Asbestos & Lead-Paint Survey Report

USIBWC Amistad Dam Facility
670 Texas Spur 349

Request for Proposal (RFP) #13-16
IDIQ Fixed Price Proposal Contract IBM09D0010

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1.0 Introduction

TRC Environmental Corporation (TRC) was contracted by the United States International Boundary and Water Commission (IBWC) to conduct an asbestos and a lead based paint survey at the Amistad Dam Facility located at 670 Texas Spur 349, Del Rio, Texas. The survey was performed on November 18, 19, and 22, 2013, Mr. Joe Bohnaker an EPA Accredited AHERA Asbestos Building inspector and EPA trained Lead Paint Inspector, and employed by TRC. The survey included the inspection and assessment of accessible interior and exterior construction materials associated with the building structures on site not previously surveyed by TRC.

The asbestos and lead-based paint survey findings will be used to effectively manage asbestos-containing materials (ACM) and Lead-Based Paint (LBP) in the scope areas of the Amistad Dam Facility structures (the "Site"). The accumulated assessment information may be used in operations and maintenance plans for the facility designed to prevent accidental disturbance to ACM and LBP.

The previous asbestos and lead-based paint inspection report completed by TRC is included in Appendix E. A summary of the sampling results from the previous inspections are provided in the results section of this report along with the findings produced during this inspection.

2.0 Building Descriptions

The following provides a summary of the Amistad Dam Facility areas defined as the scope of work areas under Contract # IBM09D0010. All of the structures are located on federal land, were considered non-public buildings, are secured by fencing/locked gates, and have industrial processes. A description of the building structures are as follows:

Building Name	Construction Type
Administration Building	Masonry block on concrete slab, comprises 3,996 SF built 1962
Resident 44	Wood-frame construction built slab on grade with asphalt shingle roof, built 1982, 1,400 SF
Resident 68	Wood-frame construction built slab on grade with asphalt shingle roof, built 1982, 1,400 SF
Resident 98	Wood-frame construction built slab on grade with asphalt shingle roof, built 1963, 1,300 SF
Resident 116	Wood-frame construction built slab on grade with asphalt shingle roof, built 1963, 1,300 SF
Resident 132	Wood-frame construction built slab on grade with asphalt shingle roof, built 1963, 1,300 SF
Resident 154	Wood-frame construction built slab on grade with asphalt shingle roof, built 1963, 1,300 SF
Radio Room (Comstock)	Concrete building on concrete pad with wood framed roof and sheet metal roofing, comprises 128 SF of space.
O & M/Mechanic Shop	Built slab on grade, metal frame, siding and roof, comprising 4,382 SF of space.
Weather Station	Metal construction, comprising 128 SF, built 1963

Building Name	Construction Type
Vehicle Shelter	Metal/steel frame construction with metal roof, comprises 2,440 SF, built 1962
Hydro-Lab Building	Built slab on grade, metal frame, siding and roof, comprising 3,120 SF of space.
Security Building/Formerly Lab	Single-story, wood frame construction with sloped asphalt shingle roof, comprises 800 SF
Equip Storage Shed 1	Metal/Steel construction comprising 2,454 SF, built 1962
Large Equip Shed 2	Metal/Steel construction comprising 13,800 SF, built 2005
Pump House	CMU block built slab on grade and metal roof, comprises 84 SF of area, built 1982
Power Plant Warehouse	Steel frame, slab on grade with metal siding and roofing, comprises 10,200 SF of area.
Power Plant	4-level structure, masonry & concrete construction with steel structural members, comprises 27,786 SF of area, built 1983
Elevator Room	Same as Power Plant
DAM	Concrete construction, built 1969
Control Room	Masonry block construction, comprising 858 SF built in 1969
Hydro Gauging Stations 32 sites	Metal construction, each approximately 40 square feet on a 512 SF pad

3.0 Background

3.1 Asbestos Sampling and Analytical Procedures

Representative bulk samples of suspect asbestos-containing building materials were randomly collected from the identified homogenous building material applications. Homogenous material determination was based on the following criteria:

- Similar physical characteristics (same appearance, age, color and texture, etc.),
- Application (e.g. sprayed or trowel-on, assembly into a system, etc.),
- Material function (e.g. thermal insulation, floor tile, wallboard system, etc.).

Laboratory services were provided by TRC's laboratory located in Windsor, Connecticut. TRC's analytical laboratory is a National Voluntary Laboratory Accreditation Program (NVLAP) certified laboratory (NVLAP code # 101424-0) and is in compliance with the National Environmental Laboratory Accreditation Conference (NELAC) requirements.

Bulk samples were analyzed by polarized light microscopy (PLM) utilizing the EPA's Test Methods: Methods for the Determination of Asbestos in Bulk Building Materials (EPA

600/R-93/116, July 1993) and the McCrone Research Institute's The Asbestos Particle Atlas as method references.

Analysis by PLM was performed by visual observation of the bulk sample and by microscopic analysis using dispersion staining PLM methodology. The samples were analyzed for asbestiform minerals (Chrysotile, Amosite, Crocidolite, Anthophyllite, Actinolite, and Tremolite), fibrous non-asbestos constituents (mineral wool, cellulose, etc.) and non-fibrous constituents. Using a stereoscope, the microscopist visually estimates the relative amounts of each constituent by determining the estimated area of the asbestos compared with the area estimate of the total sample.

4.0 Asbestos Findings

Suspect Asbestos-Containing Materials (ACM), including interior and exterior building materials/finishes were inspected, sampled and analyzed for asbestos. Typical suspect building materials include finishes (e.g. drywall systems, suspended ceiling panels, glued ceiling tiles, floor tiles, vinyl sheet flooring, floor finish adhesives, cove base, cove base adhesive, textured coatings, roofing materials, caulks, sealants, and plasters). Non-suspect asbestos materials are items purely composed of glass, metal, concrete, rubber, brick, ceramic, grouts, fiberglass, foam, Styrofoam, and paper.

According to federal regulations, regulated ACM are ACMs containing greater than 1% asbestos.

4.1 Asbestos Containing Materials – Positive (>1%) – November, 2013

Asbestos was detected in concentrations exceeding one percent in the following materials sampled during the asbestos survey.

Hydro Lab Building					
Material	**Location**	**Percentage/Type**	**Approx. Quantity***	**NESHAP Category**	**Condition**
9" x 9" Brown Vinyl Floor Tile and Black Mastic	Office 1, 2, 3, and 4, Restroom, Closet and Hallway	3% Chrysotile (Tile) 10% Chrysotile (Mastic)	1,400 SF	Cat I	Good
Window Glazing	Windows	3% Chrysotile	200 SF	Cat I	Significantly Damaged

O&M Shop					
Material	**Location**	**Percentage/Type**	**Approx. Quantity***	**NESHAP Category**	**Condition**
Window Glazing	All Windows	3% Chrysotile	800 LF	Cat I	Damaged
Exterior Window Caulking	Windows	3% Chrysotile	300 LF	Cat I	Good

*Estimated quantities of ACMs listed are provided as a guide to the building owner. The material quantities listed in the table are approximations and TRC is not responsible for the accuracy of the quantities and measurements provided.

4.2 Previously Identified Asbestos Containing Materials – Positive (>1%)

Asbestos was detected in concentrations exceeding one percent in the following materials sampled during previous asbestos surveys:

TRC Inspection Report – May 13, 2012

Power Plant					
Material	**Location**	**Percentage/Type**	**Approx. Quantity***	**NESHAP Category**	**Condition**
Vinyl Sheet Flooring (Blue, Green and White Square Pattern)	Power Plant- 4th Floor Office Areas and 3rd Floor Employee Lunch room, Locker room and Toilets	90% Chrysotile	1,400 SF	RACM	Poor
Roof Parapet Wall Metal Flashing Caulking White	Power Plant – Upper and Lower Roofs	5% Chrysotile	850 SF	CAT II	Poor
Flange Gasket	Power Plant 1st Floor Chemical Storage Tank Side Flange	90% Chrysotile	40 Linear Feet	CAT I	Good
Gasket Materials	Power Plant 3rd Floor Mezzanine Parts Storage Area	80% Chrysotile	200 SF	CAT I	Good
Various Flange and Valve Gasket	On Piping and Equipment on Floors 1-4 Power Plant	Presumed to Contain Asbestos	1,000 LF	CAT I	Good
Sink Countertop	Power Plant 4th, Floor Battery Room	Presumed to Contain Asbestos	25 SF	CAT II	Good
Gray Metal Slider Door core	1st Floor Chemical Storage Area	Presumed to Contain Asbestos	200 SF	CAT II	Good

Viva Environmental, Inc. Survey Report – September 2004

Project Admin Office					
Material	**Location**	**Percentage/Type**	**Approx. Quantity***	**NESHAP Category**	**Condition**
Black Mastic under 12”x12” Tan Floor Tile w/ Streaks	Back Office Room	5% Chrysotile	2,100 SF	CAT I	Good
Exterior Window Frame Caulking	Exterior Windows	5% Chrysotile	280 LF	CAT II	Damaged
Exterior Window Glazing	Exterior Windows	3% Chrysotile	480 LF	CAT II	Damaged

Residential No. 3 (Building B#98)					
Material	**Location**	**Percentage/Type**	**Approx. Quantity ***	**NESHAP Category**	**Condition**
Caulking	Exterior Door Frames	5% Chrysotile	40 LF	RACM	Damaged
Caulking	Exterior Walls	5% Chrysotile	50 LF	RACM	Damaged
12”x12” White Floor Tile & Black Mastic	Kitchen & Utility Room	Tile – N.D. M – 5% Chrysotile	120 LF	CAT I	Good
Joint Compound and Texture Finish on Sheetrock	Interior Walls and Ceilings Throughout	JC : 2% Chrysotile Texture : 2% Chrys.	5,000 SF	RACM	Good
Brown Linoleum	Under Carpet, Throughout	Backing 65% CH Mastic 5% CH	2,500 SF	RACM	Good

Residential No. 4 (Building B#116)					
Material	**Location**	**Percentage/Type**	**Approx. Quantity ***	**NESHAP Category**	**Condition**
Caulking	Exterior Door Frames	2% Chrysotile	40 LF	RACM	Damaged
12”x12” White Floor Tile & Black Mastic	Kitchen & Utility Room	Tile – N.D. M – 2% Chrysotile	120 LF	CAT I	Good

Residential No. 4 (Building B#116)					
Material	**Location**	**Percentage/Type**	**Approx. Quantity ***	**NESHAP Category**	**Condition**
Joint Compound and Texture Finish on Sheetrock	Interior Walls and Ceilings Throughout	JC : 2% Chrysotile Texture : 2% Chrys.	5,000 SF	RACM	Good
Brown Linoleum	Under Carpet, Throughout	Backing 45% CH Mastic 5% CH	2,500 SF	RACM	Good

Residential No. 5 (Building B#132)					
Material	**Location**	**Percentage/Type**	**Approx. Quantity ***	**NESHAP Category**	**Condition**
Caulking	Exterior Door Frames	5% Chrysotile	40 LF	RACM	Damaged
Caulking	Exterior Walls	5% Chrysotile	50 LF	RACM	Damaged
12”x12” White Floor Tile & Black Mastic	Kitchen & Utility Room	Tile – N.D. M – 2% Chrysotile	180 LF	CAT I	Good
Joint Compound and Texture Finish on Sheetrock	Interior Walls and Ceilings Throughout	JC : 2% Chrysotile Texture : 2% Chrys.	5,000 SF	RACM	Good
Brown Linoleum	Under Carpet, Throughout	Backing 45% CH Mastic 5% CH	2,500 SF	RACM	Good

Residential No. 6 (Building B#154)					
Material	**Location**	**Percentage/Type**	**Approx. Quantity ***	**NESHAP Category**	**Condition**
Sheetrock Texture under 1’x1’ Ceiling Tiles – Closets	Closets	2% Chrysotile	164 SF	RACM	Good
Caulking	Exterior Walls	2% Chrysotile	50 LF	RACM	Damaged
12”x12” White Floor Tile & Black Mastic	Kitchen & Utility Room	Tile – N.D. M – 2% Chrysotile	120 LF	CAT I	Good
Joint Compound and Texture Finish on Sheetrock	Interior Walls and Ceilings Throughout	JC : 2% Chrysotile Texture : 2% Chrys.	5,000 SF	RACM	Good

Residential No. 6 (Building B#154)					
Material	**Location**	**Percentage/Type**	**Approx. Quantity ***	**NESHAP Category**	**Condition**
Brown Linoleum	Under Carpet, Throughout	Backing 45% CH Mastic 5% CH	2,500 SF	RACM	Good

Lab Building (Building C)					
Material	**Location**	**Percentage/Type**	**Approx. Quantity ***	**NESHAP Category**	**Condition**
Joint Compound on Sheetrock	Interior Walls and Ceilings Throughout	2% Chrysotile	3,500 SF	RACM	Minor Damage

Visitor Center Building (Building D)					
Material	**Location**	**Percentage/Type**	**Approx. Quantity ***	**NESHAP Category**	**Condition**
Brown Linoleum	Throughout the Building	45% Chrysotile	900 SF	RACM	Good
Caulking	Interior Doors	5% Chrysotile	30 LF	RACM	Good
Caulking	Exterior Windows	5% Chrysotile	300 LF	RACM	Fair

Visitor Center Restroom Building (Building E)					
Material	**Location**	**Percentage/Type**	**Approx. Quantity ***	**NESHAP Category**	**Condition**
Joint Compound and Texture Finish on Sheetrock	Interior Walls and Ceilings Throughout	JC : 2% Chrysotile Texture : 2% Chrys.	700 SF	RACM	Good
Caulking	Interior Doors	5% Chrysotile	30 LF	RACM	Good
Caulking	Exterior Windows	5% Chrysotile	300 LF	RACM	Good
Window Glazing	Exterior Windows	5% Chrysotile	120 LF	RACM	Good

Control Room Building (Building F)					
Material	**Location**	**Percentage/Type**	**Approx. Quantity ***	**NESHAP Category**	**Condition**
HVAC Duct Mastic (Black)	HVAC Ducts Throughout	10% Chrysotile	100 LF	CAT II	Good
Cloth Vibration Damper	HVAC Unit	65% Chrysotile	40 SF	CAT II	Good

Dam Building (Building G)					
Material	**Location**	**Percentage/Type**	**Approx. Quantity ***	**NESHAP Category**	**Condition**
Caulking	Level 7 Generator Fan	10% Chrysotile	40 SF	CAT II	Good
Vibration Damper Cloth	Level 1 Blower	80% Chrysotile	40 SF	CAT II	Good
Cloth Vibration Damper	Blower Units on Levels 2 and 5	65% Chrysotile	240 SF	CAT II	Good
White Vibration Damper	Level 7 Generator	65% Chrysotile	8 SF	CAT II	Good

4.3 Assumed Asbestos-Containing Materials – November, 2013

Due to potential of roof leaks, the local FO requested roofs not be pierced by sampling for asbestos. As such, all asphalt-based roofing, tar-like roof mastic, and weather caulking associated with building structures at this project site are assumed to be ACM. The Dam Building was observed to have a rubberized roof field with stones atop the membrane. It is not known to TRC whether the older roofing was removed when the current roofing system was installed. Care should be exercised if penetrating the roof system to watch for older asphalt based roofing systems under the top roof system.

All metal roofs would be considered non-suspect for asbestos. The large warehouse building is a metal structure with sheet metal roofing, and as such, the roof for this building is not suspect ACM.

The estimated order of magnitude of assumed ACM roofing materials are as follows:

All Buildings					
Material	**Location**	**Percentage/Type**	**Approx. Quantity ***	**NESHAP Category**	**Condition**
Asphalt Based Roofing	Various Buildings Throughout the Project FO	Assumed ACM	38,500 SF	CAT I	Fair to Good
Roofing Mastic	Various Buildings Throughout the Project FO	Assumed ACM	650 SF	CAT II	Good
Roof Caulking	Various Buildings Throughout the Project FO	Assumed ACM	1,200 LF	CAT I	Fair to Good

4.4 *Negative Materials – No Asbestos Detected – November, 2013*

Samples of the following suspect materials were collected in the locations noted below and were reported with no detectable asbestos, as indicated by laboratory PLM analysis:

Hydro Lab Building	
Material	**Location(s)**
12” x 12” White Vinyl Floor Tile and Yellow Mastic	Lab Room
Sheetrock, Joint Compound and Texture	Throughout Walls
Brown Cove Base	Throughout
1’ x 1’ Ceiling Tile	Throughout
Foil Backed Insulation	Walls, Ceilings and Perimeters

Security Building	
Material	**Location(s)**
Sheetrock, Joint Compound and Texture	Throughout
Roofing Shingles	Roof
Exterior Siding	Exterior Walls

O&M Shop	
Material	**Location(s)**
12” x 12” Blue Vinyl Floor Tile and Black Mastic	Office
12” x 12” Brown Vinyl Floor Tile and Yellow Mastic	Restroom and Conference Room
Brown Cove Base and Yellow Mastic	Office
2’ x 4’ Ceiling Panels, Pinhole and Fissured	Office
Sheetrock	Conference Room Walls
Textured Sheetrock	Office Walls and Ceilings

Rio Grande Gaging Station	
Material	**Location(s)**
2’ x 4’ Ceiling Panels	Walls and Ceilings
Ceiling Panel Mastic	Walls and Ceilings

4.5 *Previously Identified Negative Materials – No Asbestos Detected*

The following suspect materials were sampled in the locations noted below during previous asbestos inspections and were reported with no detectable asbestos:

TRC Inspection Report – May 31, 2012

Power Plant Negative Materials	
Material	**Sample Locations**
2' x 2' Drop Ceiling Panels	Maintenance/Tool Storage, Supervisor & Records Office, Hallways and Electrical Room
Duct Sealant Caulk (White)	Maintenance/Tool Storage, Supervisor & records Office, Hallways, Electrical Room and HVAC room
4" Cove Base (Black) & Associated Mastic (Brown)	Maintenance/Tool Storage, Supervisor & Records Office, Hallways, Electrical Room and 3rd Floor Employee Lunch room,
Wall board & Joint Compound	Maintenance/Tool Storage, Supervisor & records Office, Hallways, Electrical Room and 3rd Floor Employee Lunch room, Locker room and Toilets
Vinyl Sheet Floor Mastic (Brown)	4th Floor Office Areas and 3rd Floor Employee Lunch room, Locker room and Toilets
Ceramic Tile (Green) and Grout (Gray)	4th, and 3rd Floor Restrooms
Textured Paint	Walls of the Erection Floor
Wall Texture Coat	Walls of the Erection Floor
Concrete Panel and Block Wall Caulk	Interior and exterior walls and roof
Pipe Insulation Glue/ Mastic	Pipe Insulation on exterior north side and interior floors 1-4
Duct Insulation Paper And Glue	4th Floor HVAC room
Roof Mastic Sealant (Black & with Silver Paint)	Upper and lower roofs, Parapet walls
Poured in place Concrete walls	Roof parapets and exterior walls
Mastic at Roof Penetrations	Lower roof penetrations
Fiberglass Pipe Insulation end cap caulk	4th floor, HVAC room, 3rd Floor Maintenance Shop & 2nd Floor Turbine room
Electric Wire Insulation-various colors	3rd Floor Mezzanine storage area
9" OD Gaskets	2nd Floor Turbine room

Warehouse Building Negative Materials	
Material	**Sample Locations**
Interior Panel Insulation	Metal roof and walls
12" Floor Tile (Tan with white and gray specks) and Mastic (Yellow)	Conference room floor
4" Cove Base (Black) & Associated Mastic (Dark Brown)	Conference room walls
Wall board & Joint Compound	Conference room and offices
Floor leveling /filler compound (Brown)	Storage room under floor tile
2' x 2' Drop Ceiling Panels	Conference room and offices
Roof Sealant on metal seams	Warehouse roof

Viva Environmental, Inc. Survey Report – September 2004

Project Admin Office Building (A) Negative Materials	
Material	**Sample Locations**
Brown and White 9”x9” Floor Tile*	Office Areas
Brown Cove Base Mastic	Throughout
Interior Door Caulking	Door Frames to Outdoors
2’x4’ Ceiling Panels	Offices
1’x1’ Ceiling Tile	Offices
Plaster	Walls
Sheetrock Float	Various walls
Wall Caulking	Outdoor/Exterior Wall Joints

*Black Mastic on Flooring is positive for asbestos

Residential No. 3 (Building B #98) Negative Materials	
Material	**Sample Locations**
Brown Insulation	Above Ceiling/Attic
Caulking	Interior Windows
Plaster	Bathroom Walls
Caulking	Interior Doors
Sink Coating	Bottom of Kitchen Sink
Caulking	Exterior Wood Side Panels

Residential No. 4 (Building B #116) Negative Materials	
Material	**Sample Locations**
White Blown-In Insulation	Above Ceiling/Attic
Caulking	Interior Windows
Plaster Walls	Bathroom Walls
Caulking	Interior Doors
Sink Coating	Bottom of Kitchen Sink
Caulking	Exterior Walls
Caulking	Exterior Wood Side Panels

Residential No. 4 (Building B #132) Negative Materials	
Material	**Sample Locations**
White Blown-In Insulation	Above Ceiling/Attic
Caulking	Interior Windows
Plaster Walls	Bathroom Walls
Caulking	Interior Door Trim
Sink Coating	Bottom of Kitchen Sink
Caulking	Exterior Wood Side Panels

Residential No. 4 (Building B #154) Negative Materials	
Material	**Sample Locations**
White Blown-In Insulation	Above Ceiling/Attic
Window Caulking	Interior Windows
Plaster	Bathrooms
Caulking	Interior Doors
Caulking	Exterior Doors
Caulking	Exterior Wood Side Panels

Lab Building (C) Negative Materials	
Material	**Sample Locations**
Window Glazing	Exterior Windows
Caulking	Exterior Door

Visitor Center Building (D) Negative Materials	
Material	**Sample Locations**
2'x4' Ceiling Tile	Throughout Building
Caulking	Interior Windows
HVAC Duct Mastic	Ducting Seams
Brown Cove Base with Cream Mastic	Throughout Building

Visitor Center Restrooms (E) Negative Materials	
Material	**Sample Locations**
Plaster Soffit	Upper wall
Caulking	Interior Walls

Control Room Building (F) Negative Materials	
Material	**Sample Locations**
Caulking	Bathroom Walls
Caulking	Doors
Plaster	Upper Level Ceiling and Walls

Control Room Building (F) Negative Materials	
Material	**Sample Locations**
Caulking	Level 8, Bathroom Walls
Caulking	Level 8, Doors
Caulking	Level 9, Interior Windows
Caulking	Level 9, Exterior

4.6 Asbestos Recommendations

Results of bulk sample analysis confirmed that asbestos was identified in regulated concentrations within some of the building materials sampled. The ACM was found to be in significantly damaged to good condition at the time of the inspection. If significantly damaged or damaged ACM is encountered, it should be repaired, encapsulated, or removed as soon as feasible. Access to the significant damaged and damaged ACM by building occupants should be restricted in the areas of damage until abatement response actions can be completed. Such abatement methods should be performed by a qualified/licensed asbestos abatement contractor, and ACM should be handled, stored, and disposed of according to all local, state, and federal regulations.

Persons performing construction or maintenance work in the Site should be aware of the types and locations of ACM and that additional materials (not identified in this report), which are either inaccessible or hidden, may exist at the Site. Care should be used when performing work that disturbs building materials. Any suspect asbestos containing materials uncovered during maintenance, renovation, or demolition activities that are not addressed in this inspection report, or presumed asbestos containing materials (e.g. fire doors with asbestos laden cores), must be sampled by an accredited asbestos inspector prior to disturbance, or they must otherwise be assumed and treated as asbestos containing.

5.0 Lead-Based Paint Inspection

TRC conducted a lead-based paint (LBP) inspection for the determination of LBP and/or lead-based components at site building structures. The survey was supplemental in nature, in that, only coated components on structures constructed post 1978 were tested, if they weren't already previously tested during previous lead-paint survey inspections at the site. The LBP inspection was conducted in accordance with the United States Housing and Urban Development (HUD) guidance document, entitled "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing," 1997 Revision.

The LBP inspection and testing performed by TRC was limited to building/structures built prior to 1979. For such structures, the general purpose of this investigation was to document the general condition of interior and exterior painted building surfaces, to characterize the composition of painted surfaces with regard to lead content, and to quantify areas/components to define the magnitude to which LBP is present, where encountered. Information derived from this investigation may be used to further refine the scope of LBP abatement activities in support of future procurement activities with regard to LBP. The scope of work associated with this investigation included the following elements:

- Identify and focus efforts on buildings built prior to 1979;
- Visual inspection of interior and exterior building painted surfaces and components;
- Identify whether coated surfaces were previously sampled during previous survey inspections;
- Field testing of painted surfaces and components (if not previously using an X-Ray Fluorescence (XRF) analyzer; and
- Assess condition and quantities of LBP for reporting purposes

The lead based paint testing was conducted by Joe Bohnaker, an EPA, Department of Housing and Urban Development (HUD) trained Lead-Based Paint Building Inspector. The inspection was conducted on November 19 and 22, 2013.

5.1 *Definition of Lead-Based Paint*

The United States Department of Housing and Urban Development (HUD), and United States Environmental Protection Agency define lead-based paint as a paint or other surface coatings that contain an amount of lead equal to, or in excess of:

- One milligram per square centimeter (1.0 mg/cm^2); or
- One-half of one percent (0.5%) by weight.

5.2 *Sampling and Analytical Procedures*

All lead-based paint testing was performed using a RMD Model LPA-1B, X-ray Fluorescence (XRF) spectrum analyzer, serial #1124. Assessment activities and XRF testing were performed in accordance with the United States HUD guidance document, entitled "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing," 1997 Revision.

The RMD Model LPA-1 XRF uses a 12 millicurie Cobalt 57 sealed radioactive source which has a half life of 18 months. The XRF measures the L & K electron shell energy released by the excited atoms of the test material such as the painted and/or coated surface location to calculate the concentrations of a specific metal on the surface coating down to the substrate. The RMD Model LPA-1 XRF does not have an inconclusive range such as the older generation XRF machines.

At the beginning and end of each work day and at various times during the day, the XRF was calibrated in order to ensure that the instrument was functioning properly. A series of three calibrated readings were obtained using a 1.04 mg/cm^2 NIST Paint Film Standard in accordance with the instrument manufacturer's protocol. In all cases, the instrument was functioning within the standard deviation as defined by the manufacturer and the Performance Characteristic Sheets. All validation readings were recorded in a logbook, which accompanies the instrument. A total of twelve (12) calibration tests were performed during the course of this investigation.

During this investigation, a total of ninety-two (92) painted or coated substrate measurements were obtained using the XRF. The XRF field test data sheets with the results of the paint test measurements are presented in Appendix B – Lead-Based Paint XRF Field Data Sheets.

6.0 Summary of Lead-Based Paint Testing Results

6.1 *LBP – Positive (≥1.0 mg/cm^2) – November, 2013*

The XRF test results indicate that select painted surfaces and building components were found to be containing lead above the United States Department of Housing and Urban Development, and United States Environmental Protection Agency definition of lead-based paint. A summary of paints/coatings determined to be LBP by XRF analysis is provided below. Note: Only paints identified as LBP (≥1.0 mg/cm^2) by XRF are listed below. Paints that were not identified as LBP by XRF are not included in the table below.

Hydro Lab Building Yard					
Component(s)	**Color**	**Location(s)**	**Lead XRF Result (mg/cm^2)**	**Approx. Quantity**	**Paint Condition**
Connex Box Ext Paint	Green	All walls	4.0	720 SF	Peeling

O&M Building					
Component(s)	**Color**	**Location(s)**	**Lead XRF Result (mg/cm²)**	**Approx. Quantity**	**Paint Condition**
Exterior Bollards	Yellow	Exterior vehicle areas	1.0	30 SF	Intact

Project Office/Admin Building					
Component(s)	**Color**	**Location(s)**	**Lead XRF Result (mg/cm²)**	**Approx. Quantity**	**Paint Condition**
Ext Porch Beams	Dark Brown	Front entry area	1.4	60 SF	Intact
Ext Overhang Rafters & Eaves	Light Brown	All sides of bldg exterior	1.2 – 2.0	900 SF	Intact

Residence 116					
Component(s)	**Color**	**Location(s)**	**Lead XRF Result (mg/cm²)**	**Approx. Quantity**	**Paint Condition**
4”x4” Ceramic Tiles	Green	Restroom walls	>9.9	60 SF	Intact
4”x4” Ceramic Tiles	Green	Master bedroom, Restroom walls	>9.9	60 SF	Intact
Ceramic Tiles	White	Kitchen wall C	1.0	45 SF	Intact
Bathtub	White	Main bath	>9.9	1 EA	Intact

All Gauging Stations/Cableways					
Component(s)	**Color**	**Location(s)**	**Lead XRF Result (mg/cm²)**	**Approx. Quantity**	**Paint Condition**
Steel Frame	Silver	Gauge hut steel supports	1.8	6,400 SF @ 32 Sites	Intact
Staff Gauges	Silver	Cableway measure sticks	1.8	64 SF at 32 sites	Intact

6.2 *Previously Identified LBP – Positive (≥1.0 mg/cm²)*

TRC Inspection Report – May 13, 2012

Power Plant					
Component(s)	**Color**	**Location(s)**	**Lead XRF Result (mg/cm²)**	**Approx. Quantity**	**Paint Condition**
Metal Gantry Crane Frame and Platform	Black	Exterior Southwest	3.0 to 2.4	400 SF	Poor
Metal Elevator Door Frame	Beige	Floors 1 thru 4	4.0-7.5	4 Doors x 20 SF each	Intact

Power Plant					
Component(s)	**Color**	**Location(s)**	**Lead XRF Result (mg/cm²)**	**Approx. Quantity**	**Paint Condition**
Glazed Metal Custodian Sink	White	Custodian Closets 4th and 3rd, floors	>9.9	2 sinks	Intact
Metal Powerhouse Crane Frame, and 20 & 125 Ton Hook	Orange	Erection Floor	4.2	1,500 SF (Crane) 50 SF (Hooks)	Intact
Metal Cable Tray Support	Cream	Exterior North side	>9.9	6,000 SF	Fair
Metal Flammable Storage Cabinet	Yellow	Exterior North side	1.2	50 SF	Poor
Metal 2 ton Crane Boom	Yellow	Machine Shop	>9.9	20 SF	Intact
Metal-Handrail	Black	3rd, Floor Parts Storage	2.1	100 SF	Poor
Concrete Floor stripping	Yellow	3rd Floor Elevator lobby	2.9	16 SF	Poor
Metal Elevator Gate	Black	1st,-4th Floors-Elevator Door	1.0	200 SF	Intact
Metal Tool Rack	Red	Generator Bay Hitachi Tool Rack	9.8	60 SF	Intact
Metal Step and Riser	Blue	Stairs to Turbine Pit from Generator Bay	>9.9	160 SF	Intact
Metal Wall	Blue	Inside Turbine Pit	>9.9	600 SF	Intact
Metal Servo Linkage	Blue	Inside Turbine Pit	>9.9	1,000 SF	Intact
Metal Shim	Gray	Upper Roof Parapet Wall Flashing fastener	>9.9	40 SF	Poor
Metal Slider Door	Gray	1st Floor Chemical Storage	>9.9	200 SF	Intact
Metal Clean Oil Storage Tank	Gray	1st Floor Chemical Storage	>9.9	300.SF	Intact
Metal Dirty Oil Storage Tank	Gray	1st Floor Chemical Storage	9.2	300 SF	Intact
Metal Spiral Case and Access	Gray	Floor Piping Gallery	>9.9-7.1	12,000 SF	Intact
Metal Handrail	Black	Stairs to Penstock Gallery	2.1	60 LF	Intact
Metal Piping	Green	Penstock Drain/Fill #2	2.3	150 SF	Intact
Metal Draft Tube	Gray	Penstock Gallery	>9.9	10.000 Sf	Poor
Metal Access Hatch to Draft Tube-	Gray	Penstock Gallery	3.2	16 SF	Poor

Viva Environmental, Inc. Survey Report – September 2004

Project Admin Office Building (A)					
Component(s)	**Color**	**Location(s)**	**Lead XRF Result (mg/cm²)**	**Approx. Quantity**	**Paint Condition**
Wood Trim	White	Porch Upper Walls	1.61–3.02	120 SF	Fair

Project Admin Office Building (A)					
Component(s)	**Color**	**Location(s)**	**Lead XRF Result (mg/cm²)**	**Approx. Quantity**	**Paint Condition**
Porch Roof Deck & Eaves	White	Exterior Eaves/ Joists, Porch Ceiling	1.19-1.71	900 SF	Fair

Residence #98 (B)					
Component(s)	**Color**	**Location(s)**	**Lead XRF Result (mg/cm²)**	**Approx. Quantity**	**Paint Condition**
Porch Wood Ceiling	White	Porch Ceiling	1.02, 1.83	80 SF	Fair
Wood Trim	White	Porch Upper Walls	3.69	35 SF	Fair

Residence #116 (B)					
Component(s)	**Color**	**Location(s)**	**Lead XRF Result (mg/cm²)**	**Approx. Quantity**	**Paint Condition**
Porch Wood Ceiling	White	Porch Ceiling	1.01	80 SF	Fair
Wood Trim	White	Porch Upper Walls	1.05-4.07	35 SF	Fair

Residence #132 (B)					
Component(s)	**Color**	**Location(s)**	**Lead XRF Result (mg/cm²)**	**Approx. Quantity**	**Paint Condition**
Porch Wood Ceiling	White	Porch Ceiling	1.62	80 SF	Fair
Wood Trim	White	Porch Upper Walls	1.83-3.7	35 SF	Fair
Downspouts, Metal	White	Exterior Downspouts	1.84-21.7	36 SF	Fair

Residence #154 (B)					
Component(s)	**Color**	**Location(s)**	**Lead XRF Result (mg/cm²)**	**Approx. Quantity**	**Paint Condition**
Wood Walls	White	Exterior Walls	1.19-6.2	2,480 SF	Fair

Laboratory Building (C)					
Component(s)	**Color**	**Location(s)**	**Lead XRF Result (mg/cm²)**	**Approx. Quantity**	**Paint Condition**
Wood Walls	White	Exterior Walls	1.41-2.65	2,600 SF	Peeling
Wood Trim	White	Exterior Lower Walls	2.31	120 SF	Peeling

Control Room (F)					
Component(s)	**Color**	**Location(s)**	**Lead XRF Result (mg/cm²)**	**Approx. Quantity**	**Paint Condition**
Machinery Metal Stand	Silver	Control Room Machinery	5.1	40 SF	Fair

Control Room (F)					
Component(s)	**Color**	**Location(s)**	**Lead XRF Result (mg/cm²)**	**Approx. Quantity**	**Paint Condition**
Metal Frame	Orange	Machinery area Floor Level	5.1-48.5	30 SF	Fair

Dam Building (G)					
Component(s)	**Color**	**Location(s)**	**Lead XRF Result (mg/cm²)**	**Approx. Quantity**	**Paint Condition**
Metal Cabinet	Yellow	9th Floor	4.37	60 SF	Fair
Roof Access Hatch	Silver	11th Floor	5.1	12 SF	Fair
Metal Window Panels	Green	9th Floor Windows	1.36-2.33	130 SF	Fair
Door	Grey	8th Floor	5.1	21 SF	Fair
Door Jamb & Frame	Grey	8th Floor	26.68	20 SF	Fair
Electric Box & Support	Silver	8th Floor	3.02	26 SF	Fair
Tank, Metal	Silver	8th Floor	5.1	200 SF	Fair
Motor Base and Covers	Silver	8th Floor	5.1-42.6	60 SF	Fair
Electric Support	Grey	7th Floor	1.48	8 SF	Fair
Generator Mounts	Yellow	7th Floor	2.54-3.6	8 SF	Fair
Floor Access Panel, Metal	Grey	6th Floor	2.01	9 SF	Fair
Metal Pulley	Grey	1st Floor	5.1	3 SF	Fair
Metal Pipes	Grey	1st Floor	5.1	140 SF	Fair
Metal Floor	Grey	1st Floor	5.1	400 SF	Fair
Metal Electrical Panel	Red	1st Floor	5.1	4 SF	Fair
Metal Floor Grate	Red	1st Floor	5.1	4 SF	Fair
Metal Door	Silver	1st Floor	5.1	21 SF	Fair
Metal Instrumentation Framing	White	1st Floor	5.1	6 SF	Fair
Metal Door	Grey	1st Floor	5.1	21 SF	Fair
Metal Door Jamb	Grey	1st Floor	5.1	22 SF	Fair
Metal Pipes	Grey	3rd Floor	21.49	200 SF	Fair
Metal Framing for Pipes	Grey	3rd Floor	21.81	70 SF	Fair
Metal Valve	Grey	3rd Floor	26.01	48 SF	Fair
Metal Door Jamb	Grey	4th Floor	5.1	22 SF	Fair
Metal Door Jamb	Grey	4th Floor	5.1	22 SF	Fair
Metal Floor Grate	Silver	5th Floor	4.27	6 SF	Fair
Metal Machinery Support Frames	Silver	9th Floor	5.1	20 SF	Fair
Metal Machinery Support Frames	Silver	9th Floor	5.1	20 SF	Fair
Steel Floor & Frame	Silver	9th Floor	5.1	400 SF	Fair
Metal Machinery Covers	Silver	9th Floor	5.1	200 SF	Fair

6.3 Lead-Based Paint Recommendations

Disturbance of lead based paint should be performed by a contractor who has experience and expertise in LBP, abatement, handling and disposal and who can protect the employees of IBWC Amistad Dam Facility, and the environment from lead exposure hazards. For construction work

where an employee may be occupationally exposed to lead in any amount, the workers and contractor must comply with Federal Occupational Safety and Health (OSHA) worker lead exposure regulations 29 CFR 1910.1025 and 1926.62 (lead in construction). Additionally, lead containing waste must be characterized and profiled for proper disposal according to applicable federal State and local regulations.

TRC recommends that damaged painted surfaces containing lead at concentrations greater than or equal to 1.0. mg/cm^2 be abated and/or stabilized. Based on the results of this assessment, the following materials meet the criteria for abatement and/or stabilization:

Power Plant					
Component(s)	**Color**	**Location(s)**	**Lead XRF Result (mg/cm^2)**	**Approx. Quantity**	**Paint Condition**
Metal Gantry Crane Frame and Platform	Black	Exterior Southwest	3.0 to 2.4	400 SF	Poor
Metal Flammable Storage Cabinet	Yellow	Exterior North side	1.2	50 SF	Poor
Metal-Handrail	Black	3rd, Floor Parts Storage	2.1	100 SF	Poor
Concrete Floor stripping	Yellow	3rd Floor Elevator lobby	2.9	16 SF	Poor
Metal Shim	Gray	Upper Roof Parapet Wall Flashing fastener	>9.9	40 SF	Poor
Metal Draft Tube	Gray	Penstock Gallery	>9.9	10.000 Sf	Poor
Metal Access Hatch to Draft Tube-	Gray	Penstock Gallery	3.2	16 SF	Poor

Hydro Lab Building Yard					
Component(s)	**Color**	**Location(s)**	**Lead XRF Result (mg/cm^2)**	**Approx. Quantity**	**Paint Condition**
Connex Box Ext Paint	Green	All walls	4.0	720 SF	Peeling

Laboratory Building (C)					
Component(s)	**Color**	**Location(s)**	**Lead XRF Result (mg/cm^2)**	**Approx. Quantity**	**Paint Condition**
Wood Walls	White	Exterior Walls	1.41-2.65	2,600 SF	Peeling
Wood Trim	White	Exterior Lower Walls	2.31	120 SF	Peeling

6.4 Lead-Based Paint General Requirements

Lead is a hazardous substance and its condition, handling and disposal are regulated by Federal, State and local agencies. Lead-containing materials, Lead-based paint, and Lead-Containing Paint generally do not pose a health risk unless the material is disturbed or sufficiently deteriorated to produce dust, which may become airborne and inhaled or ingested. Future site maintenance activities, including surface preparation and painting, may involve practices that could disturb lead-containing materials. The following paragraphs provide a general overview of

applicable regulatory standards that relate to the management and/or disposal of lead-based paint:

- The Federal Occupational Safety and Health (OSHA) 29 CFR 1910.1025 and 1926.62 (lead in construction) do not provide a definition for "lead-based paint". Rather, the Lead Construction Standard provides a Permissible Exposure Limit (PEL) for worker exposure to airborne lead particles of 50 micrograms per cubic meter of air (50 $\mu g/m^3$ for an 8-hour time-weighted average). All employees (workers) and supervisors, who are engaged in lead-related construction activities and shown to be exposed to lead at or above the Permissible Exposure Limit, shall be trained by state-accredited training providers and certified by the Environmental Protection Agency. The OSHA Lead in Construction Standard states that "negative" readings i.e. those below the HUD/EPA definition of what constitutes LBP (1.0 mg/cm^2), "DO NOT" relieve contractors from performing exposure assessments (personal exposure monitoring) on their employees per the OSHA Lead Standard, and should not be interpreted as lead is not present. Although a reading may indicate "negative" result or lead concentration, concentrations of airborne lead may still exceed the OSHA Action Level or the OSHA Permissible Exposure Limit (PEL) depending on the work activity.

- Future site maintenance activities, including repair, surface preparation and painting, sand/shot blasting, and sanding, in areas where lead-based paint has been identified may result in the liberation of lead at concentrations in excess of the OSHA PEL. TRC recommends the removal and/or stabilization of building materials during planned renovation. Lead-based painted materials should only be removed, handled or stabilized by lead trained personnel in accordance with all applicable federal, state, and local regulations. These requirements include, but are not limited to, the following: Exposure Assessments; Methods of Compliance including work practices, administrative, and engineering controls; Respiratory Protection; Protective Clothing and Equipment; Housekeeping; Hygiene Facilities; Medical Surveillance; and Employee Information and Training. The waste materials generated must be segregated accordingly and must be subjected to waste characterization testing and disposed of according to applicable regulations.

- Lead containing waste must be disposed of in accordance with all applicable federal, state, county or local regulations and guidelines. It is the sole responsibility of the Contractor to assure compliance with all laws and regulations relating to the disposal. The abatement contractor should comply with the requirements of the Resource Conservation and Recovery Act (RCRA). Waste materials shall be segregated into separate waste streams (i.e. paint chips, personal protective equipment, plastic, etc.) and placed into labeled, leak-tight containers. Wastewater from the washing facilities should be captured, filtered, and sampled for lead content prior to disposal into the sanitary sewer system. Additional details regarding waste characterization sampling and analysis are provided in the following section.

7.0 DISCLAIMER

The content presented in this report is based on data collected during the site inspection and survey, review of pertinent regulations, requirements, guidelines and commonly followed industry standards, and information provided (if any) by the property owner, their clients, agents, and representatives.

The work has been conducted in an objective and unbiased manner and in accordance with generally accepted professional practice for this type of work. TRC believes the data and analysis to be accurate and relevant, but cannot accept responsibility for the accuracy or completeness of available documentation or possible withholding of information of other parties. Structures or components thereof surveyed may contain hidden surfaces or materials requiring destructive access to inspect and/or sample. It is possible that additional materials could be discovered during destructive or demolition activities. In the event additional materials (not identified herein) are discovered during such activities, additional investigation and sampling may be necessary.

This asbestos survey and lead-based paint inspection report is designed to aid the property owner, architect, construction manager, general contractor, and asbestos or LBP abatement contractor in locating ACM and/or LBP . This report is not intended for, and may not be utilized as, a bidding document or as an abatement project specification document.

8.0 SIGNATORY

This asbestos and lead-based paint survey activities and report of the findings were provided by TRC, was conducted by a licensed professional, experienced in the inspection and survey for asbestos containing materials and lead-based paint in building structures and associated components thereof. If there are any questions concerning information contained in this report, you may contact Mr. Doug Coburn at the Irvine, California office, telephone # 949.727.9336.

Sincerely,
TRC Environmental Corporation

K. Heath Howard
Industrial Hygienist

Douglas W. Coburn, CAC, REA
Senior Project Manager

9.0 TABLES

Building Name	Sample Numbers	Material	Material Location(s)	Analytical Results	Approx. Quantity	NESHAP Category
Hydro Lab Building	AD-HYD-01 through AD-HYD-03	9” x 9” Brown Vinyl Floor Tile and Black Mastic	Office 1, 2, 3 and 4, Restroom, Closet and Hallway	Tile – 3% Chrysotile Mastic – 10% Chrysotile	1,400 SF	Cat I
Hydro Lab Building	AD-HYD-04 through AD-HYD-06	12” x 12” White Vinyl Floor Tile and Yellow Mastic	Lab Room	ND	160 SF	NA
Hydro Lab Building	AD-HYD-07 through AD-HYD-09	Sheetrock, Joint Compound and Texture	Throughout Walls	ND	5,600 SF	NA
Hydro Lab Building	AD-HYD-10 through AD-HYD-12	Brown Cove Base	Throughout	ND	700 LF	NA
Hydro Lab Building	AD-HYD-13 through AD-HYD-15	1’ x 1’ Ceiling Tile	Throughout	ND	1,400 SF	NA
Hydro Lab Building	AD-HYD-16 through AD-HYD-18	Window Glazing	Windows	3% Chrysotile	200 SF	Cat I
Hydro Lab Building	AD-HYD-19 through AD-HYD-21	Foil Backed Insulation	Walls, Ceilings and Perimeter	ND	8,000 SF	NA

Building Name	Sample Numbers	Material	Material Location(s)	Analytical Results	Approx. Quantity	NESHAP Category
Security Building	AD-SEC-01 through AD-SEC-03	Sheetrock, Joint Compound and Texture	Throughout	ND	2,000 SF	NA
Security Building	AD-SEC-04 through AD-SEC-06	Roofing Shingles	Roof	ND	800 SF	NA

Building Name	Sample Numbers	Material	Material Location(s)	Analytical Results	Approx. Quantity	NESHAP Category
Security Building	AD-SEC-07 through AD-SEC-09	Exterior Siding	Exterior Walls	ND	1,300 SF	NA

Building Name	Sample Numbers	Material	Material Location(s)	Analytical Results	Approx. Quantity	NESHAP Category
O&M Shop	AD-O&M-01 through AD-O&M-03	12” x 12” Blue Vinyl Floor Tile and Black Mastic	Office	ND	144 SF	NA
O&M Shop	AD-O&M-04 through AD-O&M-06	12” x 12” Brown Vinyl Floor Tile and Black Mastic	Restroom and Conference Room	ND	600 SF	NA
O&M Shop	AD-O&M-07 through AD-O&M-09	Brown Cove Base and Yellow Mastic	Office	ND	48 LF	NA
O&M Shop	AD-O&M-10 through AD-O&M-12	2’ x 4’ Ceiling Panels, Pinhole and Fissured	Office	ND	600 SF	NA
O&M Shop	AD-O&M-13 through AD-O&M-15	Sheetrock	Conference Room Walls	ND	1,000 SF	NA
O&M Shop	AD-O&M-16 through AD-O&M-18	Textured Sheetrock	Office Walls and Ceiling	ND	550 SF	NA
O&M Shop	AD-O&M-19 through AD-O&M-21	Window Glazing	All Windows	3% Chrysotile	800 LF	Cat I
O&M Shop	AD-O&M-22 through AD-O&M-24	Exterior Window Caulking	Windows	3% Chrysotile	300 LF	Cat I

Building Name	Sample Numbers	Material	Material Location(s)	Analytical Results	Approx. Quantity	NESHAP Category
O&M Shop	AD-O&M-25 through AD-O&M-27	Foil Backed Wall and Ceiling Insulation	All Perimeter Walls and Ceiling	ND	10,000 SF	NA

Building Name	Sample Numbers	Material	Material Location(s)	Analytical Results	Approx. Quantity	NESHAP Category
Rio Grand Gaging Station	AMIS-RGGS-01 through AMIS-RGGS-03	2’ x 4’ Ceiling Panels	Walls and Ceiling	ND	50 SF	NA
Rio Grand Gaging Station	AMIS-RGGS-04 through AMIS-RGGS-06	Ceiling Panel Mastic	Walls and Ceiling	ND	5 SF	NA

Table Key

ND – None Detected
NA – Not Applicable
SF – Square Feet
LF – Linear Feet
Cu Ft – Cubic Feet
Cat I – Category I Non-Friable Asbestos Containing Material
Cat II - Category II Non-Friable Asbestos Containing Material
RACM – Regulated Asbestos Containing Material (Friable)
ACM – Asbestos Containing Material; Contains greater than 1% asbestos by weight
NESHAP – National Emissions Standards for Hazardous Air Pollutants (EPA asbestos regulation)

Appendix A

Bulk Asbestos Sample Laboratory Analytical Report

And Chain of Custody

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

Results you can rely on

BULK ASBESTOS ANALYSIS REPORT

CLIENT: International Boundary & Water Commission

Lab Log #: 0043256
Project #: 209058.0004.0000
Date Received: 11/22/2013
Date Analyzed: 11/22/2013

Site: Amistad Dam, Hydro Lab Bldg., Del Rio, TX

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
AM-HYD-01	Black (mastic)	No	Yes	1	- - -	10%	Chrysotile
AM-HYD-01	Brown (tile)	No	Yes	2	- - -	3%	Chrysotile
AM-HYD-02	- -	- -	- -	- -	- -	NA/PS	- -
AM-HYD-02	- -	- -	- -	- -	- -	NA/PS	- -
AM-HYD-03	- -	- -	- -	- -	- -	NA/PS	- -
AM-HYD-03	- -	- -	- -	- -	- -	NA/PS	- -
AM-HYD-04	Yellow (mastic)	No	Yes	1	- - -	ND	None
AM-HYD-04	White (tile)	No	Yes	2	- - -	ND	None
AM-HYD-05	Yellow (mastic)	No	Yes	1	- - -	ND	None
AM-HYD-05	White (tile)	No	Yes	2	- - -	ND	None
AM-HYD-06	Yellow (mastic)	No	Yes	1	- - -	ND	None
AM-HYD-06	White (tile)	No	Yes	2	- - -	ND	None
AM-HYD-07	White (joint compount/texture)	No	Yes	1	- - -	ND	None
AM-HYD-07	White (sheetrock)	No	Yes	2	- - -	ND	None
AM-HYD-08	White (joint compount/texture)	No	Yes	1	- - -	ND	None
AM-HYD-08	White (sheetrock)	No	Yes	2	- - -	ND	None
AM-HYD-09	White (joint compount/texture)	No	Yes	1	- - -	ND	None
AM-HYD-09	White (sheetrock)	No	Yes	2	- - -	ND	None
AM-HYD-10	Brown	Yes	No	- -	- - -	ND	None
AM-HYD-11	Brown	Yes	No	- -	- - -	ND	None

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials		Asbestos %	Asbestos Type
AM-HYD-12	Brown	Yes	No	- -		- - -	ND	None
AM-HYD-13	White/Orange-Brown	Yes	No	- -	95%	cellulose	ND	None
AM-HYD-14	White/Orange-Brown	Yes	No	- -	95%	cellulose	ND	None
AM-HYD-15	White/Orange-Brown	Yes	No	- -	95%	cellulose	ND	None
AM-HYD-16	Grey	Yes	No	- -		- - -	3%	Chrysotile
AM-HYD-17	- -	- -	- -	- -		- -	NA/PS	- -
AM-HYD-18	- -	- -	- -	- -		- -	NA/PS	- -
AM-HYD-19	Black/Silver	Yes	No	- -	60% 10%	cellulose fibrous glass	ND	None
AM-HYD-20	Black/Silver	Yes	No	- -	60% 10%	cellulose fibrous glass	ND	None
AM-HYD-21	Black/Silver	Yes	No	- -	60% 10%	cellulose fibrous glass	ND	None

Reporting limit- asbestos present at 1%
ND - asbestos was not detected
Trace - asbestos was observed at level of less than 1%
NA/PS - Not Analyzed / Positive Stop

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, negative results must be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation (1982), and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116), July 1993, R.L. Perkins and B.W. Harvey which utilizes polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2014. TRC is an American Industrial Hygiene Association (AIHA) accredited lab for PLM effective through October 1, 2014. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and the QC data related to the samples is available upon written request from the client.

This report shall not be reproduced, except in full, without the written approval of TRC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested.

Analyzed by: K. Williamson
Kathleen Williamson, Laboratory Manager

Reviewed by: Amanda Parkins
Amanda Parkins, Approved Signatory

Date Issued
11/26/2013

TRC

21 GRIFFIN ROAD NORTH
WINDSOR, CONNECTICUT 06095
TELEPHONE (860) 298-9692
FAX (860) 298-6380

Edition: October 2009
Supersede Previous Edition

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

LAB ID #. 43257

PROJECT NUMBER	PROJECT NAME
209058.0004.0000	Del Rio, TX AMISTAD IBWC

SIGNATURE	INSPECTOR
Joseph Bohnaker	JOSEPH BOHNAKER

TURNAROUND TIME (S)

PLM:	8hr	24hr	48hr	5day
TEM:	24hr	48hr	3day	5day

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
AMSEC	11/20/13	7:00 p			AMISTAD SECURITY BLDG	✓					SEE COC
01-09					671-4						
AM-O&M	11/20/13	7:00 pm			AMISTAD O&M SHOP	✓					SEE COC
01-27					Bldg 671-01						
AM-HYD	11/20/13	7:00 pm			AMISTAD HYDRO	✓					SEE COC
01-21					BLDG.						

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
Joseph Bohnaker	11/21/13	11/22/13			
(Printed) JOSEPH BOHNAKER	Time: 7:00 pm	(Printed) 0915	(Printed)	Time:	(Printed)

Remarks:

Condition of Samples: OK
Acceptable: Yes ✓ No ____
Comments:

TRC BULK SAMPLE FIELD SHEET

43256

Job/Location: AMISTAD - HYDRO LAB. BLDG.

Inspector: JOSEPH BOHNAKER

Job # 209058 Φ4

Date: 11/19/13

Page #

Bulk Sample Field Sheet						
Sample #	**Material / Photo #**	**Sample Location**	**Homogeneous Area**	**Homo. Area (SF/LF)**	**Friability (NF or F)**	**Damage (ND, D, SD)**
AM-HYD-01	9X9 BROWN VCT & BLACK MASTIC	HALL @ FRONT DOOR	OFFICES 1,2,3,4, RR	1400 ⌀	NF	ND
02		HALL @ BREAK DOOR	CLOSET & HALL	"	"	"
03		OFFICE 1		"	"	"
AM-HYD-04	12X12 WHITE VCT & YELLOW MASTIC	LAB	LAB ROOM	1160 ⌀	NF	ND
05		LAB	"	"	"	"
06		LAB	"	"	"	"
AM-HYD-07	SHEETROCK, JOINT COMP. TEXTURE	OFFICE 2	WALLS THROUGHOUT	5600 ⌀	NF	ND
08		OFFICE 3	"	"	"	"
09		LAB	"	"	"	"
AM-HYD-10	BROWN COVE BASE	WALLS - OFFICE 3	BROWN COVE BASE	700 LF	NF	ND
11		CLOSET		"	"	"
12		RR		"		
AM-HYD 13	1X1 CEILING TILE	OFFICE 3	WHITE CEILING TILE	1400 ⌀	NF	ND
14		HALL - CENTER		"	"	"
15		HALL @ WATER FOUNTAIN		"		"

Rec'd by: [illegible] 11/22/13 1000

TRC

43256

TRC BULK SAMPLE FIELD SHEET

Job/Location: AMISTAD - HYDRO LAB

Inspector: JOSEPH BOHNAKER

Job # 209058 04

Date: 11/19/13

Page #

Bulk Sample Field Sheet						
Sample #	**Material / Photo #**	**Sample Location**	**Homogeneous Area**	**Homo. Area (SF/LF)**	**Friability (NF or F)**	**Damage (ND, D, SD)**
AM-HYD-16	WINDOW GLAZING	OFFICE 3	WINDOWS	200 LF	F	SD
17		OFFICE 1	"	"	"	"
18		RR	"	"	"	"
AM-HYD-19	FOIL BACKED INSULATION	WALL A (REAR)	WALL/CLGS	4000 SF	F	D
20		"	PERIMETER	4000 S.F	F	D
21		"	"	"	F	D

Rec'd by: [illegible] 11/22/13 1000

TRC

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

BULK ASBESTOS ANALYSIS REPORT

CLIENT: International Boundary & Water Commission

Lab Log #: 0043257
Project #: 209058.0004.0000
Date Received: 11/22/2013
Date Analyzed: 11/22/2013

Site: Amistad Dam, Security Building 671-4, Del Rio, TX

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials		Asbestos %	Asbestos Type
AM-SEC-01	White (joint compound/texture)	No	Yes	1		- - -	ND	None
AM-SEC-01	Pink (sheetrock)	No	Yes	2		- - -	ND	None
AM-SEC-02	White (joint compound/texture)	No	Yes	1		- - -	ND	None
AM-SEC-02	Pink (sheetrock)	No	Yes	2		- - -	ND	None
AM-SEC-03	White (joint compound/texture)	No	Yes	1		- - -	ND	None
AM-SEC-03	Pink (sheetrock)	No	Yes	2		- - -	ND	None
AM-SEC-04	Black/Brown/Tan	Yes	No	- -	10%	fibrous glass	ND	None
AM-SEC-05	Black/Brown/Tan	Yes	No	- -	10%	fibrous glass	ND	None
AM-SEC-06	Black/Brown/Tan	Yes	No	- -	10%	fibrous glass	ND	None
AM-SEC-07	Grey	Yes	No	- -	20%	cellulose	ND	None
AM-SEC-08	Grey	Yes	No	- -	20%	cellulose	ND	None
AM-SEC-09	Grey	Yes	No	- -	20%	cellulose	ND	None

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POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type

Reporting limit- asbestos present at 1%
ND - asbestos was not detected
Trace - asbestos was observed at level of less than 1%
NA/PS - Not Analyzed / Positive Stop

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, negative results must be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation (1982), and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116), July 1993, R.L. Perkins and B.W. Harvey which utilizes polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2014. TRC is an American Industrial Hygiene Association (AIHA) accredited lab for PLM effective through October 1, 2014. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and the QC data related to the samples is available upon written request from the client.

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Analyzed by: K. Williamson — Kathleen Williamson, Laboratory Manager

Reviewed by: Amanda Parkins, Approved Signatory

Date Issued 11/26/2013

TRC

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Edition: October 2009
Supersede Previous Edition

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

LAB ID #. 43257

PROJECT NUMBER	PROJECT NAME
209058.0004.0000	Del Rio, TX AMISTAD IBWC

SIGNATURE	INSPECTOR
Joseph Bohnaker	JOSEPH BOHNAKER

TURNAROUND TIME (S)

PLM:	8hr	24hr	48hr	5day
TEM:	24hr	48hr	3day	5day

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
AMSEC	11/20/13	7:00 p			AMISTAD SECURITY BLDG	✓					SEE COC
01-09					671-4						
AM-O&M	11/20/13	7:00 pm			AMISTAD O&M SHOP	✓					SEE COC
01-27					Bldg 671-01						
AM-HYD	11/20/13	7:00 pm			AMISTAD HYDRO	✓					SEE COC
01-21					BLDG.						

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
Joseph Bohnaker	11/21/13	11/22/13			
(Printed) JOSEPH BOHNAKER	Time: 7:00 pm	(Printed) 0915	(Printed)	Time:	(Printed)

Remarks:

Condition of Samples: OK
Acceptable: Yes ✓ No ____
Comments:

TRC BULK SAMPLE FIELD SHEET

43257

Job/Location: AMISTAD IB NUC - SECURITY BLD 671-4

Inspector: J. BOHNAKER

Job # 209058

Date: 11/18/13

Page #

Bulk Sample Field Sheet						
Sample #	Material / Photo #	Sample Location	Homogeneous Area	Homo. Area (SF/LF)	Friability (NF or F)	Damage (ND, D, SD)
AM-SEC 01	SHEETROCK, VC, TEXTURE	WALL A - MAIN ROOM	WALLS & CEILING	2000 ☐	NF	ND
02		WALL A	"			
03		WALL D	"			
AM-SEC 04	ROOFING SHINGLE	ROOF	ROOF	800 SF	NF	ND
05		ROOF	"			
06		ROOF	"			
AM-SEC 07	EXTERIOR SIDING	SIDING	EXTERIOR WALLS	1300 ☐	NF	ND.
08		SIDING	"			
09		SIDING	"			

NEW WINDOWS - SILICONE CAULKING

Rec'd by: [illegible] 11/22/13 1000

TRC

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

BULK ASBESTOS ANALYSIS REPORT

CLIENT: International Boundary & Water Commission

Lab Log #: 0043258
Project #: 209058.0004.0000
Date Received: 11/22/2013
Date Analyzed: 11/22/2013

Site: Amistad Dam, O&M Shop, Del Rio, TX

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
AM-O&M-01	Black (mastic)	No	Yes	1	- - -	ND	None
AM-O&M-01	Blue (tile)	No	Yes	2	- - -	ND	None
AM-O&M-02	Black (mastic)	No	Yes	1	- - -	ND	None
AM-O&M-02	Blue (tile)	No	Yes	2	- - -	ND	None
AM-O&M-03	Black (mastic)	No	Yes	1	- - -	ND	None
AM-O&M-03	Blue (tile)	No	Yes	2	- - -	ND	None
AM-O&M-04	Yellow (mastic)	No	Yes	1	- - -	ND	None
AM-O&M-04	Brown (tile)	No	Yes	2	- - -	ND	None
AM-O&M-05	Yellow (mastic)	No	Yes	1	- - -	ND	None
AM-O&M-05	Brown (tile)	No	Yes	2	- - -	ND	None
AM-O&M-06	Yellow (mastic)	No	Yes	1	- - -	ND	None
AM-O&M-06	Brown (tile)	No	Yes	2	- - -	ND	None
AM-O&M-07	Yellow (mastic)	No	Yes	1	- - -	ND	None
AM-O&M-07	Brown (cove base)	No	Yes	2	- - -	ND	None
AM-O&M-08	Yellow (mastic)	No	Yes	1	- - -	ND	None
AM-O&M-08	Brown (cove base)	No	Yes	2	- - -	ND	None
AM-O&M-09	Yellow (mastic)	No	Yes	1	- - -	ND	None
AM-O&M-09	Brown (cove base)	No	Yes	2	- - -	ND	None
AM-O&M-10	White/Grey	Yes	No	- -	40% cellulose 40% mineral wool	ND	None

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POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials		Asbestos %	Asbestos Type
AM-O&M-11	White/Grey	Yes	No	- -	40% 40%	cellulose mineral wool	ND	None
AM-O&M-12	White/Grey	Yes	No	- -	40% 40%	cellulose mineral wool	ND	None
AM-O&M-13	White	Yes	No	- -	10%	cellulose	ND	None
AM-O&M-14	White	Yes	No	- -	10%	cellulose	ND	None
AM-O&M-15	White	Yes	No	- -	10%	cellulose	ND	None
AM-O&M-16	White	Yes	No	- -	5%	cellulose	ND	None
AM-O&M-17	White	Yes	No	- -	5%	cellulose	ND	None
AM-O&M-18	White	Yes	No	- -	5%	cellulose	ND	None
AM-O&M-19	Grey	Yes	No	- -		- - -	3%	Chrysotile
AM-O&M-20	- -	- -	- -	- -		- -	NA/PS	- -
AM-O&M-21	- -	- -	- -	- -		- -	NA/PS	- -
AM-O&M-22	Grey	Yes	No	- -		- - -	3%	Chrysotile
AM-O&M-23	- -	- -	- -	- -		- -	NA/PS	- -
AM-O&M-24	- -	- -	- -	- -		- -	NA/PS	- -
AM-O&M-25	Brown/Silver	Yes	No	- -	80%	cellulose	ND	None
AM-O&M-26	Brown/Silver	Yes	No	- -	80%	cellulose	ND	None
AM-O&M-27	Brown/Silver	Yes	No	- -	80%	cellulose	ND	None

Industrial Hygiene Laboratory
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POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type

Reporting limit- asbestos present at 1%
ND - asbestos was not detected
Trace - asbestos was observed at level of less than 1%
NA/PS - Not Analyzed / Positive Stop

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, negative results must be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation (1982), and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116), July 1993, R.L. Perkins and B.W. Harvey which utilizes polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2014. TRC is an American Industrial Hygiene Association (AIHA) accredited lab for PLM effective through October 1, 2014. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and the QC data related to the samples is available upon written request from the client.

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Analyzed by: K. Williamson — Kathleen Williamson, Laboratory Manager

Reviewed by: Amanda Parkins — Amanda Parkins, Approved Signatory

Date Issued 11/26/2013

TRC

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Edition: October 2009
Supersede Previous Edition

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

LAB ID #. 43258

PROJECT NUMBER	PROJECT NAME
209058	AMISTAD IBWC

SIGNATURE	INSPECTOR
Joseph Bohnaker	JOSEPH BOHNAKER

TURNAROUND TIME (5)

PLM:		8hr		24hr		48hr		5day
TEM:		24hr		48hr		3day		5day

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
AMSEC	11/20/13	7:00 p			AMISTAD SECURITY BLDG	✓					SEE COC
01-09					671-4						
AM-O&M	11/20/13	7:00 p			AMISTAD O&M SHOP	✓					SEE COC
01-27					Bldg 671-01						
AM-HYD	11/20/13	7:00 p			AMISTAD HYDRO	✓					SEE COC
01-21					BLDG.						

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
Joseph Bohnaker	11/21/13	11/22/13			
(Printed) JOSEPH BOHNAKER	Time: 7:00 pm	(Printed) 0915	(Printed)	Time:	(Printed)

Remarks:

Condition of Samples: OK
Acceptable: Yes ___ No ___
Comments:

43258

TRC BULK SAMPLE FIELD SHEET

Job/Location: AMISTAD IBWC O&M SHOP

Inspector: J. BOHNAKER

Job # 209058

Date: 11/18/13

Page # 1 OF 2

Bulk Sample Field Sheet

Sample #	Material / Photo #	Sample Location	Homogeneous Area	Homo. Area (SF/LF)	Friability (NF or F)	Damage (ND, D, SD)
AM-O&M 01	BLUE 12x12 VCT BLACK MASTIC	OFFICE	OFFICE FLOOR	144 ☐	NF	ND
02		OFFICE		"	"	ND
03		OFFICE		"	"	ND
AM-O&M 04	BROWN 12x12 VCT BLACK MASTIC	RR 10x10	RR FLOOR	600 ☐	NF	ND
05		CONF. ROOM 28x19	CONF RM FLOOR	"	"	ND
06		CONF. ROOM	"	"	"	ND
AM-O&M 07	BROWN COVE BASE YELLOW MASTIC	OFFICE	OFFICE	48 LF	NF	ND
08		"		"	"	ND
09		"		"	"	ND
AM-O&M 10	2x4 CEILING PANELS FISSURED PINHOLED	CONF. ROOM	CEILING	600 ☐	F	ND
11		"		"	F	ND
12		"		"	F	ND
AM-O&M 13	SHEETROCK	CONF ROOM BEHIND WOOD	WALLS @ CONF. RM	1000 S.F	NF	ND
14		PANELS		"	"	"
15				"	"	"

Rec'd by: [illegible] 11/22/13 1000

TRC

43258

TRC BULK SAMPLE FIELD SHEET

Job/Location: AMISTAD IBWC - O&M SHOP 671-01

Inspector: J. BOHNAKER

Job # 209058

Date: 11/18/13

Page # 2 OF 2

Bulk Sample Field Sheet

Sample #	Material / Photo #	Sample Location	Homogeneous Area	Homo. Area (SF/LF)	Friability (NF or F)	Damage (ND, D, SD)
AM-O&M 16	TEXTURED SHEETROCK	OFFICE WALL B	OFFICE WALLS	550 ϕ	NF	ND
17		OFFICE WALL C	& CEILING	"	"	"
18		OFFICE WALL D	"	"	"	"
AM-O&M 19	WINDOW GLAZING	WINDOW GARAGE	ALL WINDOWS	800 LF	F	D
20		" "	" "		"	D
21		" "	" "		"	D
AM-O&M 22	WINDOW CAULKING (EXTERIOR)	WINDOWS	ALL WINDOWS	300 LF	F	ND
23		"	"		F	ND
24		"	"		F	ND
AM-O&M 25	FOIL BACKED WALL & CLG. INSULATION	GARAGE	ALL PERIMETER	10,000 SF	F	ND
26		GARAGE	WALLS & CEILINGS		F	ND
27		GARAGE	"		F	ND

Rec'd by: [signature] 11/22/13 1000

TRC

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

TRC
Results you can rely on

BULK ASBESTOS ANALYSIS REPORT

CLIENT: International Boundary & Water Commission

Lab Log #: 0043303
Project #: 209058.0004.0000
Date Received: 12/04/2013
Date Analyzed: 12/04/2013

Site: Amistad, Rio Grande Gaging Station, 670 Texas Spur 349, Del Rio, TX

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials		Asbestos %	Asbestos Type
AMIS.RGGS.01	White/Grey-Beige	Yes	No	- -	40% 40%	cellulose mineral wool	ND	None
AMIS.RGGS.02	White/Grey-Beige	Yes	No	- -	40% 40%	cellulose mineral wool	ND	None
AMIS.RGGS.03	White/Grey-Beige	Yes	No	- -	40% 40%	cellulose mineral wool	ND	None
AMIS.RGGS.04	Brown	Yes	No	- -		- - -	ND	None
AMIS.RGGS.05	Brown	Yes	No	- -		- - -	ND	None
AMIS.RGGS.06	Brown	Yes	No	- -		- - -	ND	None

Reporting limit- asbestos present at 1%
ND - asbestos was not detected
Trace - asbestos was observed at level of less than 1%
NA/PS - Not Analyzed / Positive Stop

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, negative results must be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation (1982), and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116), July 1993, R.L. Perkins and B.W. Harvey which utilizes polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2014. TRC is an American Industrial Hygiene Association (AIHA) accredited lab for PLM effective through October 1, 2014. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and the QC data related to the samples is available upon written request from the client.

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Analyzed by: Amanda Parkins, Laboratory Analyst

Reviewed by: Kathleen Williamson, Laboratory Manager

Date Issued 12/05/2013

TRC

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TELEPHONE (860) 298-9692
FAX (860) 298-6380

Edition: October 2009
Supersede Previous Edition

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

LAB ID #. 43303

PROJECT NUMBER	PROJECT NAME
209058-4	IBWC- AMISTAD

SIGNATURE	INSPECTOR
Joseph Bohnaker	JOSEPH BOHNAKER

TURNAROUND TIME 5

PLM:		8hr		24hr		48hr		~~3~~day
TEM:		24hr		48hr		3day		5day

PARAMETERS

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
AMIS-R6S	11/22/13				SEE COC	✓					SEE COC
01-06											

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
Joseph Bohnaker	12/2/13	12/4/13			
(Printed) JOSEPH BOHNAKER	Time: 7:00 pm	(Printed) 1000 Williamson	(Printed)	Time:	(Printed)

Remarks:

Condition of Samples: ok
Acceptable: Yes ✓ No ____
Comments:

TRC BULK SAMPLE FIELD SHEET

43303

Job/Location: AMISTAD IBWC - RIO GRAND GAGING STATION

Inspector: JOSEPH BOHNAKER
670 Texas Spur 349, Del Rio, TX

Job # 209058.04

Date: 11/22/13

Page # 1 of 1

Bulk Sample Field Sheet

Sample #	Material / Photo #	Sample Location	Homogeneous Area	Homo. Area (SF/LF)	Friability (NF or F)	Damage (ND, D, SD)
AMIS.RGGS.01	2x4 CEILING PANELS	INSIDE GAGING STATION	WALLS/CLG	50 #	F	D
02		WALLS & CEILING "	"		F	D
03		" " "	"		F	D
AMIS.RGGS.04	MASTIC (CEILING PANEL)	INSIDE GAGING STATION	WALLS/CLG	5 #	NF	D
05		WALLS & CEILINGS	"		NF	D
06			"		NF	D

Read by: [signature] 12/4/13 1000

TRC

Appendix B

Lead-Based Paint XRF Field Data Sheets

AMISTAD BLDG	Shot	Component	Substrate	Side	Color	Intact?	Result	
671-5 HYDRO	1	CALIBRATION					2.1	
	2						2.0	
LAB	3		~~METAL~~	~~A~~			1.8	
EXTERIOR	4	WALL	METAL	A	BROWN	YES	0.1	
"	5	WALL	CMU	A	BROWN	YES	0.2	
"	6	WINDOW TRIM	WOOD	B	BROWN	YES	0.3	
"	7	WALL	METAL	C	WHITE	YES	0.3	
"	8	FRAME	CARPORT CARPORT COLUMN	C	RED	YES	0.0	
	9	DOWNSPOUT	METAL	A	DK BROWN	YES	0.3	
	10	WINDOW FRAME	METAL	C	DK. BROWN	YES	0.6	
INTERIOR	11	CABINETS	WOOD	B	WHITE	YES	0.1	
	12	WALL	SHEETROCK ~~HARD~~	B	WHITE	YES	0.1	
	13	WALL - ~~LAB~~ GARAGE SIDE	WOOD		GREY	YES	0.0	
	14	LAB WALL	SHEETROCK	A	WHITE	YES	0.0	
SHED	15	WALL	METAL	C	BROWN	PEELING	0.0	SMALL METAL STORAGE SHED BEHIND BLDG
CONNEX	16	WALL	METAL	C	GREEN	PEELING	4.0	CONNEX BOX IN YARD

TRC

SUBJECT

SHEET NO. ____ OF ____

PROJECT NO.

DATE 11-19-13

BY

CHK'D 671-5

A

AMUSTAD

BLDG	Shot	Component	Substrate	Side	Color	Intact?	Result	
HOUSE 116	1	RR (HALL) WALL S/R	CERAMIC 4X4	B	green	YES	>9.9	
	2	FLOOR RR	CERAMIC 1X1	FLOOR	green	YES	0.1	
	3	MBRR WALL	CERAMIC 4X4	B	grey	YES	>9.9	
	4	MBRR FLOOR	CERAMIC 1X1	FLOOR	grey	YES	0.1	
	5	PORCH	WOOD	C	TAN	YES	0.1	
	6	DOWNSPOUT	METAL	A	TAN	YES	0.0	
	7	TRIM	WOOD	A	DK BROWN	YES	~~0.0~~ ~~0.8~~ ← 0.8	
	8	WALL KITCHEN	CERAMIC	C	WHITE	YES	~~0.8~~ 1.0	
	9	RR · HALL	BATHTUB		WHITE	YES	>9.9	
	10	KITCHEN FLOOR	CERAMIC		WHITE	YES	0.0	

TRC

SUBJECT

SHEET NO. ____ OF ____

PROJECT NO.

DATE 11-19-13

BY

CHK'D

A

AMISTAD BLDG	Shot	Component	Substrate	Side	Color	Intact?	Result
671-1 O&M SHOP OFFICE	1	WALL	S/R	A	WHITE	Y	0.1
GARAGE SHOP	2	WALL	WOOD	A	GREY	Y	0.1
RR	3	WALL	CMU	C	BEIGE	Y	0.1
CONF. RM	4	DOOR (INTERIOR)	METAL	D	DK BROWN	Y	0.7
"	5	FRAME	WOOD ~~METAL~~	D	DK BROWN	Y	0.1
SHOP	6	DOOR	METAL	D	GREY	Y	0.5
EXT	7	WALL	METAL	B	BROWN	Y	0.8
EXT	8	GARAGE ROLL UP DOOR FRAME	METAL	B	DK BROWN	Y	0.5
EXT	9	GUTTER	METAL	B	LT BROWN	Y	0.5
EXT	10	WINDOW FRAME	METAL	C	LT. BROWN	Y	0.0
EXT	11	RR DOOR	METAL	B	LT. BROWN	Y	0.6
SHOP	12	MEZANINE DECK	WOOD	CLG.	WHITE	Y	0.1
EXTERIOR	13	BOLLARDS	METAL		YELLOW	PEELING	0.1

D CONF. RM - COUNTER & CABINET WOOD NOT PAINTED
WALLS FRP PANEL / WOOD PANELLING

TRC

SUBJECT

SHEET NO. ____ OF ____
PROJECT NO.
DATE 11-19-13
BY
CHK'D

AMISTAD BLDG	Shot	Component	Substrate	Side	Color	Intact?	Result
VEHICLE SHELTER ~~[illegible]~~ 671-6	1	WALL	METAL	A	BROWN	YES	0.3
	2	FRAME	METAL	A	RED	PEELING	0.0
	3	COLUMN	METAL	C	RED	PEELING	0.1
	4	DOWNSPOUT	METAL	C	LT. BROWN	YES	0.2

TRC

SUBJECT

SHEET NO. ____ OF ____

PROJECT NO.

DATE 11-22-13

BY

CHK'D

A

AMISTAD BLDG

	Shot	Component	Substrate	Side	Color	Intact?	Result
LARGE EQUIP. SHED 621-3	1	WALL	METAL	A	WHITE	Y	0.4
	2	FRAME COLUMN	METAL	D	RED	Y	0.0
	3	DOOR	METAL	D	WHITE	Y	0.4
	4	FRAME	METAL	D	WHITE	Y	0.0
	5	EXT SIDE WALL	METAL	D	BROWN	Y	0.1
	6	END FRAME CAP	METAL	A	DK BROWN	Y	0.3

TRC

SUBJECT

SHEET NO. ____ OF ____

PROJECT NO.

DATE 11-22-13

BY

CHK'D

A

AMISTAD BLDG	Shot	Component	Substrate	Side	Color	Intact?	Result
SMALL EQ. SHED 671-2	1	COLUMN	METAL	A	RED	PEELING ~~YES~~	0.0
	2	COLUMN	METAL	C	RED	PEELING	0.1
	3	DECKING	METAL	ROOF	WHITE	~~YES~~	0.0
	4	METAL WALLS SHED	METAL	A	WHITE	PEELING	0.8

TRC

SUBJECT

SHEET NO. ____ OF ____

PROJECT NO.

DATE 11-22-13

BY

CHK'D

A

BLDG	Shot	Component	Substrate	Side	Color	Intact?	Result
SECURITY Bldg. 671-4	1	WALL	S/R	A	CREAM	YES	0.1
	2	FLOOR	CONCRETE	FLOOR	GREY	YES	0.4
	3	DOOR ENTRANCE	METAL	B	GREY	YES	0.0
	4	DOOR TO ARMORY	METAL	D	CREAM	YES	0.0
	5	SIDING	MASONITE	B	BROWN	YES	0.0
	6	WINDOW FRAME	WOOD	B	DK BROWN	YES	0.0
METAL SHED AT N. FENCE		WALL	METAL	B	WHITE	NO	0.2
O&M BLDG.		BOLLARDS	METAL		YELLO	NO	1.0
GATE		FRAME	METAL		SILVER	YES	0.1
CONTAINER WHITE @ REAR YD.		DOORS	PLASTIC		WHITE	YES	0.1 ~~0.2~~

TRC

SUBJECT

SHEET NO. ____ OF ____

PROJECT NO.

DATE 11-19-13

BY

CHK'D

A

AMISTAD

BLDG	Shot	Component	Substrate	Side	Color	Intact?	Result	CAL.
PROJECT OFFICE	1	PORCH DECK	WOOD	FRONT (A)	* LIGHT BROWN	YES	0.0	1.8.1.7.1.8
	2	PORCH ~~DECK~~ COLUMN	STEEL	FRONT (A)	LIGHT BROWN	YES	0.0	
	3	PORCH BEAM	WOOD ~~STEEL~~	FRONT A	DK BRN	YES	1.4	PREVIOUS 2004 report shows white paint
	4	OVERHANG RAFTERS	WOOD	D	LT. BROWN	YES	2.0	
	5	OVERHANG	WOOD	D	LT. BROWN	YES	1.2	
RADIO ROOM 670-1	1	WALL EXT.	PLASTER	A FRONT	TAN	YES	0.1	
	2	DOOR	METAL	A	GREY	YES	0.3	
	3	FLASHING	METAL	B	TAN	YES	0.3	
	4	ROOF TRIM	METAL	B	DK BROWN	YES	0.5	
TOWER	1	COLUMN	METAL	A	SILVER	YES	0.1	
	2	CENTER PIPE	METAL	MIDDLE	SILVER	YES	0.1	
	3	COVER	METAL	MIDDLE	SILVER	YES	0.2	
~~Control~~ ~~Pump~~ PUMP HOUSE	1	Wall	CMU	A FRONT	Brown	YES	0.0	
	2	DOOR	STEEL	A	Brown	YES	0.5	
	3	FLOOR	Concrete		Grey	YES	0.1	
	4	Roof Fascia	Metal	C	Brown	YES	0.6	
	5	PIPE	METAL	B	SILVER	YES	0.1	

TRC

SUBJECT

SHEET NO. 1 OF 1

PROJECT NO. 204058-4

DATE 11/19/13

BY T. BOUMAKER

CHK'D

AMISTAD BLDG	Shot	Component	Substrate	Side	Color	Intact?	Result
RIO GRANDE @ Del Rio gaging sta	1	B WALL	METAL	D	SILVER	YES	0.0
	2	FRAME	METAL	FRONT	SILVER	YES	1.8
	3	DOOR (INTERIOR SIDE)	METAL	A	BROWN	YES	0.0
	4	FLOOR	WOOD	FLOOR	WHITE	YES	0.1
	5	WALL	WOOD	D	WHITE	YES	0.1
A-FRAME CABLEWAY RIO GRANDE DEL RIO	1	FRAME	METAL		SILVER	YES	0.0
	2	LADDER	METAL		SILVER	YES	0.0
	3	STAFF GAGES (MEASURE STICKS)	METAL		SILVER	YES	1.8

TRC

SUBJECT

SHEET NO. ____ OF ____

PROJECT NO.

DATE 11-19-13

BY

CHK'D

A

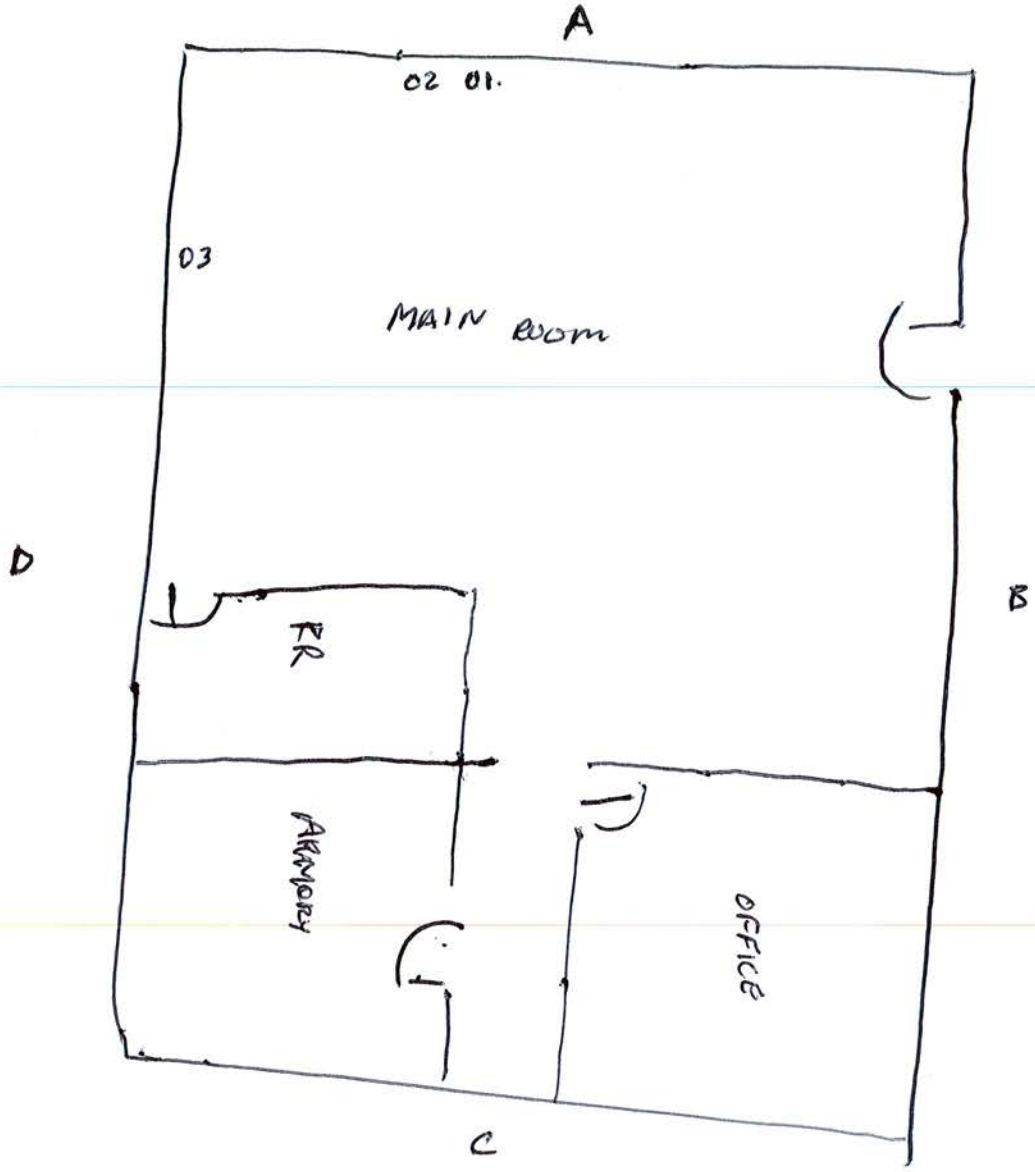
Appendix C

Sample Location Drawings

AMISTAD

AMISTAD

SECURITY BLDG. 671-4



NOTES

PAINTED CONCRETE FLOOR
WOOD COVE BASE
S/R TEXTURED WALLS & CEILS

SHEET NO. 1 OF 1

PROJECT NO. 209058 - 4

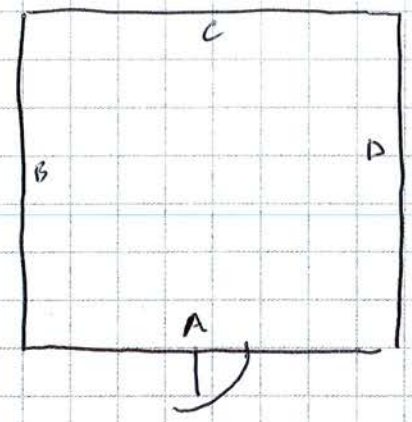
DATE 11/22/13

BY J. BOHNAKER

SUBJECT AMISTAD

CHK'D

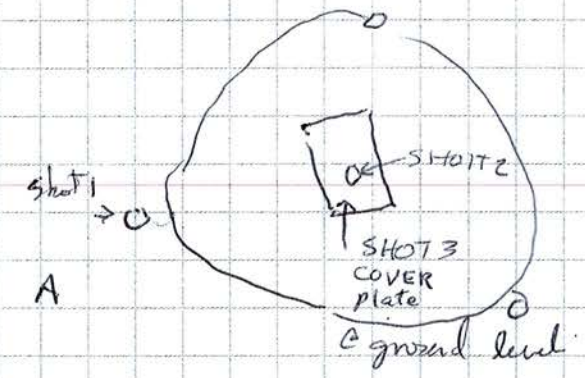
RADIO ROOM



NOTES

- PLASTER EXT- WALL
- WOOD INT. WALLS
- CONCRETE FLOOR
- UNACCESSIBLE - MASSIVE ACTIVE BEE HIVE INSIDE & SWARMING OUTSIDE

TOWER



A

SHEET NO. 1 OF 1

PROJECT NO. 209058

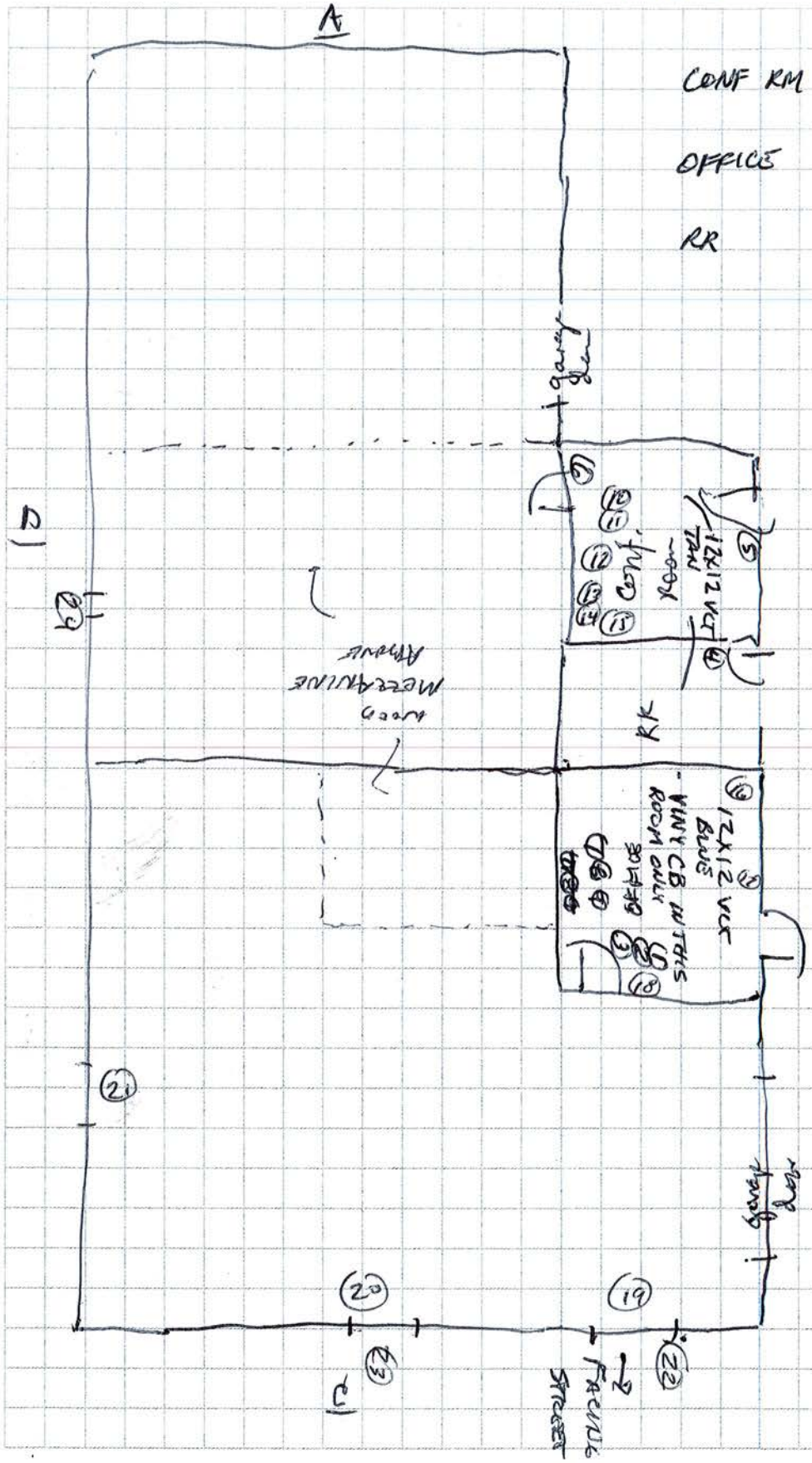
DATE 11/18/13

BY JGB

CHK'D

SUBJECT Amistad O&M Shop Bldg. 671-1

	FLOOR	WALLS	CLG	OTHER
CONF RM	12x12 VCT Brown	Panel 2x4		
OFFICE	12x12 VCT Blue	S/R J/C TXT	→	
RR	12x12 VCT Brown	CMU/WOOD		



A

SHEET NO. 1 OF 1

PROJECT NO. 209058-4

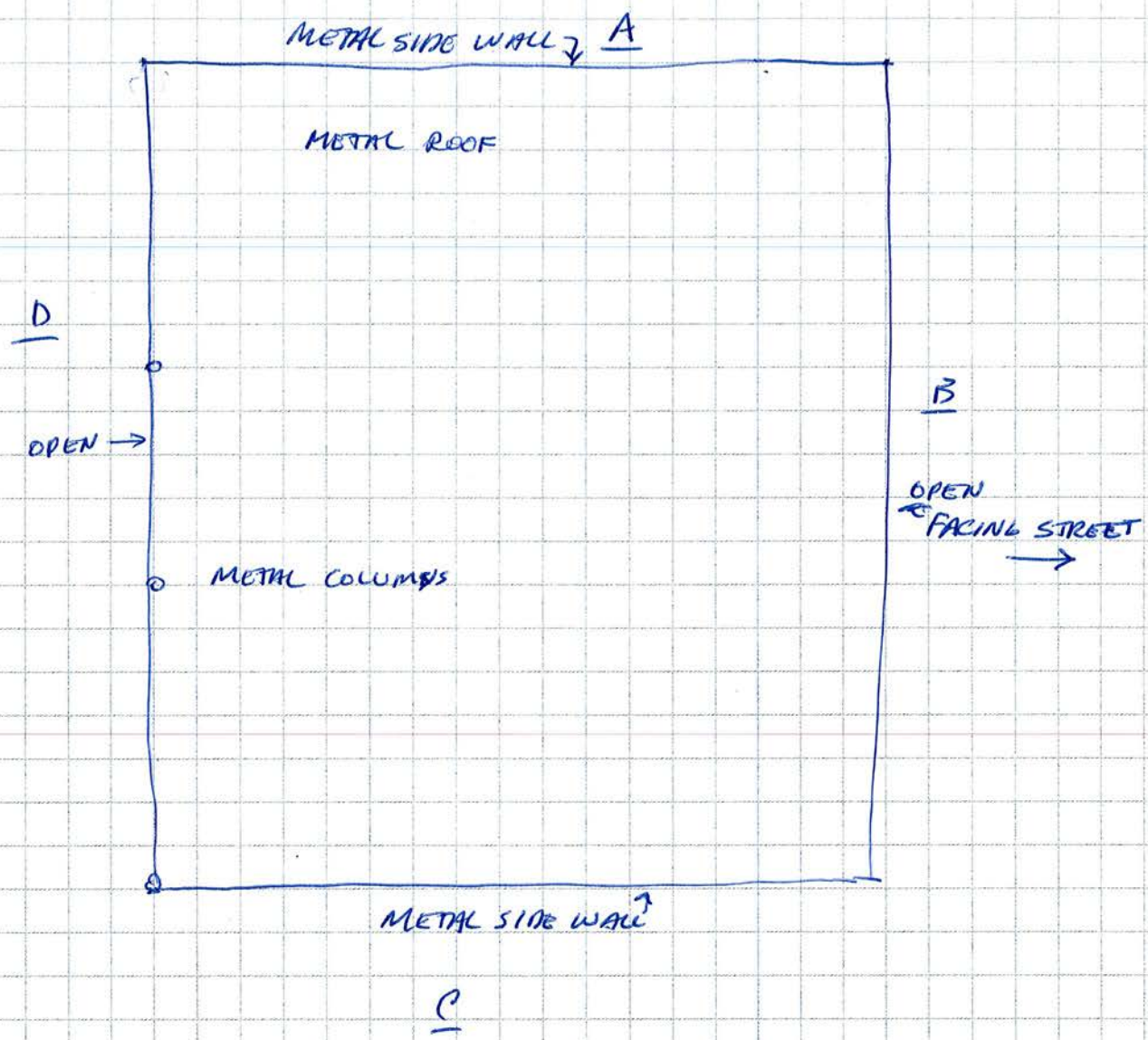
DATE 11/19/13

BY J. BOHNAKER

CHK'D

SUBJECT Bldg. 671-1 AMISTAD - VEHICLE SHELTER

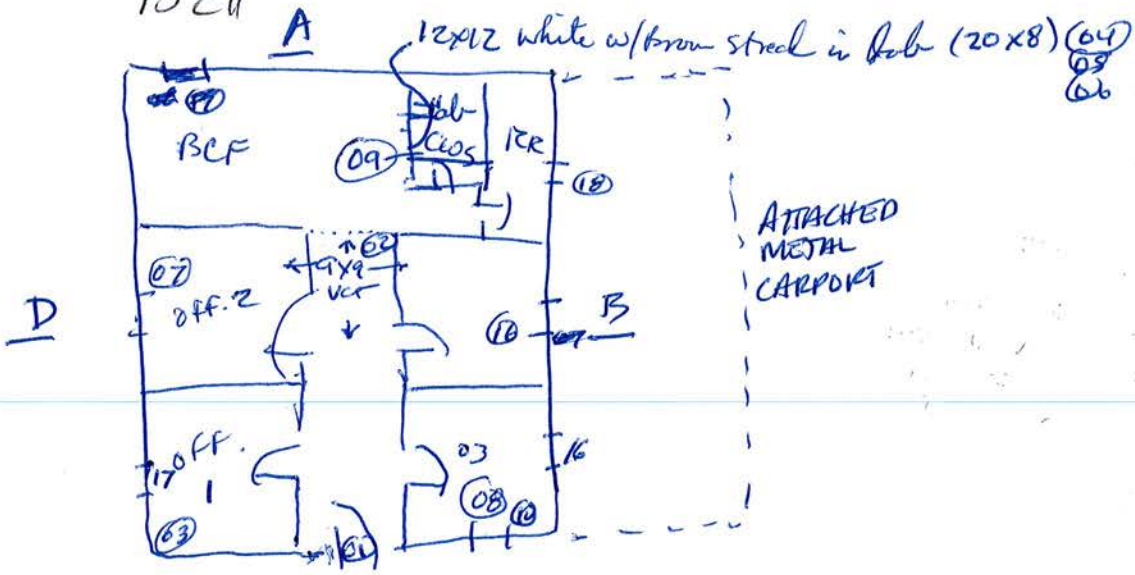
NO SUSPECT ACM



A

AMISTAD HYDRO - LAB

4321



BCF = Bare Concrete floor

9x9 VCT = 39 x 36 = 1400 #

12x12 VCT = 20 x 8 = 160 #

10 WINDOWS @ 20 LF each

WALL REFERENCE LETTERS: A B C D

SHEET NO. 1 OF 1

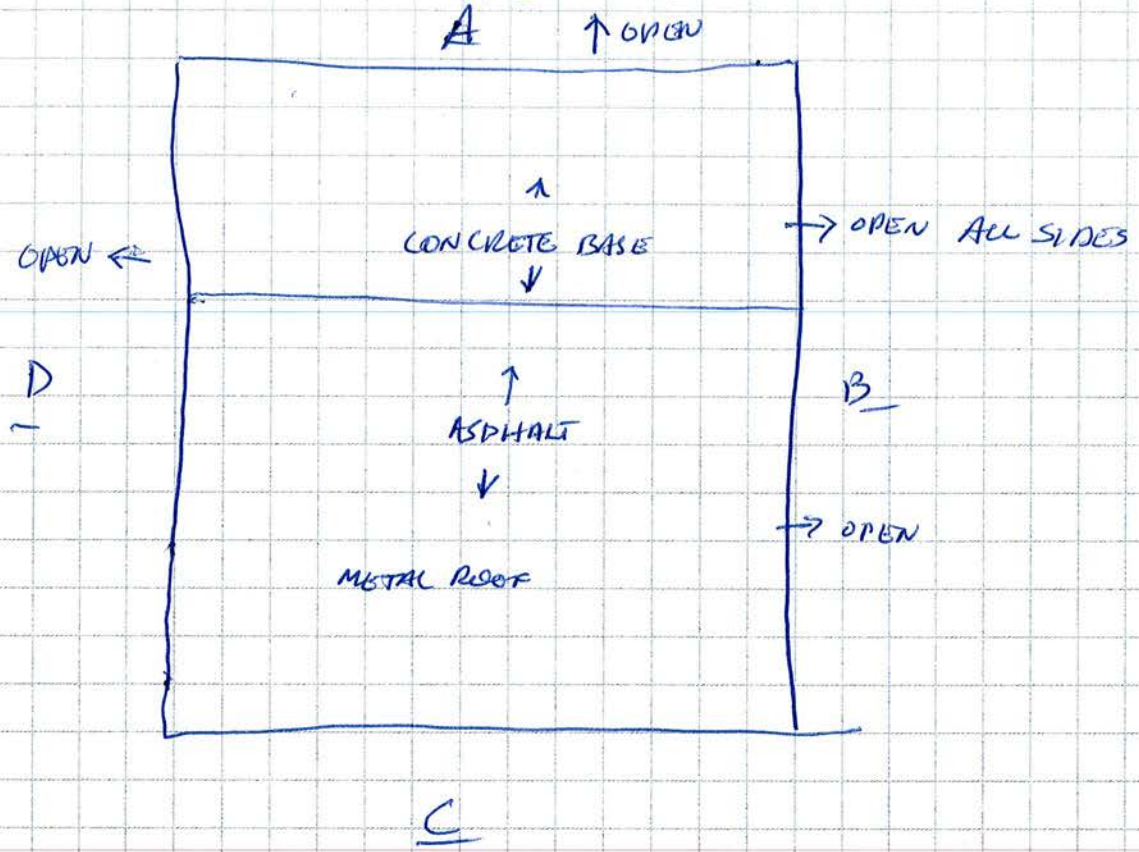
PROJECT NO. 209058

DATE 11/19/13

BY JGB

CHK'D

SUBJECT 671-2 SMALL EQUIPMENT SHELTER
NO SUSPECT ACM
METAL LOUVERED SHED



A

SHEET NO. 1 OF 1

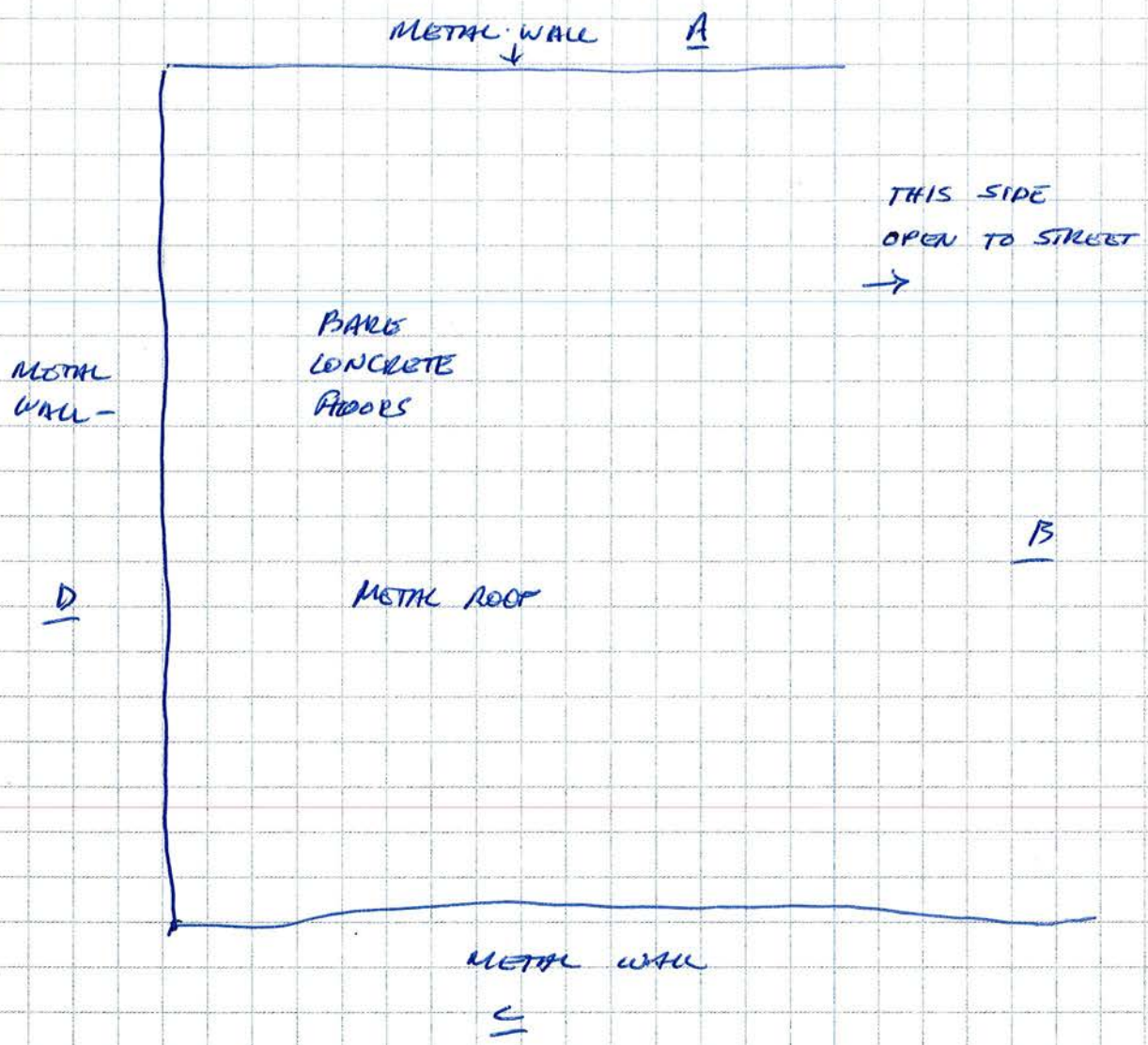
PROJECT NO. 209058

DATE 11/18/13

BY J. BOMAKER

CHK'D

SUBJECT LARGE EQUIPMENT SHELTER 671-3
NO SUSPECT ACM



A

Appendix D

Photographs

Photo #1: Amistad Hydro – building

Photo #2: Amistad Hydro – 1' x 1' ceiling tiles

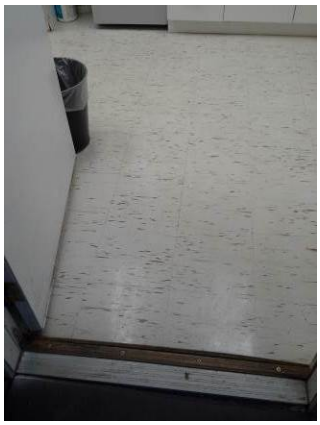


Photo #3: Amistad Hydro – 12" x 12" VCT

Photo #4: Amistad Hydro – foil-backed insulation

Photo #5: Amistad Hydro – 9" x 9" VCT, cove base and walls

Photo #6: Amistad Pump House – building

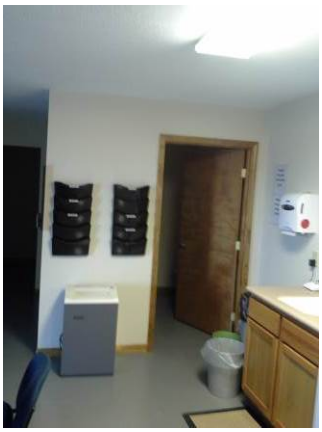


Photo #7: Amistad Security – walls

Photo #8: Amistad Security – roof and siding

Photo #9: Amistad O&M – building

Photo #10: Amistad O&M – 12” x 12” brown VCT

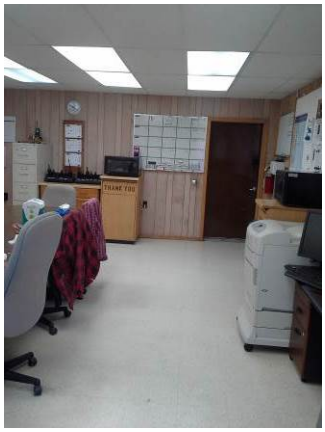


Photo #11: Amistad O&M – 2’ x 4’ ceiling panels

Photo #12: Amistad O&M – foil-backed insulation

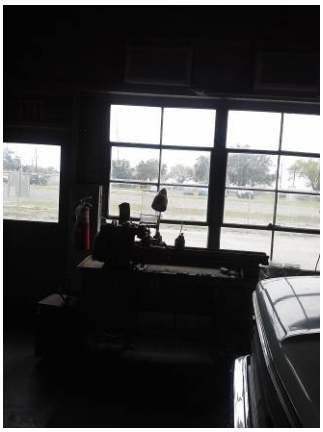


Photo #13: Amistad O&M – caulking and glazing

Photo #14: Amistad O&M – 12” x 12” blue VCT and cove base

Photo #15: Amistad Gauging Station – building

Photo #16: Amistad Gauging Station – glued-in ceiling panels

Photo #17: Amistad Radio Control Room – building

Appendix E

Inspector Certifications

TEXAS DEPARTMENT OF STATE HEALTH SERVICES

1100 West 49th Street • Austin, Texas 78756
P.O. Box 149347 • Austin, Texas 78714-9347
1-888-963-7111 • www.dshs.state.tx.us
TTY: 1-800-735-2989

DAVID L. LAKEY, M.D.
COMMISSIONER

Dear Applicant:

Your License/Registration is enclosed. Please verify that all information is correct.

Please contact the Environmental and Sanitation Licensing Group at 512-834-6600 if you have any questions.

Estimado Aplicante:

Adjunto encontrará su licencia/registración. Favor de verificar que su información personal estè correcta.

Si tiene alguna pregunta o duda, favor de llamar al Departamento de Licencias al número de teléfono 512-834-6600.

Sincerely,
Atentamente,

Regulatory Licensing
Environmental & Sanitation Licensing Group

Texas Department of State Health Services

Asbestos Individual Consultant

DOUGLAS W COBURN
License No. 105708
Control No. 96530
Expiration Date: 7/9/2015

Texas Department of State Health Services

Asbestos Individual Consultant

JOSEPH G BOHNAKER
License No. 105480
Control No. 96489
Expiration Date: 4/18/2015

TDH TDH TDH

Texas Department of Health certifies that:

JOSEPH G BOHNAKER
is Licensed as
Individual Asbestos Consultant
License Number: 105480
From: 04/19/2004
To: 04/18/2005
Control No: 77961

Texas Department of State Health Services

Asbestos Individual Consultant

JOSEPH G BOHNAKER
License No. 105480
Control No. 96142
Expiration Date: 4/18/2013

Texas Department of Health certifies that:

JOSEPH G BOHNAKER

License Number **105480**
is Licensed as an
Individual Asbestos Consultant

From **04/19/2003** To **04/18/2004**

Eduardo J. Sanchez, M.D., M.P.H.
Commissioner of Health

Control No. 71295

Texas Department of State Health Services

Asbestos Individual Consultant

JOSEPH G BOHNAKER
License No. 105480
Control No. 95742
Expiration Date: 04/18/2011

Texas Department of Health certifies that:

JOSEPH G BOHNAKER

License Number **105480**
is Licensed as an
Individual Asbestos Consultant

From **04/19/2002** To **04/18/2003**

Eduardo J. Sanchez, M.D., M.P.H.
Commissioner of Health

Control No. 63971

TEXAS Department of State Health Services

Control No: 95409

Department of State Health Services certifies that:
Joseph G Bohnaker
is Licensed as an:
Asbestos Individual Consultant

License Number: 105480
Expiration Date: 4/18/2009

Texas Department of Health certifies that:

JOSEPH G BOHNAKER

License Number **105480**
is Licensed as an
Individual Asbestos Consultant

From **04/19/2001** To **04/18/2002**

C. E. Bell, M.D.
Charles E. Bell, M.D.
Executive Deputy Commissioner

Control No. 57159

TEXAS Department of State Health Services

Control No: 85659

Department of State Health Services certifies that:
JOSEPH G BOHNAKER
is Licensed as an:
Individual Asbestos Consultant

License Number: 105480
From: 04/19/2005
To: 04/18/2007

Texas Department of Health certifies that:

JOSEPH G BOHNAKER

License Number **105480**
is Licensed as an
Individual Asbestos Consultant

From **04/19/2000** To **04/18/2001**

William R. Archer III, M.D.
Commissioner of Health

Control No. 50832

GEBCO Associates certifies that

Joseph G. Bohnaker

has successfully completed in compliance with the EPA model curriculum and TDSHS regulations the course

LEAD INSPECTOR

Date of issue: **11/05/2008** Certificate No.: **08015**

Course schedule anytime @ www.gebco.org

GEBCO Associates, LP

4690 Diplomacy, Suite 120
Fort Worth, TX 76155

GEBCO

Phone: 817-268-4006
Fax: 817-282-9886

Appendix F

Previous Asbestos & Lead-Paint Inspection Reports

Asbestos & Lead-Paint Survey Report

USIBWC Amistad Power Plant and Warehouse
Del Rio, Texas

Request for Proposal (RFP) #12-05
IDIQ Fixed Price Proposal Contract IBM09D0010

Prepared for:

U.S. International Boundary and Water Commission
4171 N. Mesa St., Suite C-100
El Paso, Texas 79902-1441

Submitted by:

505 East Huntland Drive, Suite 250
Austin, Texas 78752
Telephone: (512) 329-6080 Facsimile: (512) 343-1083

May 31, 2012

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Appendices

Appendix A-Bulk Asbestos Sample laboratory Report

Appendix B-Lead-Based Paint XRF Field Data sheets

Appendix C-Sample Location Drawings

Appendix D-Photographs of Positive Materials

Appendix E-Inspector Certifications

EXECUTIVE SUMMARY

TRC Environmental Corporation (TRC) was contracted by the United States International Boundary and Water Commission (IBWC) to conduct an asbestos and a lead-based paint survey at the Amistad Power Plant and Warehouse Building located at 670 Texas Spur 349, Del Rio, Texas. The asbestos survey comprised of surveying the accessible interior and exterior building materials at the Power Plant and the Warehouse buildings. The survey consisted of identification of suspect building materials, collection of bulk samples of suspect asbestos containing materials, material condition assessments, and laboratory analysis of samples collected. The lead-based paint survey comprised of the assessment and testing of painted surfaces using a X-ray Fluorescence (XRF) Lead spectrum analyzer for the detection of lead based paint. The survey was performed on April 10- 11, 2012 by Mr. Sam Seneviratne, and assisted by Mr. Hector Gonzalez.

Asbestos Findings

Results of the asbestos survey indicated the presence of detectable asbestos in the following materials:

Power Plant

- Vinyl Sheet Flooring Blue, Green and White Square Pattern-Office Areas on the 4th Floor and Employee Lunch room, Locker room, and Toilets on the 3rd Floor-90% Chrysotile
- Roof Parapet Wall Metal Flashing Caulking- Upper and Lower Roofs-5% Chrysotile
- Flange Gasket-1st Floor Chemical Storage Tank Side Flange-90% Chrysotile
- Gasket Materials-3rd Floor Mezzanine Parts Storage Area-80% Chrysotile
- Sink Countertop-4th, Floor Battery Room- Assumed to Contain Asbestos
- Gray-Metal Slider Door Core-1st Floor Chemical Storage- Assumed to Contain Asbestos

Warehouse Building

- No asbestos materials found.

Lead-Based Paint Findings

The results of the lead-based paint investigation indicates that some of the painted components and fixtures tested in the Power Plant structure were found to contain lead at concentrations above the Federal lead-based paint level of 1.0 milligram per square centimeter (mg/cm^2), as identified by XRF analyzer.

Power Plant

- Black-Metal Gantry Crane Frame and Platform-Exterior Southwest
- Beige-Metal Elevator Door Frame on floors 1 thru 4
- White-Glazed Metal Sink-Custodian Closet 4th and 3rd, floors
- Orange-Metal Powerhouse Crane Frame, 20 and 125 Ton Hooks-Erection Floor
- Cream-Metal Cable Tray and Support-Exterior North side
- Yellow-Metal Flammable Storage Cabinet- Exterior North side
- Yellow-Metal 2 ton Crane Boom- 3rd Floor Machine Shop

- Black-Metal-Handrail-3rd, Floor Parts Storage Area
- Yellow-Concrete Floor stripping-3rd Floor Elevator lobby
- Black-Metal Elevator Gate 1st, thru 4th, floors
- Red-Metal Hitachi Tool Rack-Generator Bay
- Blue-Metal Step and Riser-Stairs to Turbine Pit from Generator Bay
- Blue-Metal Wall-Inside Turbine Pit
- Blue-Metal Servo Linkage- Inside Turbine Pit
- Gray-Metal Shim-Upper Roof Parapet wall flashing fastener
- Gray-Metal Slider Door-1st Floor Chemical Storage area
- Gray-Metal Clean Oil Storage Tank 1st Floor Chemical Storage area
- Gray-Metal Dirty Oil Storage Tank 1st Floor Chemical Storage area
- Gray-Metal Spiral Case and Access Hatch 1st Floor Piping Gallery
- Black-Metal Handrail-Stairs to Penstock Gallery
- Green-Metal Piping-Penstock Drain/Fill #2
- Gray-Metal Draft Tube and Access Hatch-Penstock Gallery

Warehouse Building

No lead-based paint found

1.0 Introduction

TRC Environmental Corporation (TRC) was contracted by the United States International Boundary and Water Commission (IBWC) to conduct an asbestos and a lead based paint survey at the Amistad Power Plant and Warehouse Building located at 670 Texas Spur 349, Del Rio, Texas. The survey was performed on April 10-11, 2012, by Mr. Sam Seneviratne, and Mr. Hector Gonzalez, both EPA Accredited AHERA Asbestos Building inspectors and EPA Lead Inspectors employed by TRC. The survey included the inspection and assessment of accessible interior and exterior construction materials associated with the building structures on site.

The asbestos and lead-based paint survey findings will be used to effectively manage asbestos-containing materials (ACM) and Lead-Based Paint (LBP) in the scope areas of the Power Plant and Warehouse building structures (the "Site"). The accumulated assessment information may be used in operations and maintenance plans for the facility designed to prevent accidental disturbance to ACM and LBP.

2.0 Building Descriptions

The following provides a summary of the Power Plant Building and Warehouse Building areas defined as the scope of work areas under Contract # IBM09D0010. Both of the building structures are located on federal land, were considered non-public buildings, are secured by fencing/locked gates, and have industrial processes. A description of the building structures are as follows:

Power Plant Structure: This is a 27,786 Square foot of building, built of concrete with steel framed roof. This building has four levels. The top level (Elevation 930 or 4th Floor) has offices, switchgear rooms, and an HVAC fan room. The 4th floor is actually at ground level as you enter the building from the roadway. The 3rd level (Elevation 910, down one level from the 4th floor) houses the maintenance shops, parts room, lunch room and restrooms. The 2nd level (elevation 891) houses the control panels, the Turbine room, and pump area. The 1st level (elevation 876) houses the oil room, compressors, and piping galleries.

Warehouse: The warehouse building is located just east of the dam up-gradient from the power plant. The building is of metal frame construction built slab on grade with metal panel siding and metal panel roof. The main storage area of the warehouse is unfinished with concrete floors and the metal siding/roofing. The southern portion of the building has a meeting/conference room a kitchen, two offices, restrooms, and a small closet/storage area. The warehouse comprises approximately 10,200 square feet of area and is single-story with a high ceiling/roof.

3.0 Background

Asbestos Containing Materials

The Occupational Safety and Health Administration (OSHA) and the Environmental Protection Agency (EPA) define an asbestos-containing material (ACM) as any material containing more than one percent (>1.0%) asbestos by weight. In addition, ACM are designated by the EPA into one of three characteristic categories as follows:

- Friable asbestos - material which can be crumbled, pulverized or reduced to powder by hand pressure, a.k.a. Regulated Asbestos Containing Materials (RACM)

- Category I Non-friable - includes resilient floor coverings, asphalt roofing products, gaskets and packing. These materials may become friable if degraded or damaged to the point where the material can be crumbled, pulverized or reduced to powder by hand pressure.

- Category II Non-friable - any non-friable ACM that is not in Category I (i.e. Asbestos-cement (Transite®) siding or roofing mastics).

Asbestos Sampling and Analytical Procedures

Representative bulk samples of suspect asbestos-containing building materials were randomly collected from the identified homogenous building material applications. Homogenous material determination was based on the following criteria:

- Similar physical characteristics (same appearance, age, color and texture, etc.),
- Application (e.g. sprayed or trowel-on, assembly into a system, etc.),
- Material function (e.g. thermal insulation, floor tile, wallboard system, etc.).

Laboratory services were provided by TRC's laboratory located in Windsor, Connecticut. TRC's analytical laboratory is a National Voluntary Laboratory Accreditation Program (NVLAP) certified laboratory (NVLAP code # 101424-0).

Bulk samples were analyzed by polarized light microscopy (PLM) utilizing the EPA's Test Methods: Methods for the Determination of Asbestos in Bulk Building Materials (EPA 600/R-93/116, July 1993) and the McCrone Research Institute's The Asbestos Particle Atlas as method references.

Analysis by PLM was performed by visual observation of the bulk sample and by microscopic analysis using dispersion staining PLM methodology. The samples were analyzed for asbestiform minerals (Chrysotile, Amosite, Crocidolite, Anthophyllite, Actinolite, and Tremolite), fibrous non-asbestos constituents (mineral wool, cellulose, etc.) and non-fibrous constituents. Using a stereoscope, the microscopist visually estimates the relative amounts of each constituent by determining the estimated area of the asbestos compared with the area estimate of the total sample.

4.0 Asbestos Findings

Suspect Asbestos-Containing Materials (ACM), including building materials/finishes, insulated wire, and equipment/machinery components, e.g., gaskets, packing, dampening materials and insulation were inspected, sampled and analyzed for asbestos. Typical suspect building materials include finishes (e.g. drywall systems, suspended ceiling panels, glued ceiling tiles, floor tiles, vinyl sheet flooring, floor finish adhesives, cove base, cove base adhesive, textured coatings, roofing materials, caulks, sealants, and plasters. Non-suspect asbestos materials are items purely composed of glass, metal, concrete, rubber, brick, ceramic, grouts, fiberglass, foam, Styrofoam, and paper.

According to federal regulations, regulated ACM are ACMs containing greater than 1% asbestos by weight.

4.1 *Asbestos Containing Materials (>1%)*

Asbestos was either detected in concentrations exceeding one percent in the following materials sampled during the asbestos survey or the listed component/materials was presumed to have asbestos, based on limitations of sampling feasibility. Results of the asbestos survey indicated the presence of detectable asbestos in the following materials:

Power Plant

Material	Location	Percentage/ Type	Approx Quantity*	NESHAP Category	Condition
Vinyl Sheet Flooring (Blue, Green and White Square Pattern)	Power Plant-4th Floor Office Areas and 3rd Floor Employee Lunch room, Locker room and Toilets	90% Chrysotile	1,400 SF	RACM	Poor
Roof Parapet Wall Metal Flashing Caulking White	Power Plant – Upper and Lower Roofs	5% Chrysotile	850 SF	CAT II	Poor
Flange Gasket	Power Plant 1st Floor Chemical Storage Tank Side Flange	90% Chrysotile	40 Linear Feet	CAT I	Good
Gasket Materials	Power Plant 3rd Floor Mezzanine Parts Storage Area	80% Chrysotile	200 SF	CAT I	Good
Various Flange and Valve Gasket	On Piping and Equipment on Floors 1-4 Power Plant	Presumed to Contain Asbestos	1,000 LF	CAT I	Good
Sink Countertop	Power Plant 4th, Floor Battery Room	Presumed to Contain Asbestos	25 SF	CAT II	Good
Gray Metal Slider Door core	1st Floor Chemical Storage Area	Presumed to Contain Asbestos	200 SF	CAT II	Good

*Estimated quantities of ACMs listed are provided as a guide to the building owner. The material quantities listed in the table are approximations and TRC is not responsible for the accuracy of the quantities and measurements provided.

Warehouse Building

Material	Location	Percentage/Type	Approx Quantity	NESHAP Category
Asbestos was **not** detected in any of the sampled materials				

4.2 *Negative Materials*

Samples of the following suspect materials were collected in the locations noted below and were reported with no detectable asbestos, as indicated by laboratory PLM analysis:

Power Plant Negative Materials	
Material	**Sample Locations**
2' x 2' Drop Ceiling Panels	Maintenance/Tool Storage, Supervisor & Records Office, Hallways and Electrical Room
Duct Sealant Caulk (White)	Maintenance/Tool Storage, Supervisor & records Office, Hallways, Electrical Room and HVAC room
4" Cove Base (Black) & Associated Mastic (Brown)	Maintenance/Tool Storage, Supervisor & Records Office, Hallways, Electrical Room and 3rd Floor Employee Lunch room,
Wall board & Joint Compound	Maintenance/Tool Storage, Supervisor & records Office, Hallways, Electrical Room and 3rd Floor Employee Lunch room, Locker room and Toilets
Vinyl Sheet Floor Mastic (Brown)	4th Floor Office Areas and 3rd Floor Employee Lunch room, Locker room and Toilets
Ceramic Tile (Green) and Grout (Gray)	4th, and 3rd Floor Restrooms
Textured Paint	Walls of the Erection Floor
Wall Texture Coat	Walls of the Erection Floor
Concrete Panel and Block Wall Caulk	Interior and exterior walls and roof
Pipe Insulation Glue/ Mastic	Pipe Insulation on exterior north side and interior floors 1-4
Duct Insulation Paper And Glue	4th Floor HVAC room
Roof Mastic Sealant (Black & with Silver Paint)	Upper and lower roofs, Parapet walls
Poured in place Concrete walls	Roof parapets and exterior walls
Mastic at Roof Penetrations	Lower roof penetrations
Fiberglass Pipe Insulation end cap caulk	4th floor, HVAC room, 3rd Floor Maintenance Shop & 2nd Floor Turbine room
Electric Wire Insulation-various colors	3rd Floor Mezzanine storage area
9" OD Gaskets	2nd Floor Turbine room

Warehouse Building Negative Materials	
Material	**Sample Locations**
Interior Panel Insulation	Metal roof and walls
12" Floor Tile (Tan with white and gray specks) and Mastic (Yellow)	Conference room floor
4" Cove Base (Black) & Associated Mastic (Dark Brown)	Conference room walls
Wall board & Joint Compound	Conference room and offices
Floor leveling /filler compound (Brown)	Storage room under floor tile
2' x 2' Drop Ceiling Panels	Conference room and offices
Roof Sealant on metal seams	Warehouse roof

4.3 *Asbestos Recommendations*

Results of bulk sample analysis confirmed that asbestos was identified in regulated concentrations within some of the building materials sampled. The ACM was found to be in fair to good condition at the time of the inspection. If damaged ACM is encountered, it should be repaired, encapsulated, or removed as soon as feasible. Access to the damaged ACM by building occupants should be restricted in the areas of damage until abatement response actions can be completed. Such abatement methods should be performed by a qualified/licensed asbestos abatement contractor, and ACM should be handled, stored, and disposed of according to all local, state, and federal regulations.

Persons performing construction or maintenance work in the Site should be aware of the types and locations of ACM and that additional materials (not identified in this report), which are either inaccessible or hidden, may exist at the Site. Care should be used when performing work that disturbs building materials. Any suspect asbestos containing materials uncovered during maintenance, renovation, or demolition activities that are not addressed in this inspection report, or presumed asbestos containing materials (e.g. fire doors with asbestos laden cores), must be sampled by an accredited asbestos inspector prior to disturbance, or they must otherwise be assumed and treated as asbestos containing.

5.0 Lead-Based Paint Inspection

TRC conducted a lead-based paint (LBP) inspection for the determination of LBP and/or lead-based components at the Power Plant and Warehouse building structures (the "Site"). The LBP inspection was conducted in accordance with the United States Housing and Urban Development (HUD) guidance document, entitled "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing," 1997 Revision.

The general purpose of this investigation was to document the general condition of interior and exterior painted building surfaces and to characterize the composition of painted surfaces with regard to lead content. Information derived from this investigation may be used to further refine the scope of LBP abatement activities in support of future procurement activities and to establish baseline conditions for other portions of the property with regard to LBP. The scope of work associated with this investigation included the following elements:

- Visual inspection of interior and exterior building painted surfaces and components and
- Field testing of painted surfaces and components using an X-Ray Fluorescence (XRF) analyzer

The lead based paint testing was conducted by Sam Seneviratne, an EPA; Department of Housing and Urban Development (HUD) certified Lead-Based Paint Building Inspector/Assessor, Project Monitor. The inspection was conducted on April 10 and 11, 2012. Assistance was provided by Hector Gonzalez, an EPA/HUD Lead-Based Paint Sampling Technician.

Definition of Lead-Based Paint

The United States Department of Housing and Urban Development (HUD), and United States Environmental Protection Agency define lead-based paint as a paint or other surface coatings that contain an amount of lead equal to, or in excess of:

- One milligram per square centimeter (1.0 mg/cm^2); or
- One-half of one percent (0.5%) by weight.

Sampling and Analytical Procedures

All lead-based paint testing was performed using a RMD Model LPA-1B, X-ray Fluorescence (XRF) spectrum analyzer, serial #1124. Assessment activities and XRF testing were performed in accordance with the United States HUD guidance document, entitled "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing," 1997 Revision.

The RMD Model LPA-1B XRF uses a 12 milicurie Cobalt 57 sealed radioactive source which has a half life of 18 months. The XRF measures the L & K electron shell energy released by the excited atoms of the test material such as the painted and/or coated surface location to calculate the concentrations of a specific metal on the surface coating

down to the substrate. The RMD Model LPA-1B XRF does not have an inconclusive range such as the older generation XRF machines.

At the beginning and end of each work day and at various times during the day, the XRF was calibrated in order to ensure that the instrument was functioning properly. A series of three calibrated readings were obtained using a 1.9 mg/cm^2 NIST Paint Film Standard in accordance with the instrument manufacturer's protocol. In all cases, the instrument was functioning within the standard deviation as defined by the manufacturer and the Performance Characteristic Sheets. All validation readings were recorded in a logbook, which accompanies the instrument. A total of fifteen calibration tests were performed during the course of this investigation.

During this investigation, a total of one-hundred and seventy six (176) painted or coated substrate measurements were obtained using the XRF. The XRF field test data sheets with the results of the paint test measurements are presented in Appendix B-Lead-Based Paint XRF Field Data sheets.

5.1 Summary of Lead-Based Paint Testing Results

The XRF test results indicate that select painted surfaces and building components were found to be containing lead above the United States Department of Housing and Urban Development, and United States Environmental Protection Agency definition of lead-based paint. A summary of paints/coatings determined to be LBP by XRF analysis is provided below:

Power Plant

Component(s)	Color	Location(s)	Lead XRF Result (mg/cm^2)	Approximate Quantity	Paint Condition
Metal Gantry Crane Frame and Platform	Black	Exterior Southwest	3.0 to 2.4	400 SF	Poor
Metal Elevator Door Frame	Beige	Floors 1 thru 4	4.0-7.5	4 Doors x 20 SF each	Intact
Glazed Metal Custodian sink	White	Custodian Closets 4th and 3rd, floors	>9.9	2 sinks	Intact
Metal Powerhouse Crane Frame, and 20 & 125 Ton Hook	Orange	Erection Floor	4.2	1,500 SF (Crane) 50 SF (Hooks)	Intact
Metal Cable Tray Support	Cream	Exterior North side	>9.9	6,000 SF	Fair
Metal Flammable Storage Cabinet	Yellow	Exterior North side	1.2	50 SF	Poor
Metal 2 ton Crane Boom	Yellow	Machine Shop	>9.9	20 SF	Intact
Metal-Handrail	Black	3rd, Floor Parts Storage	2.1	100 SF	Poor
Concrete Floor stripping	Yellow	3rd Floor Elevator lobby	2.9	16 SF	Poor
Metal Elevator Gate	Black	1st,-4th Floors-Elevator Door	1.0	200 SF	Intact
Metal Tool Rack	Red	Generator Bay Hitachi Tool Rack	9.8	60 SF	Intact

Component(s)	Color	Location(s)	Lead XRF Result (mg/cm²)	Approximate Quantity	Paint Condition
Metal Step and Riser	Blue	Stairs to Turbine Pit from Generator Bay	>9.9	160 SF	Intact
Metal Wall	Blue	Inside Turbine Pit	>9.9	600 SF	Intact
Metal Servo Linkage	Blue	Inside Turbine Pit	>9.9	1,000 SF	Intact
Metal Shim	Gray	Upper Roof Parapet Wall Flashing fastener	>9.9	40 SF	Poor
Metal Slider Door	Gray	1st Floor Chemical Storage	>9.9	200 SF	Intact
Metal Clean Oil Storage Tank	Gray	1st Floor Chemical Storage	>9.9	300.SF	Intact
Metal Dirty Oil Storage Tank	Gray	1st Floor Chemical Storage	9.2	300 SF	Intact
Metal Spiral Case and Access	Gray	Floor Piping Gallery	>9.9-7.1	12,000 SF	Intact
Metal Handrail	Black	Stairs to Penstock Gallery	2.1	60 LF	Intact
Metal Piping	Green	Penstock Drain/Fill #2	2.3	150 SF	Intact
Metal Draft Tube	Gray	Penstock Gallery	>9.9	10.000 Sf	Poor
Metal Access Hatch to Draft Tube-	Gray	Penstock Gallery	3.2	16 SF	Poor

Warehouse Building

Component(s)	Color	Location(s)	Lead XRF Result (mg/cm²)	Approx. Quantity	Condition
Lead-based paint components were **not** found in the Warehouse building.					

5.2 *Lead-Based Paint Conclusions*

Visual assessment of the lead-based paint identified in the Power Plant building identified painted surfaces in conditions other than "intact" in multiple areas of the interior and/or exterior of the buildings. The lead paint in poor condition (i.e., less than intact) must be stabilized or abated prior to demolition or repainting activities to prevent environmental contamination and worker exposure from lead paint.

5.3 *Lead-Based Paint Recommendations*

Disturbance of lead based paint should be performed by a contractor who has experience and expertise in LBP, abatement, handling and disposal and who can protect the employees of IBWC Amistad Power Plant, and the environment from lead exposure hazards. For construction work where an employee may be occupationally exposed to lead in any amount, the workers and contractor must comply with Federal Occupational Safety and Health (OSHA) worker lead exposure regulations 29 CFR 1910.1025 and 1926.62 (lead in construction). Additionally, lead containing waste must be characterized and profiled for proper disposal according to applicable federal State and local regulations.

TRC recommends that interior and exterior painted surfaces containing lead at concentrations greater than or equal to 1.0. Mg/cm2 and that are in poor condition be abated and/or stabilized. Based on the results of this assessment, the following materials meet the criteria for abatement and/or stabilization:

Power Plant

Component(s)	Color	Location(s)	Lead XRF Result (mg/cm^2)	Approximate Quantity	Condition
Metal Gantry Crane Frame and Platform	Black	Exterior Southwest	3.0 to 2.4	400 SF	Poor
Metal Flammable Storage Cabinet	Yellow	Exterior North side	1.2	50 SF	Poor
Metal-Handrail	Black	3rd, Floor Parts Storage	2.1	100 SF	Poor
Concrete Floor stripping	Yellow	3rd Floor Elevator lobby	2.9	16 SF	Poor
Metal Shim	Gray	Upper Roof Parapet Wall Flashing fastener	>9.9	40 SF	Poor
Metal Draft Tube	Gray	Penstock Gallery	>9.9	10,000 SF	Poor
Metal Access Hatch to Draft Tube-	Gray	Penstock Gallery	3.2	16 SF	Poor

5.4 *Lead-Based Paint General Recommendations*

Lead is a hazardous substance and its condition, handling and disposal are regulated by Federal, State and local agencies. Lead-containing materials, Lead-based paint, and Lead-Containing Paint generally do not pose a health risk unless the material is disturbed or sufficiently deteriorated to produce dust, which may become airborne and inhaled or ingested. Future site maintenance activities, including surface preparation and painting, may involve practices that could disturb lead-containing materials. The following paragraphs provide a general overview of applicable regulatory standards that relate to the management and/or disposal of lead-based paint:

- The Federal Occupational Safety and Health (OSHA) 29 CFR 1910.1025 and 1926.62 (lead in construction) do not provide a definition for "lead-based paint". Rather, the Lead Construction Standard provides a Permissible Exposure Limit (PEL) for worker exposure to airborne lead particles of 50 micrograms per cubic meter of air (50 $\mu g/m^3$ for an 8-hour time-weighted average). All employees (workers) and supervisors, who are engaged in lead-related construction activities and shown to be exposed to lead at or above the Permissible Exposure Limit, shall be trained by state-accredited training providers and certified by the Environmental Protection Agency. The OSHA Lead in Construction Standard states that "negative" readings i.e. those below the HUD/EPA definition of what constitutes LBP (1.0 mg/cm^2), "DO NOT" relieve contractors from performing exposure assessments (personal exposure monitoring) on their employees per the OSHA Lead Standard, and should not be interpreted as lead is not present. Although a reading may indicate "negative" result or lead concentration, concentrations of airborne lead may still exceed the OSHA Action Level or the OSHA Permissible Exposure Limit (PEL) depending on the work activity.

- Future site maintenance activities, including repair, surface preparation and painting, sand/shot blasting, and sanding, in areas where lead-based paint has been identified may result in the liberation of lead at concentrations in excess of the OSHA PEL. TRC recommends the removal and/or stabilization of building materials during planned renovation. Lead-based painted materials should only be removed, handled or stabilized by lead trained personnel in accordance with all applicable federal, state, and local regulations. These requirements include, but are not limited to, the following: Exposure Assessments; Methods of Compliance including work practices, administrative, and engineering controls; Respiratory Protection; Protective Clothing and Equipment; Housekeeping; Hygiene Facilities; Medical Surveillance; and Employee Information and Training. The waste materials generated must be segregated accordingly and must be subjected to waste characterization testing and disposed of according to applicable regulations.

- Lead containing waste must be disposed of in accordance with all applicable federal, state, county or local regulations and guidelines. It is the sole responsibility of the Contractor to assure compliance with all laws and regulations relating to the disposal. The abatement contractor should comply with the requirements of the Resource Conservation and Recovery Act (RCRA). Waste materials shall be segregated into separate waste streams (i.e. paint chips, personal protective equipment, plastic, etc.) and placed into labeled, leak-tight containers. Wastewater from the washing facilities should be captured, filtered, and sampled for lead content prior to disposal into the sanitary sewer system. Additional details regarding waste characterization sampling and analysis are provided in the following section.

5.5 Waste Characterization Recommendations

Wastes that are generated during demolition and/or building maintenance activities may contain concentrations of lead that would render the waste material as a hazardous waste. In order to determine whether the wastes are to be classified as non-hazardous

solid or hazardous waste as defined by the RCRA, a Toxic Characterization Leaching Procedure (TCLP) test must be performed. If any of the waste characterization test samples are at or above the 5.0 mg/liter threshold criteria, the Contractor shall dispose of the waste material as hazardous waste.

The contractor should check in advance with the intended landfill to inquire about the testing requirements of that landfill. Testing for other hazards may be required. Segregation of waste materials and representative characterization analysis for the disposal of wastes as provided herein shall be the responsibility and be required of the Contractor.

6.0 DISCLAIMER

The content presented in this report is based on data collected during the site inspection and survey, review of pertinent regulations, requirements, guidelines and commonly followed industry standards, and information provided (if any) by the property owner, their clients, agents, and representatives.

The work has been conducted in an objective and unbiased manner and in accordance with generally accepted professional practice for this type of work. TRC believes the data and analysis to be accurate and relevant, but cannot accept responsibility for the accuracy or completeness of available documentation or possible withholding of information of other parties. Structures or components thereof surveyed may contain hidden surfaces or materials requiring destructive access to inspect and/or sample. It is possible that additional materials could be discovered during destructive or demolition activities. In the event additional materials (not identified herein) are discovered during such activities, additional investigation and sampling may be necessary.

This asbestos survey and lead-based paint inspection report is designed to aid the property owner, architect, construction manager, general contractor, and asbestos or LBP abatement contractor in locating ACM and/or LBP . This report is not intended for, and may not be utilized as, a bidding document or as an abatement project specification document.

7.0 SIGNATORY

This asbestos and lead-based paint survey activities and report of the findings were provided by TRC, was conducted by a licensed professional, experienced in the inspection and survey for asbestos containing materials and lead-based paint in building structures and associated components thereof. If there are any questions concerning information contained in this report, you may contact one of the undersigned in our Irvine, California office, phone # 949.727.9336.

Sincerely,
TRC Environmental Corporation

Sam Seneviratne, CAC, REA
Project Manager
AHERA Building Inspector
Certification # 211-206-BIR
Exp: December 8, 2012

Douglas W. Coburn, CAC, REA
Senior Project Manager

Appendix A

Bulk Asbestos Sample Laboratory Analytical Report

And Chain of Custody

TRC
Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

BULK ASBESTOS ANALYSIS REPORT

CLIENT: U.S. International Boundary & Water Company

Site: Amistad Power Plant
Lab Log #: 40603
Project #: 192271.0000.0000
Date Received: 04/12/12
Date Analyzed: 04/13/12

RESULTS

Sample No.	Color	Homogeneous	Multi-Layered	Layer No.	Other Matrix Mat'ls	Asbestos %	Asbestos Type
1	White/Grey	Yes	No	--	40% cellulose 40% mineral wool	ND	None
2	White/Grey	Yes	No	--	40% cellulose 40% mineral wool	ND	None
3	White/Grey	Yes	No	--	40% cellulose 40% mineral wool	ND	None
4	White	Yes	No	--	--	ND	None
5	White	Yes	No	--	--	ND	None
6	White	Yes	No	--	--	ND	None
7	White	Yes	No	--	--	ND	None
8	White	Yes	No	--	--	ND	None
9	White	Yes	No	--	--	ND	None
10	White	Yes	No	--	--	ND	None
11	White	Yes	No	--	--	ND	None
12	White	Yes	No	--	--	ND	None
13	Black	Yes	No	--	--	ND	None
14	Black	Yes	No	--	--	ND	None
15	Black	Yes	No	--	--	ND	None
16	Brown	Yes	No	--	--	ND	None
17	Brown	Yes	No	--	--	ND	None
18	Brown	Yes	No	--	--	ND	None
19	Blue/Green/White/Grey	Yes	No	--	--	90%	Chrysotile
20	--	--	--	--	--	NA/PS	--
21	--	--	--	--	--	NA/PS	--
22	Brown	Yes	No	--	--	ND	None

23	Brown	Yes	No	--	--	ND	None
24	Brown	Yes	No	--	--	ND	None
25	Green	Yes	No	--	--	ND	None
26	Green	Yes	No	--	--	ND	None
27	Green	Yes	No	--	--	ND	None
28	Grey	Yes	No	--	--	ND	None
29	Grey	Yes	No	--	--	ND	None
30	Grey	Yes	No	--	--	ND	None
31	Beige	Yes	No	--	--	ND	None
32	Beige	Yes	No	--	--	ND	None
33	Beige	Yes	No	--	--	ND	None
34	Beige	Yes	No	--	--	ND	None
35	Beige	Yes	No	--	--	ND	None
36	Beige	Yes	No	--	--	ND	None
37	White	Yes	No	--	--	ND	None
38	White	Yes	No	--	--	ND	None
39	White	Yes	No	--	--	ND	None
40	White/Yellow/Silver	Yes	No	--	40% cellulose	ND	None
41	White/Yellow/Silver	Yes	No	--	40% cellulose	ND	None
42	White/Yellow/Silver	Yes	No	--	40% cellulose	ND	None
43	Dark Yellow	Yes	No	--	60% cellulose 30% fiberglass	ND	None
44	Dark Yellow	Yes	No	--	60% cellulose 30% fiberglass	ND	None
45	Dark Yellow	Yes	No	--	60% cellulose 30% fiberglass	ND	None
46	Grey/White/Black	Yes	No	--	10% fiberglass	ND	None
47	Grey/White/Black	Yes	No	--	10% fiberglass	ND	None
48	Grey/White/Black	Yes	No	--	10% fiberglass	ND	None
49	Grey	Yes	No	--	--	ND	None
50	Grey	Yes	No	--	--	ND	None
51	Grey	Yes	No	--	--	ND	None
52	Black/Grey	Yes	No	--	20% cellulose	ND	None
53	Black/Grey	Yes	No	--	20% cellulose	ND	None
54	Black/Grey	Yes	No	--	20% cellulose	ND	None
55	Black	Yes	No	--	20% cellulose	ND	None
56	Black	Yes	No	--	20% cellulose	ND	None
57	Black	Yes	No	--	20% cellulose	ND	None
58	Grey	Yes	No	--	--	ND	None

59	Grey	Yes	No	--	--	ND	None
60	Grey	Yes	No	--	--	ND	None
61	White	Yes	No	--	--	5%	Chrysotile
62	--	--	--	--	--	NA/PS	--
63	--	--	--	--	--	NA/PS	--
64	Black	Yes	No	--	20% cellulose	ND	None
65	Black	Yes	No	--	20% cellulose	ND	None
66	Black	Yes	No	--	20% cellulose	ND	None
67	Black/Tan	Yes	No	--	--	ND	None
68	Black/Tan	Yes	No	--	--	ND	None
69	Grey	Yes	No	--	--	90%	Chrysotile
70	White/Yellow	Yes	No	--	10% fiberglass	ND	None
71	White/Yellow	Yes	No	--	10% fiberglass	ND	None
72	White/Yellow	Yes	No	--	10% fiberglass	ND	None
73	Grey	Yes	No	--	--	80%	Chrysotile
74	--	--	--	--	--	NA/PS	--
75	--	--	--	--	--	NA/PS	--
76	Black	Yes	No	--	60% synthetic	ND	None
77	Black/White	Yes	No	--	60% synthetic	ND	None
78	Black/Orange	Yes	No	--	60% synthetic	ND	None
79	Black/Red	Yes	No	--	60% synthetic	ND	None
80	Black/Green	Yes	No	--	60% synthetic	ND	None
81	Brown	Yes	No	--	90% cellulose	ND	None
82	Grey	Yes	No	--	--	ND	None
83	Red/Orange	Yes	No	--	--	ND	None
84	Black/Grey	Yes	No	--	--	ND	None
85*	--	--	--	--	--	--	--
86	Brown/Silver	Yes	No	--	--	ND	None
87	Grey	Yes	No	--	--	ND	None
88	Brown/Silver	Yes	No	--	--	ND	None
89	Tan	Yes	No	--	--	ND	None
90	Tan	Yes	No	--	--	ND	None
91	Tan	Yes	No	--	--	ND	None
92	Light Yellow	Yes	No	--	--	ND	None
93	Light Yellow	Yes	No	--	--	ND	None
94	Light Yellow	Yes	No	--	--	ND	None
95	Black	Yes	No	--	--	ND	None

96	Black	Yes	No	--	--	ND	None
97	Black	Yes	No	--	--	ND	None
98	Dark Brown	Yes	No	--	--	ND	None
99	Dark Brown	Yes	No	--	--	ND	None
100	Dark Brown	Yes	No	--	--	ND	None
101	White	Yes	No	--	--	ND	None
102	White	Yes	No	--	--	ND	None
103	White	Yes	No	--	--	ND	None
104	White	Yes	No	--	--	ND	None
105	White	Yes	No	--	--	ND	None
106	White	Yes	No	--	--	ND	None
107	Brown	Yes	No	--	--	ND	None
108	Brown	Yes	No	--	--	ND	None
109	Brown	Yes	No	--	--	ND	None
110	White/Grey	Yes	No	--	40% cellulose 40% mineral wool	ND	None
111	White/Grey	Yes	No	--	40% cellulose 40% mineral wool	ND	None
112	White/Grey	Yes	No	--	40% cellulose 40% mineral wool	ND	None
113	Grey	Yes	No	--	--	ND	None
114	Grey	Yes	No	--	--	ND	None
115	Grey	Yes	No	--	--	ND	None

NA/PS- Not Analyzed/Positive/Stop

* No sample

Reporting limit- asbestos present at 1%
ND - asbestos was not detected
Trace- asbestos was observed at level of less than 1%

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, negative results must be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation (1982), and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116), July 1993, R.L. Perkins and B.W. Harvey which utilizes polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2012. TRC is an American Industrial Hygiene Association (AIHA) accredited lab for PLM effective through October 1, 2012. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and the QC data related to the samples is available upon written request from the client.

This report shall not be reproduced, except in full, without the written approval of TRC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested.

Analyzed by _____
Kathleen Williamson, Laboratory Manager

Reviewed by _____ QM
Kathleen Williamson, Laboratory Manager
or other approved signatory

Date Issued: 04-16-12

TRC

21 GRIFFIN ROAD NORTH
WINDSOR, CONNECTICUT 06095
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Edition: October 2009
Supersede Previous Edition

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

International Boundary & Water Co.

LAB ID #. 40603

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
192271	US IBWC - Amistad Power Plant		PLM: 8hr 24hr 48hr ~~5day~~ ✓
			TEM: 24hr 48hr 3day ~~5day~~

SIGNATURE: Sam Senevirathne

INSPECTOR: CAC#93-0886 SAM SENEVIRATNE

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
	2/10 & 11/12	All day		✓	See Attached logs	✓					See attached logs

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
Sam Senevirathne	2/11/12	4/12/12			
(Printed)	Time:	(Printed)	(Printed)	Time:	(Printed)
SAM SENEVIRATNE	3:00pm	0930			

Remarks:

Condition of Samples: OK
Acceptable: Yes ✓ No ____
Comments:

40603

ASBESTOS INSPECTION FIELD DATA SHEET

Project #:192271
Name: US IBWC-Amistad Power Plant
Location: 670 Texas Spur 349, Del Rio, TX 78840
Attach sample location drawing to ALL inspection forms

Inspector Name and License #: Sam Seneviratne CAC # 93-0886
Date of Inspection: 4/10/12
Inspector Signature: Sam Seneviratne

Sample #	Material Description	Material Location	Quantity (SF or LF)	Friable (NF or F)	Damage (ND, D, SD)	Photo #
1	2'x2' Drop Ceiling Panel	Maintance / Tool Storage	300	F		5
2	↓	Corridor, Sup + Records office	800 ft	↓		
3		Elec Equip Rm	900			
4	Duct Sealant Caulk	Ret loc #1	30 ft	NF		6
5	↓ (white)	Sup. office.	60 ft	↓		
6		Ret loc #3	80 ft			
7	Wallboard	Ret loc #1	20,000 ft	NF		7
8	↓	Super Storage Closet	↓	↓		↓
9		Elec Equip rm				
10	Joint Compound	Ret loc #1	↓	NF		↓
11	↓	Ret loc. #8		↓		
12		Ret " #9				
13	9" Base cove (Blk)	Ret loc #1	80 LF	NF		
14	↓	Elec Equipment rm (SCADA)	120 LF	↓		
15		" " "	"			
16	BCM (Brown)	Ret loc #1	↓	NF		
17	↓	Ret loc #14		↓		
18						↓
19	Vinyl sheet Fl (Blue, Green + white Sq pattern)	Superintendent office	720			8
20		office Area Entry	"	↓		
21		Emp lower rm	670			
22	VSF - Mastic (Brown)	Ret loc. 19	720			↓
23	↓	" " 20	"			
24		Emp lower rm	670	↓		
Assume Acm Not Sampled	Sink Counter top	4' x 2' Butler rm Sink	25 ft	NF.		9

Rec'd by: [illegible] 4/12/12 0930

40603

ASBESTOS INSPECTION FIELD DATA SHEET

Project #:192271
Name: US IBWC-Amistad Power Plant
Location: 670 Texas Spur 349, Del Rio, TX 78840
Attach sample location drawing to ALL inspection forms

Inspector Name and License #:Sam Seneviratne CAC # 93-0886
Date of Inspection: 4/10/12
Inspector Signature Sam Seneviratne

Sample #	Material Description	Material Location	Quantity (SF or LF)	Friable (NF or F)	Damage (ND, D, SD)	Photo #
25	Ceramic tile 6"x12" (green)	4th Fl restroom	224 sf	NF	ND	16
26		"	"			
27		3rd Fl	1,548 sf			
28	Ceramic tile Grout (gray)	Ref Loc 25	224 sf			
29		26	"			
30		27	"			
31	Textured Paint	Erection Fl South Wall	3,000 sf	NF	ND	11
32		East "			D	
33		North "			ND	
34	Wall texture coat	Ref Loc 31				
35		32				
36		33				
37	Conc wall Caulk	Caulk between wall / Floor	15,000 lf	NF	ND	18
38	" / Block wall Caulk	" " Conc Block / Conc Wall	5,000 lf			18
39		" " " " " "	"			
40	Duct insulation paper wrap	4th Fl HVAC Room	400 sf	F		17
41						
42						
43	Duct Insulation Paper Glue (brown)					
44						
45						
46	Pipe insulation (mud)	Pipe on 2nd floor [illegible]	18 lf	NF	ND	15
47						
48						
49	Caulk between [illegible]	North east wall 3rd Deck	200 lf	NF	ND	21
50						
51						

Read by: [illegible] 4/12/12 0930

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ASBESTOS INSPECTION FIELD DATA SHEET

Project #:192271
Name: US IBWC-Amistad Power Plant
Location: 670 Texas Spur 349, Del Rio, TX 78840
Attach sample location drawing to ALL inspection forms

Inspector Name and License #:Sam Seneviratne CAC # 93-0886
Date of Inspection: 4/10, 11/12
Inspector Signature Sam Seneviratne

Sample #	Material Description	Material Location	Quantity (SF or LF)	Friable (NF or F)	Damage (ND, D, SD)	Photo #
52	Mastic Sealant w silver paint	Upper roof parapet	100 SF	NF	ND	34
53		Cap Sheet Seams	)	)	)	)
54						
55	Mastic Sealant - Blk.	Upper roof parapet wall	25 SF			35
56	)	Conc. joints	)			
57		Lower roof	10 SF			
58	Concrete (poured-in place)	Parapet wall	10,000 SF.			
59			)			
60						
61	Parapet wall / metal flashing mastic (white)	parapet wall upper roof	380 LF			36
62		" " "	"			
63		" " lower roof	450 LF			
64	Mastic around roof penetration (Blk)	Lower roof penetration	50 #			37
65		)	)	)	)	
66						
67	Flange Gasket	1st Fl Chemical Storage Top flange	65x2 LF	NF	ND	45
68		) " "	"	)	)	"
69	)	) side "	20x2 LF			46
70	Fiberglass Insul. End cap Caulk	3rd Fl Maintenance shop	25 ea	NF	ND	47
71		)	)	)	)	
72		2nd Fl Turbine room				
73	Gasketing / Packing	3rd Fl Mez Parts Storage - 1500 - Blk	50 #	)	)	48
74		) 1500 - White	100 #			49
75	)	Johnson # 60	25 #			50
76	Elec wire Insulation	Blk	50 LF	)	)	51
77		white	)			)
78	)	Orange				

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406003

ASBESTOS INSPECTION FIELD DATA SHEET

Project #:192271
Name: US IBWC-Amistad Power Plant
Location: 670 Texas Spur 349, Del Rio, TX 78840
Attach sample location drawing to ALL inspection forms

Inspector Name and License #:Sam Seneviratne CAC # 93-0886
Date of Inspection: 4/12/12
Inspector Signature Sam Seneviratne

Sample #	Material Description	Material Location	Quantity (SF or LF)	Friable (NF or F)	Damage (ND, D, SD)	Photo #
79	Elec. Wire Insulation	3rd Fl Mezz Red	↓	NA	ND	51
80	↓	↓ Green	↓	↓	↓	"
81	Ebonite ↓ (Brn)	Brown	2 units			52
82	Gaskets 9" OD	2nd Fl Turbine Rm	50 ea	↓	↓	53
83	↓	↓ ↓	25"			↓
84						
86	Metal Roof Interior Insulation	Warehouse Bldg Ceiling				54
87	↓ ~~Wall~~ " " "	↓ "				"
88	Wall Siding " "	↓ Wall				55
89	FT 12" Tan w/ white & gray specks	↓ Conf. Rm Floor	1650 ft			56
90	↓	↓ ↓	↓			↓
91						
92	FT Master Lt. yellow	↓	↓			↓
93	↓	↓	↓			
94						
95	Base Cove (Blk) 4"	↓ Conf. Room Wall	250 LF			57
96	↓	↓ ↓	↓			↓
97						
98	BCM (Dk Brown)	↓	↓			↓
99	↓	↓	↓			
100						
101	wall board	↓	4500			↓
102	↓	↓ ↓	↓			
103						
104	Joint Compound	↓	↓			↓
105	↓	↓ ↓	↓			
106						

Read by: [illegible] 4/12/12 0930

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ASBESTOS INSPECTION FIELD DATA SHEET

Project #:192271
Name: US IBWC-Amistad Power Plant
Location: 670 Texas Spur 349, Del Rio, TX 78840
Attach sample location drawing to ALL inspection forms

Inspector Name and License #:Sam Seneviratne CAC # 93-0886
Date of Inspection: 4/11/12
Inspector Signature Sam Seneviratne

Sample #	Material Description	Material Location	Quantity (SF or LF)	Friable (NF or F)	Damage (ND, D, SD)	Photo #
107	Floor leveling/ filling	Warehouse Bldg storage rm	50 ft	NF	NA	58
108	compound	under FT				
109						
110	2'x2' Drop ceiling panel	Ceilings	1650			
111						
112						
113	Roof Sealant caulk	Roof	350 ft	NF		59
114	on metal roof					
115						

Sam Seneviratne 4/11/12

Rec'd by: [illegible] 4/12/12 0930

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

BULK ASBESTOS ANALYSIS REPORT

CLIENT: U.S. International Boundary & Water Company

Site: Amistad Power Plant, 670 Texas Spur 349, Del Rio, TX
Lab Log #: 40714
Project #: 192271.0000.0000
Date Received: 05/03/12
Date Analyzed: 05/03/12

RESULTS

Sample No.	Color	Homogeneous	Multi-Layered	Layer No.	Other Matrix Mat'ls	Asbestos %	Asbestos Type
74	White	Yes	No	--	90% synthetic	ND	None
75	Black	Yes	No	--	--	90%	Chrysotile

Reporting limit- asbestos present at 1%
ND - asbestos was not detected
Trace- asbestos was observed at level of less than 1%

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, negative results must be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation (1982), and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116), July 1993, R.L. Perkins and B.W. Harvey which utilizes polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2012. TRC is an American Industrial Hygiene Association (AIHA) accredited lab for PLM effective through October 1, 2012. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and the QC data related to the samples is available upon written request from the client.

This report shall not be reproduced, except in full, without the written approval of TRC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested.

Analyzed by _____
Kathleen Williamson, Laboratory Manager

Reviewed by _____
Kathleen Williamson, Laboratory Manager
or other approved signatory

Date Issued: _____

Appendix B

Lead-Based Paint XRF Field Data Sheets

TRC

Lead-Based Paint XRF Testing Data Sheet

Project Number:192271
Project Name: US IBWC Amistad Power Plant
Project Location:670 Texas Spur 349, Del Rio, TX 78840

Inspector's Name: Sam Seneviratne. CA DHS # 9658_
Inspection Date: 4/10/12
XRF Serial Number: 1124_____

Page 1 of 10

Sample Number	Substrate	Component	Color	Description of Sample Location	Condition	XRF Reading (mg/cm²)	Pos = LBP Neg = Not LBP	Approximate Quantity	Probe #
1		Start-up	NA	Self Calibrate	NA		Okay		
2	Std	Cal. Block	Yellow	"	I	1.8			
3						2.0			
4						1.8			
5	metal	Roll-up door frame	Gray	South Main Entry	F	0.1	N		
6	"	Sign	white	South East Gate	I	0.0	P		
7	"	Door	Gray	" Entry	I	0.2	N		
8	"	" Frame	"	" "	I	0.2	P		
9	"	Crane frame	Blk	SW Crane Frame	P	3.0	P		
10		" platform	"	" " " platform	P	2.4	P	400 ft	14
1		Lifting Beam	"	" a Lifting Beam		0.3	N		
2		Ladder	"	" " " Ladder		0.4	N		
3		Draft tube gate	Gray	Draft tube Gate #3	F	0.40	N		
4	"	Door	Beige	Main Entry South	I	0.0	N		
5	"	" Frame	"	" " "		0.0	N		
6	Conc	Wall	"	4th Fl South wall		0.3	N		
7	metal	Switch Box	Red	" " " "		0.1	N		
8		" "	Gray	" " "		0.4	N		
9		Roll up door Frame	"	" "		0.0	N		
20		" " "	"	" " "	"	0.0	N		

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Lead-Based Paint XRF Testing Data Sheet

Project Number:192271
Project Name: US IBWC Amistad Power Plant
Project Location:670 Texas Spur 349, Del Rio, TX 78840

Inspector's Name: Sam Seneviratne. CA DHS # 9658_
Inspection Date: 4/10/12
XRF Serial Number: 1124_____

Page 2 of 10

Sample Number	Substrate	Component	Color	Description of Sample Location	Condition	XRF Reading (mg/cm²)	Pos = LBP Neg = Not LBP	Approximate Quantity
21	metal	Elev Door	Beige	Freight Elevator Door	I	0.4	N	
2	"	" Frame	"	" " " Frame		2.5, 4.0	P	20 sq ft x 4
3	Conc	wall	"	4th Fl		0.6	N	
4	metal	Door		" " to offices		0.6		
5	"	" ~~Frame~~ Frame		" " " "		0.5		
6		"		Stair well		0.4		
7		" Frame		" "		0.0		
8	Conc	wall	white	office Hallway		0.0		
9	" ~~Basket~~ Black	"		" "		0.0		
30	WB	"	yellow	" Closet		0.0		
1		"	white	Supv. office wall west		0.0		
2		"	"	Recep " " South		0.0		
3	metal	Door	Green	Custodian Closet		0.5		
4	"	" Frame	"	" "		0.8, .4,	N	
5	Ceramic 8x12	wall	"	" "		0.0	N	
6	Cast metal	Cust Sink	white	" "	I	9.9	P	1 sink
7	metal	Shelf	Green	" "		0.0	N	
8	Porcelain	Sink	white	Rest room		0.5		
9	"	Toilet	"	" "		0.0		
0	metal	"	White	" " Ceiling Hatch		0.0		

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Lead-Based Paint XRF Testing Data Sheet

Project Number:192271
Project Name: US IBWC Amistad Power Plant
Project Location:670 Texas Spur 349, Del Rio, TX 78840

Inspector's Name: Sam Seneviratne. CA DHS # 9658_
Inspection Date: 4/10/12
XRF Serial Number: 1124

Sample Number	Substrate	Component	Color (Gray)	Description of Sample Location	Condition	XRF Reading (mg/cm²)	Pos = LBP Neg = Not LBP	Approximate Quantity
41	wood	Door	~~Beige~~	Elec. Panel	I	0.0	Neg	
2	"	"	Beige	Pump rm	I	0.2		
3	"	" Frame	"	" "		0.4		
4	WB	Wall	Green	" " South		0.0		
5	metal	Door	Green	" " Storage rm		0.9		
6	"	" Frame	"	" " " "		0.0		
7	"	Double Door	Lt "	SCADA Rm		0.2		
8	"	" " Frame	"			0.0		
9	WB	Wall	"			0.0		
50	metal	HVAC register	"	"		0.1		
1	"	Tel Equip	Blk	" Tel Equip. Cabinet		0.0		
2	"	Cabinet	Gray	" storage		0.0		
3	"	"	Cream	" "		0.0		
4	Granite	Counter	Blk	Bathing rm Sink Counter		0.0		
5	Conc Block	Wall	Yellow	" " wall		0.0		
6	metal	HVAC Duct	"	" " SE		0.3		
7	"	" "	"	" " round		0.3		
8	Conc	Floor	Gray	" " Floor	F	0.5		
9	metal	Door	Beige	" "	I	0.0		
60	"	" Frame	"	" "	I	0.0		

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Lead-Based Paint XRF Testing Data Sheet

Project Number:192271
Project Name: US IBWC Amistad Power Plant
Project Location:670 Texas Spur 349, Del Rio, TX 78840

Inspector's Name: Sam Seneviratne. CA DHS # 9658_
Inspection Date:
XRF Serial Number: 1124_____

Sample Number	Substrate	Component	Color	Description of Sample Location	Condition	XRF Reading (mg/cm²)	Pos = LBP Neg = Not LBP	Approximate Quantity
61	metal	Crane	Orange	Crane Framing	I	> 9.9	1500 ⊕	
2	"	"	"	" "		> 9.9		
3		" Hooks	orange	30 ton hook		> 9.9	20 ⊕	
4			Red	Harness		0.0		
5			Orange	125 ton hook		5.5	50 ⊕	
6	"	12" web	Cream	Steel Girder (Small) East	I	0.0		
7		8" Flange		" "		0.0		
8		24" web		" " Large Center		0.0		
9		12" Flange		" " "		0.0		
70		24" "		West		0.0		
1		12" "				0.0		
2		Door	Beige	Air Handler HVAC rm		0.5		
3		" Frame	"	" " "		0.0		
4	Conc	Wall	"	" " " (S)		0.6		
5	metal	Elec Breaker	Gray	" " "		0.0		
6	"	" "		" " " DC Switch		0.0		
7	"	" "		HVAC-Distribution Panel		0.0		
8	Conc. Block	Wall	Beige	" Wall S		0.0		
9	metal	Pipe Cover	Red	Def. North side	F	0.0		
80	"	" " Frame	Blk	" " "	F	0.0		

Pick 15

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Lead-Based Paint XRF Testing Data Sheet

Project Number:192271
Project Name: US IBWC Amistad Power Plant
Project Location:670 Texas Spur 349, Del Rio, TX 78840

Inspector's Name: Sam Seneviratne. CA DHS # 9658_
Inspection Date: 4/10/12
XRF Serial Number: 1124_____

Sample Number	Substrate	Component	Color	Description of Sample Location	Condition	XRF Reading (mg/cm²)	Pos = LBP Neg = Not LBP	Approximate Quantity	Photo #
81	Metal	Cable Tray Support	Green	Ext North side East	F	>9.9	P	1,000 x 6	20
2	"	"	"	" Center	"	"	"	"	
3	"	"	"	" West	"	"	"	"	
4	"	Flammable Storage	Yellow	Ext North	I	1.2	P	150 ft	22
5	"	Generator Cover	Gray	3rd Fl		0.0	N		
6	"	Brush housing	"	"		0.2	N		
7	"	Ducting HVAC	Yellow	" Switch Gear rm (Pb-2)		0.9, 0, 0.5	N		23
8	"	Crane (mini)	Gray	" " " "		0.0	N		
9	"	Transfer Gear Box	Green	" " " "		0.4	N		
90	Conc Block	Wall	Beige	Machine Shop		0.1	N		
1	" "	"	Green	" "		0.1	N		
2	Metal	2 Ton Crane (boom)	Yellow	" "		>9.9	P	20 ft	24
3	"	Kit. Cabinet	White	3rd Fl Lunch rm		0.0	N		
4	Gl Metal	" " Sink	"	" " "		0.0	N		
5	CT 8"x12"	Wall	Green	" " " Wall		0.0	N		
6	Conc	Ceiling	White	" " " Ceiling		0.4	N		
7	Metal	Lockers	Blue	" Locker rm	"	0.3	N		
8	Porcelain	Toilet	White	" Restroom	"	0.1	N		
9	"	Urinal	"	" " "	"	0.0	N		
100	Terrazzo	Sink	Gray	" " "	"	0.0	N		

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Lead-Based Paint XRF Testing Data Sheet

Project Number:192271
Project Name: US IBWC Amistad Power Plant
Project Location:670 Texas Spur 349, Del Rio, TX 78840

Inspector's Name: Sam Seneviratne. CA DHS # 9658_
Inspection Date:
XRF Serial Number: 1124_____

Page 6 of 10

Sample Number	Substrate	Component	Color	Description of Sample Location	Condition	XRF Reading (mg/cm²)	Pos = LBP Neg = Not LBP	Approximate Quantity	
10 1	GI metal	Sink	White	3rd Fl. Custodian closet	I	>9.9	P	1 sink.	25
2	"	Door	)	)))	)	0.6	N		
3	"	" Frame	)	)))	)	0.0	N		
4	"	Fume Hood	)	" Machine Shop	)	0.0	N		
5	"	Fencing	Gray	" " "	↓	0.0	N		
6	metal	Handrail	Blk	3rd Fl Paste Storage	F	2.1	P.	100 ft	26
7	"	Door	Beige	" " Elevator	I	0	N		
8	"	" Frame	"	" "	I	6.5	P	20 ft x 4	27
9	Conc	Floor stripe	Yellow	" " Entry	F	2.9	P	4x ft +	28
11 0	metal	Wall	Beige	Elevator Car	I	0.0	N		
1	"	Ladder	Blk	" "	F	0.0	N		
2	"	Safety. Gate/Grille	Green	" "	I	0.0	N		
3	"	Elevator Gate	Blk	" " (Interior door)	I	1.0	P	50 ft x 4	29
4	"	Booster pump tank	Green	2nd Fl Booster pump tank	I	0.0	N		
5	"	Sewage Ejector	"	" " Sewage ejector	I	0.0	N		
6	"	Elec Switch	Green	" " Pump Area	I	0.0	N		
7	"	Air tank	Blue	" " "	I	0.0			
8	"	Sump pump Cover	Gray	" Sump pump	I	0			
9	"	Elec Switch Box	"	" Generator Bay	I	0			
12 0	"	" " "		" " "		0			

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Lead-Based Paint XRF Testing Data Sheet

Project Number:192271
Project Name: US IBWC Amistad Power Plant
Project Location:670 Texas Spur 349, Del Rio, TX 78840

Inspector's Name: Sam Seneviratne. CA DHS # 9658_
Inspection Date: 10, 11 | 12
XRF Serial Number: 1124_____

Sample Number	Substrate	Component	Color	Description of Sample Location	Condition	XRF Reading (mg/cm²)	Pos = LBP Neg = Not LBP	Approximate Quantity	Photo
12 1	Metal	Switch Gear	Gray	Generator Bay	I	0	N		
" 2	"	Elec panel	"	" "	I	0			
3	"	CO_2 Bottle Frame	Red	" "	I	0			
4	"	Tool Rack	"	" " Hitachi tool rack	I	9.8	P	30 ft x2	30
5	"	Step / riser	Blue	" " Stairs to turbine pit	I	79.9	P	80 ft x2	31
6	"	Wall	"	" " — " "	I	79.9	P	300 ft x2	32
7	"	Servo Linkage	"	" " Turbine Pit (Servo-Linkage)	I	9.9	P	500 ft x2	33
8	Std	Cal	Yellow	Calibrating		2.1	okay		
9						2.0			
13 0						1.9			
1		Cal				2.0			
2						1.9			
3						1.9			
4	Conc	Parapet Wall	Gray	Upper roof		0	N		
5	metal	Scupper Cover	Red	" " drain		0			
6	metal	Skirt	Gray	Upper roof parapet wall / metal flashing	I	79.9.	N	38 SF	38
7	"	Door	"	1st FL stairwell		0			
8	"	" Frame	"	" " "		0			
9	"	"		" " Elevator		0			
14 0	"	" Frame		" " "		2.7	Grime Previously		

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Lead-Based Paint XRF Testing Data Sheet

Project Number:192271
Project Name: US IBWC Amistad Power Plant
Project Location:670 Texas Spur 349, Del Rio, TX 78840

Inspector's Name: Sam Seneviratne. CA DHS # 9658_
Inspection Date:
XRF Serial Number: 1124_____

Page 8 of 10

Sample Number	Substrate	Component	Color	Description of Sample Location	Condition	XRF Reading (mg/cm²)	Pos = LBP Neg = Not LBP	Approximate Quantity	Pic
14 1	metal	Slidus Door	Gray	1st Fl Chemical Storage	I	>9.9	100# x2	100# x2	39
2	)	Tank	Gray	" " " " oil Storage clean		>9.9	600# x2		40
3	~~Conc~~	"		" " " " " Dirty		9.2	"		
4	Conc	Floor	)	" " " "		0	.		
5	metal	Cabinet	Yellow	" " Chemical Storage - Flouride		0			
6	Conc	stripe	yellow	" " " "		0			
7	metal	~~Comp.~~ Compressor Tank	Blue	" " Compressor run		0			
8	"	Compressor	Silver	" " " "		0.2			
9	"	" pump housing	Blk	" " " "		0.2			
15 0	"	Sump tank Cover	"	" " " " Sump pipe		.2			
1	"	" " Flange	Red	" " " " " "		0.0			
2	"	" " pipe	white	" " " "		0.1			
3	"	Valve Cover	Blue	" " " "		0.0			
4	"	Sump pipe	Blk	" " " "		0.3			
5	"	pump base	~~Blue~~ Green	" " Piping Sealing	"	0			
6	"	pipe 12" ϕ	Green	" " "	"	0.5			
7	"	" 24" ϕ	Gray	" " "		0			
8	"	Spiral Case Access	Gray	)))		>9.9	P	12,000 ϕ	41
9	"	" "	"	)))		7.1	P	"	
16 0	"	Hand rail	Blk	Stairs to Pen stock Gallery		2.1	P	60 LF	42

TRC

Lead-Based Paint XRF Testing Data Sheet

Project Number:192271
Project Name: US IBWC Amistad Power Plant
Project Location:670 Texas Spur 349, Del Rio, TX 78840

Inspector's Name: Sam Seneviratne. CA DHS # 9658_
Inspection Date:
XRF Serial Number: 1124_____

Sample Number	Substrate	Component	Color	Description of Sample Location	Condition	XRF Reading (mg/cm²)	Pos = LBP Neg = Not LBP	Approximate Quantity	Pho
16 1	Metal	Primary	Green	Penstock Drain / fill #2	I	2.3	P	150 ft²	43
2	"	"	"	" " " #1	I	0.3, 0.4	N		
3	)	Draft Tube	Gray	Draft tube - Penstock Gallery	)	>9.9	P	10,000 ft²	44
4	)	" " Access	"	" " Access " "	)	3.2	P		"
5	Conc	Wall	Green	1st Fl Elev. Mech rm	I	0	N		
6	Metal	Mech Equip	Gray	" " " " "	I	0	N		
7	Cal	Cal	Yellow	Standard	)	1.9	OK		
8	)	)	)	)	)	1.7	)		
9						1.8	)		
17 0	Metal	Ext. Siding	Green	Warehouse Bldg East	I	0.5	)		
1	"	" "	"	" " " S.	)	0.3	)		
2	"	Door	)	) East	)	0.1	)		
3	)	" Frame	)	) "	)	0.0	)		
4	)	Roll-up door	White	" "	)	0.3	)		
5	)	" " " Frame	Green	" "	)	0.0	N		
6	)	" " " Guide	Gray	" "	)	0.0	)		
7	"	I beam Flange	Green	" Steel Framing - Column	)	0.0	)		
8	"	" " Web	"	" " " "	)	0.3	N		
9		I - Beam Web	"	" " " Foot 24"	)	0.5	)		
18 0		I - " Flange	"	" " " " "	)	0.0	)		

TRC
123 Technology Drive, Irvine, CA 92618
Ph 949.727.9663, Fax 949.727.7346

TRC

Lead-Based Paint XRF Testing Data Sheet

Project Number:192271
Project Name: US IBWC Amistad Power Plant
Project Location:670 Texas Spur 349, Del Rio, TX 78840

Inspector's Name: Sam Seneviratne. CA DHS # 9658_
Inspection Date:
XRF Serial Number: 1124_____

Sample Number	Substrate	Component	Color	Description of Sample Location	Condition	XRF Reading (mg/cm²)	Pos = LBP Neg = Not LBP	Approximate Quantity
18 1	Wood	Wall Panel	tan	Workhouse Bldg interior wall	I	0	Neg	
2	metal	Frame	Blue	" Mezzanin Frame	I	0		
3	"	Step	"	" " Stairs		0.		
4	"	Stringer	"	" " "		0		
5	Conc	Floor striping	Yellow	" Floor West	"	0		
6	metal	pressure tank	Gray	" "		0		
7	"	storage tank	"	" "		0		
8	Toilet →	Porcela'n	white	" " Cond rm men's rm		0.1		
9	Sink →	"	"	" " " "		0		
0	Cal	Calibrat	yellow	Calibrat		1.9	okay	
1						1.9		
2						2.0		
3								
4								
5								
6								
7								
8								
9								
0								

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123 Technology Drive, Irvine, CA 92618
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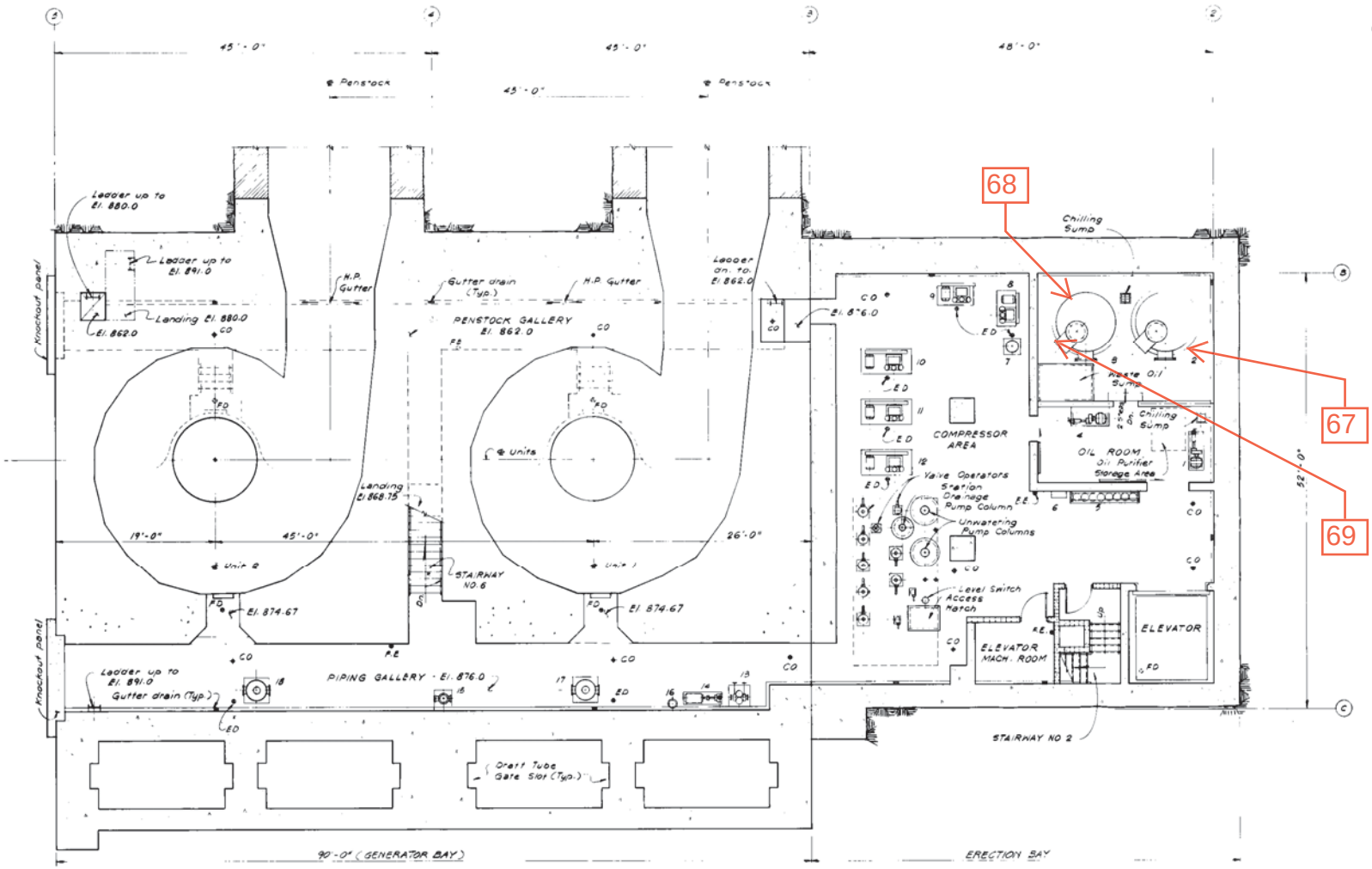
Appendix C

Sample Location Drawings



EQUIPMENT SCHEDULE			
ITEM	DESCRIPTION	ITEM	DESCRIPTION
1	Lub Oil Transfer Pump	13	RW Emergency Strainer
2	Clean Lub Oil Tank	14	RW Emergency Pump
3	Dirty Lub Oil Tank	15	RW Secondary Strainer
4	Waste Oil Pump	16	RW Filter
5	CO_2 Cylinders	17	RW Strainer No. 1
6	CO_2 Control Cab.	18	RW Strainer No. 2
7	Governor Air Receiver		
8	Governor Air Compressor		
9	Service Air Compressor		
10	Service Air Compressor		
11	Draft Tube Depressing Air Compressor		
12	Draft Tube Depressing Air Compressor		

IBWC - Amistad Power Plant
Floor 1
Asbestos Sample Location Diagram

PREPARED BY: Sverdrup
SVERDRUP & PARCEL AND ASSOCIATES, INC.
SAN FRANCISCO, CALIFORNIA
SUBMITTED:
DESIGNED JMN | CHECKED LDW
DRAWN ART | DATE OCT. 80

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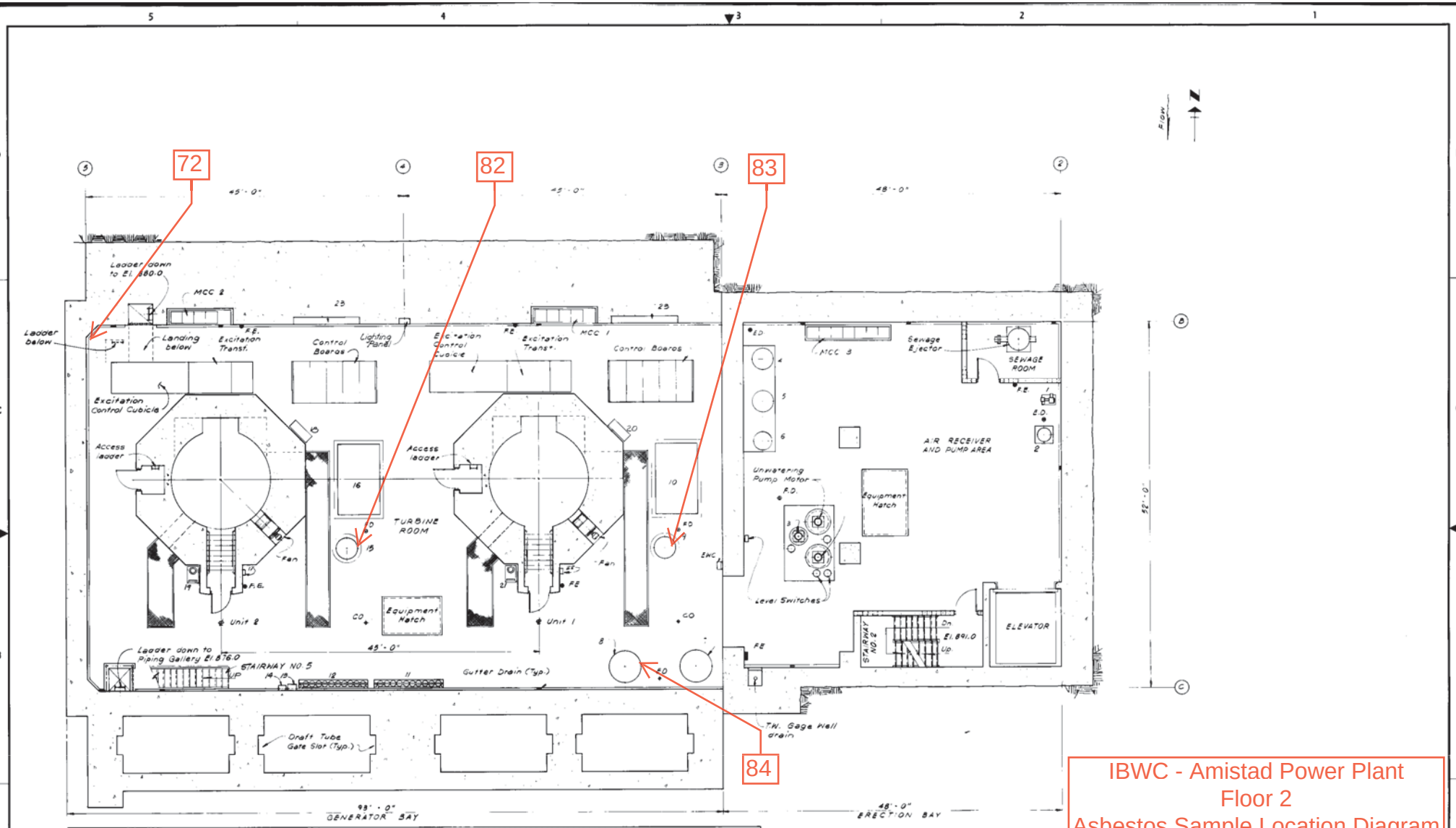
UNITED STATES SECTION
AMISTAD POWER PLANT
POWERHOUSE - ARRANGEMENT
PLAN - EL. 876.0
EL PASO, TEXAS
22,987



IBWC - Amistad Power Plant
Floor 2
Asbestos Sample Location Diagram

EQUIPMENT SCHEDULE

ITEM	DESCRIPTION	ITEM	DESCRIPTION	ITEM	DESCRIPTION
1	RW Booster Pump	13	CO_2 Routing Valve Frame		
2	RW Pressure Tank	14	CO_2 Control Cabinet		
3	Sta. Drainage Pump Motor	15	Governor Pressure Tank		
4	Service Air Receiver	16	Governor Actuator Cabinet		
5	Service Air Receiver	17	Flow Meter Cell - Transducer		
6	Brake Air Receiver	18	Gen Jacking Pump		
7	Depressing Air Receiver	19	Automatic Greasing Unit		
8	Depressing Air Receiver	20	Gen Jacking Pump		
9	Governor Pressure Tank	21	Automatic Greasing Unit		
10	Governor Actuator Cabinet	22	Flow Meter Cell - Transducer		
11	Spare CO_2 Cylinders	23	Piezometer - Transducer Connections		
12	CO_2 Cylinders				

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AMISTAD POWER PLANT
POWERHOUSE - ARRANGEMENT

PLAN - EL. 891.0

PREPARED BY: Sverdrup
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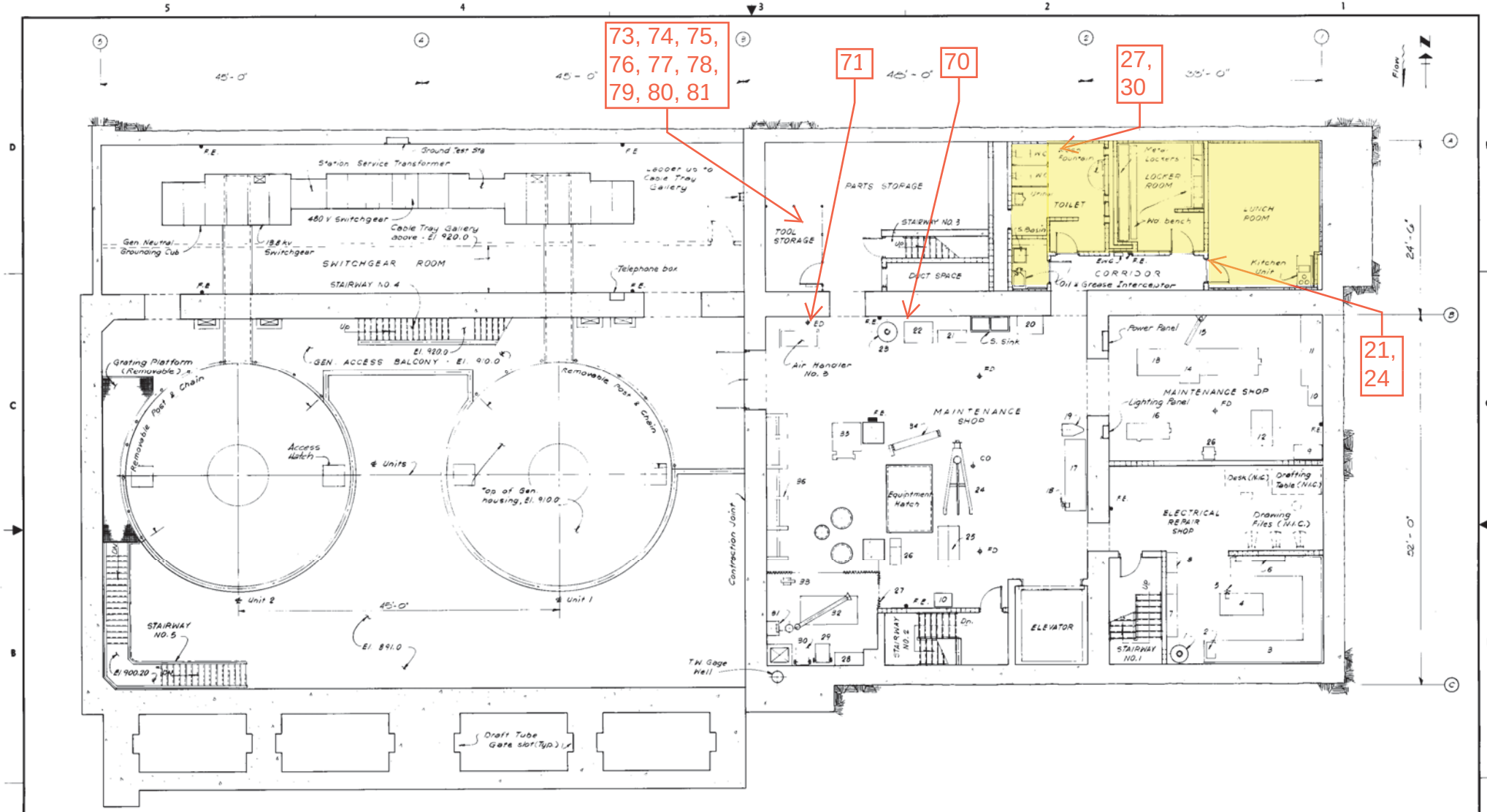
SAN FRANCISCO, CALIFORNIA

DESIGNED JMN | CHECKED LDW
DRAWN AFT | DATE 1 OCT 80

EL PASO, TEXAS | 22,986

SCALE 3/16" = 1'-0"



EQUIPMENT SCHEDULE

ITEM	DESCRIPTION	ITEM	DESCRIPTION	ITEM	DESCRIPTION
1	Revolving Parts Bin	13	Hollow Spindle Lathe	25	Pipe and Bolt Threading Machine
2	Bench Drill Press	14	Lathe Milling Attachment	26	Two (2) Wheel Pedestal Grinder
3	Steel Bench - Wood top	15	Wall Crane 2000 lb. capacity	27	Welding Curtain
4	Steel Bench - Wood top	16	Engine Bench Lathe	28	Steel Tool Cabinet
5	Mechanics Bench Vise	17	Steel Bench - Wood top	29	Combination AC. DC Amperite Welder
6	Electrical Test Panel	18	Mechanics Bench Vise	30	Oxy - Acetylene Weld Set
7	Metal Open Bin Parts Storage	19	Floor Pedestal Drill Press	31	Weld Fume Exhaust Fan
8	Two Door Metal Shelved Cupboard	20	Parts Cleaner with Shelf	32	Steel - Welding Table
9	Steel Tool Cabinet	21	Steel Tool Cabinet	33	Anvil
10	Steel Cabinet	22	50 Ton Hydraulic Press	34	Horz. Cut - off Band - saw (Portable)
11	Steel Bench - Wood top	23	Revolving Parts Bin	35	Vertical Metal Cutting Band - saw
12	Heavy Duty - Sliding Head Drill	24	Portable Floor Crane 4000 lbs. cap.	36	Cantilever - Material Rack

IBWC - Amistad Power Plant
Floor 3
Asbestos Sample Location Diagram

- ACM Vinyl Sheet Flooring

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POWERHOUSE - ARRANGEMENT

PLAN - EL. 910.0

EL PASO, TEXAS | 22,985

PREPARED BY: Sverdrup
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SAN FRANCISCO, CALIFORNIA

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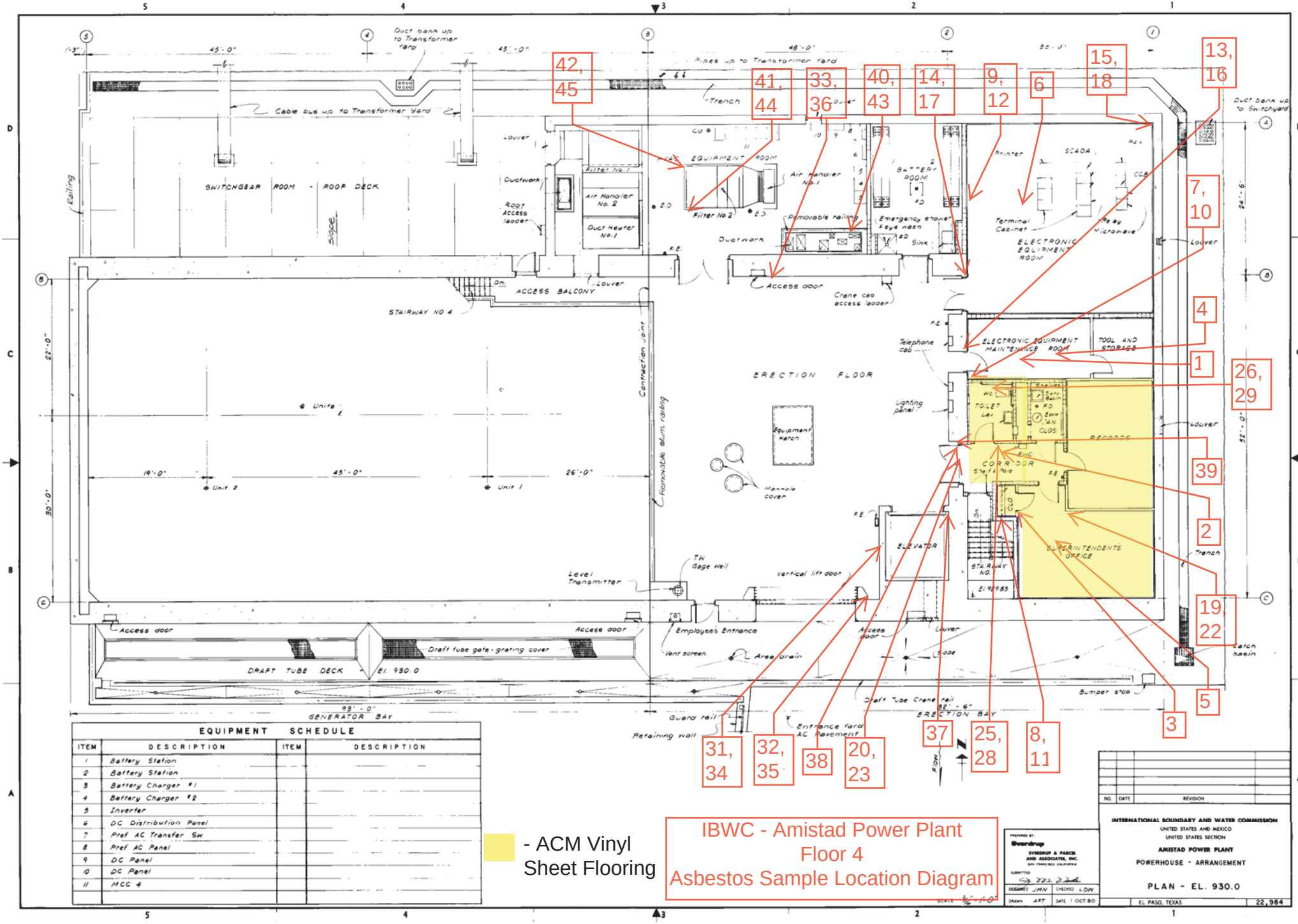
SCALE 3/16" = 1'-0"



EQUIPMENT SCHEDULE			
ITEM	DESCRIPTION	ITEM	DESCRIPTION
1	Battery Station		
2	Battery Station		
3	Battery Charger #1		
4	Battery Charger #2		
5	Inverter		
6	DC Distribution Panel		
7	Pref AC Transfer Sw		
8	Pref AC Panel		
9	DC Panel		
10	DC Panel		
11	MCC 4		

- ACM Vinyl Sheet Flooring

IBWC - Amistad Power Plant
Floor 4
Asbestos Sample Location Diagram

PREPARED BY: Sverdrup
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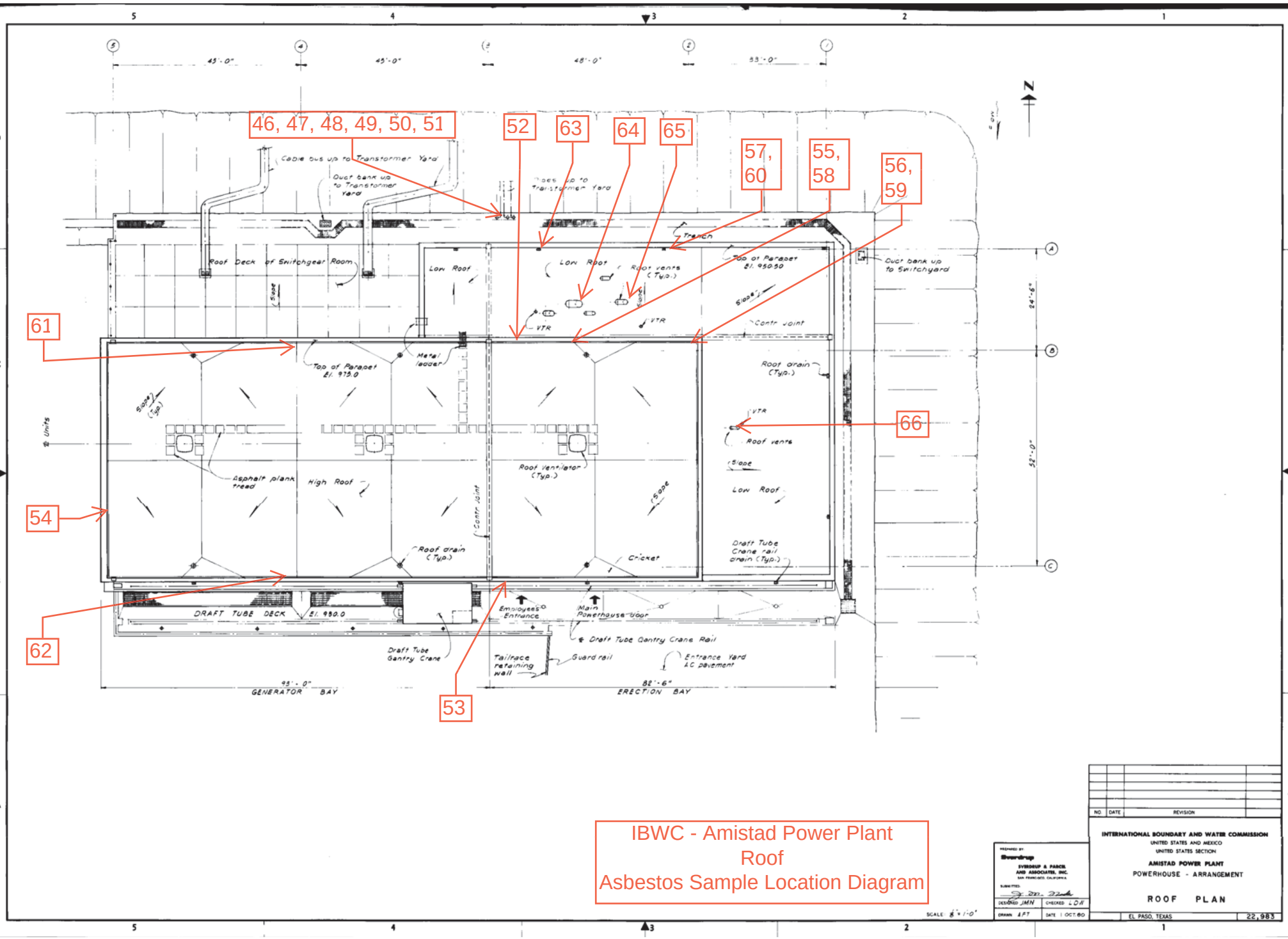
EL PASO, TEXAS
22,984



IBWC - Amistad Power Plant
Roof
Asbestos Sample Location Diagram

INTERNATIONAL BOUNDARY AND WATER COMMISSION
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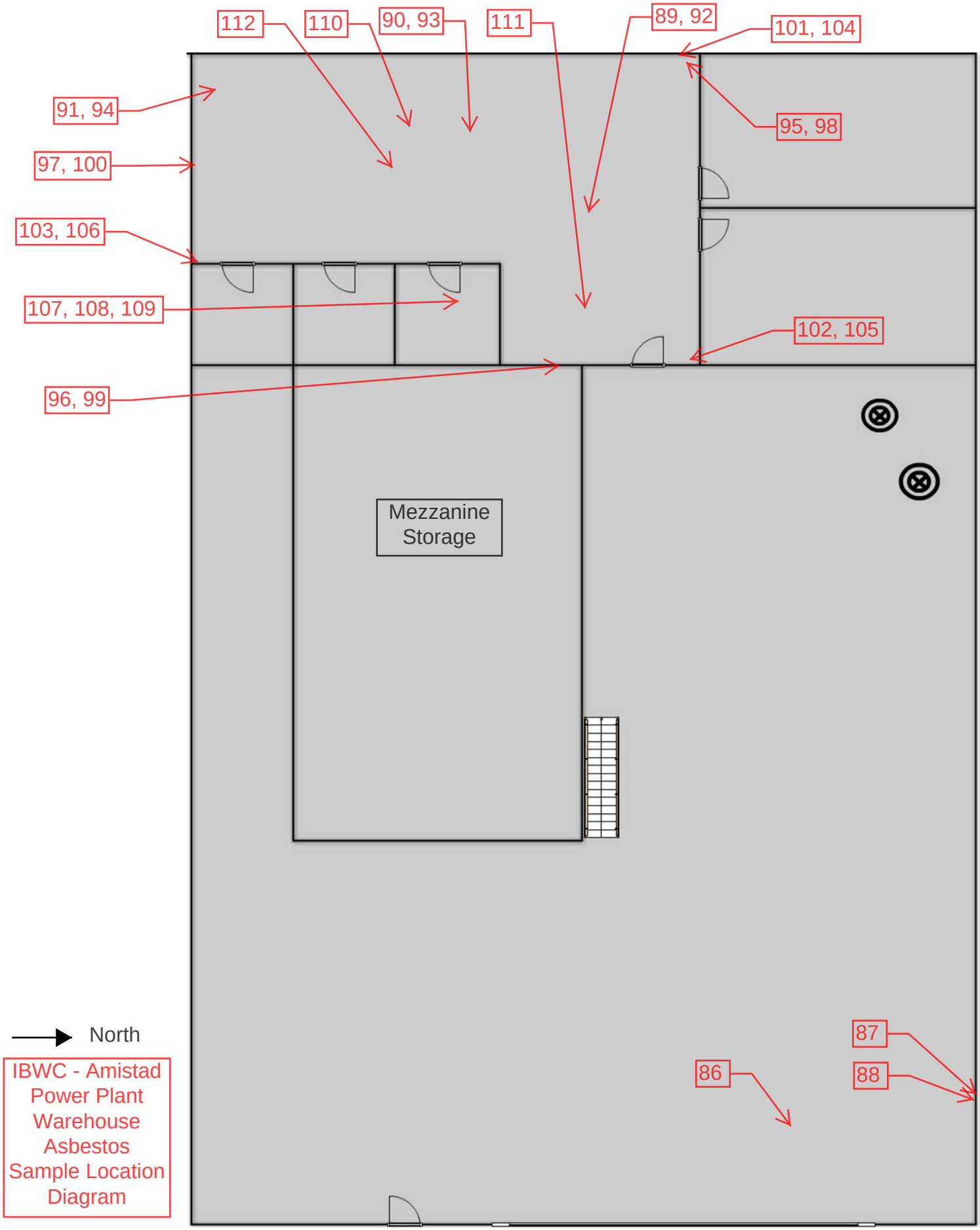
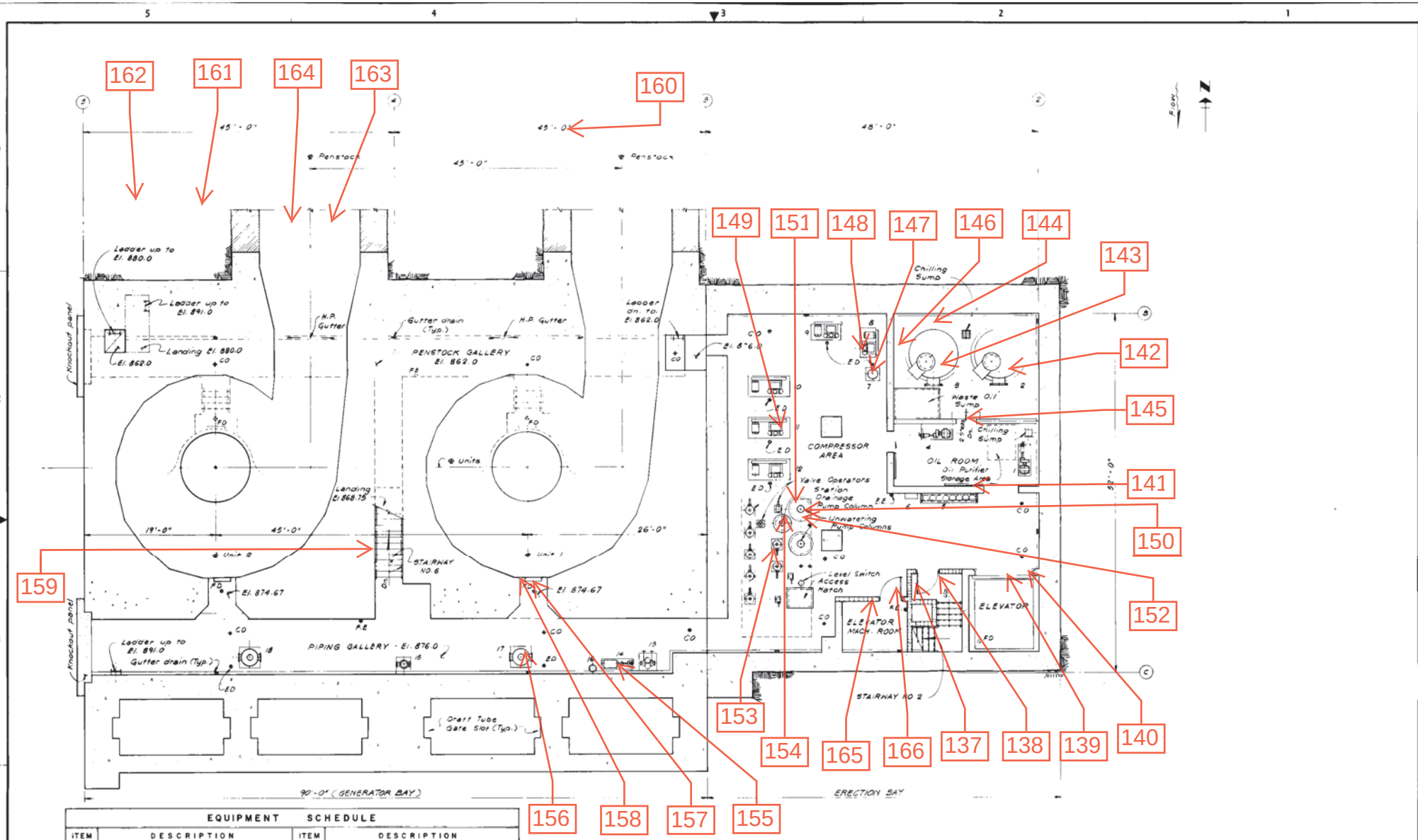
UNITED STATES SECTION
AMISTAD POWER PLANT
POWERHOUSE - ARRANGEMENT
ROOF PLAN
EL PASO, TEXAS
22,983


112
110
90, 93
111
89, 92
101, 104
91, 94
95, 98
97, 100
103, 106
107, 108, 109
102, 105
96, 99
Mezzanine Storage
North
87
86
88
IBWC - Amistad Power Plant Warehouse Asbestos Sample Location Diagram



EQUIPMENT SCHEDULE			
ITEM	DESCRIPTION	ITEM	DESCRIPTION
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2	Clean Lub Oil Tank	14	RW Emergency Pump
3	Dirty Lub Oil Tank	15	RW Secondary Strainer
4	Waste Oil Pump	16	RW Filter
5	CO_2 Cylinders	17	RW Strainer No. 1
6	CO_2 Control Cab.	18	RW Strainer No. 2
7	Governor Air Receiver		
8	Governor Air Compressor		
9	Service Air Compressor		
10	Service Air Compressor		
11	Draft Tube Depressing Air Compressor		
12	Draft Tube Depressing Air Compressor		

IBWC - Amistad Power Plant
Floor 1
Lead Sample Location Diagram

SCALE 3/16" = 1'-0"

PREPARED BY: Sverdrup
SVERDRUP & PARCEL AND ASSOCIATES, INC.
SAN FRANCISCO, CALIFORNIA
SUBMITTED:
DESIGNED JMN | CHECKED LDW
DRAWN ART | DATE 1 OCT 80

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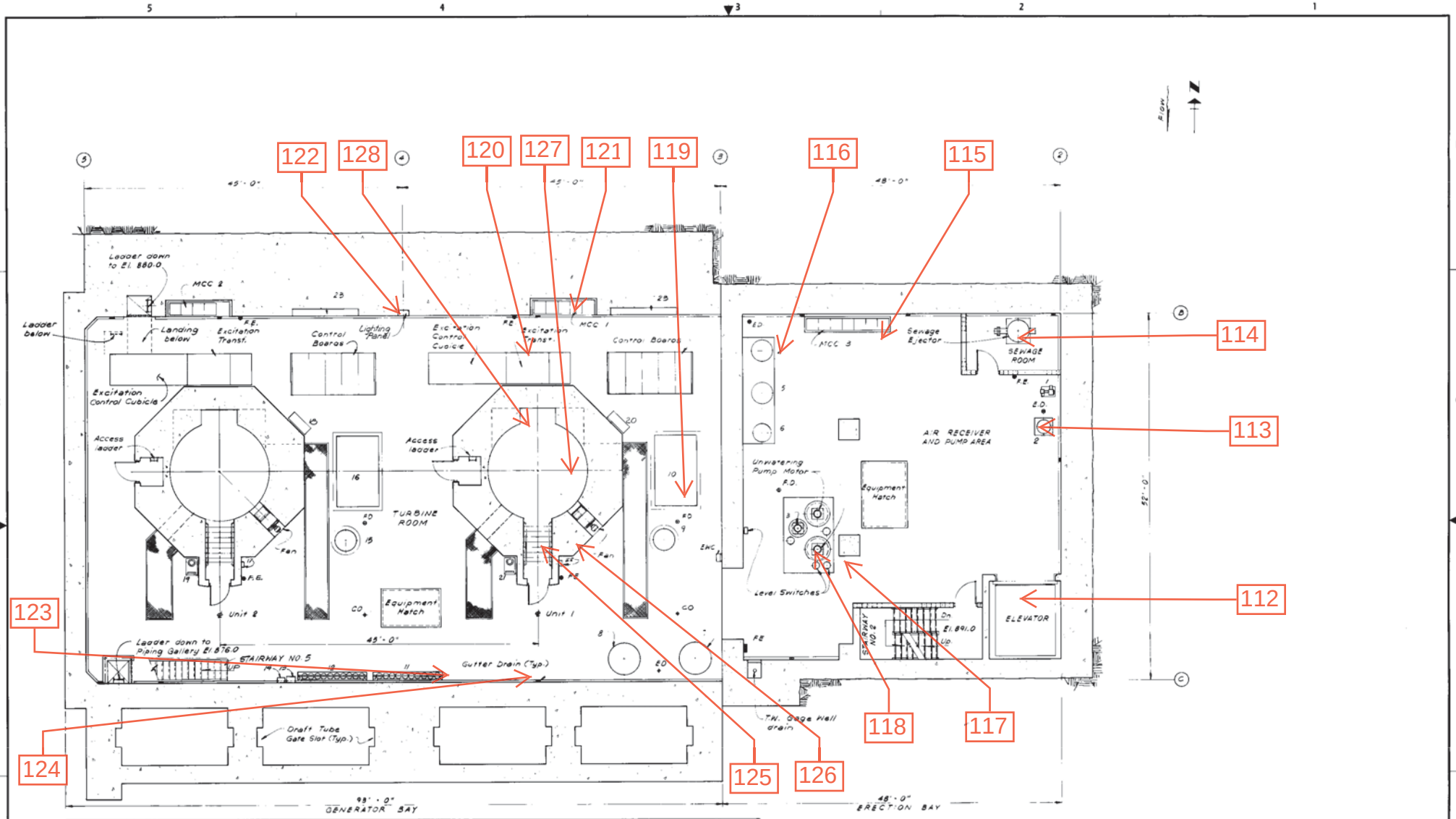
POWERHOUSE - ARRANGEMENT
PLAN - EL. 876.0
EL PASO, TEXAS
22,987



EQUIPMENT SCHEDULE

ITEM	DESCRIPTION	ITEM	DESCRIPTION	ITEM	DESCRIPTION
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2	RW Pressure Tank	14	CO_2 Control Cabinet		
3	Sta. Drainage Pump Motor	15	Governor Pressure Tank		
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6	Brake Air Receiver	18	Gen Jacking Pump		
7	Depressing Air Receiver	19	Automatic Greasing Unit		
8	Depressing Air Receiver	20	Gen Jacking Pump		
9	Governor Pressure Tank	21	Automatic Greasing Unit		
10	Governor Actuator Cabinet	22	Flow Meter Cell - Transducer		
11	Spare CO_2 Cylinders	23	Piezometer - Transducer Connections		
12	CO_2 Cylinders				

IBWC - Amistad Power Plant
Floor 2
Lead Sample Location Diagram

SCALE 3/16" = 1'-0"

PREPARED BY: Sverdrup
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SAN FRANCISCO, CALIFORNIA

SUBMITTED: Sep. 222, 2 Inch

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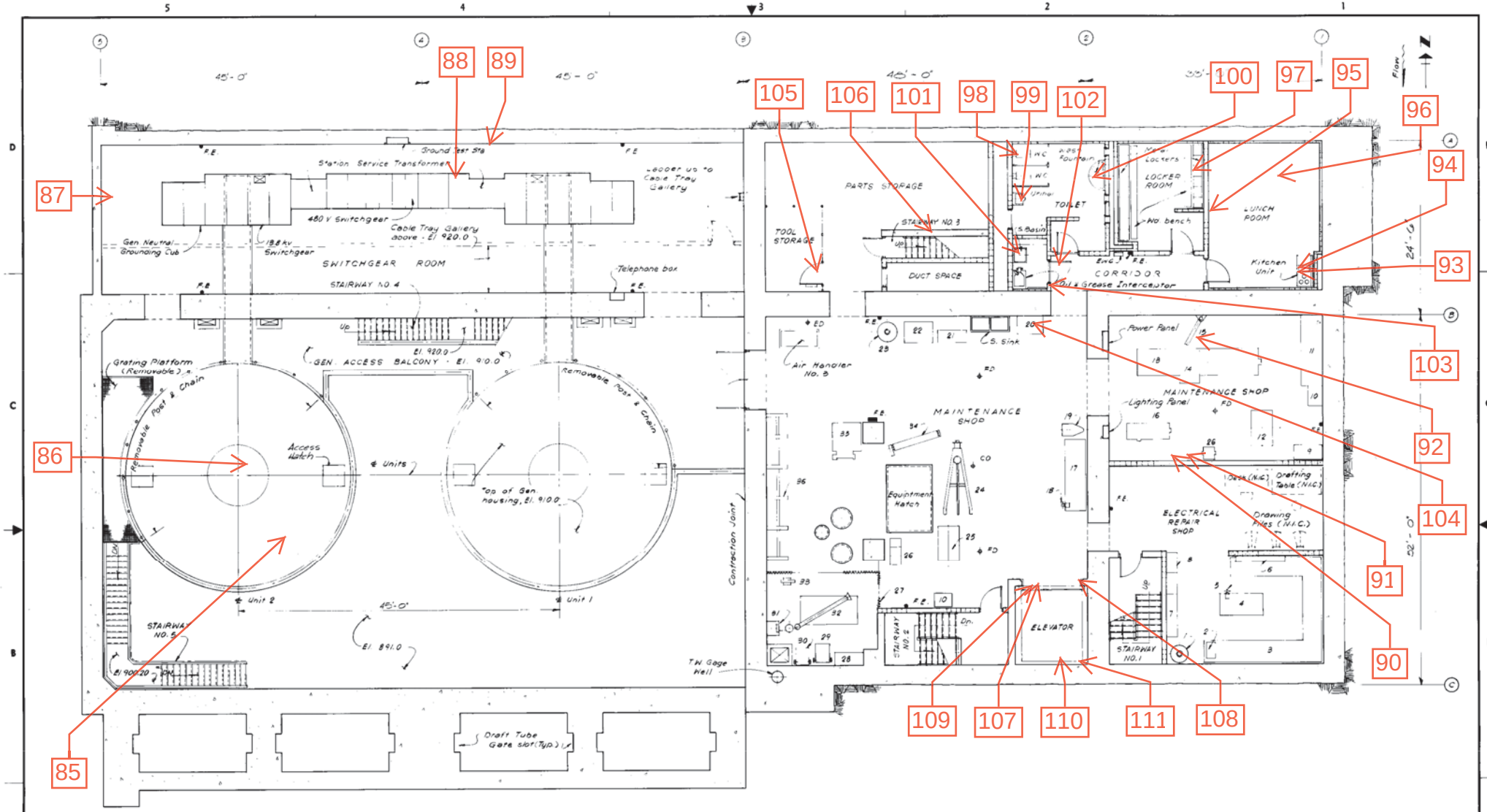
AMISTAD POWER PLANT
POWERHOUSE - ARRANGEMENT

PLAN - EL. 891.0

EL PASO, TEXAS | 22,986



EQUIPMENT SCHEDULE					
ITEM	DESCRIPTION	ITEM	DESCRIPTION	ITEM	DESCRIPTION
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2	Bench Drill Press	14	Lathe Milling Attachment	26	Two (2) Wheel Pedestal Grinder
3	Steel Bench - Wood top	15	Wall Crane 2000 lb. capacity	27	Welding Curtain
4	Steel Bench - Wood top	16	Engine Bench Lathe	28	Steel Tool Cabinet
5	Mechanics Bench Vise	17	Steel Bench - Wood top	29	Combination AC. DC Amperie Welder
6	Electrical Test Panel	18	Mechanics Bench Vise	30	Oxy - Acetylene Weld Set
7	Metal Open Bin Parts Storage	19	Floor Pedestal Drill Press	31	Weld Fume Exhaust Fan
8	Two Door Metal Shelved Cupboard	20	Parts Cleaner with Shelf	32	Steel - Welding Table
9	Steel Tool Cabinet	21	Steel Tool Cabinet	33	Anvil
10	Steel Cabinet	22	50 Ton Hydraulic Press	34	Horz. Cut - off Band - saw (Portable)
11	Steel Bench - Wood top	23	Revolving Parts Bin	35	Vertical Metal Cutting Band - saw
12	Heavy Duty - Sliding Head Drill	24	Portable Floor Crane 4000 lbs. cap.	36	Cantilever - Material Rack

IBWC - Amistad Power Plant
Floor 3
Lead Sample Location Diagram

NO.	DATE	REVISION

INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO
UNITED STATES SECTION

AMISTAD POWER PLANT
POWERHOUSE - ARRANGEMENT

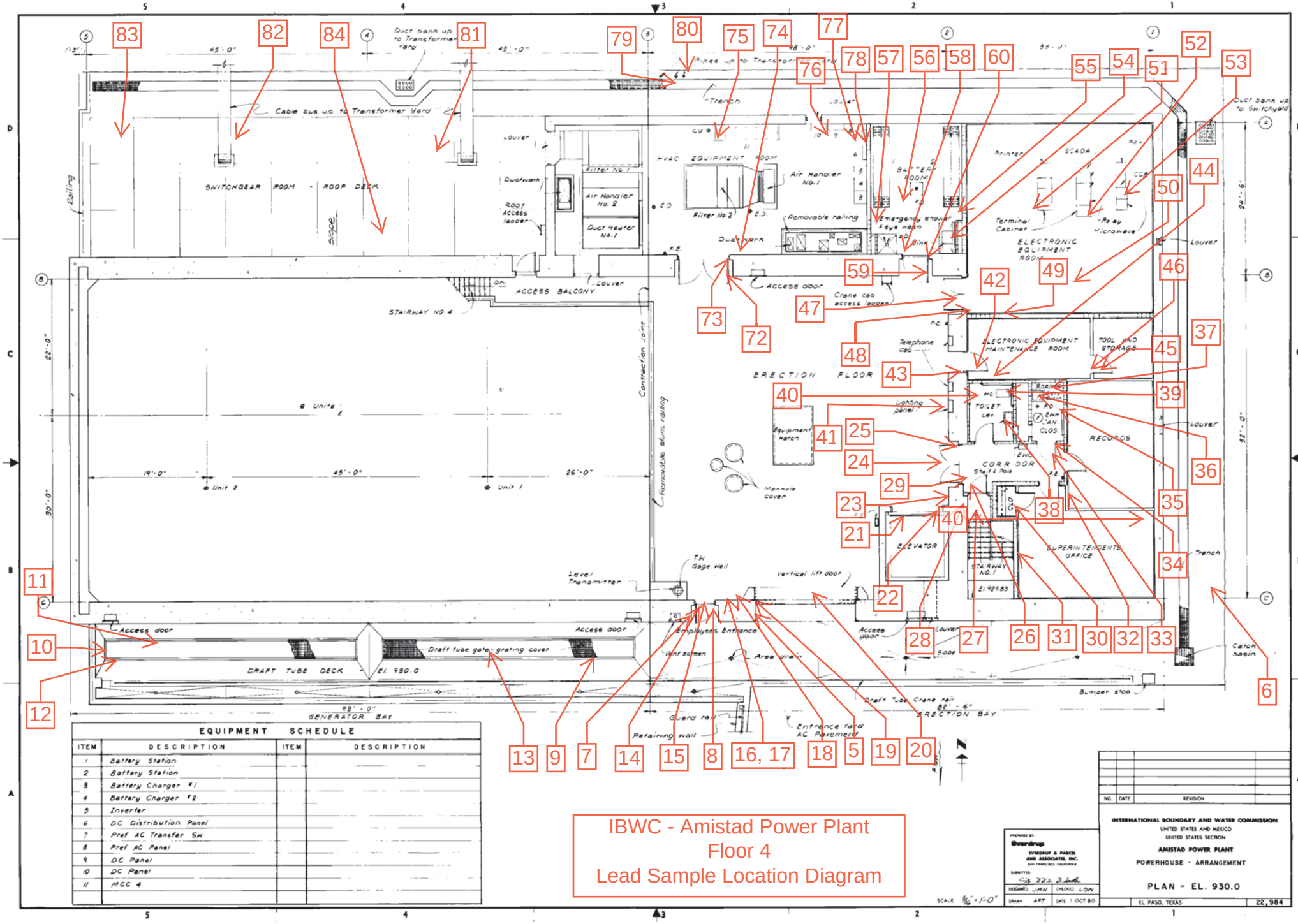
PLAN - EL. 910.0

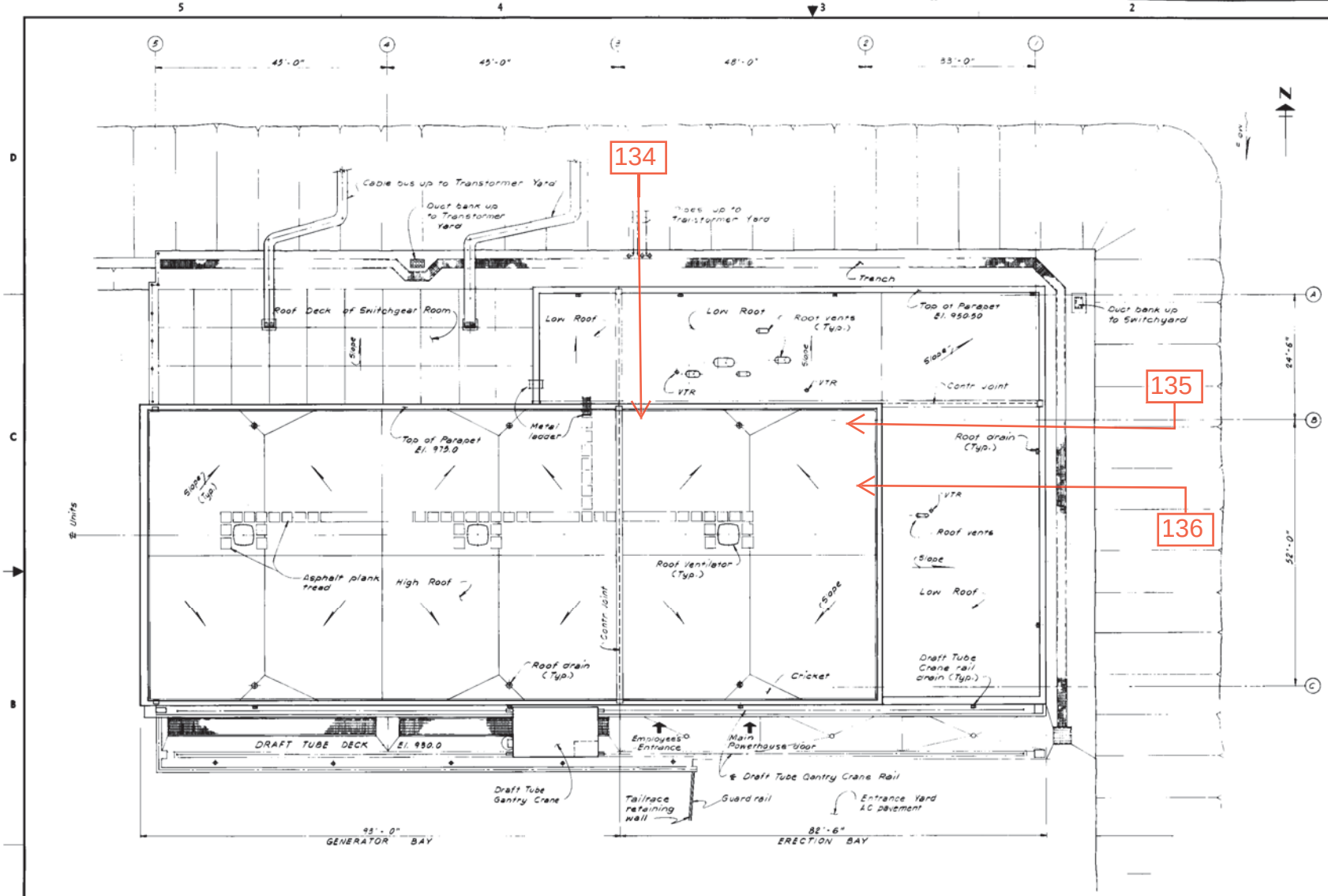
EL PASO, TEXAS | 22,985

PREPARED BY: Sverdrup
SVERDRUP & PARCEL AND ASSOCIATES, INC.
SAN FRANCISCO, CALIFORNIA

DESIGNED JMN | CHECKED LDW
DRAWN | DATE 1 OCT. 80

SCALE 7/16" = 1'-0"


SWITCHGEAR ROOM - ROOF DECK
Cable bus up to Transformer Yard
Duct bank up to Transformer Yard
Pipes up to Transformer Yard
Trench
HVAC EQUIPMENT ROOM
Air Handler No. 1
Air Handler No. 2
Duct Heater No. 1
Filter No. 1
Filter No. 2
Ductwork
Root Access ladder
Louver
Railing
Slope
ACCESS BALCONY
STAIRWAY NO. 4
Access door
Crane cab access ladder
Removable railing
Emergency shower
Eye wash
Sink
BATTERY ROOM
Printer
SCADA
Terminal Cabinet
Relay Microwave
ELECTRONIC EQUIPMENT ROOM
ELECTRONIC EQUIPMENT MAINTENANCE ROOM
TOOL AND STORAGE
Telephone cab
ERECTION FLOOR
Lighting panel
Equipment hatch
Manhole cover
Contraction Joint
Removable alum. railing
Units
Unit 2
Unit 1
TOILET
CLOS
RECORDS
CORRIDOR
Shelf pole
ELEVATOR
STAIRWAY NO. 1
SUPERINTENDENTS OFFICE
Trench
Catch basin
Level Transmitter
TW Gage Well
Vertical lift door
Employees Entrance
Wint screen
Area drain
Slope
Draft tube gate - grating cover
DRAFT TUBE DECK
El. 930.0
GENERATOR BAY
Guard rail
Retaining wall
Entrance Yard AC Pavement
Draft Tube Crane rail
ERECTION BAY
Bumper stop
EQUIPMENT SCHEDULE
ITEM | DESCRIPTION | ITEM | DESCRIPTION
1 Battery Station
2 Battery Station
3 Battery Charger #1
4 Battery Charger #2
5 Inverter
6 DC Distribution Panel
7 Pref AC Transfer Sw
8 Pref AC Panel
9 DC Panel
10 DC Panel
11 MCC 4
IBWC - Amistad Power Plant
Floor 4
Lead Sample Location Diagram
INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO
UNITED STATES SECTION
AMISTAD POWER PLANT
POWERHOUSE - ARRANGEMENT
PLAN - EL. 930.0
EL PASO, TEXAS
22,984
SYVERDRUP & PARCEL AND ASSOCIATES, INC.
SAN FRANCISCO, CALIFORNIA
DESIGNED JMN
CHECKED LDW
DRAWN ART
DATE 1 OCT 80
SCALE 3/16" = 1'-0"
NO. DATE REVISION



IBWC - Amistad Power Plant
Roof
Lead Sample Location Diagram

NO.	DATE	REVISION

INTERNATIONAL BOUNDARY AND WATER COMMISSION
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UNITED STATES SECTION

AMISTAD POWER PLANT
POWERHOUSE - ARRANGEMENT

ROOF PLAN

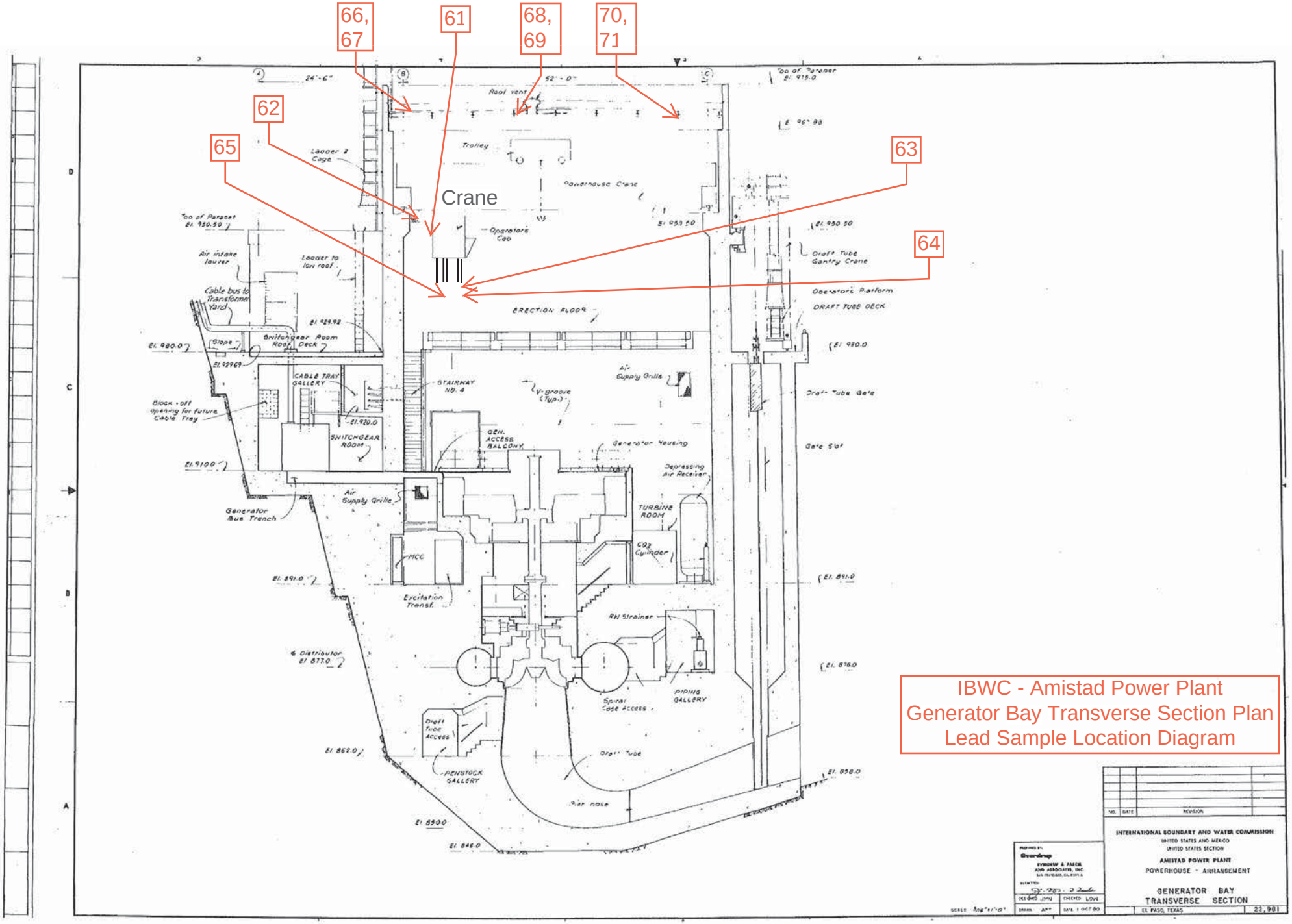
PREPARED BY: Sverdrup
SVERDRUP & PARCEL AND ASSOCIATES, INC.
SAN FRANCISCO, CALIFORNIA

SUBMITTED:

DESIGNED JMN | CHECKED LDN
DRAWN LFT | DATE OCT. 80

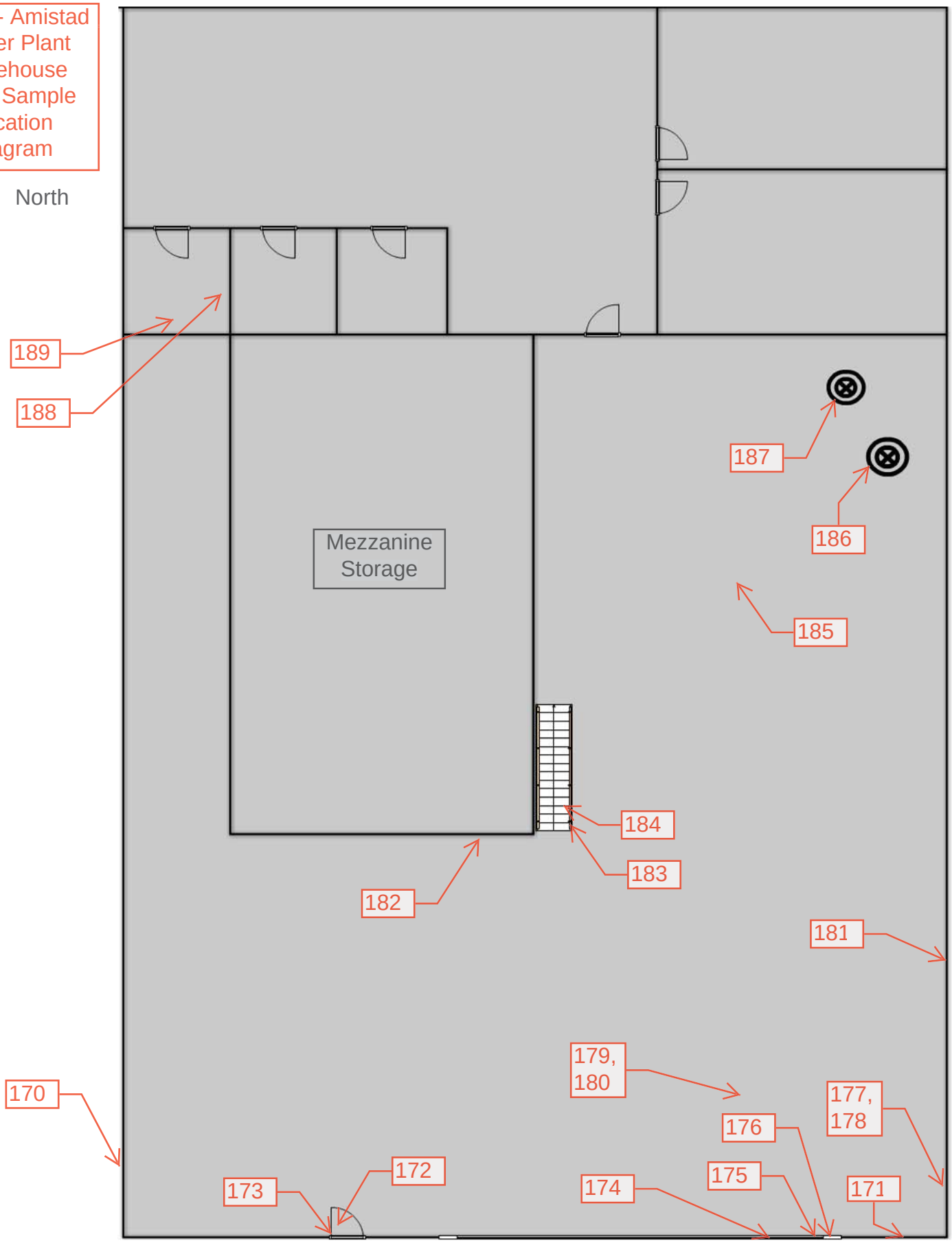
SCALE: 1/8" = 1'-0"

EL PASO, TEXAS | 22,983



IBWC - Amistad Power Plant
Generator Bay Transverse Section Plan
Lead Sample Location Diagram

IBWC - Amistad Power Plant Warehouse Lead Sample Location Diagram

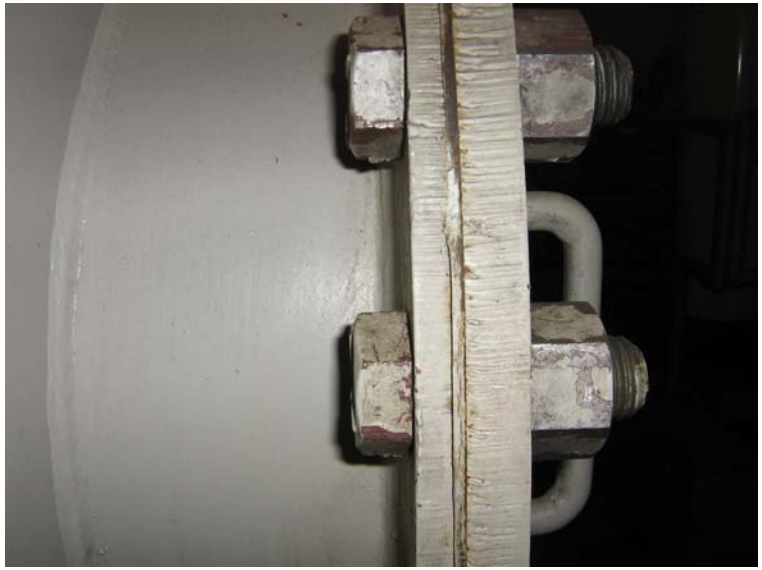


Appendix D

Photographs of Positive Materials

1. ACM-Vinyl Sheet Flooring Blue, Green and White Square Pattern

2. ACM-Roof Parapet Wall Metal Flashing Caulking



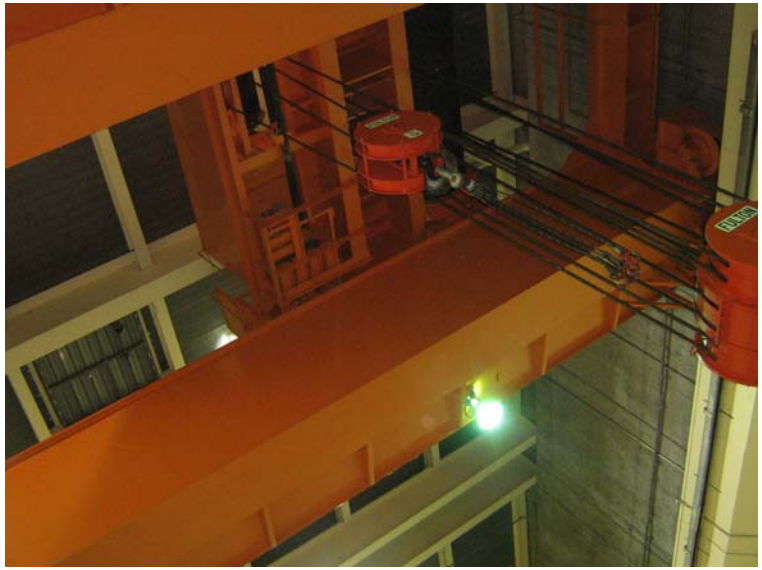
3. ACM-Flange Gasket-1st Floor Chemical Storage Tank Side Flange

4. ACM-Gasket Materials-3rd Floor Mezzanine Parts Storage Area

5. Assumed ACM-Sink Countertop-4th, Floor Battery Room

6. LBP- Gantry Crane Frame and Platform-Exterior Southwest

7. LBP Elevator Door frame



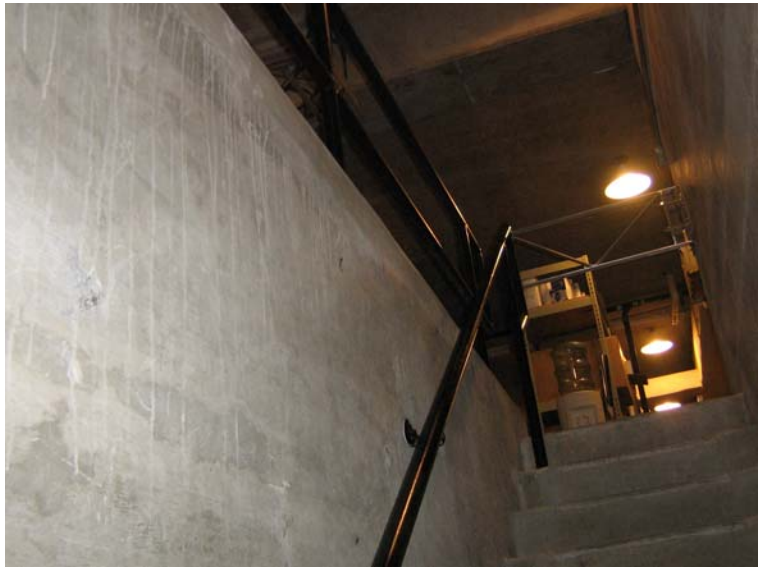
8. LBP-Powerhouse Crane Frame, 20 and 125 Ton Hooks

9. LBP-Cable Tray and Support

10. LBP-Flammable Storage Cabinet

11. LBP-2 ton Crane Boom-

12. LBP-Glazed Metal Custodian Sink



13. LBP-Handrail-3rd, Floor Parts Storage

14. LBP-Concrete Floor stripping

15. LBP-Elevator Gate 1st, thru 4th, floors

16. LBP-Hitachi Tool Rack-Generator Bay

17. LBP-Step and Riser-Stairs to Turbine Pit

18. LBP-Wall-Inside Turbine Pit

19. LBP-Servo Linkage- Inside Turbine Pit

20. LBP-Metal Shim-Upper Roof Parapet wall flashing fastener

21. Assumed ACM & LBP-Slider Door-1st Floor Chemical Storage area

22. LBP-Clean and Dirty Oil Storage Tanks Chemical Storage area

23. LBP-Spiral Case Access 1st Floor Piping Gallery

24. LBP-Stair Handrail to Penstock Gallery

25. LBP-Piping-Penstock Drain/Fill #2

26. LBP-Draft Tube And Access Hatch-Penstock Gallery

Appendix E

Inspector Certifications

TRC

State of California
Division of Occupational Safety and Health
Certified Asbestos Consultant

Samita D Seneviratne
Name

Certification No. **93-0886**

Expires on **02/18/13**

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.

State of California
California Environmental Protection Agency
Department of Toxic Substances Control

REGISTERED ENVIRONMENTAL ASSESSOR I

Issued to: Samita Seneviratne - REA I - 05765

Annual Expires on: 6/30/2012

Signature:

State of California Department of Public Health

Lead-Related Construction Certificate

Certificate Type	Expiration Date
Inspector/Assessor	01/04/2013
Project Monitor	01/04/2013

21431

Samita D. Seneviratne **ID #: 9658**

State of California Department of Public Health
Lead-Related Construction Certificate
Certificate Type
Expiration Date
Sampling Technician
07/31/2012
22394
Hector E. Gonzalez
ID #: 22952

State of California
Division of Occupational Safety and Health
Certified Site Surveillance Technician
Hector E Gonzalez
Name
Certification No. 06-4072
Expires on 09/20/12
This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.