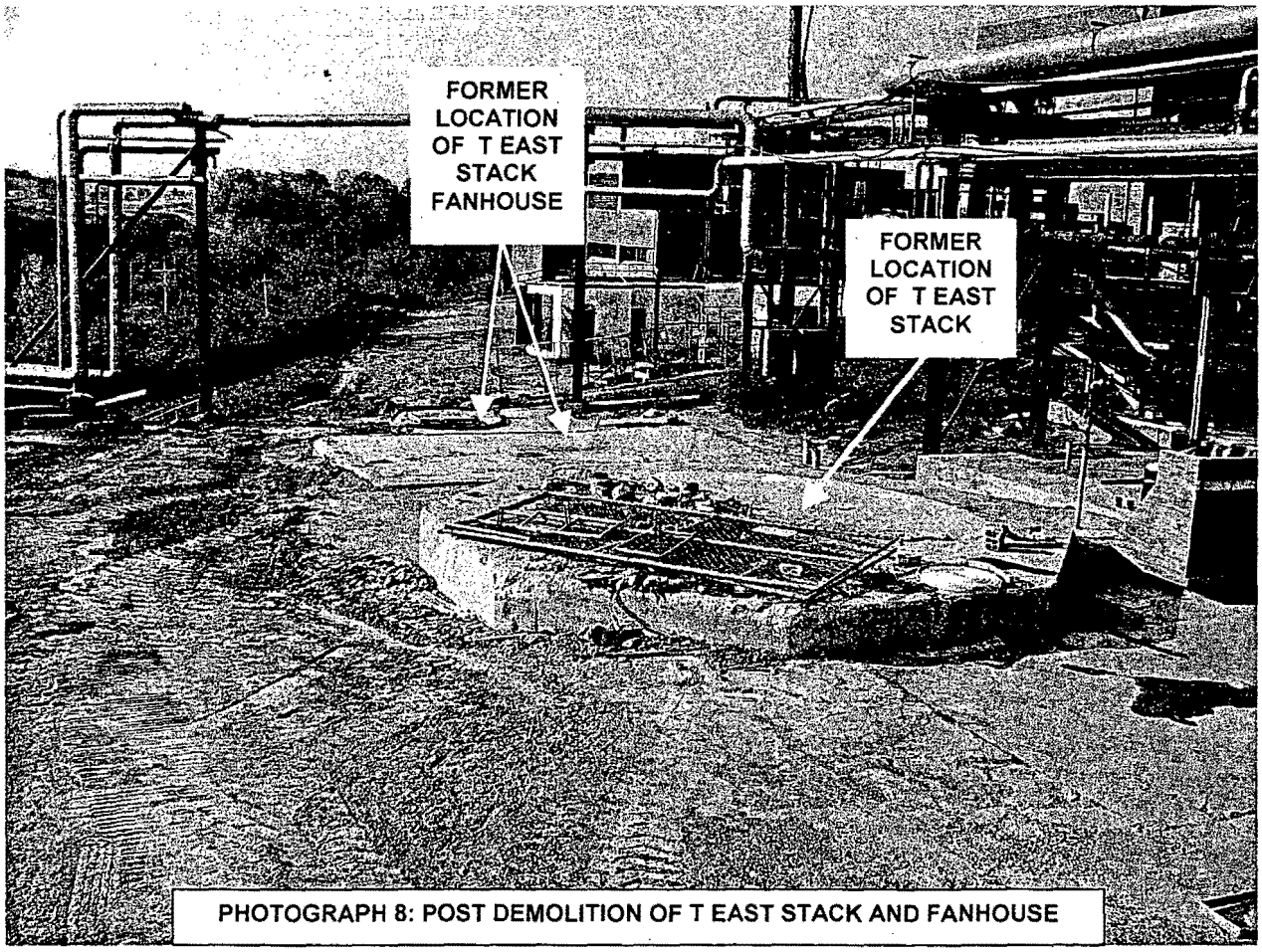
PHOTOGRAPH 5: B STACK AND FANHOUSE POST-DEMOLITION



PHOTOGRAPH 6: T EAST STACK AND FANHOUSE PRIOR TO DEMOLITION

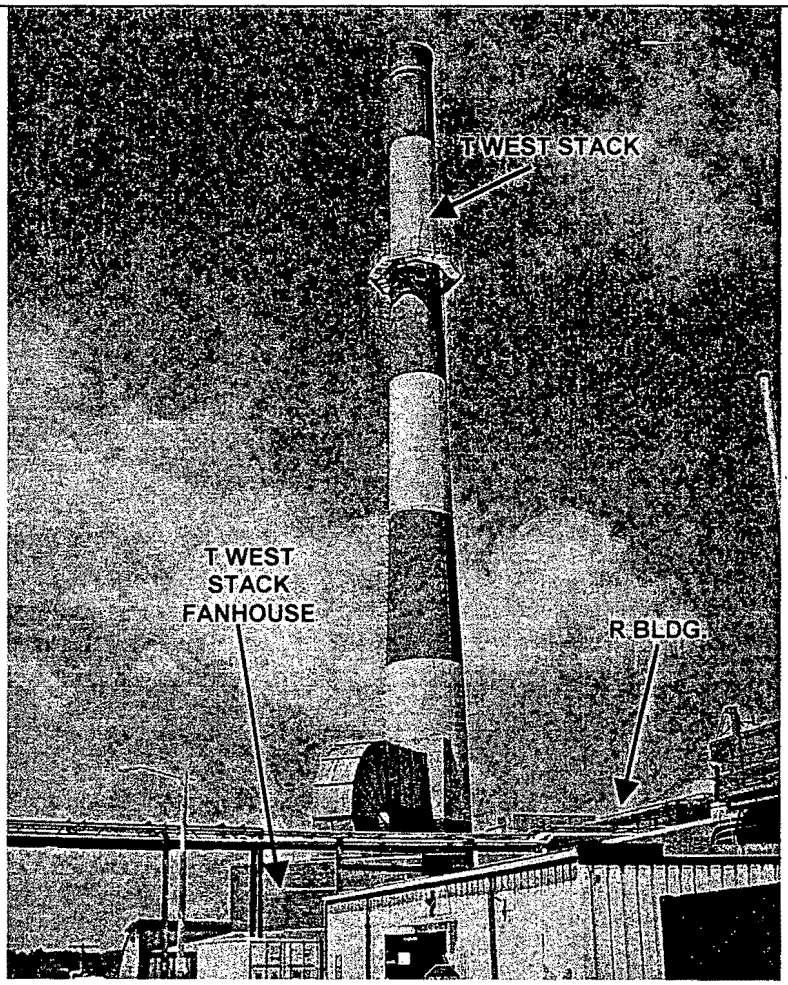


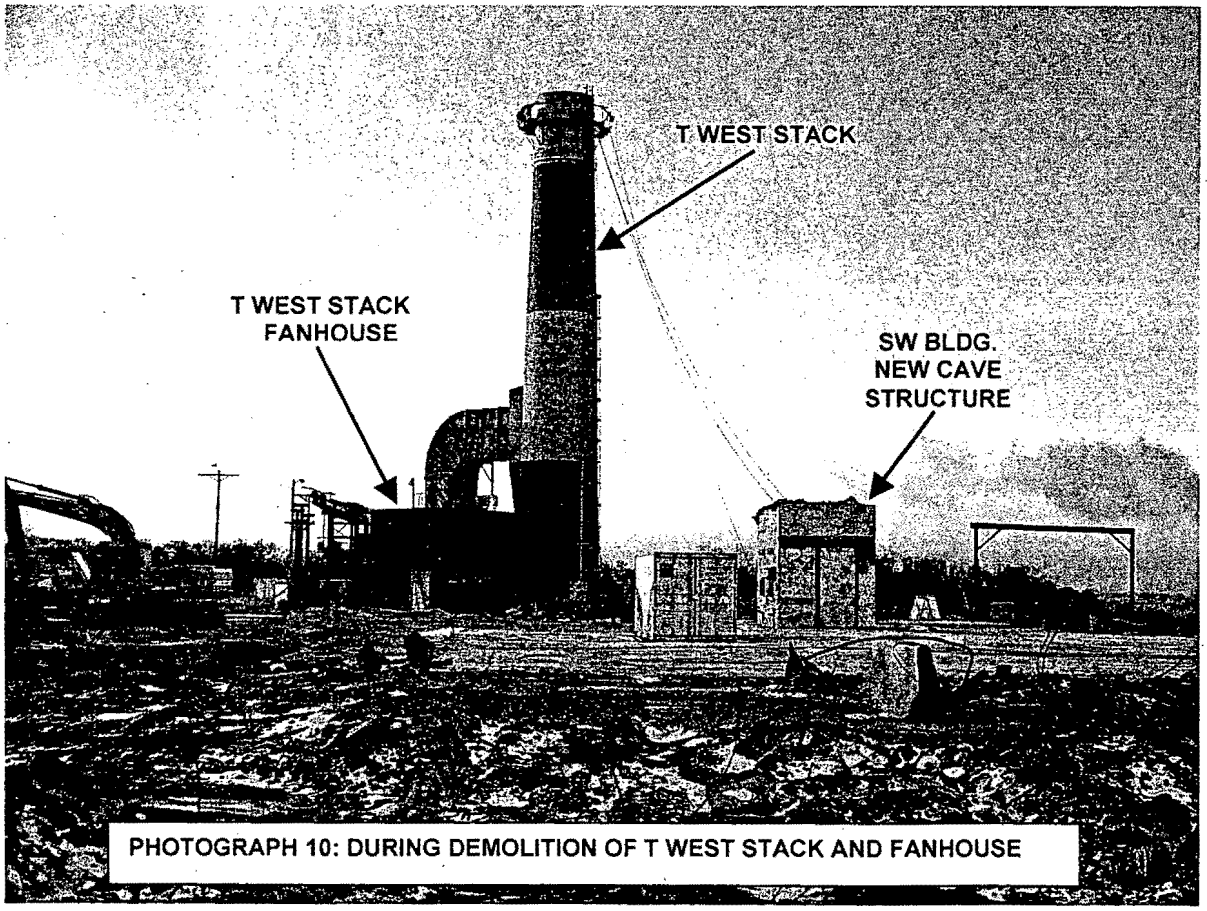
PHOTOGRAPH 7: DEMOLITION OF T EAST STACK AND FANHOUSE



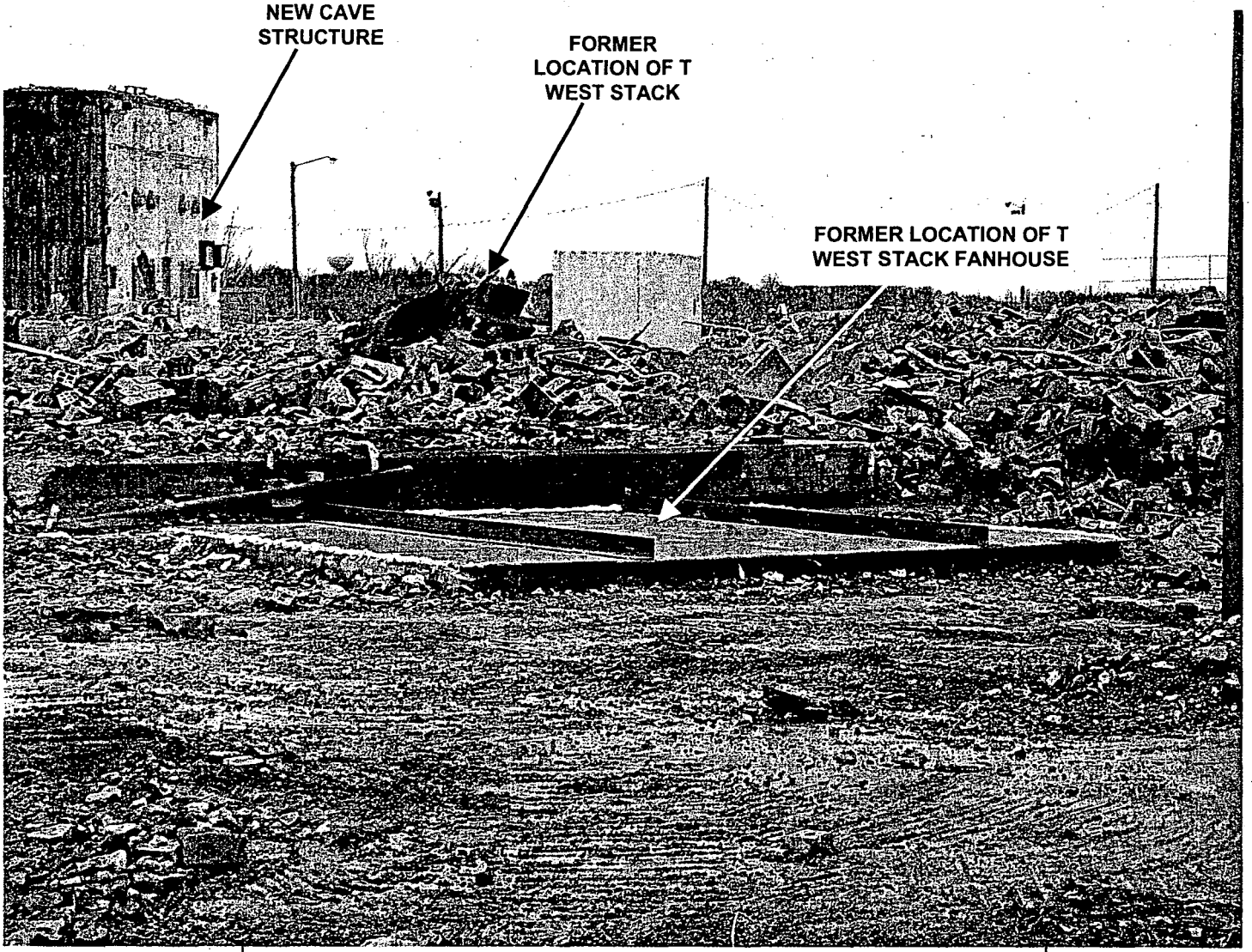
PHOTOGRAPH 8: POST DEMOLITION OF T EAST STACK AND FANHOUSE

PHOTOGRAPH 9: PRIOR TO DEMOLITION OF T WEST STACK AND FANHOUSE





PHOTOGRAPH 10: DURING DEMOLITION OF T WEST STACK AND FANHOUSE



PHOTOGRAPH 11: AFTER DEMOLITION OF T WEST STACK AND FANHOUSE

APPENDIX E

RADIOLOGICAL AIR MONITORING RESULTS

These air monitoring results are for the for T West stack and fanhouse demolition activities only. No radiological air monitoring was required during demolition activities for the T East and B stacks and their respective fanhouses.

RADIOLOGICAL AIR MONITORING DATA FOR THE DEMOLITION OF THE T WEST STACK STRUCTURES (1/20/2005 – 3/18/2005)

Rwp No	Sample Id	Start Time	RSDS Year	RSDS Room Area	RSDS No	Area	Total Dac
1633	30105	1/20/2005	2005	R/SW	0047	NORTH	0.000
1633	30110	1/20/2005	2005	R/SW	0047	HILL DIG	0.000
1633	30111	1/20/2005	2005	R/SW	0047	SOUTH WEST	0.000
1633	30112	1/20/2005	2005	R/SW	0047	WEST	0.000
1633	30113	1/20/2005	2005	R/SW	0047	NORTH	0.024
1633	30106	1/20/2005	2005	R/SW	0047	TR 23	0.000
1633	30107	1/20/2005	2005	R/SW	0047	TR 24	0.000
1633	30108	1/20/2005	2005	R/SW	0047	RBA	0.000
1633	30109	1/20/2005	2005	R/SW	0047	T WEST	0.000
1633	30091	1/21/2005	2005	R/SW	0050	NORTH	0.000
1633	30096	1/21/2005	2005	R/SW	0050	HILL DIG	0.000
1633	30097	1/21/2005	2005	R/SW	0050	SOUTH WEST	0.205
1633	30098	1/21/2005	2005	R/SW	0050	WEST	0.034
1633	30099	1/21/2005	2005	R/SW	0050	NORTHWEST	0.000
1633	30100	1/21/2005	2005	R/SW	0050	NORTH	0.025
1633	30092	1/21/2005	2005	R/SW	0050	TR 23	0.000
1633	30093	1/21/2005	2005	R/SW	0050	TR 24	0.000
1633	30094	1/21/2005	2005	R/SW	0050	RBA	0.000
1633	30095	1/21/2005	2005	R/SW	0050	T WEST	0.000
1633	30180	1/24/2005	2005	R/SW	0053	TR 23	0.042
1633	30181	1/24/2005	2005	R/SW	0053	TR 24	0.000
1633	30182	1/24/2005	2005	R/SW	0053	RBA	0.000
1633	30183	1/24/2005	2005	R/SW	0053	T WEST	0.000
1633	30179	1/24/2005	2005	R/SW	0053	NORTH	0.031
1633	30184	1/24/2005	2005	R/SW	0053	HILL DIG	0.072
1633	30185	1/24/2005	2005	R/SW	0053	SOUTH WEST	0.000
1633	30186	1/24/2005	2005	R/SW	0053	WEST	0.000
1633	30187	1/24/2005	2005	R/SW	0053	NORTH WEST	0.000
1633	30188	1/24/2005	2005	R/SW	0053	NORTH	0.051
1633	30206	1/25/2005	2005	R/SW	0054	TR-23	0.000
1633	30207	1/25/2005	2005	R/SW	0054	TR-24	0.000
1633	30208	1/25/2005	2005	R/SW	0054	RBA	0.030
1633	30209	1/25/2005	2005	R/SW	0054	T WEST	0.000
1633	30205	1/25/2005	2005	R/SW	0054	NORTH	0.010
1633	30210	1/25/2005	2005	R/SW	0054	HILL DIG	0.026
1633	30211	1/25/2005	2005	R/SW	0054	SOUTH WEST	0.000
1633	30212	1/25/2005	2005	R/SW	0054	WEST	0.000
1633	30213	1/25/2005	2005	R/SW	0054	NORTH WEST	0.000
1633	30214	1/25/2005	2005	R/SW	0054	#10	0.034
1633	30298	1/26/2005	2005	R/SW	0061	#1	0.007
1633	30299	1/26/2005	2005	R/SW	0061	#2	0.000
1633	30300	1/26/2005	2005	R/SW	0061	#3	0.000
1633	30306	1/26/2005	2005	R/SW	0061	#9	0.000

Rwp No	Sample Id	Start Time	RSDS Year	RSDS Room Area	RSDS No	Area	Total Dac
1633	30301	1/26/2005	2005	R/SW	0061	#4	0.000
1633	30305	1/26/2005	2005	R/SW	0061	#8	0.000
1633	30302	1/26/2005	2005	R/SW	0061	#5	0.000
1633	30304	1/26/2005	2005	R/SW	0061	#7	0.000
1633	30303	1/26/2005	2005	R/SW	0061	#6	0.000
1633	30222	1/27/2005	2005	R/SW	0070	TR-23	0.000
1633	30223	1/27/2005	2005	R/SW	0070	TR-24	0.000
1633	30224	1/27/2005	2005	R/SW	0070	RBA	0.000
1633	30225	1/27/2005	2005	R/SW	0070	T WEST	0.000
1633	30221	1/27/2005	2005	R/SW	0070	NORTH	0.000
1633	30226	1/27/2005	2005	R/SW	0070	HILL DIG	0.021
1633	30227	1/27/2005	2005	R/SW	0070	S WEST	0.000
1633	30228	1/27/2005	2005	R/SW	0070	WEST	0.000
1633	30229	1/27/2005	2005	R/SW	0070	NORTH WEST	0.000
1633	30230	1/27/2005	2005	R/SW	0070	NORTH	0.004
1633	30257	1/28/2005	2005	R/SW	0074	TR 23	0.000
1633	30258	1/28/2005	2005	R/SW	0074	TR 24	0.000
1633	30259	1/28/2005	2005	R/SW	0074	RBA	0.000
1633	30260	1/28/2005	2005	R/SW	0074	T WEST	0.000
1633	30256	1/28/2005	2005	R/SW	0074	NORTH	0.000
1633	30261	1/28/2005	2005	R/SW	0074	HILL DIG	0.020
1633	30262	1/28/2005	2005	R/SW	0074	S WEST	0.012
1633	30263	1/28/2005	2005	R/SW	0074	WEST	0.000
1633	30264	1/28/2005	2005	R/SW	0074	N WEST	0.000
1633	30265	1/28/2005	2005	R/SW	0074	NORTH	0.004
1633	30319	1/29/2005	2005	R/SW	0077	TR 24	0.000
1633	30320	1/29/2005	2005	R/SW	0077	RBA	0.000
1633	30321	1/29/2005	2005	R/SW	0077	T WEST	0.000
1633	30317	1/29/2005	2005	R/SW	0077	NORTH	0.000
1633	30318	1/29/2005	2005	R/SW	0077	TR 23	0.000
1633	30322	1/29/2005	2005	R/SW	0077	HILL DIG	0.000
1633	30323	1/29/2005	2005	R/SW	0077	S WEST	0.000
1633	30324	1/29/2005	2005	R/SW	0077	WEST	0.010
1633	30325	1/29/2005	2005	R/SW	0077	N WEST	0.012
1633	30326	1/29/2005	2005	R/SW	0077	NORTH	0.004
1633	30356	1/31/2005	2005	R/SW	0078	#1	0.014
1633	30362	1/31/2005	2005	R/SW	0078	S WEST	0.000
1633	30363	1/31/2005	2005	R/SW	0078	WEST	0.000
1633	30364	1/31/2005	2005	R/SW	0078	N WEST	0.000
1633	30365	1/31/2005	2005	R/SW	0078	NORTH	0.014
1633	30357	1/31/2005	2005	R/SW	0078	TR 23	0.000
1633	30358	1/31/2005	2005	R/SW	0078	TR 24	0.000
1633	30359	1/31/2005	2005	R/SW	0078	RBA	0.000
1633	30360	1/31/2005	2005	R/SW	0078	T WEST	0.000
1633	30361	1/31/2005	2005	R/SW	0078	HILL DIG	0.000
1633	30448	2/1/2005	2005	R/SW	0079	NORTH	0.000
1633	30453	2/1/2005	2005	R/SW	0079	HILL DIG	0.000

Rwp No	Sample Id	Start Time	RSDS Year	RSDS Room Area	RSDS No	Area	Total Dac
1633	30454	2/1/2005	2005	R/SW	0079	SOUTH WEST	0.000
1633	30455	2/1/2005	2005	R/SW	0079	WEST	0.000
1633	30456	2/1/2005	2005	R/SW	0079	NORTH WEST	0.000
1633	30457	2/1/2005	2005	R/SW	0079	NORTH	0.005
1633	30450	2/1/2005	2005	R/SW	0079	TR 24	0.000
1633	30451	2/1/2005	2005	R/SW	0079	RBA	0.000
1633	30452	2/1/2005	2005	R/SW	0079	T WEST	0.000
1633	30449	2/1/2005	2005	R/SW	0079	TR 23	0.000
1633	30551	2/2/2005	2005	R/SW	0092	#2	0.000
1633	30552	2/2/2005	2005	R/SW	0092	#3	0.014
1633	30557	2/2/2005	2005	R/SW	0092	#4	0.000
1633	30561	2/2/2005	2005	R/SW	0092	#5	0.000
1633	30549	2/2/2005	2005	R/SW	0092	#1	0.000
1633	30563	2/2/2005	2005	R/SW	0092	#6	0.000
1633	30564	2/2/2005	2005	R/SW	0092	#7	0.000
1633	30566	2/2/2005	2005	R/SW	0092	#8	0.000
1633	30567	2/2/2005	2005	R/SW	0092	#9	0.000
1633	30569	2/2/2005	2005	R/SW	0092	#10	0.004
1633	30486	2/3/2005	2005	R/SW	0106	#2	0.000
1633	30487	2/3/2005	2005	R/SW	0106	#3	0.000
1633	30498	2/3/2005	2005	R/SW	0106	#4	0.000
1633	30501	2/3/2005	2005	R/SW	0106	#5	0.007
1633	30485	2/3/2005	2005	R/SW	0106	#1	0.000
1633	30504	2/3/2005	2005	R/SW	0106	#6	0.009
1633	30505	2/3/2005	2005	R/SW	0106	#7	0.000
1633	30506	2/3/2005	2005	R/SW	0106	#8	0.000
1633	30507	2/3/2005	2005	R/SW	0106	#9	0.003
1633	30529	2/4/2005	2005	R/SW	0109	TR 23	0.000
1633	30530	2/4/2005	2005	R/SW	0109	TR 24	0.008
1633	30531	2/4/2005	2005	R/SW	0109	TR 24	0.000
1633	30532	2/4/2005	2005	R/SW	0109	T WEST	0.000
1633	30528	2/4/2005	2005	R/SW	0109	NORTH	0.000
1633	30533	2/4/2005	2005	R/SW	0109	SOUTH WEST	0.000
1633	30535	2/4/2005	2005	R/SW	0109	N WEST	0.000
1633	30536	2/4/2005	2005	R/SW	0109	NORTH	0.005
1633	30534	2/4/2005	2005	R/SW	0109	WEST	0.009
1633	30513	2/5/2005	2005	R/SW	0110	NORTH	0.000
1633	30514	2/5/2005	2005	R/SW	0110	TR 23	0.000
1633	30515	2/5/2005	2005	R/SW	0110	TR 24	0.000
1633	30516	2/5/2005	2005	R/SW	0110	RBA	0.000
1633	30517	2/5/2005	2005	R/SW	0110	T WEST	0.000
1633	30605	2/7/2005	2005	R/SW	0100	TR 23	0.000
1633	30606	2/7/2005	2005	R/SW	0100	TR 24	0.000
1633	30607	2/7/2005	2005	R/SW	0100	RBA	0.007
1633	30608	2/7/2005	2005	R/SW	0100	T WEST TOWER	0.000
1633	30604	2/7/2005	2005	R/SW	0100	NORTH	0.000
1633	30609	2/7/2005	2005	R/SW	0100	HILL DIG	0.060

Rwp No	Sample Id	Start Time	RSDS Year	RSDS Room Area	RSDS No	Area	Total Dac
1633	30610	2/7/2005	2005	R/SW	0100	S WEST	0.000
1633	30612	2/7/2005	2005	R/SW	0100	N WEST	0.000
1633	30613	2/7/2005	2005	R/SW	0100	HI VOL	0.005
1633	30611	2/7/2005	2005	R/SW	0100	WEST	0.000
1633	30669	2/8/2005	2005	R/SW	0102	S WEST	0.000
1633	30670	2/8/2005	2005	R/SW	0102	WEST	0.000
1633	30671	2/8/2005	2005	R/SW	0102	N WEST	0.000
1633	30665	2/8/2005	2005	R/SW	0102	TR 23	0.000
1633	30666	2/8/2005	2005	R/SW	0102	TR 24	0.000
1633	30667	2/8/2005	2005	R/SW	0102	T WEST	0.000
1633	30668	2/8/2005	2005	R/SW	0102	HILL DIG	0.000
1633	30664	2/8/2005	2005	R/SW	0102	NORTH	0.000
1633	30680	2/9/2005	2005	R/SW	0115	TR 23	0.000
1633	30681	2/9/2005	2005	R/SW	0115	TR 24	0.000
1633	30682	2/9/2005	2005	R/SW	0115	RBA	0.000
1633	30683	2/9/2005	2005	R/SW	0115	T WEST	0.000
1633	30679	2/9/2005	2005	R/SW	0115	NORTH	0.011
1633	30684	2/9/2005	2005	R/SW	0115	HILL DIG	0.000
1633	30685	2/9/2005	2005	R/SW	0115	S WEST	0.000
1633	30686	2/9/2005	2005	R/SW	0115	WEST	0.000
1633	30687	2/9/2005	2005	R/SW	0115	N WEST	0.010
1633	30697	2/10/2005	2005	R/SW	0125	North	0.000
1633	30702	2/10/2005	2005	R/SW	0125	Hill dig	0.000
1633	30703	2/10/2005	2005	R/SW	0125	S-West	0.000
1633	30704	2/10/2005	2005	R/SW	0125	West	0.006
1633	30707	2/10/2005	2005	R/SW	0125	N-West	0.000
1633	30698	2/10/2005	2005	R/SW	0125	Tr-23	0.000
1633	30699	2/10/2005	2005	R/SW	0125	Tr-24	0.009
1633	30700	2/10/2005	2005	R/SW	0125	RBA	0.000
1633	30701	2/10/2005	2005	R/SW	0125	T-West	0.000
1633	30797	2/11/2005	2005	R/SW	0133	TR 23	0.000
1633	30798	2/11/2005	2005	R/SW	0133	TR 24	0.000
1633	30799	2/11/2005	2005	R/SW	0133	RBA	0.036
1633	30796	2/11/2005	2005	R/SW	0133	NORTH	0.000
1633	30800	2/11/2005	2005	R/SW	0133	S. WEST	0.000
1633	30813	2/12/2005	2005	R/SW	0134	NORTH	0.000
1633	30814	2/12/2005	2005	R/SW	0134	TR 23	0.000
1633	30815	2/12/2005	2005	R/SW	0134	TR 24	0.000
1633	30816	2/12/2005	2005	R/SW	0134	RBA	0.000
1633	30817	2/12/2005	2005	R/SW	0134	S WEST	0.000
1633	30829	2/14/2005	2005	R/SW	0138	NORTH	0.000
1633	30840	2/14/2005	2005	R/SW	0138	HILL DIG	0.000
1633	30841	2/14/2005	2005	R/SW	0138	S WEST	0.000
1633	30842	2/14/2005	2005	R/SW	0138	WEST	0.000
1633	30843	2/14/2005	2005	R/SW	0138	N WEST	0.000
1633	30830	2/14/2005	2005	R/SW	0138	TR 23	0.000
1633	30837	2/14/2005	2005	R/SW	0138	TR 24	0.000

Rwp No	Sample Id	Start Time	RSDS Year	RSDS Room Area	RSDS No	RSDS Area	Total Dac
1633	30838	2/14/2005	2005	R/SW	0138	RBA	0.000
1633	30839	2/14/2005	2005	R/SW	0138	T WEST	0.000
1633	30856	2/15/2005	2005	R/SW	0141	#1	0.000
1633	30858	2/15/2005	2005	R/SW	0141	#2	0.000
1633	30859	2/15/2005	2005	R/SW	0141	#3	0.000
1633	30861	2/15/2005	2005	R/SW	0141	#4	0.000
1633	30869	2/15/2005	2005	R/SW	0141	#5	0.006
1633	30870	2/15/2005	2005	R/SW	0141	#6	0.000
1633	30871	2/15/2005	2005	R/SW	0141	#7	0.000
1633	30872	2/15/2005	2005	R/SW	0141	#8	0.000
1633	30873	2/15/2005	2005	R/SW	0141	#9	0.000
1633	30898	2/16/2005	2005	R/SW	0148	NORTH	0.000
1633	30899	2/16/2005	2005	R/SW	0148	TR 23	0.010
1633	30900	2/16/2005	2005	R/SW	0148	TR 24	0.000
1633	30901	2/16/2005	2005	R/SW	0148	RBA	0.000
1633	30902	2/16/2005	2005	R/SW	0148	T WEST	0.000
1633	30903	2/16/2005	2005	R/SW	0148	HILL DIG	0.008
1633	30904	2/16/2005	2005	R/SW	0148	S WEST	0.000
1633	30905	2/16/2005	2005	R/SW	0148	WEST	0.000
1633	30906	2/16/2005	2005	R/SW	0148	NORTH WEST	0.000
1633	30885	2/17/2005	2005	R/SW	0149	#2	0.000
1633	30886	2/17/2005	2005	R/SW	0149	#3	0.000
1633	30888	2/17/2005	2005	R/SW	0149	#4	0.014
1633	30890	2/17/2005	2005	R/SW	0149	#5	0.000
1633	30884	2/17/2005	2005	R/SW	0149	#1	0.010
1633	30891	2/17/2005	2005	R/SW	0149	#6	0.000
1633	30893	2/17/2005	2005	R/SW	0149	#7	0.000
1633	30895	2/17/2005	2005	R/SW	0149	#8	0.000
1633	30896	2/17/2005	2005	R/SW	0149	#9	0.000
1633	30941	2/18/2005	2005	R/SW	0137	NORTH	0.000
1633	30942	2/18/2005	2005	R/SW	0137	TR 23	0.122
1633	30943	2/18/2005	2005	R/SW	0137	TR 24	0.012
1633	30944	2/18/2005	2005	R/SW	0137	RBA	0.000
1633	30945	2/18/2005	2005	R/SW	0137	T WEST	0.000
1633	30946	2/18/2005	2005	R/SW	0137	HILL DIG	0.008
1633	30947	2/18/2005	2005	R/SW	0137	S WEST	0.000
1633	30948	2/18/2005	2005	R/SW	0137	WEST	0.000
1633	30949	2/18/2005	2005	R/SW	0137	N WEST	0.000
1633	30965	2/19/2005	2005	R/SW	0150	NORTH	0.000
1633	30966	2/19/2005	2005	R/SW	0150	TR 23	0.010
1633	30967	2/19/2005	2005	R/SW	0150	TR 24	0.000
1633	30968	2/19/2005	2005	R/SW	0150	RBA	0.022
1633	30969	2/19/2005	2005	R/SW	0150	T WEST	0.000
1633	30970	2/19/2005	2005	R/SW	0150	HILL DIG	0.000
1633	30971	2/19/2005	2005	R/SW	0150	S WEST	0.000
1633	30972	2/19/2005	2005	R/SW	0150	WEST	0.000
1633	30973	2/19/2005	2005	R/SW	0150	N WEST	0.000

Rwp No	Sample Id	Start Time	RSDS Year	RSDS Room Area	RSDS No	Area	Total Dac
1633	31092	2/21/2005	2005	R/SW	0155	NORTH	0.000
1633	31094	2/21/2005	2005	R/SW	0155	TR 23	0.000
1633	31095	2/21/2005	2005	R/SW	0155	TR 24	0.000
1633	31096	2/21/2005	2005	R/SW	0155	RBA	0.000
1633	31097	2/21/2005	2005	R/SW	0155	T WEST	0.000
1633	31098	2/21/2005	2005	R/SW	0155	HILL DIG	0.000
1633	31099	2/21/2005	2005	R/SW	0155	SOUTH WEST	0.000
1633	31100	2/21/2005	2005	R/SW	0155	8 WEST	0.000
1633	31101	2/21/2005	2005	R/SW	0155	9 N WEST	0.000
1633	31010	2/22/2005	2005	R/SW	0154	TR 23	0.000
1633	31011	2/22/2005	2005	R/SW	0154	TR 24	0.000
1633	31012	2/22/2005	2005	R/SW	0154	RBA	0.012
1633	31013	2/22/2005	2005	R/SW	0154	T WEST	0.000
1633	31009	2/22/2005	2005	R/SW	0154	NORTH	0.000
1633	31014	2/22/2005	2005	R/SW	0154	HILL DIG	0.000
1633	31015	2/22/2005	2005	R/SW	0154	SOUTH WEST	0.000
1633	31016	2/22/2005	2005	R/SW	0154	WEST	0.000
1633	31017	2/22/2005	2005	R/SW	0154	N WEST	0.016
1633	31110	2/23/2005	2005	R/SW	0157	TR 23	0.000
1633	31111	2/23/2005	2005	R/SW	0157	TR 24	0.000
1633	31112	2/23/2005	2005	R/SW	0157	RBA	0.000
1633	31113	2/23/2005	2005	R/SW	0157	T WEST	0.000
1633	31109	2/23/2005	2005	R/SW	0157	NORTH	0.000
1633	31114	2/23/2005	2005	R/SW	0157	HILL DIG	0.000
1633	31115	2/23/2005	2005	R/SW	0157	SOUTH WEST	0.000
1633	31116	2/23/2005	2005	R/SW	0157	WEST	0.000
1633	31117	2/23/2005	2005	R/SW	0157	N WEST	0.000
1633	31159	2/24/2005	2005	R/SW	0169	#2	0.000
1633	31161	2/24/2005	2005	R/SW	0169	#4	0.000
1633	31163	2/24/2005	2005	R/SW	0169	#6	0.000
1633	31160	2/24/2005	2005	R/SW	0169	#3	0.009
1633	31162	2/24/2005	2005	R/SW	0169	#5	0.000
1633	31165	2/24/2005	2005	R/SW	0169	#8	0.000
1633	31164	2/24/2005	2005	R/SW	0169	#7	0.000
1633	31166	2/24/2005	2005	R/SW	0169	#9	0.000
1633	31262	2/25/2005	2005	R/SW	0168	#1	0.013
1633	31263	2/25/2005	2005	R/SW	0168	N.E.	0.011
1633	31264	2/25/2005	2005	R/SW	0168	N.E.	0.000
1633	31265	2/25/2005	2005	R/SW	0168	#4	0.008
1633	31267	2/25/2005	2005	R/SW	0168	T-West	0.007
1633	31169	2/28/2005	2005	R/SW	0170	#3	0.000
1633	31171	2/28/2005	2005	R/SW	0170	#5	0.000
1633	31168	2/28/2005	2005	R/SW	0170	#2	0.000
1633	31170	2/28/2005	2005	R/SW	0170	#4	0.000
1633	31167	2/28/2005	2005	R/SW	0170	#1	0.007
1633	31173	2/28/2005	2005	R/SW	0170	#7	0.000
1633	31175	2/28/2005	2005	R/SW	0170	#9	0.000

Rwp No	Sample Id	Start Time	RSDS Year	RSDS Room Area	RSDS No	Area	Total Dac
1633	31172	2/28/2005	2005	R/SW	0170	#6	0.000
1633	31174	2/28/2005	2005	R/SW	0170	#8	0.000
1633	31215	3/1/2005	2005	R/SW	0172	NORTH	0.000
1633	31216	3/1/2005	2005	R/SW	0172	TR #23	0.009
1633	31217	3/1/2005	2005	R/SW	0172	TR #24	0.000
1633	31218	3/1/2005	2005	R/SW	0172	RBA	0.000
1633	31219	3/1/2005	2005	R/SW	0172	T-WEST	0.000
1633	31220	3/1/2005	2005	R/SW	0172	HILL DIG	0.000
1633	31221	3/1/2005	2005	R/SW	0172	SOUTHWEST	0.000
1633	31222	3/1/2005	2005	R/SW	0172	WEST	0.000
1633	31223	3/1/2005	2005	R/SW	0172	N. WEST	0.000
1633	31226	3/2/2005	2005	R/SW	0181	NORTH	0.000
1633	31227	3/2/2005	2005	R/SW	0181	TR 23	0.000
1633	31228	3/2/2005	2005	R/SW	0181	TR 24	0.000
1633	31229	3/2/2005	2005	R/SW	0181	RBA	0.000
1633	31230	3/2/2005	2005	R/SW	0181	T-WEST	0.000
1633	31231	3/2/2005	2005	R/SW	0181	HILL DIG	0.000
1633	31232	3/2/2005	2005	R/SW	0181	SOUTHWEST	0.000
1633	31233	3/2/2005	2005	R/SW	0181	WEST	0.000
1633	31234	3/2/2005	2005	R/SW	0181	N. WEST	0.000
1633	31398	3/3/2005	2005	R/SW	0182	T-West	0.000
1633	31394	3/3/2005	2005	R/SW	0182	North	0.000
1633	31395	3/3/2005	2005	R/SW	0182	Tr-23	0.000
1633	31396	3/3/2005	2005	R/SW	0182	Tr-24	0.000
1633	31397	3/3/2005	2005	R/SW	0182	RBA	0.000
1633	31399	3/3/2005	2005	R/SW	0182	Hill dig	0.000
1633	31400	3/3/2005	2005	R/SW	0182	Hill dig	0.000
1633	31401	3/3/2005	2005	R/SW	0182	South West	0.000
1633	31402	3/3/2005	2005	R/SW	0182	West	0.000
1633	31403	3/3/2005	2005	R/SW	0182	N. West	0.000
1633	31299	3/4/2005	2005	R/SW	0185	#1	0.000
1633	31300	3/4/2005	2005	R/SW	0185	#2	0.000
1633	31301	3/4/2005	2005	R/SW	0185	#3	0.000
1633	31302	3/4/2005	2005	R/SW	0185	#4	0.000
1633	31303	3/4/2005	2005	R/SW	0185	#5	0.000
1633	31344	3/5/2005	2005	R/SW	0193	NORTH	0.000
1633	31345	3/5/2005	2005	R/SW	0193	TR-23	0.000
1633	31346	3/5/2005	2005	R/SW	0193	TR-24	0.000
1633	31347	3/5/2005	2005	R/SW	0193	RBA	0.000
1633	31348	3/5/2005	2005	R/SW	0193	T WEST	0.000
1633	31353	3/6/2005	2005	R/SW	0194	NORTH	0.000
1633	31354	3/6/2005	2005	R/SW	0194	TR 23	0.019
1633	31355	3/6/2005	2005	R/SW	0194	TR 24	0.000
1633	31356	3/6/2005	2005	R/SW	0194	RBA	0.000
1633	31357	3/6/2005	2005	R/SW	0194	T WEST	0.025
1633	31358	3/6/2005	2005	R/SW	0194	HILL DIG	0.000
1633	31359	3/6/2005	2005	R/SW	0194	SOUTH WEST	0.000

Rwp No	Sample Id	Start Time	RSDS Year	RSDS Room Area	RSDS No	Area	Total Dac
1633	31360	3/6/2005	2005	R/SW	0194	WEST	0.000
1633	31361	3/6/2005	2005	R/SW	0194	N WEST	0.000
1633	31365	3/7/2005	2005	R/SW	0195	NORTH	0.023
1633	31366	3/7/2005	2005	R/SW	0195	TR 23	0.051
1633	31367	3/7/2005	2005	R/SW	0195	TR 24	0.008
1633	31368	3/7/2005	2005	R/SW	0195	RBA	0.011
1633	31369	3/7/2005	2005	R/SW	0195	T WEST	0.000
1633	**31370**	**3/7/2005**	**2005**	**R/SW**	**0195**	**HILL DIG**	**1.052**
1633	31371	3/7/2005	2005	R/SW	0195	S WEST	0.000
1633	31372	3/7/2005	2005	R/SW	0195	WEST	0.008
1633	31373	3/7/2005	2005	R/SW	0195	N WEST	0.000
1633	31379	3/8/2005	2005	R/SW	0196	NORTH	0.000
1633	31380	3/8/2005	2005	R/SW	0196	TR 23	0.000
1633	31381	3/8/2005	2005	R/SW	0196	TR 24	0.000
1633	31382	3/8/2005	2005	R/SW	0196	RBA	0.000
1633	31383	3/8/2005	2005	R/SW	0196	T WEST	0.000
1633	31384	3/8/2005	2005	R/SW	0196	HILL DIG	0.000
1633	31385	3/8/2005	2005	R/SW	0196	SOUTH WEST	0.000
1633	31386	3/8/2005	2005	R/SW	0196	WEST	0.000
1633	31388	3/8/2005	2005	R/SW	0196	N WEST	0.000
1633	31409	3/9/2005	2005	R/SW	0198	Tr-23	0.000
1633	31410	3/9/2005	2005	R/SW	0198	Tr-24	0.021
1633	31411	3/9/2005	2005	R/SW	0198	RBA	0.015
1633	31412	3/9/2005	2005	R/SW	0198	T-West	0.016
1633	31408	3/9/2005	2005	R/SW	0198	North	0.000
1633	31413	3/9/2005	2005	R/SW	0198	Hill dig	0.140
1633	31414	3/9/2005	2005	R/SW	0198	South West	0.008
1633	31415	3/9/2005	2005	R/SW	0198	West	0.000
1633	31416	3/9/2005	2005	R/SW	0198	N. West	0.000
1633	31457	3/10/2005	2005	R/SW	0201	TR 23	0.000
1633	31458	3/10/2005	2005	R/SW	0201	TR 24	0.000
1633	31459	3/10/2005	2005	R/SW	0201	RBA	0.000
1633	31460	3/10/2005	2005	R/SW	0201	T WEST	0.000
1633	31441	3/10/2005	2005	R/SW	0201	NORTH	0.007
1633	31461	3/10/2005	2005	R/SW	0201	HILL DIG	0.024
1633	31462	3/10/2005	2005	R/SW	0201	SOUTH WEST	0.008
1633	31463	3/10/2005	2005	R/SW	0201	WEST	0.000
1633	31464	3/10/2005	2005	R/SW	0201	N WEST	0.000
1633	31443	3/11/2005	2005	R/SW	0204	TR-23	0.000
1633	31445	3/11/2005	2005	R/SW	0204	RBA	0.023
1633	31446	3/11/2005	2005	R/SW	0204	T-West	0.000
1633	31444	3/11/2005	2005	R/SW	0204	TR-24	0.000
1633	31442	3/11/2005	2005	R/SW	0204	NORTH	0.000
1633	31447	3/11/2005	2005	R/SW	0204	Hill dig	0.000
1633	31448	3/11/2005	2005	R/SW	0204	South West	0.000
1633	31449	3/11/2005	2005	R/SW	0204	West	0.000
1633	31450	3/11/2005	2005	R/SW	0204	N. West	0.000

Rwp No	Sample Id	Start Time	RSDS Year	RSDS Room Area	RSDS No	Area	Total Dac
1633	31470	3/12/2005	2005	R/SW	0207	NORTH	0.006
1633	31471	3/12/2005	2005	R/SW	0207	TR 23	0.000
1633	31472	3/12/2005	2005	R/SW	0207	TR 24	0.000
1633	31473	3/12/2005	2005	R/SW	0207	RBA	0.000
1633	31474	3/12/2005	2005	R/SW	0207	T WEST	0.000
1633	31761	3/14/2005	2005	R/SW	0208	TR 23	0.000
1633	31762	3/14/2005	2005	R/SW	0208	TR 24	0.000
1633	31763	3/14/2005	2005	R/SW	0208	RBA	0.000
1633	31764	3/14/2005	2005	R/SW	0208	T WEST	0.006
1633	31765	3/14/2005	2005	R/SW	0208	HILL DIG	0.000
1633	31766	3/14/2005	2005	R/SW	0208	SOUTH WEST	0.000
1633	31767	3/14/2005	2005	R/SW	0208	WEST	0.000
1633	31768	3/14/2005	2005	R/SW	0208	N WEST	0.000
1633	31760	3/14/2005	2005	R/SW	0208	NORTH	0.000
1633	31776	3/15/2005	2005	R/SW	0212	#2	0.047
1633	31777	3/15/2005	2005	R/SW	0212	#3	0.013
1633	31778	3/15/2005	2005	R/SW	0212	#4	0.009
1633	31782	3/15/2005	2005	R/SW	0212	#5	0.000
1633	31775	3/15/2005	2005	R/SW	0212	#1	0.000
1633	31784	3/15/2005	2005	R/SW	0212	#6	0.000
1633	31785	3/15/2005	2005	R/SW	0212	#7	0.000
1633	31787	3/15/2005	2005	R/SW	0212	#8	0.000
1633	31789	3/15/2005	2005	R/SW	0212	#9	0.000
1633	31646	3/16/2005	2005	R/SW	0215	#1	0.000
1633	31651	3/16/2005	2005	R/SW	0215	#6	0.000
1633	31652	3/16/2005	2005	R/SW	0215	#7	0.000
1633	31653	3/16/2005	2005	R/SW	0215	#8	0.000
1633	31654	3/16/2005	2005	R/SW	0215	#9	0.000
1633	31647	3/16/2005	2005	R/SW	0215	#2	0.000
1633	31648	3/16/2005	2005	R/SW	0215	#3	0.000
1633	31649	3/16/2005	2005	R/SW	0215	#4	0.000
1633	31650	3/16/2005	2005	R/SW	0215	#5	0.006
1633	31588	3/17/2005	2005	R/SW	0228	TR-23	0.000
1633	31589	3/17/2005	2005	R/SW	0228	TR-24	0.000
1633	31590	3/17/2005	2005	R/SW	0228	RBA	0.000
1633	31591	3/17/2005	2005	R/SW	0228	T WEST	0.000
1633	31587	3/17/2005	2005	R/SW	0228	NORTH	0.000
1633	31592	3/17/2005	2005	R/SW	0228	HILL DIG	0.015
1633	31593	3/17/2005	2005	R/SW	0228	SOUTH WEST	0.000
1633	31594	3/17/2005	2005	R/SW	0228	WEST	0.000
1633	31595	3/17/2005	2005	R/SW	0228	NW	0.000
1633	31577	3/18/2005	2005	R/SW	0230	N WEST	0.000
1633	31569	3/18/2005	2005	R/SW	0230	NORTH	0.000
1633	31571	3/18/2005	2005	R/SW	0230	TR 24	0.000
1633	31572	3/18/2005	2005	R/SW	0230	RBA	0.000
1633	31573	3/18/2005	2005	R/SW	0230	T WEST	0.000
1633	31574	3/18/2005	2005	R/SW	0230	HILL DIG	0.000

Rwp No	Sample Id	Start Time	RSDS Year	RSDS Room Area	RSDS No	Area	Total Dac
1633	31575	3/18/2005	2005	R/SW	0230	SOUTH WEST	0.010
1633	31576	3/18/2005	2005	R/SW	0230	WEST	0.000
1633	31570	3/18/2005	2005	R/SW	0230	TR 23	0.000

Max	1.052
Average	0.007
Standard Deviation	0.053
Confidence Interval	0.005
n	422