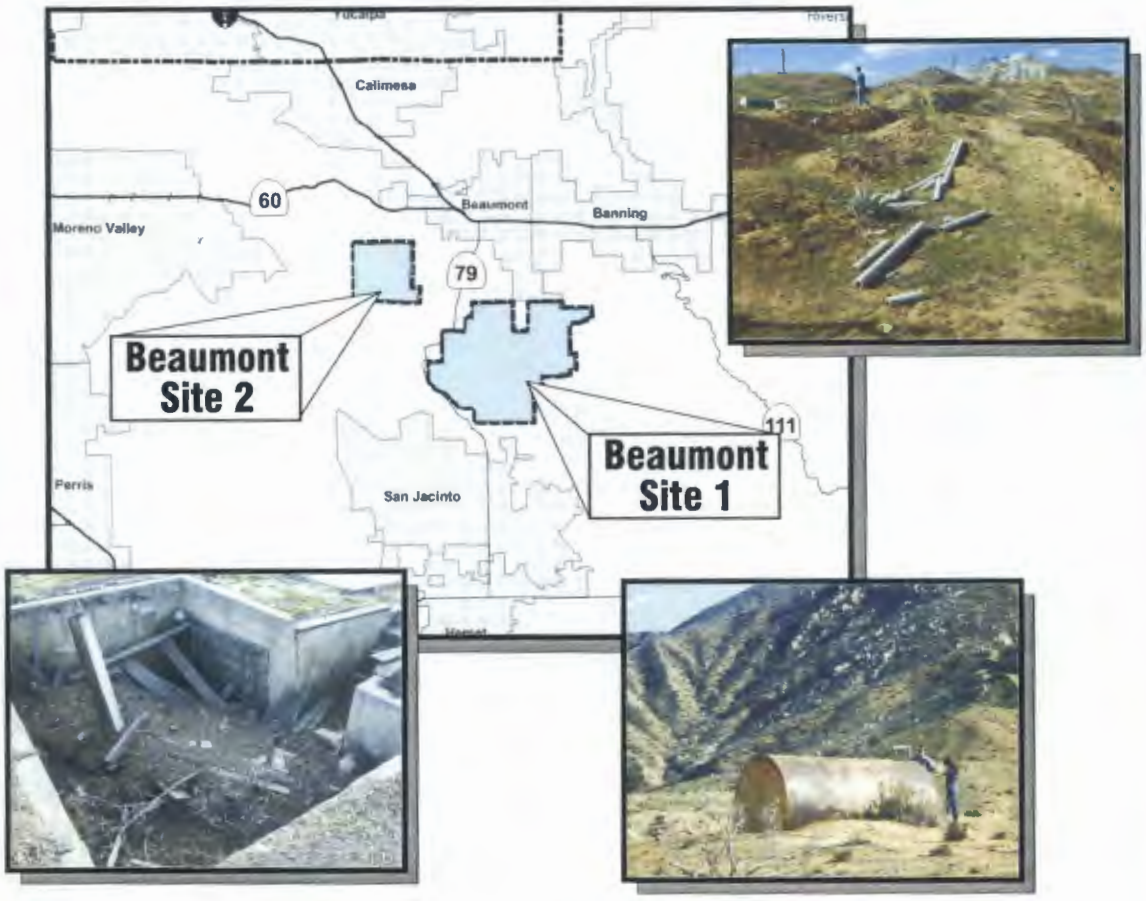
FINAL

Lockheed Martin Corporation
Beaumont Site 1 & 2
Safety & Toxics Assessment
Beaumont, California



LOCKHEED MARTIN

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EXECUTIVE SUMMARY

A safety and toxics assessment was performed at Lockheed Martin Corporation's (LMC) Beaumont Sites (Site 1 and Site 2) to identify items that have the potential for health and safety concerns to current and future occupants. The safety and toxics related items were identified based on general safety practices and current regulatory standards. The primary objective this assessment was to identify, locate, and describe the safety and toxics related items throughout the Beaumont Sites.

Overall, two hundred and ninety (290) safety and toxics related items were identified throughout the Beaumont Sites. A total of 185 safety and toxics items were identified at Beaumont Site 1 and 105 items were identified at Beaumont Site 2

SECTION 1.0
INTRODUCTION

On behalf of Lockheed Martin Corporation (LMC), Tetra Tech, Inc. has prepared the following Safety and Toxics Assessment for the LMC's Beaumont Sites (Site 1 and Site 2) located in the City of Beaumont, California. The Sites were operated from 1960 to 1974 for rocket motor production activities by Lockheed Propulsion Company (LPC). This safety and toxics assessment was preformed to identify potential safety and toxic related items remaining at the sites that may present potential health and safety concerns for current and future occupants. Currently, the Sites are inactive with the exception of the remedial activities performed under the direction of the Department of Toxic Substances Control (DTSC) at Site 1. Due to the Sites' landscaping, illegal trespassers utilize the Sites for various recreational activities including camping, equipment/material storage (i.e., bicycles, spare tires, etc.), off-highway vehicle (OHV) activities, and trash disposal.

This safety and toxic assessment consisted of a review of previous environmental documentation and a comprehensive inspection of both sites to identify safety and toxic related items that may be of potential health and safety concern. The items were identified based on general safety standards and practices for current site operations and potential future usage.

This report is organized into the following sections:

- Section 2 – Site Description, presenting a physical description of the Sites, summary of historical operations, and previous safety and toxics assessments;
- Section 3 – Field Inspection Methodology, presenting a description of field inspection activities, and the sampling approach;
- Section 4 – Summary of Findings, presenting a summary of the safety and toxics findings collected during the field inspection;
- Section 5 – References, presenting a list of documents reviewed.

SECTION 2.0
SITE DESCRIPTION

2.1 SITE LOCATION AND DESCRIPTION

The LMC's Beaumont Sites (Site 1 and Site 2) are located approximately 70 miles east of Los Angeles in the City of Beaumont, California - *see Figure 2-1.* Beaumont Site 1 (also referred to as the Potrero site) is approximately 9,100 acres. Beaumont Site 2 (also referred to as the Laborde Canyon site) is approximately 2,500 acres. The Beaumont Sites were primarily used for ranching operations prior to the 1950s. Between the late 1950s and early 1960s, portions of the Beaumont Sites were purchased by the Grand Central Rocket Company and utilized as remote test facilities for early space and defense programs. In the early 1960s, Lockheed Aircraft Corporation (LAC) purchased both Beaumont Site 1 and Site 2. In 1963, LPC became an operating division of LAC and was responsible for the operation of both Beaumont Sites, which are currently owned by LMC.

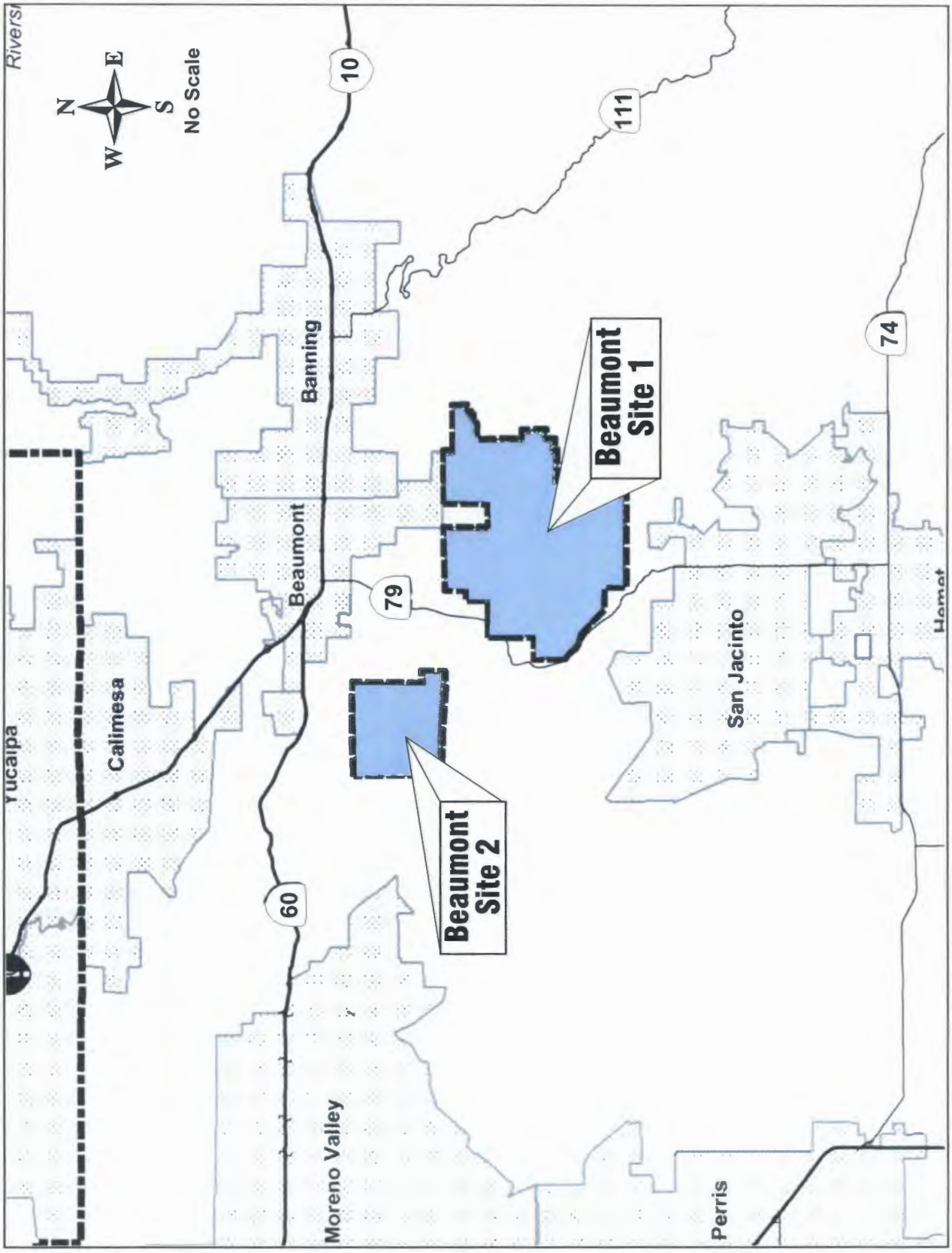
2.2 HISTORICAL PROPERTY USE AND DEVELOPMENT

From 1960 to 1974, both Site 1 and Site 2 were primarily used for solid rocket propellant mixing and testing operations. Various outside companies, including International Union of Operating Engineers (IUOE) and Ogden Labs, utilized portions of the Sites. The majority of the operations were performed within Site 1 with similar small scale operations performed within Site 2. A brief description of the historical operations performed at each site is presented in the following subsections.

2.2.1 Beaumont Site 1 – Historical Operations

Beaumont Site 1 was used by LPC from 1960 to 1974 for solid propellant mixing and testing, and ballistics testing. The industrial activities conducted at both Sites were divided into small confined operational areas within each site. A summary of each operational area is presented in this section. The locations of the operational areas are presented on Plate 1.

Figure 2-1
Location Map of Beaumont Sites



Site 1 was comprised of nine (9) primary operational areas. Each area was responsible for various activities associated with rocket motors and weapons testing including, but not limited to, propellant mixing, propellant testing, propellant incineration, ballistics testing, and sanitary waste disposal. The operational areas at Site 1, with corresponding grid point locations in Plate 1, are listed as follows:

Operational Area	Historical Operation Name	Location (Grid Points)
A	Eastern Aerojet Range	J2 through M2 and J5 through M5
B	Rocket Motor Production Area	L5 through M5 and L7 through M7
C	Burn Pit Area	M7 through N7
D	LPC Ballistics Test Range	L7 through M7 and L8 through M8
E	Radioactive Waste Disposal Site	J7 through J8
F	LPC Test Services Area	H6 through J6, G7 through H7, G8 through I8, and I7 through J7
G	Helicopter Weapons Test Area	G8 through I8 and G9 through I9
H	Permitted Sanitary Landfill	F7
I	Western Aerojet Range	E5 through F5 and E7 through F7

Operational Area "A"– Eastern Aerojet Range

Between 1970 and 1972, Aerojet Corporation leased two areas along the eastern and western portions of Site 1. The Eastern Aerojet Range was used periodically for research and development experimentation on several types of rounds for long-range 30-millimeter (mm) weapons. The tests studied trajectories, curves, and velocities of various projectiles including quality control. According to the supervisor of the Aerojet site activities, only specially machined and dummy aluminum bullets were used (no live warheads). Additionally, the supervisor stated that all rounds were accounted for during the test procedures. At the conclusion of Aerojet's testing activities at Site 1, the area was plowed and planted by a sheep farmer. Near the head of the canyon of the former Eastern Aerojet Range, the Soil Conservation Service constructed a berm to retain runoff and minimize downstream erosion. This resulted in the formation of an intermittent lake. Avanti, a highly classified project, used the land directly east of the Aerojet Range. Avanti constructed several U-shaped revetments for the storage of explosive materials and motors. Due to its highly classified status, additional information regarding Avanti's purpose and operational procedures is unknown.

Operational Area "B"– Rocket Motor Production Area

The Rocket Motor Production Area (formerly known as the Propellant Mixing Area) was used for the processing and mixing of rocket motor propellants. The rocket motor production process consisted of: 1) fuel slurry station, 2) mixing station, and 3) cast and curing station. The fuel slurry station and mix station were used to generate the propellants. The principal mix station was Building 315, which was used during the Large Solid Motor (LSM) program until early 1966. The mix station was not used again until 1970 when it was reactivated as a back-up mixer for the Short Range Attack Missile (SRAM) program.

The mix station consisted of a 300-gallon mixer housed in a 40-foot-high building. Dry oxidizer, primarily ammonium perchlorate, was dropped into the mixer and blended with the liquid ingredients consisting of butadiene derivatives and a burn rate modifier (primarily Ferrocene). During the LSM program, the liquid ingredients were weighed and pre-mixed at the fuel slurry station, Building 317. The chemicals associated with the mixing process were stored in Building 319. All mix station operations were controlled from Building 315-A, a nearby bunker built into the side of a hill. The propellant mix cycle took about 8 hours, including clean-up, which involved scraping and wiping down all containers and mixing equipment to remove all remaining propellant. Batches of propellant that did not meet specifications, as well as, all cleaning materials (including materials used during wipe down), were taken to the burn pit area for incineration.

After the mixing process, the thick, viscous propellant was poured under a vacuum into insulated and lined metal motor casings. The propellant cast was then cured by heating the propellant to 140°F for several days. The curing of the propellant resulted in a solid rubbery mass bonded to the insulation. During the LSM program, casting and curing was done at a stand located a short distance to the south of the mix station. During the SRAM program, the propellant was trucked to the Redlands plant for casting and curing.

If a defect was found in the propellant mix, the rocket motor was scrapped. However, because the metal casings were expensive, the propellant was removed from scrapped motors so that the casings could be reused. In order to remove the defective propellant, a 1,000-pounds per square inch (psi) water jet was used to force the solid propellant out of the metal casings at the motor washout located south of the mix station. The water leached much of the ammonium perchlorate out of the propellant and left gray chunks of non-explosive rubbery material. The water slurry produced at this washout area was collected in a lined basin. The remaining solid residue was collected in a flume-type apparatus, put in barrels, and

taken to the burn pit area for incineration. After operations ceased, a flamethrower was applied to the motor washout area to burn any residue left lying on the ground. All water used during the washout operations was provided by a water truck.

In October 1973, a modifier known as "Maloy blue" was used as part of the blue motor program. An area east of the mix station, known as the blue motor burn pit, was utilized for the destruction of four SRAM motors, which included a motor with "Maloy blue" propellant. Charges were used to cut open the SRAM motor casings, exposing and destroying the propellant and motors. The blue motor burn pit was approximately 6 feet deep, 5 feet wide, and 12 feet long.

Operational Area "C"– Burn Pit Area

The Burn Pit Area consisted of three primary features: 1) chemical storage area, 2) burn pits, and 3) beryllium test stand. Hazardous waste materials generated at both Beaumont Sites and the Lockheed former Redlands Plant were stored in 55-gallon drums on a concrete pad east of the burn pits at the chemical storage area until enough material was generated for a burning event. The hazardous materials burned in the pits included: ammonium perchlorate, wet propellant from motor washout; dry propellant; batches of out-of-specification propellant; various kinds of adhesives; resin curatives such as PBAN (polybutadiene acrylonitrile/acrylic acid copolymer); burn rate modifiers such as ferrocene; pyrotechnic and ignition components; packaging materials including metal drums, plastic bags, and paper drums; and solvents, trucked in primarily from the LMC Redlands Plant.

During operation of the Beaumont Facilities and Redlands Plant, a total of 20 to 40 burn pits were excavated at Site 1; some burn pits were used more than once. Burn pits were created by excavating a pit that was approximately 6 to 8 feet wide, 4 to 6 feet deep and 50 to 100 feet long. The pits were oriented north to south with the first pits dug to the east, and newer pits dug progressively to the west. If an old pit was encountered while in the process of digging a new one, excavation of the new pit was terminated.

During burn pit procedures, the hazardous materials were placed in the center of the burn pits, saturated with fuel (specifically ammonium perchlorate oxidizer or diesel fuel), and ignited with an electric match from a remote location. The burning operations were conducted under the direct supervision of Lockheed safety engineers after obtaining appropriate permits from the Beaumont Station of the California Department of Forestry (CDF).

After burning activities, the burn pit trench was visually inspected for items that did not burn. If the trench was suitable for reuse, it was left open for additional burns. Otherwise, the trench was filled and covered with soil and a new trench was created for the additional burns.

On the south side of the spur, where the burn pit instrumentation bunker was located, there was a one-time firing of small beryllium research motors.

Operational Area "D"– LPC Ballistics Test Range

The LPC Ballistics Test Range facilities included gun mounts, a ballistic tunnel, and storage buildings and trailers. Four guns were used at the test range, including a Navy 5-inch, Army 155mm, Army 40-mm, and an Army 37-mm. All weapons were fired toward the west, at the bottom of a terraced hill. The projectile landing zone was terraced to prevent rounds from ricocheting to higher areas. Although the weapons were aimed at the bottom of the hill, occasionally rounds would skip and ricochet further up the hill. After firing, the areas were policed, and care was taken to pick up the remains of any rounds. Live warheads were never used although projectiles were often specially shaped and weighted to simulate actual live rounds.

The ballistics tunnel consisted of large sections of drainage culvert cut lengthwise and supported on a concrete foundation. This tunnel had doors on both ends that provided the darkened conditions necessary for strobe photography. Various weapons, primarily the Army 37-mm gun, were fired through the tunnel and photographed with special high-speed strobe photographic equipment.

Another major project conducted in this area was experimentation on a rocket-assisted projectile. This propellant-fueled rocket was fired from the Army 155-mm "Long Tom." Muzzle velocities of 3,500 feet per second (fps) were increased to 3,700 fps down range with the assistance of the rocket. At the request of the Army, the projectile was fired at, and through, a piece of 1-inch maraging (homogeneous) steel set at a 45° angle. Additional experiments included impact testing of various motors and pieces of equipment when subjected to a fired 50 caliber round.

Class A explosives were stored in two or three 10-foot by 10-foot buildings located behind a berm. During the closure of the facility, all explosive materials were detonated on site by the engineer in charge of the range. A small canyon behind the hill to the south of the former storage buildings was used as a small test area for incendiary bombs. Drums containing various types of fuel (e.g., jet fuel, gasoline, diesel, etc.) were set in circles of different radii surrounding the test area in order to observe shrapnel and

penetration patterns. A 500-pound incendiary bomb was detonated in the center of the drums to determine if hot shrapnel would penetrate the drums and ignite the fuel in the drums. At a small area near the bend in the road, acetone was used to dissolve TNT out of incendiary bombs before they were burned. This was a one-time occurrence, and the resulting TNT crystals were collected and destroyed.

Operational Area "E"– Radioactive Waste Disposal Site

During 1971, low-level radioactive waste was buried in one of four canyons southeast of the LPC test services area as reported by former site employees. However, the exact location of the burial site was unknown. The radioactive waste constituents included Carbon-14 (C^{14}) with a half-life of 5,580 years, Sulfur-35 (S^{35}) with a half-life of 87.1 years, and Tritium (H^{3}) with a half-life of 12.5 years. All three constituents emit beta radiation and were used in small quantities as tracers by the Chemistry Department at the LPC Redlands plant.

In February 1990, the Radian Corporation located and removed the radioactive waste in canyon #1. The waste, found as deep as 4-feet bgs, included broken glass from laboratory jars and vials, metal jar lids, and vials containing solids. Confirmation soil samples and waste characterization samples were collected following the excavation activities and analyzed for gross alpha, gross beta, and gamma radioactivity. The analytical results detected concentrations that were within the range of naturally occurring concentrations.

Operational Area "F"– LPC Test Services Area

The LPC Test Services Area included the following features: 1) three bays for structural load tests, 2) a 13-foot-diamater spherical pressure vessel, 3) six (6) temperature conditioning chambers, 4) five (5) environmental chambers, 5) a 25 million electron volt (MeV) Betatron for X-raying large structures, 6) personnel and instrumentation protection bunkers, and 7) supporting work shops and storage areas.

Once the motor casings were prepared with the proper propellant, the casing was then transported to the LPC Test Services Area for integrity testing. The first step of the integrity process involved nondestructive inspection of the motor casing using the 25 MeV Betatron radiographic unit (located in Building 303). While in operation, the 25 MeV Betatron unit was the largest industrial X-ray machine in southern California. The primary use of the Betatron was to X-ray rocket motors to determine if there were cracks, voids, or foreign material in the propellant before the motors were tested or delivered to clients. It was able to detect 0.005-inch voids through 20-inches of steel. Since it had capabilities for

such large objects, outside parties also made use of it to examine other large structures such as ship propellers. Buildings 306 and 314 of the LPC Test Services Area were work shops and storage facilities.

The next step of the testing process would be to simulate environmental conditions (i.e. temperature, pressure, etc.) that the rocket motor may encounter. A 13-foot-diamater spherical pressure vessel was designed to simulate pressures at ocean depths of up to one mile, as well as, to simulate altitude conditions of up to 150,000 feet. The vessel was also used as a source of high-pressure-high-volume gas or water for flow tests of valves, meters, and pumps. Six temperature chambers could contain objects up to 8 by 20 feet and expose them to temperatures ranging from –100 to +200°F. Five environmental chambers could simulate conditions of humidity, rain, immersion, infrared radiation, salt spray, sand and dust, and altitude. The temperature and environmental conditioning chambers were used to expose rocket motors and other items to a variety of extreme conditions before test firing.

If defects were identified during the integrity and environmental testing activities, the rocket motors were taken to a secondary washout area located south of the conditioning chambers adjacent to Potrero Creek. The washout activities were similar to the RMPA washout process; however, a well was located nearby to supply the required water. A shaking Suico sieve caught most of the propellant as it was washed out of the motor casing. This propellant was packed in barrels and was taken to the burn pit area to be incinerated. A long trench, leading to an unlined catch basin, caught the overspray, which contained the water and smaller pieces of propellant, which passed through the sieve. After the water percolated into the soil, the remaining pieces of propellant were burned in the catch basin.

Once the rocket motor had passed the initial integrity and environmental tests, the motor was transported to the LPC test bays. Three test bays, two vertical and one horizontal, were utilized for structural load testing under static and captive firing conditions. The largest structural loading test bay, Bay 308, was used six times for static or captive firing of large solid motors. The Apollo launch escape motor was test-fired at Bay 308. Test Bay 309 was used for the static firing of small motors including the SRAM and the Apollo launch escape motor. During several of the initial tests conducted at Bay 309, the readied motor exploded instead of firing, causing minor fires and requiring repair of the test bay. Test Bay 310 was used for the horizontal test firing of SRAM motors.

Buildings 304 and 305 (bunkers) provided protection for personnel and instrumentation during various test activities. Hard-lined cabling extended from the instrumentation bunker (Building 305) to all test areas, permitting remote-control of testing activities and facilitating data acquisition. Data was collected

during all static firing to verify engineering estimates of motor performance and reliability. These buildings were all designated as inert and were not to contain any propellant.

Beryllium scrap was stored near the igniter magazine in a small structure over a hill just to the west of Test Bay 310. Beryllium was used in Redlands for work on high altitude control motors. Scrapings were accumulated in 55-gallon drums. An igniter magazine existed near the Beryllium structure. This was a small, half-buried barrel with a door where squibs (a small electric or pyrotechnic device used to ignite a charge) were stored. A bone-yard was used as a storage area for a variety of steel framework and other heavy equipment used in the structural testing activities.

Operational Area "G"– Helicopter Weapons Test Area

The helicopter weapons test area was used to develop equipment for handling helicopter weapons systems. The facilities within this area included a hanger (Building 302), helicopter landing pad, stationary ground mounted gun platforms, and a mobile target suspended between towers. The primary project at this test area was the development of feed mechanisms for weapons with high firing rates. A stationary, ground-mounted gatling-type mini-gun, firing a 7.62 NATO round was the major test weapon. The gun had two firing rates, 3,000 and 6,000 rounds per minute, with belted rounds flowing through a guided chamber. These high firing rates required special handling capabilities for feed control and spent brass. Additional experimentation was performed on the propellant portion of an armor-piercing round for a 40-mm grenade launcher and on a 30-mm shaped charge projectile.

The majority of rounds were fired into the side of the creek wash, about 100 yards to the south of the hanger. A longer impact area labeled with distance markers was located in the canyon to the south of the wash. Projectiles were steel only; warheads were not used during tests at this facility. Testing was also performed using the same weapons mounted on helicopters. This testing was conducted to evaluate the stability of the helicopter when firing the weapons. Weapons were fired at targets suspended between two towers at the western end of the test area.

Operational Area "H"– Sanitary Landfill

A sanitary landfill was located along the western side of Site 1. The sanitary landfill was operated under an annually renewed permit obtained from the Beaumont station of the CDF. This permit allowed LPC to dispose of trash generated. This trash consisted of paper, scrap metal, concrete, and wood generated during routine daily operations. Lockheed policy strictly dictated that hazardous materials were not to be disposed of at this landfill. All individuals interviewed have reported that the landfill was used for

sanitary purposes only. The trenches were later covered and leveled, with only an occasional tire, metal scrap, or piece of wood remaining on the surface.

Operational Area "I"– Western Aerojet Range

LPC conducted an incendiary test with a 500-pound bomb at the southwest end of the Western Aerojet Range. This test was similar to testing performed at the LPC Ballistics Test Area. According to the Historical Report (Radian, 1986), the Western Aerojet Range was originally leveled to be used as an airstrip but none of the individuals interviewed could recall if any planes actually used it. There were reports, however, that planes, including a DC3 aircraft, did land in the fields in the central part of the facility. Although Aerojet leased the western range, former facility employees did not believe Aerojet ever used it. Based on employee interviews, the airstrip may have been used only on one occasion, and the purpose is not known.

2.2.2 Beaumont Site 2 – Historical Operations

Beaumont Site 2 was used by LPC from 1960 to 1974 for rocket motor assembly and testing operations. A summary of each operational area within Beaumont Site 2 is presented in this section. The locations of the operational areas are presented on Plate 2.

The Beaumont Site 2 was made up of four (4) primary operational areas. Each area was responsible for various activities associated with rocket motor assembly and testing. The operational areas at Beaumont Site 2 with corresponding grid point locations in Plate 2 are listed as follows:

Operational Area	Historical Operation Name	Location (Grid Points)
J	Final Assembly	G2 through H2 and G3 through H3
K	Test Bays and Miscellaneous Facilities	F3 through H3 and F6 through H6
L	Propellant Burn Area	Actual Location Unknown (approximate area: H6 through H7)
M	Garbage Disposal Area	H7 through I7

Operational Area "J"– Final Assembly

Rocket motor casings with propellant were transported to Beaumont Site 2 Building 250 where final assembly of the rocket hardware was conducted. The building was utilized from 1970 to 1974 for final assembly and shipment of SRAM rocket motors. Rocket motor assembly operations included installation

of the nozzle and headcap, pressure check of the motor, installation of electrical systems, and preparations for shipment. During plant closure in 1974, all usable parts of this facility were dismantled, taken off site, and sold.

Operational Area "K"– Test Bays and Miscellaneous Facilities

A conditioning chamber and its associated bunker were located just north of the Propellant Burn Area. As at Beaumont Site 1, the conditioning chamber was used to examine the effects of extreme temperatures on rocket motors and to meet specification requirements. A centrifuge was located in the western test bay, where rocket motors were centrifuged in order to see if the propellant would separate from its casing under increased gravitational forces (g-forces). Four test bays were located at Beaumont Site 2. The initial testing activities had a history of explosions that destroyed complete test areas, especially during the period when Grand Central Rocket operated the facility. As the technology became better understood, motor failures occurred less often. Following any motor failure, the hillsides were thoroughly policed to recover any unburned propellant.

Operational Area "L"– Burn Area

Large slabs of propellants were transported to Beaumont Site 2 and set directly on the ground surface for burning. No pits or trenches were dug as part of the burning process. The propellant was saturated with diesel fuel to initiate combustion. Reportedly, the propellant would burn rapidly. No evidence or physical features identify the precise location of the burning activities.

Operational Area "M"– Garbage Disposal Site

A garbage disposal site was located adjacent to a small creek at Beaumont Site 2. Scrap metal, paper, wood, and concrete materials were disposed of at the disposal site by LPC. Hazardous materials, including explosives and propellants, were never disposed of at this disposal site by LPC (according to employee interviews). Ogden Labs, a company that tested valves and explosive items, also used this disposal site. Reportedly, Ogden Labs disposed hazardous waste at the garbage disposal site. In 1972, a Lockheed Safety Technician was exposed to toxic vapors of unsymmetrical dimethyl hydrazine (UDMH) from a pressurized gas container located within the disposal site. Based on potential exposure risks to occupants, Lockheed's safety group required Ogden Labs to take measures to remove any potentially hazardous materials at the disposal site. Shortly thereafter, a disposal company was contracted by Ogden Labs to clean up the dump site.

2.2.3 Post LPC Facility Usage (1975 to Present)

Lockheed has leased portions of both sites to several outside companies for use in various activities since 1975. Beaumont Site 1 facility was used by the IUOE from 1971 through 1991 for surveying and heavy equipment training. The IUOE had approximately 75 to 100 pieces of heavy equipment on-site for road building and other purposes (i.e. grading operations, landscaping, etc). The IUOE earth-moving activities have reshaped various parts of Site 1. The IUOE maintained the roads at both Site 1 and Site 2, and operated a rock crusher.

A portion of Site 1 was also leased by a farmer who used a number of areas for sheep grazing and dryland farming. Most level areas throughout the site, including the burn pit area and the LPC and Aerojet test ranges, were planted with barley. Planting activities were preceded by mechanical cultivation of the soil to depths of approximately one foot.

General Dynamics had used the area south of the propellant mix station at Site 1 for testing activities on several occasions. In 1983, General Dynamics fired a Viper bazooka in an easterly direction from the old mix station toward two steel targets in the field. A 2.7-inch rocket motor, explosives and shaped charges were used, but only shrapnel remained as a result of the activities. In 1984, 20 and 30-mm Phalanx Gatling guns were fired from west to east toward a berm that was built near the former SRAM motor washout area. Only solid rounds were used during this activity.

Structural Composites had used the steep terrain of Site 1 for vehicle roll-over tests on a number of occasions. The last test was in January 1983. Structural Composites had also conducted heat and puncture tests on pressurized fiberglass and plastic reinforced cylinders. The tests involved shooting a single 30-caliber round at the cylinders, and recording the result. The heat and puncture tests were conducted at Site 2 on one occasion.

Wylie Labs planned to use Beaumont Site 2 for testing of a Class B explosive device in 1986. Wylie Labs had set up some of the necessary equipment, but the tests were never performed.

The Sites are currently inactive and many of the former structures have been demolished leaving only concrete building pads. Five buildings, three rocket motor test stands, one mobile trailer, and five earthen revetment bunkers remain as the only intact structures on the Sites.

2.2.4 Environmental Activities (Remedial Systems)

Based on the historical operations of the Sites, several environmental investigations and activities have been conducted. The investigations focused upon subsurface contamination of soil and groundwater at specific locations throughout the Sites. Data obtained from the investigations identified two (2) primary areas of concern, the Rocket Motor Production Area (Historical Operational Area "B") and the Burn Pit Area (Historical Operational Area "C"). Elevated VOC concentrations were detected in the soil vapors of Area "C" and within the groundwater below Area "C" and Area "B." Due to these findings, the Department of Toxic Substances Control (DTSC) issued a consent order in 1989 and an Operation and Maintenance (O & M) Agreement in 1994 to Lockheed to address the soil vapor and groundwater issues. As part of the consent order and O & M agreement, Lockheed was required to install and operate two (2) remediation systems: a soil vapor extraction (SVE) and a groundwater pump and treat (P & T) system.

The SVE system was installed at Area "C" in 1994 to remove chemical contaminants from the vadose zone. The components of the SVE system include: SVE wells, two-phase high vacuum extraction wells, groundwater injection wells, a catalytic oxidizer, and liquid-phase carbon adsorption units. The system was designed to remove the source of the chemical contamination and reduce the risk of further impact to groundwater. The SVE system was in full operation from 1994 through 1998. In 1998, the DTSC allowed LMC to shut down the SVE system based on soil vapor sample concentrations being reduced by an average greater than 99 percent. Although the system has been shut down since 1998, the system is currently intact and remains on site.

The pump and treat remediation system at Area "B" involved the extraction and treatment of groundwater. The components of the groundwater system include: two (2) groundwater extraction wells, five (5) groundwater injection wells, an air stripper system, two (2) bag filters, one 500-gallon treated water storage tank, and vapor-phase carbon adsorbers. The system was designed to remove impacted groundwater via a pump-and-treat (P & T) method and to re-inject treated groundwater to upgradient and downgradient wells for hydraulic containment. The P & T system was in full operation from 1994 through 2002. In 2002, under consent by the DTSC, LMC shut down the P & T system in order to re-design the system for the treatment of additional chemical contaminants that had been identified in the groundwater. Although the system has been shut down, the P & T system is currently intact and remains on site.

2.3 PREVIOUS SAFETY AND TOXICS ASSESSMENT

Prior to performing field site inspection, Tetra Tech reviewed the 1986 Historical Report prepared by Radian which identified historical use areas and previous site activities. In addition, a review of the results of a safety and toxics audit conducted by Earth Tech and LMC personnel was performed. In October 2002, Earth Tech and LMC personnel performed a site inspection to identify safety and toxics concerns, which concentrated mainly on the current site remedial systems and those structures still standing. Additionally all other readily available environmental documents for the site were reviewed for additional pertinent information.

SECTION 3.0
FIELD INSPECTION METHODOLOGY

In order to identify potential safety and toxic items at Beaumont Site 1 and Site 2, Tetra Tech conducted a site inspection which focused on safety concerns related to current and former structures, current remedial systems, and toxics related items (i.e. asbestos, lead, PCBs, etc). A comprehensive safety and toxics assessment was conducted to identify items that may be potential health and safety concerns to current and future site occupants.

A site inspection was conducted in early to mid-December 2002 for Site 1 and early to mid-January 2003 for Site 2. During the site inspection, Tetra Tech personnel visually inspected the Sites for potential safety items including debris, structures, and potential toxics related items and documented the location and description of the items discovered. Additionally, photo documentation was conducted of the items and all items were mapped on Site figures. Photographs taken during the site inspection activities are presented in Appendix A.

If possible, items were geo-referenced via global positioning system (GPS). GPS points at major features and remote locations were collected using a Trimble Geo-Explorer hand-held GPS unit. GPS points were projected into a State Plane of Zone 6, NAD 83 coordinates and placed over a February 2002 Ortho-rectified aerial image at 1" = 800' scale. The maps used to document historic structure locations in the Radian Historic Report were then overlaid on this map to assist in the location and identification of all historic structures and potential areas of concern.

The following sections present the methodology for the safety and toxics assessment.

3.1 SAFETY ASSESSMENT METHODOLOGY

During the site inspection, items were identified as safety concerns using general safety guidelines and specific regulatory guidelines. The general safety guidelines that were applied were slip, trip, and fall hazards; general safety hazards; suspended-load hazards and site security concerns. Specific regulatory guidelines include proper signage; confined space; exposed electrical hazards (lockout / tagout); and locations where general fall hazards (activities conducted 4-feet or more above ground surface) would be required.

3.2 TOXICS ASSESSMENT METHODOLOGY

Concurrent with the safety audit, potential toxics related items were also identified and documented. Toxics related items were subdivided into two categories: toxics materials (i.e. asbestos containing materials; lead-based paint; PCB-containing materials such as ballasts or transformers; fluorescent lights; mercury switches; and thermostats) and biological hazards (i.e. animal droppings, mold). During the audit, potential building materials, which could contain asbestos containing material (ACM), lead-based paint (LBP), and mold, were identified and sampled to confirm the presence or absence of toxics related items. Sampling was conducted for presumed ACM, LBP, and mold by City Environmental Services, a State-Certified asbestos and lead contractor.

Asbestos Containing Materials Survey Methodology

The ACM survey was comprehensive and included inspection of the following: interior, exterior, roof, attic, crawlspace, mechanical room, and common areas of all accessible structures present on the Sites. The site inspection focused on locating and identifying presumed ACM, and to determine its friability, condition, and potential for damage. To confirm the presence of asbestos, bulk sampling of accessible presumed ACM was conducted and analyzed by Polarized Light Microscopy (PLM) in accordance with EPA Method 600/M4-82-020. The survey was performed in accordance with the requirements of the Asbestos Hazard Emergency Response Act (AHERA) 40 Code of Federal Regulations (CFR) 763 as well as the National Emissions Standards for Hazardous Air Pollutants (NESHAPS) 40 CFR 61 Subpart M.

To conduct the site inspection, a two-person team documented the presence of typical presumed ACM materials on field logs. The suspect materials included, but were not limited to: surface materials (i.e. sprayed or trowled on structural members, fireproofing, acoustic or decorative materials, etc.), thermal system insulation (i.e. pipe, boiler, ducts or other HVAC insulation materials), and miscellaneous materials (i.e. ceilings, floors and walls such as tiles/panels, sheeting, joint compound, paints, etc.). During the sampling activities, a material assessment was conducted to classify the material as either friable or nonfriable. Additionally, materials were assessed for condition and potential damage (i.e. any damage by impact, water, aging, deterioration, or delamination from their substrata). An evaluation of contact potential, vibration influence, and erosion potential was conducted and documented in field logs – see Appendix B.

The field logs present the following information: building number, floor, homogenous group number, sample number, material description, sample location, other locations, approximate total quantity, analytical result, friable/non-friable, damage rating, contact potential, vibration influence, erosion potential, and recommended action.

Lead-Based Paint Survey Methodology

The lead-based paint survey was performed in general conformance with the 1995 HUD guidelines for evaluation and control of lead-based paint hazards in housing. The site inspection activities consisted of documentation of paint surfaces, including, but not limited to: painted surfaces (i.e. walls, door jams, exterior and interior stucco, etc.) and metal surfaces (i.e. I-beams, equipment, railings, window components, etc.). The potential lead-based paint items were documented on field logs. The surfaces were tested utilizing both an x-ray fluorescence spectrum analyzer (XRF) and paint chip samples. The XRF method is a field sampling method, which provides a direct reading of lead concentrations. The XRF unit was calibrated at the beginning and end of each inspection day or after extensive delays in the sampling time. The XRF was calibrated with a known paint film lead concentration of 1.0 mg/cm^2 in the NIST Standard Reference Material. The XRF instrument provides a positive ($\geq$ 1.0 mg/cm^2) or negative ($<$ 1.0 mg/cm^2) determination verses the threshold. Additionally, paint chip samples were collected from suspected LBP locations and submitted to Micron Environmental Laboratories, Inc. (Micron) for lead analysis by Atomic Absorption Spectrometry (AAS) in accordance with EPA Method SW 846-3050-7420. Specific sampling strategy, methodology, and the results of the lead-based paint survey are presented in Appendix B.

Other Toxic Materials Methodology

During the site inspection activities, other toxic materials including, but not limited to, transformers, fluorescent lights, HID bulbs, mercury switches, etc., were also identified and documented on field logs. The location, description, and condition of the items were reported in the logs.

Biological Material Methodology

During the toxic materials survey, an inspection was also conducted for biological materials such as animal droppings and mold. The specific location and description of the biological materials was documented in field logs. Mold was noted on building materials with samples collected on an as-needed basis based on visual observation of mold growth. A limited interior air quality assessment (LIAQA) was performed, which included a moisture survey and sampling using a tape lift method and a total mold

spore air sample. Tape lift mold samples were collected utilizing Scotch brand adhesive tape mounted directly onto pre-cleaned microscopic slides and placing the adhesive side onto the sampling area. The total mold spore air samples were collected using Cyclex-d cassettes and high volume air sampling pumps to sample a total volume of 200 liters of air at each location. Additionally, all mold samples collected were submitted to City Laboratory Services for total mold spore analysis. The analysis would indicate the presence of toxic strains or allergenic strains of mold. Specific sampling strategy and methodology and the results of the survey are presented in Appendix B.

SECTION 4.0
SUMMARY OF FINDINGS

At the completion of the site inspection, a Safety and Toxic matrix was generated which presented the following: item number, historical area, historical operational area description, historical operation, location, GPS point (if available), item description, and category (Debris/Structure, Remedial, or Toxic). The findings of the assessment were subdivided into three tables for each site: safety items, toxics items, and additional items with no potential health and safety concerns. This section presents a summary of the findings at Beaumont Site 1 and Beaumont Site 2. The Safety and Toxics matrices are presented in Appendix C.

4.1 BEAUMONT SITE 1

A total of 185 safety and toxics related items were identified within Beaumont Site 1. There were 154 safety and 31 toxics related items. A table with the items identified is presented in Appendix C.

4.1.1 Summary of Safety Related Items

The 154 safety related items were subdivided into three (3) categories: structure, debris, and remedial systems. The following table defines the various sub-categories of the safety related items. The majority of the items observed were located in or near the historical operational areas. In general, outside of the historical operational areas, the Site is clear of safety related items. Table 4-1 presents a summary of the safety related items by former historical operation areas.

Table 4-1
Summary of Safety Related Items with Operational Areas
For Site 1

Historical Operational Area	*Total Items*	*Category*		
		Structure	*Debris*	*Remedial System*
A	18	6	12	0
B	42	16	17	9
C	7	2	2	3
D	12	6	6	0
E	2	1	1	0
F	54	34	19	1
G	13	4	9	0
H	2	0	2	0
I	3	0	3	0
Site wide	*1*	*0*	*1*	*0*
Total	**154**	**69**	**72**	**13**

According to Table 4-1, 153 safety items were associated with a historical operational area. However, one (1) additional safety item was identified as a Site wide issue and not associated with a specific historical operational area.

As presented in Table 4-1, historical operational Area "F", former LPC test services area, contained the largest number of structural and debris related safety items. The remedial items identified are primarily located within historical operational Areas "B" and "C", which house the two remedial systems. The specific locations of the items identified by historical operational areas are presented in Figure 4-1 through Figure 4-8 and LMC Beaumont Site 1 Plate 1.

4.1.2 Summary of Toxics Related Items

A total of 31 toxics related items were identified within Beaumont Site 1. The toxics related items were subdivided into the following categories: toxic materials (including ACM, LBP, and other materials) and biological materials (including mold and animal droppings). A total of 26 toxic materials and 5 biological materials were identified within Site 1. The following subsection presents the findings of the toxic and biological materials.

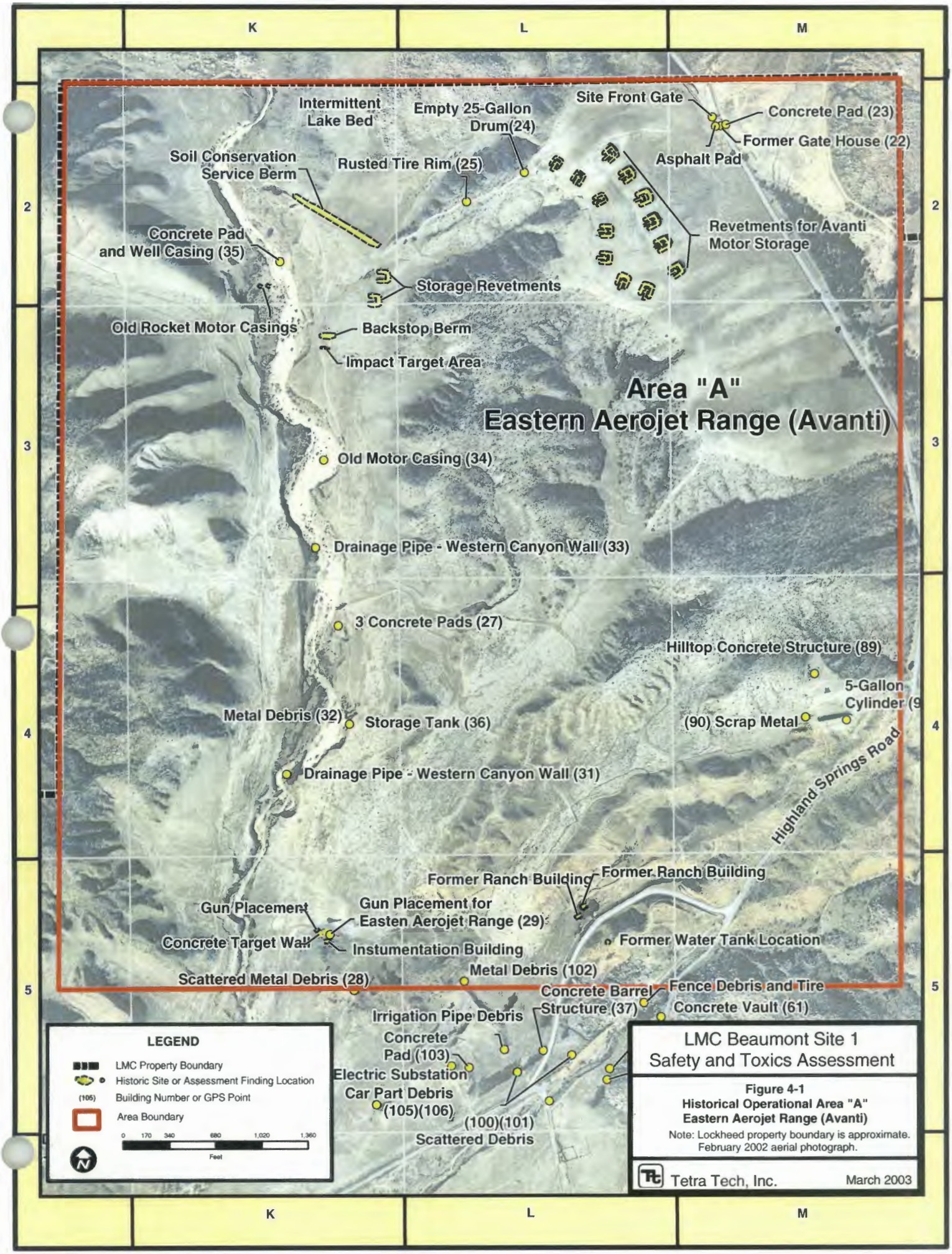
4.1.2.1 Summary of Toxic Materials

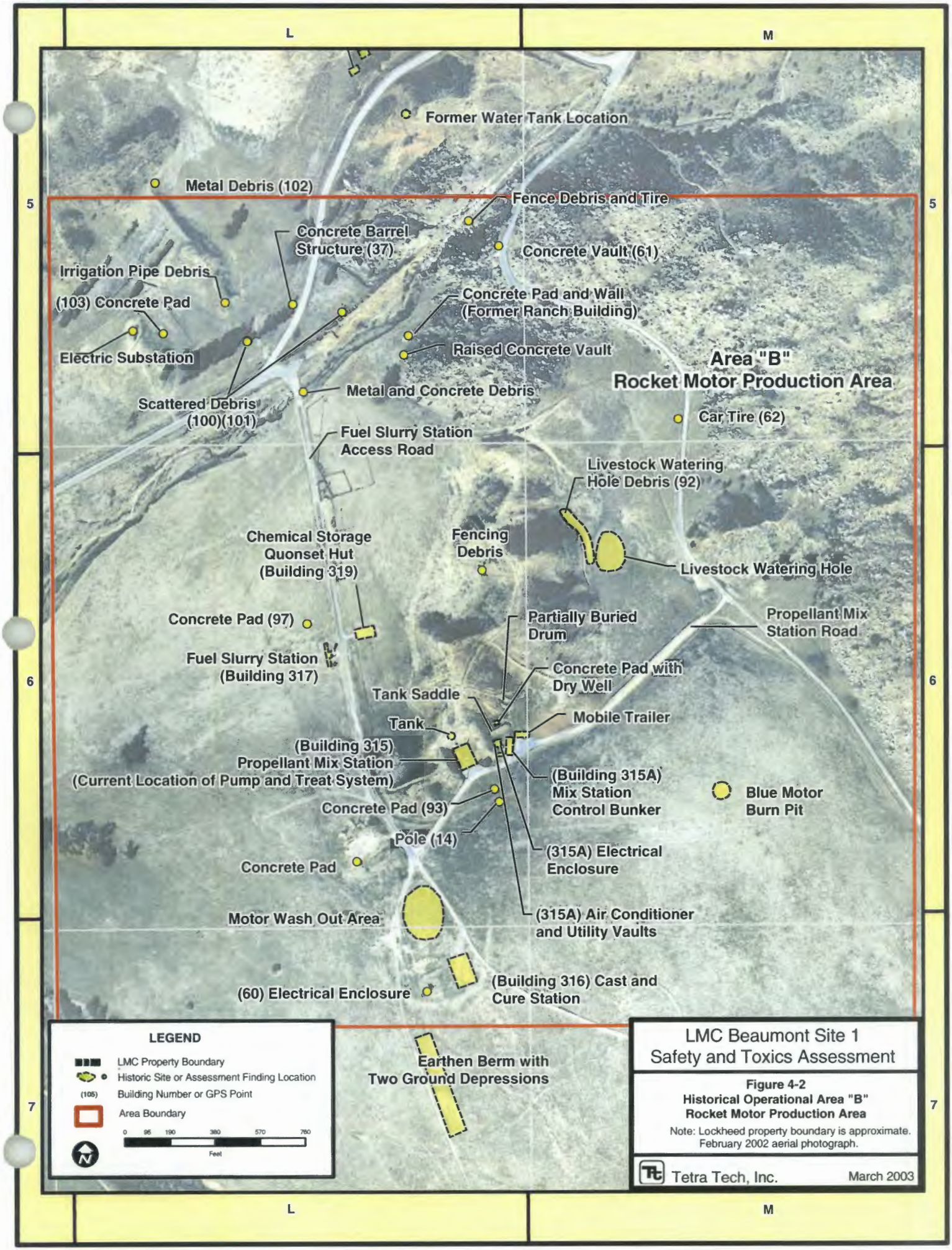
The 26 toxic material findings observed were found in six sub-categories: asbestos, lead-based paint, PCBs, mercury-containing items, HID and fluorescent bulbs, and unknown liquids. Table 4-2 presents a summary of the toxic materials identified.

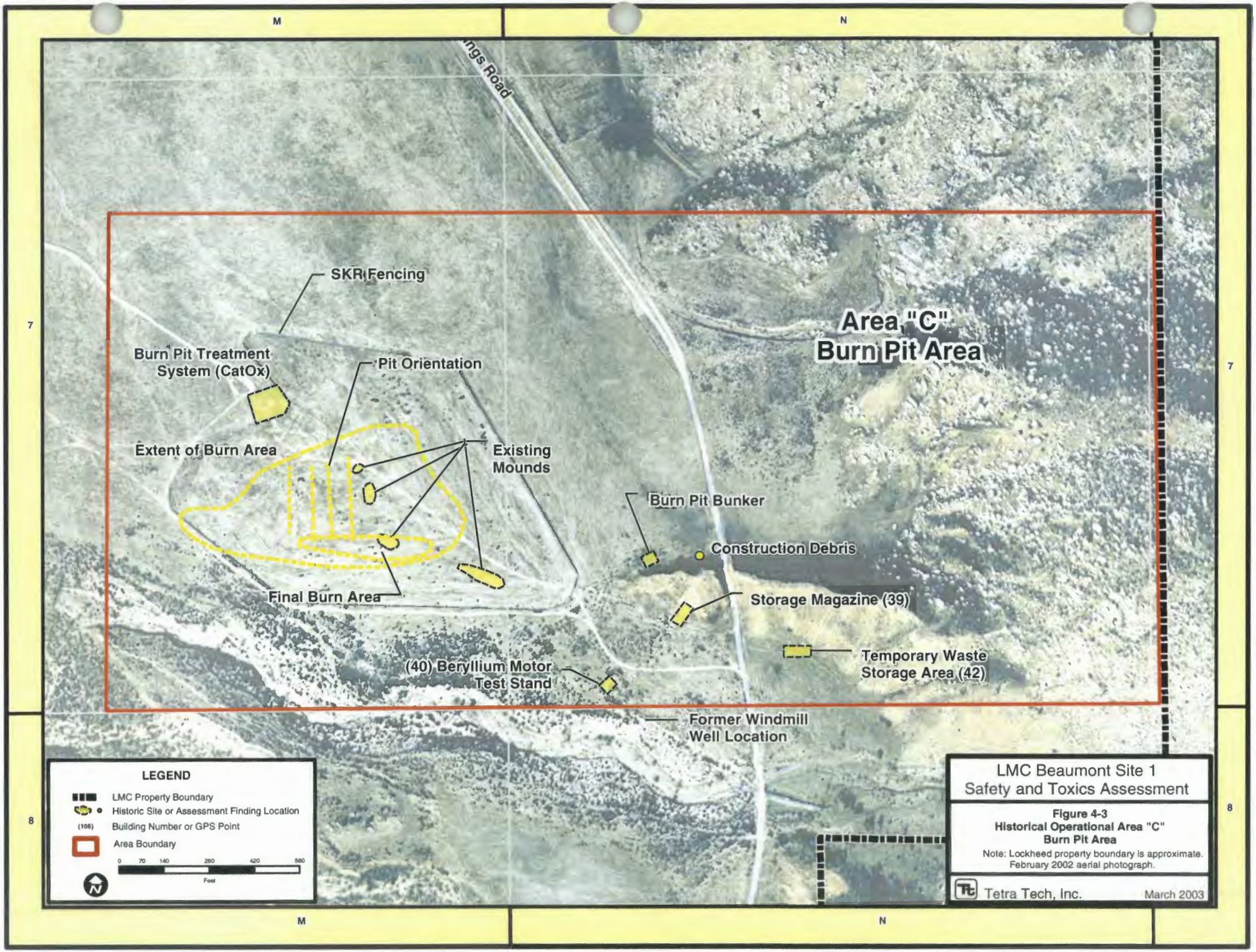
Table 4-2
Summary of Toxic Materials for Site 1

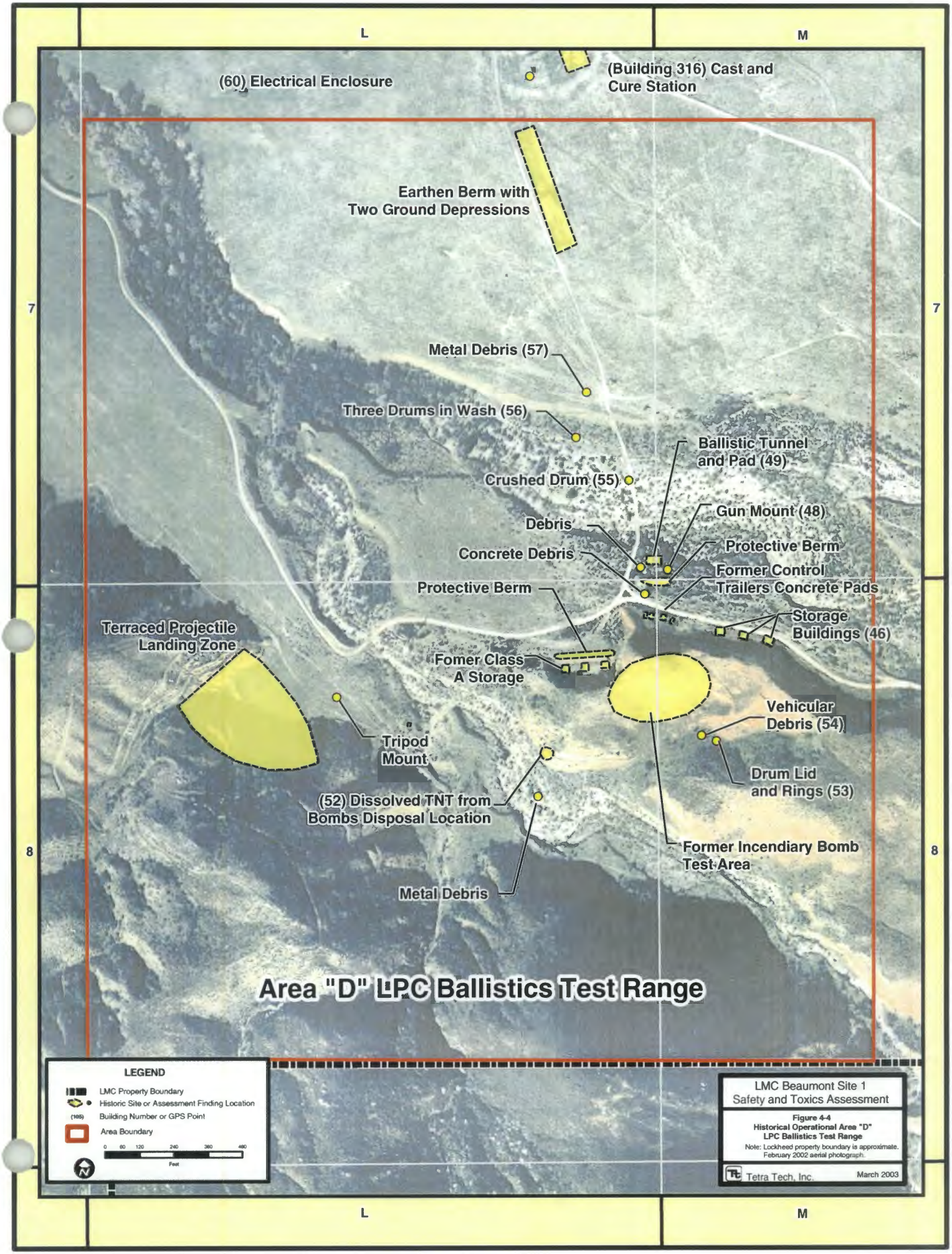
Toxic Material Description	*Total Number of Items*
Asbestos Containing Material	10*
Lead-Based Paint	9
Other Toxic Materials	
PCBs	*2*
Mercury Switches	*1*
HID / Florescent Bulbs	*1*
Unknown Liquids	*3*
Total	**26**

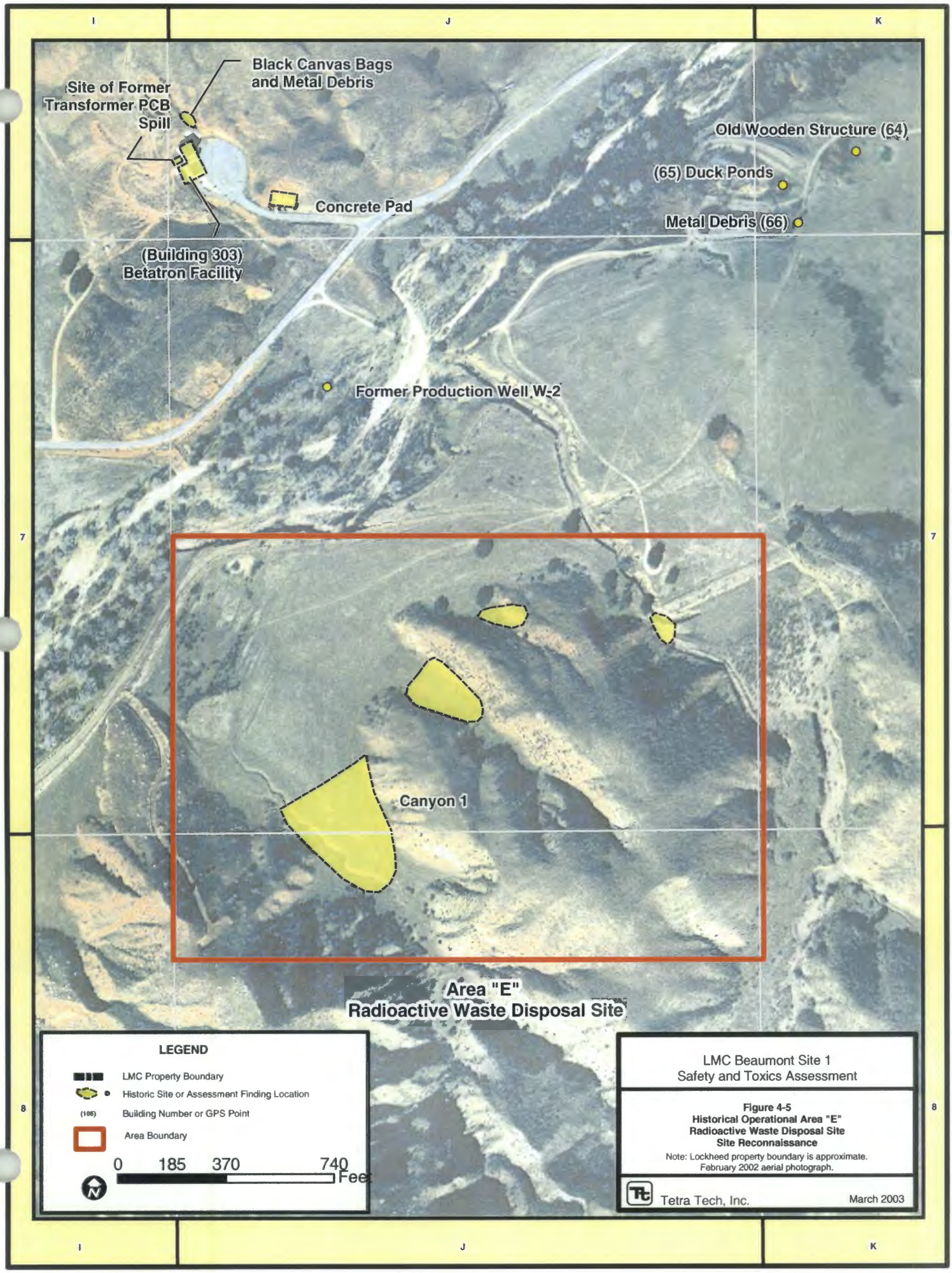
Note: * – represents total number of locations where ACM was identified.


K
L
M
2
3
4
5
Intermittent Lake Bed
Empty 25-Gallon Drum(24)
Site Front Gate
Concrete Pad (23)
Former Gate House (22)
Asphalt Pad
Soil Conservation Service Berm
Rusted Tire Rim (25)
Revetments for Avanti Motor Storage
Concrete Pad and Well Casing (35)
Storage Revetments
Old Rocket Motor Casings
Backstop Berm
Impact Target Area
Area "A"
Eastern Aerojet Range (Avanti)
Old Motor Casing (34)
Drainage Pipe - Western Canyon Wall (33)
3 Concrete Pads (27)
Hilltop Concrete Structure (89)
5-Gallon Cylinder (9
(90) Scrap Metal
Metal Debris (32)
Storage Tank (36)
Drainage Pipe - Western Canyon Wall (31)
Highland Springs Road
Former Ranch Building
Former Ranch Building
Gun Placement
Gun Placement for Easten Aerojet Range (29)
Concrete Target Wall
Instumentation Building
Former Water Tank Location
Metal Debris (102)
Scattered Metal Debris (28)
Concrete Barrel Structure (37)
Fence Debris and Tire
Concrete Vault (61)
Irrigation Pipe Debris
Concrete Pad (103)
Electric Substation
Car Part Debris (105)(106)
(100)(101) Scattered Debris
LEGEND
LMC Property Boundary
Historic Site or Assessment Finding Location
(105) Building Number or GPS Point
Area Boundary
0 170 340 680 1,020 1,360
Feet
N
LMC Beaumont Site 1
Safety and Toxics Assessment
Figure 4-1
Historical Operational Area "A"
Eastern Aerojet Range (Avanti)
Note: Lockheed property boundary is approximate.
February 2002 aerial photograph.
Tetra Tech, Inc.
March 2003


L
M
5
6
7
Former Water Tank Location
Metal Debris (102)
Fence Debris and Tire
Concrete Barrel Structure (37)
Concrete Vault (61)
Irrigation Pipe Debris
(103) Concrete Pad
Concrete Pad and Wall (Former Ranch Building)
Electric Substation
Raised Concrete Vault
Area "B"
Rocket Motor Production Area
Scattered Debris (100)(101)
Metal and Concrete Debris
Car Tire (62)
Fuel Slurry Station Access Road
Livestock Watering Hole Debris (92)
Chemical Storage Quonset Hut (Building 319)
Fencing Debris
Livestock Watering Hole
Concrete Pad (97)
Partially Buried Drum
Propellant Mix Station Road
Fuel Slurry Station (Building 317)
Concrete Pad with Dry Well
Tank Saddle
Tank
Mobile Trailer
(Building 315) Propellant Mix Station (Current Location of Pump and Treat System)
(Building 315A) Mix Station Control Bunker
Blue Motor Burn Pit
Concrete Pad (93)
Pole (14)
(315A) Electrical Enclosure
Concrete Pad
Motor Wash Out Area
(315A) Air Conditioner and Utility Vaults
(60) Electrical Enclosure
(Building 316) Cast and Cure Station
Earthen Berm with Two Ground Depressions
LEGEND
LMC Property Boundary
Historic Site or Assessment Finding Location
(105) Building Number or GPS Point
Area Boundary
0 95 190 380 570 760
Feet
N
LMC Beaumont Site 1
Safety and Toxics Assessment
Figure 4-2
Historical Operational Area "B"
Rocket Motor Production Area
Note: Lockheed property boundary is approximate.
February 2002 aerial photograph.
Tetra Tech, Inc.
March 2003


M
N
ngs Road
SKR Fencing
Area "C"
Burn Pit Area
Burn Pit Treatment
System (CatOx)
Pit Orientation
Extent of Burn Area
Existing
Mounds
Burn Pit Bunker
Construction Debris
Final Burn Area
Storage Magazine (39)
Temporary Waste
Storage Area (42)
(40) Beryllium Motor
Test Stand
Former Windmill
Well Location
7
8
LEGEND
LMC Property Boundary
Historic Site or Assessment Finding Location
(106) Building Number or GPS Point
Area Boundary
0 70 140 280 420 560
Feet
N
LMC Beaumont Site 1
Safety and Toxics Assessment
Figure 4-3
Historical Operational Area "C"
Burn Pit Area
Note: Lockheed property boundary is approximate.
February 2002 aerial photograph.
Tetra Tech, Inc.
March 2003


L
M
7
8
(60) Electrical Enclosure
(Building 316) Cast and Cure Station
Earthen Berm with Two Ground Depressions
Metal Debris (57)
Three Drums in Wash (56)
Ballistic Tunnel and Pad (49)
Crushed Drum (55)
Gun Mount (48)
Debris
Protective Berm
Concrete Debris
Former Control Trailers Concrete Pads
Protective Berm
Storage Buildings (46)
Terraced Projectile Landing Zone
Fomer Class A Storage
Vehicular Debris (54)
Tripod Mount
Drum Lid and Rings (53)
(52) Dissolved TNT from Bombs Disposal Location
Former Incendiary Bomb Test Area
Metal Debris
Area "D" LPC Ballistics Test Range
LEGEND
LMC Property Boundary
Historic Site or Assessment Finding Location
(105) Building Number or GPS Point
Area Boundary
0 60 120 240 360 480
Feet
LMC Beaumont Site 1
Safety and Toxics Assessment
Figure 4-4
Historical Operational Area "D"
LPC Ballistics Test Range
Note: Lockheed property boundary is approximate.
February 2002 aerial photograph.
Tetra Tech, Inc.
March 2003


I
J
K
7
8
Black Canvas Bags and Metal Debris
Site of Former Transformer PCB Spill
Old Wooden Structure (64)
(65) Duck Ponds
Concrete Pad
Metal Debris (66)
(Building 303) Betatron Facility
Former Production Well W-2
Canyon 1
Area "E"
Radioactive Waste Disposal Site
LEGEND
LMC Property Boundary
Historic Site or Assessment Finding Location
(105) Building Number or GPS Point
Area Boundary
0 185 370 740 Feet
N
LMC Beaumont Site 1
Safety and Toxics Assessment
Figure 4-5
Historical Operational Area "E"
Radioactive Waste Disposal Site
Site Reconnaissance
Note: Lockheed property boundary is approximate.
February 2002 aerial photograph.
Tetra Tech, Inc.
March 2003

F G H I J

6 7 8

Area "F"
LPC Test Services Area

(81) 2 Brake Drums
Airstrip
Temporary Segment Storage (Facility T-4)
Boneyard
Facility 307 Control Building
Electrical Enclosure
Temporary Segment Storage (Facility T-3)
Storage Magazine
(Building 325) Storage Magazine
(Building 311) Storage Bunker
5-Gallon Drum
Former Water Tank Location
Building 305 Personnel/Instrumentation Bunker
Electrical Enclosure
Air Handler Unit
Facility 305A
Transite Piping Found Throughout Area
(78) 2 Exposed Empty 55-Gallon Drums
Sanitary Landfill
Fallen Electrical Lines & Metal & Concrete Debris
Large Motor Test Bay (Facility 308)
Control Building 308A
Small Motor Horizontal Test Bay (Facility 310)
Debris in Vicinity of Beryllium Waste Sludge Igniter Magazine
Debris in Vicinity of Beryllium Waste Sludge Igniter Magazine
Former Igniter Magazine
Concrete Metal Debris (98)
Concrete and Metal Debris (87)
(82) Observation Station
Construction Debris (74)
(73) Loading Dock
Maintenance Shops (Bldg 306)
Former Water Tank Location
(Building 304) Personnel/Instrumentation Bunker
EBES Test Facility (Facility 313)
Control Building 309A
Small Motor Vertical Test Bay (Facility 309)
Storage Warehouses (Facility 314)
(107) Asphalt Pads
Heliport
Gun Mount Test Area
Wash
Metal Debris (72)
Metal Debris (71)
Concrete Debris (86)
Aboveground Storage Tank
Facility 320 Four Rocket Motor Environmental Conditioning Chambers
Former Concrete Pad Location
Former Production Well W-1 and Electrical Equipment
(69) Unusual Plastic Debris
Metal Debris (70)
Loading Ramp
Landing Pad
Site of Former Transformer PCB Spill
Black Canvas Bags and Metal Debris
(Building 303) Betatron Facility
Concrete Pad
Facility 307 Seven Conditioning Oven Pads
(Building 312) Small Rocket Motor Assembly
Former Production Well W-2
Metal Debris and Empty 55-Gallon Drum (30)
Old Wooden Structure (64)
(63) Duck Pond Area
Metal Debris (66)
Canyon 3
Canyon 4
Canyon 2
Canyon 1

LEGEND

- LMC Property Boundary
- Historic Site or Assessment Finding Location
- (105) Building Number or GPS Point
- Area Boundary

0 150 300 600 900 1,200
Feet

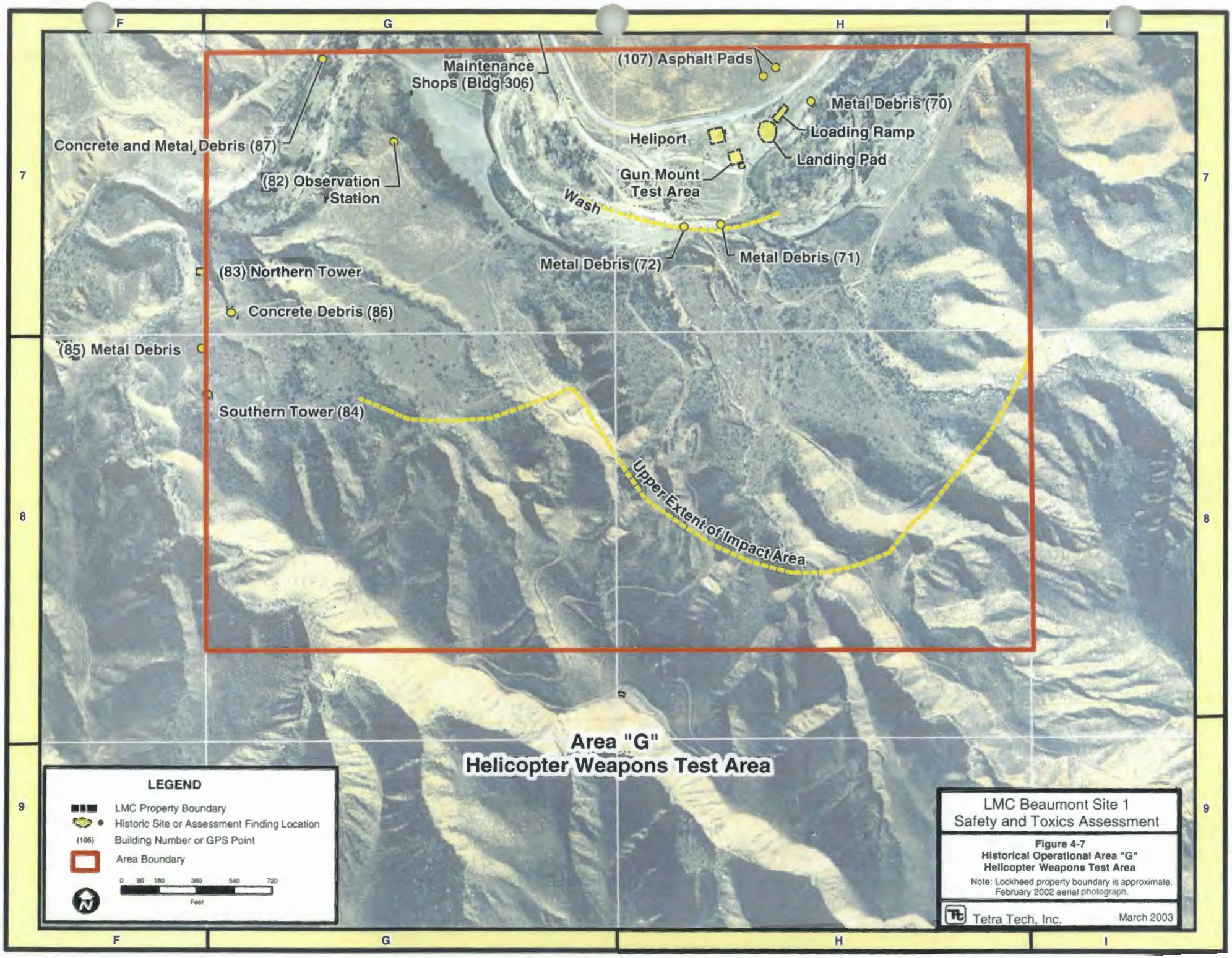
N

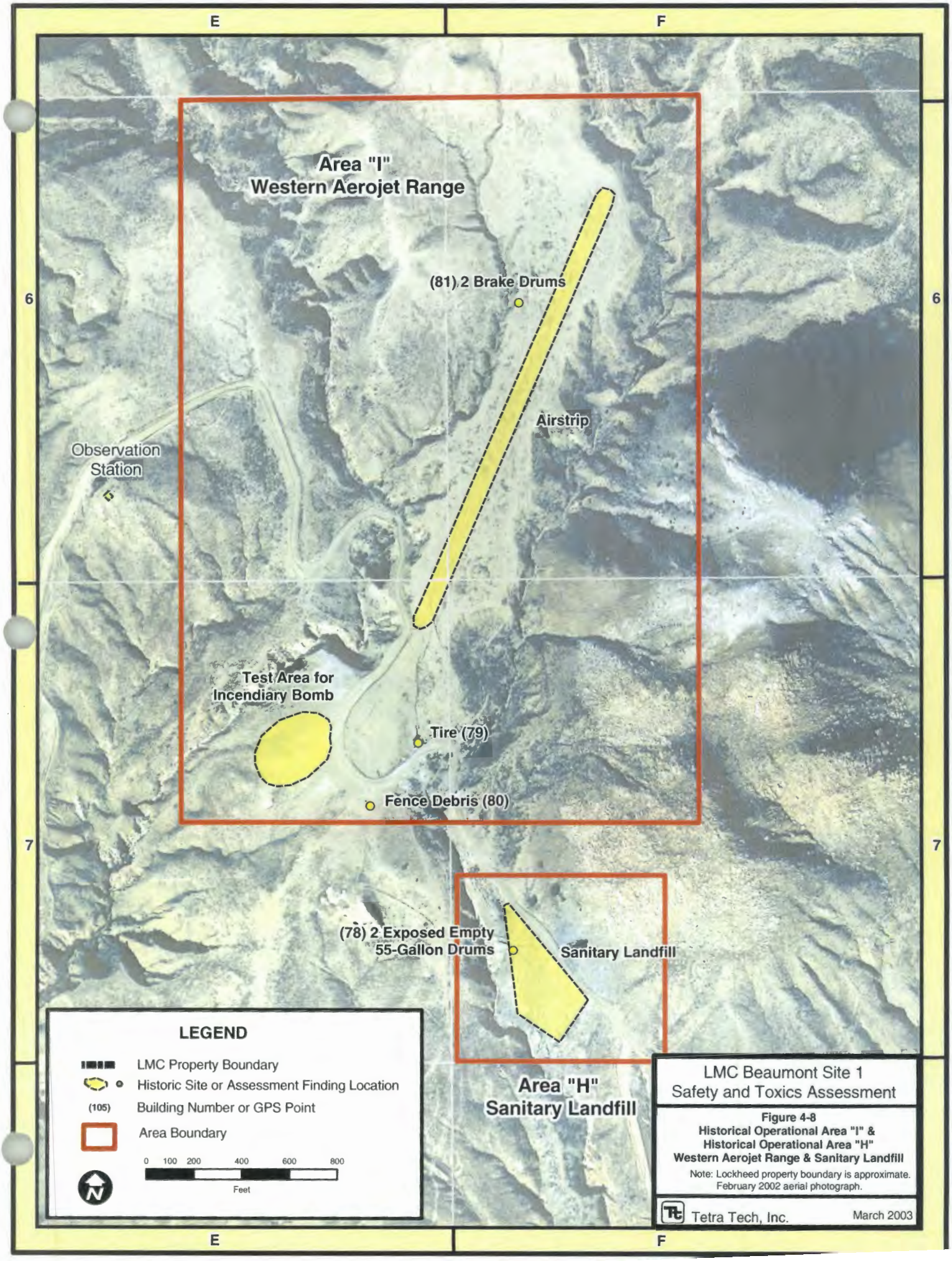
LMC Beaumont Site 1
Safety and Toxics Assessment

Figure 4-6
Historical Operational Area "F"
LPC Test Services Area

Note: Lockheed property boundary is approximate.
February 2002 aerial photograph.

Tetra Tech, Inc. March 2003


F
G
H
I
7
8
9
Maintenance Shops (Bldg 306)
(107) Asphalt Pads
Metal Debris (70)
Loading Ramp
Landing Pad
Heliport
Gun Mount Test Area
Concrete and Metal Debris (87)
(82) Observation Station
Wash
Metal Debris (72)
Metal Debris (71)
(83) Northern Tower
Concrete Debris (86)
(85) Metal Debris
Southern Tower (84)
Upper Extent of Impact Area
Area "G"
Helicopter Weapons Test Area
LEGEND
LMC Property Boundary
Historic Site or Assessment Finding Location
(105) Building Number or GPS Point
Area Boundary
0 90 180 360 540 720
Feet
N
LMC Beaumont Site 1
Safety and Toxics Assessment
Figure 4-7
Historical Operational Area "G"
Helicopter Weapons Test Area
Note: Lockheed property boundary is approximate.
February 2002 aerial photograph.
Tetra Tech, Inc.
March 2003


E
F
6
7
Area "I"
Western Aerojet Range
(81) 2 Brake Drums
Airstrip
Observation
Station
Test Area for
Incendiary Bomb
Tire (79)
Fence Debris (80)
(78) 2 Exposed Empty
55-Gallon Drums
Sanitary Landfill
Area "H"
Sanitary Landfill
LEGEND
LMC Property Boundary
Historic Site or Assessment Finding Location
(105) Building Number or GPS Point
Area Boundary
0 100 200 400 600 800
Feet
N
LMC Beaumont Site 1
Safety and Toxics Assessment
Figure 4-8
Historical Operational Area "I" &
Historical Operational Area "H"
Western Aerojet Range & Sanitary Landfill
Note: Lockheed property boundary is approximate.
February 2002 aerial photograph.
Tetra Tech, Inc.
March 2003

4.1.2.1.1 Asbestos

An asbestos survey was conducted for all presumed ACM materials at Beaumont Site 1 in accordance with AHERA 40 CFR 763 and NESHAPS 40 CFR 61 Subpart M guidelines. A representative number of samples were collected from the various types of presumed ACM. The initial asbestos site inspection consisted of identification of presumed ACM based on location – see Appendix C. At the discretion of the certified asbestos contractor, multiple samples were collected from the same type of material at the same location or a representative sample was collected of a specific material type. The certified asbestos inspector further identified additional types of materials at the same location. Table 4-3 presents the specific material types identified at each of the locations presented in Appendix C and the corresponding bulk sample analytical results.

A total of 140 bulk samples of presumed ACM were collected and analyzed from Beaumont Site 1. ACM is defined in California as materials containing asbestos greater than one-tenth of one percent (>0.1%) by weight. Table 4-3 presents a summary of the sample number, material description, sample location, friable or non-friable, condition and hazardous assessment, approximate quantity, and asbestos content.

Table 4-3
Summary of Asbestos Sample Results
for Site 1

Sample No.	*Material Description*	*Sample / Material Location*	*Friable / Non-Friable*	*Condition & Hazardous Assessment*	*Approximate Quantity*	*Asbestos Content*
310-1-1, -2, -3	Black tar residue	Concrete walls of building #310	N/A	N/A	N/A	None
308-2-1, -2, -3	Brown top coat	On horizontal component affixed to the concrete pad of building #308	N/A	N/A	N/A	None
308-3-1	**Transite pipe and associated debris**	**At building 308 as well as northern hillside behind the building – partially exposed with some pipes underground**	**Non-Friable**	**Damaged with high potential for further damage**	**250 to 1,000 linear feet**	**10% CH and 2% CR**
308-4-1, -2, -3	Concrete grout/ mortar	Throughout perimeter concrete block walls of building #308	N/A	N/A	N/A	None
308-5-1, -2, -3	Concrete grout/ mortar	Throughout concrete block walls of the storage building southwest of building #308	N/A	N/A	N/A	None
308-6-1, -2, -3	Black electrical conduit insulation	Northeast of building #308, on electrical conduit	N/A	N/A	N/A	None
305-7-1, -2, -3	Brown vinyl cove base mastic	Base of interior walls of building #305	N/A	N/A	N/A	None

Table 4-3 (continued)
Summary of Asbestos Sample Results for Site 1

Sample No.	*Material Description*	*Sample / Material Location*	*Friable / Non-Friable*	*Condition & Hazardous Assessment*	*Approximate Quantity*	*Asbestos Content*
305-8-1	**9"x 9" floor tile and black mastic**	**At base of interior steps in the building**	**Non-Friable**	**Damaged / moderate potential for further damage**	**5 sq.ft.**	**Tile 3% CH**
						Mastic 2% CH
305-9-1, -2, -3	2"x 4" acoustical ceiling panels	Back Room of building #305	N/A	N/A	N/A	None
305-10-1, -2, -3	**Drywall and joint compound material**	**Throughout interior walls/ceilings of building #305**	**Non friable**	**Damaged with moderate potential for further damage**	**6,000 sq.ft.**	**Trace values of CH**
305-11-1, -2, -3	Plaster Debris	Outside of building 305 on the ground	N/A	N/A	N/A	None
305-12-1	**Transite pipe debris**	**Scattered on the exterior of building #305 from the northeast to the northwest – also on rear hillside – some pipes extend underground**	**Non-Friable**	**Damaged with moderate potential for further damage**	**200 to 2000 lf**	**8%CH**
305-13-1, -2, -3	Beige exterior concrete wall texture coat	On the top of the concrete walls of building #308	N/A	N/A	N/A	None
305-14-1, -2, -3	Beige and gray duct joint tape and mastic	On the HVAC duct joints, exterior of building #305 to the west on the hillside	N/A	N/A	N/A	None
305-15-1	Black foam insulation	In between 2 layers of HVAC ducting, exterior of building #305, to the west	N/A	N/A	N/A	None
305-16-1, -2, -3	Gunnite with black tar/mastic	On the roof of building #305	N/A	N/A	N/A	None
305-17-1, -2, -3	Concrete grout/ mortar	In between the concrete block walls of building #305	N/A	N/A	N/A	None
306-18-1, -2, -3	Concrete grout/ mortar	In between the concrete block walls of building #305	N/A	N/A	N/A	None
306-19-1, -2, -3	Plaster debris	On the ground of building #306	N/A	N/A	N/A	None
306-20-1, -2, -3	Black roof tar and felt	Perimeter concrete walls roofing and on the ground	N/A	N/A	N/A	None
309-21-1, -2, -3	Concrete grout/ mortar	In between the concrete block walls of building #305	N/A	N/A	N/A	None
304-22-1	Caulking putty	Exterior of concrete walls were HVAC ducting used to be on building #304	N/A	N/A	N/A	None

Table 4-3 (continued)
Summary of Asbestos Sample Results for Site 1

Sample No.	*Material Description*	*Sample / Material Location*	*Friable / Non-Friable*	*Condition & Hazardous Assessment*	*Approximate Quantity*	*Asbestos Content*
304-23-1, -2, -3	**Blue 9"x 9" floor tile and associated black mastic**	**Throughout the interior of building #304**	**Non-Friable**	**Damaged condition with moderate potential for further damage**	**400 SF**	**Trace values of CH**
						Mastic 2% CH
304-24-1, -2, -3	Brown vinyl cove base mastic	Throughout the base of the interior walls of building #304	N/A	N/A	N/A	None
304-25-1, -2, -3	Black electrical conduit insulation	On electrical conduit on the hill over building #304	N/A	N/A	N/A	None
311-26-1	Brown filler and mudding compound	At connection point of steel beams and concrete walls inside building #311	N/A	N/A	N/A	None
311-27-1, -2, -3	Concrete texture coating	On the top of the exterior concrete wall of building #311	N/A	N/A	N/A	None
311-28-1, -2, -3	Black roof tar	On top of building #311	N/A	N/A	N/A	None
312-29-1, -2, -3	**Drywall and joint compound material**	**Interior ceiling of building #312**	**Non friable**	**Significantly damaged with high potential for further damage**	**702 SF**	**Trace values of CH**
312-30-1, -2, -3	Roof tar and felt	Throughout the roof of building #312	N/A	N/A	N/A	None
312-31-1, -2, -3	Roof base flashing and parapet material	Throughout the perimeter of the roof of building #312	N/A	N/A	N/A	None
312-32-1	**Gray roof penetration mastic**	**Around penetrations on the roof of building #312**	**Non friable**	**Good condition with low potential for damage**	**10 sf**	**3%CH**
311-33-1, -2, -3	**Concrete wall texture coating**	**Exterior walls of building 311**	**Non friable**	**Damaged condition with high potential for further damage**	**1,000 sf**	**Trace values of CH**
312-34-1, -2, -3	Concrete grout/ mortar	In between concrete block walls of building #312	N/A	N/A	N/A	None
T4-35-1	**Gray 9"x 9" vinyl floor tile with yellow glue**	**Throughout the interior of building #T4**	**Non friable**	**Damaged condition with high potential for further damage**	**120 SF**	**1%CH**

Table 4-3 (continued)
Summary of Asbestos Sample Results for Site 1

Sample No.	*Material Description*	*Sample / Material Location*	*Friable / Non-Friable*	*Condition & Hazardous Assessment*	*Approximate Quantity*	*Asbestos Content*
T4-36-1, -2, -3	Drywall and joint compound material	Throughout the ceiling of building #T4	N/A	N/A	N/A	None
T4-37-1	Roof tar and felt	Throughout the roof of building #T4	N/A	N/A	N/A	None
T4-38-1	**Gray roof penetration mastic**	**Around roof penetrations on building #T4**	**Non-Friable**	**Good condition with low potential for damage**	**5 sf**	**3% CH**
T4-39-1, -2, -3	Concrete grout/ mortar	In between the concrete block walls of building #T4	N/A	N/A	N/A	None
303-40-1	**Pipe elbow insulation**	**In one room and Inside the attic space of building #303, on pipe elbows**	**Friable**	**Good condition with moderate potential for damage**	**29 each**	**5%CH**
303-41-1, -2, -3	**Drywall and joint compound material**	**Throughout the interior ceilings of building #303**	**Non-Fixable**	**Good condition with lo potential for damage – damaged only in 1 room approximatel y 100 sf**	**5,528 SF**	**Trace values of CH**
303-42-1	Gray electrical wire insulation	Inside electrical box of building #303	N/A	N/A	N/A	None
303-43-1	White and beige caulking material	On the HVAC ducts inside the basement of building #303	N/A	N/A	N/A	None
303-44-1	White putty material	Exterior wall, lower end of building #303	N/A	N/A	N/A	None
303-45-1	**HVAC vibration cloth (2 each)**	**On HVAC units inside the basement of building #303**	**Friable**	**Good condition with moderate potential for damage**	**25 sf**	**30%**
303-46-1	**Brown putty material**	**Exterior of basement on top of the walls of building #303**	**Non-Friable**	**Good with moderate potential for damage**	**400 lf**	**1%CH**
303-47-1	Black mastic	On the ground of the entrance to the high bay of building #303	N/A	N/A	N/A	None
303-48-1	**Gray mastic**	**On the ground of the entrance to the high bay of building #303**	**Non-Friable**	**Good with high potential for damage**	**N/A**	**3%CH**
303-49-1, -2, -3	Composite field roofing material	Throughout level 1and 2 roofs of building #303	N/A	N/A	N/A	None

Table 4-3 (continued)
Summary of Asbestos Sample Results for Site 1

Sample No.	*Material Description*	*Sample / Material Location*	*Friable / Non-Friable*	*Condition & Hazardous Assessment*	*Approximate Quantity*	*Asbestos Content*
303-50-1, -2, -3	Composite roof base flashing an parapet material	Throughout perimeter of roof levels 1and 2 of building #303	N/A	N/A	N/A	None
303-51-1	**Gray roof penetration mastic**	**Around roof penetrations of all roof levels**	**Non-Friable**	**Good condition with low potential for damage**	**350 sf**	**Trace values of CH**
303-51-1, -2, -3	**Concrete grout/ mortar**	**In between the red brick walls of building #303**	**Non-Friable**	**Good condition with low potential for damage**	**2,400 SF**	**Trace values of CH**
303-52-1, -2, -3	Concrete grout/ mortar	In between concrete block walls of building #303	N/A	N/A	N/A	None
T4-53-1	Brown cove base mastic	Throughout the interior walls (bottom) of building #T4	N/A	N/A	N/A	None
315-54-1, -2, -3	White fishered, random hole 2'x 4' ceiling panels	Throughout the main office room of building 315A	N/A	N/A	N/A	None
315-55-1, -2	Yellow carpet glue	Throughout under the carpet in the main office room and tool storage room of building #315A	N/A	N/A	N/A	None
315-56-1	White window sealant material	Around exterior windows of building #315A	N/A	N/A	N/A	None
(Trailer)-57-1	White caulking material	Around the electrical boxes located on the exterior south wall of building #315B	N/A	N/A	N/A	None
(Trailer)-58-1	**Black mastic**	**On the tow hitch located on the exterior south wall of building #315B**	**Non-Friable**	**Good condition with moderate potential for damage**	**15 SF**	**Trace values of CH**
(Trailer)-59-1	**Silver sealant material**	**On roof seams of building #315B**	**Non-Friable**	**Damaged condition with low potential for damage**	**120 sf**	**7%CH**
315-60-1, -2, -3	Beige/ gray texture material on concrete walls	Top of concrete walls of building #315A	N/A	N/A	N/A	None
315-61-1	Black roof penetration mastic	On top of building #315A, around perimeter of concrete walls at the base	N/A	N/A	N/A	None

Note: CH denotes Chrysotile; CR denotes Crosidolite; LF: denotes linear feet; and SF denotes square feet
<1% Asbestos by Weight is regulated by Cal/OSHA only and exempt from Federal regulations.
None – no asbestos was detected by the Laboratory

Trace values were reported in several samples during the ACM survey. The trace values represent concentrations less than 1 % percent asbestos based on the PLM sampling methodology utilized during

this survey. The trace values could be further quantified using either the point count or Transmission Electron Microscopy (TEM) test methodology.

Based on the asbestos survey, the following items were identified as asbestos containing material (denoted in bold print within Table 4-3). Friable ACM was found in two components (pipe elbow insulation and HVAC vibration cloth material) at the Betatron Building (Building 303). Category I and II non-friable ACM was discovered in the following items: transite pipe and debris at various locations throughout the site, 9''x 9" floor tile and black mastic in Bldg 305, black mastic associated with blue 9"x 9" floor tile in Bldg 304, gray roof penetration mastic on Bldg 312, gray 9"x 9" vinyl floor tile with yellow glue in Bldg T4, gray roof penetration mastic on Bldg T4 (307), brown exterior putty/caulking material on the walls of Bldg. 303, gray mastic on the ground at entrance to Bldg 303, and black mastic on tow hitch of Bldg. 315B (trailer). Details regarding sampling locations, condition, and hazard assessment are provided in the subcontractor's report in Appendix B.

4.1.2.1.2 Lead-Based Paint

A LBP survey of all suspect painted items at Beaumont Site 1 was conducted using a Niton XRF analyzer. A representative number of all interior, and exterior surfaces/components and common areas, were tested for LBP following Housing and Urban Development (HUD) guidelines. A total of 257 XRF readings (including 14 calibration readings) were collected from various painted surfaces/components throughout this site. Of the 243 actual surface readings, 239 had detectable levels of lead in paint. Cal/OSHA and Federal OSHA Lead in Construction Standards consider any amount of lead in paint to be a concern during renovation and demolition activities.

The following components/surfaces were identified as Lead Containing Paint at Beaumont Site 1 utilizing the XRF method:

- All wood door components;
- All exterior concrete block walls;
- All interior drywall walls/ceilings;
- Exterior wood fascia boards/overhangs;
- Exterior metal gutters;
- Metal door and door components;
- Exterior metal fences;
- Exterior concrete walls and ceilings;
- Exterior metal rain gutter's overhangs;
- Metal access ladders;
- Wood door and door components;
- Bollard poles;
- Metal I-Beams;
- Test bay metal components;
- Metal roofs;
- Metal wall structures;
- Metal electrical boxes;
- Interior wood shelves;
- Metal roll up garage door and components;
- Metal hand railings;
- Metal electrical generators transformers;
- Concrete floors;
- Metal HVAC units and ducting;
- Metal frame components in concrete pads; and
- Metal sheeting debris.

The painted surfaces and interior/exterior finishes were generally observed to be in poor (deteriorated, peeling, chipping, etc.) condition.

Details regarding sampling locations, condition, and hazard assessment are provided in the contractor's report in Appendix B.

4.1.2.1.3 Other Toxic Materials

During the site inspection, several other potential toxic materials were identified, including, but not limited to, PCBs, mercury switches, HID and florescent light bulbs, and unknown liquids found in sumps or containers. A description of the other potential toxics materials identified during the site inspection is presented below.

PCBs

Potential PCB affected locations were identified throughout Site 1. Based on interviews and site inspections, former PCB containing transformers were located at concrete pads with fencing enclosures.

Mercury Switches

Mercury containing switch capsules were found in the thermostats at the Betatron building (Building 303). These capsules present an exposure hazard from the elemental mercury contained inside if the glass capsules were broken.

HID and Florescent Bulbs

HID and florescent bulbs were identified during the site inspection of Site 1. In the case of the fluorescent bulbs, several tubes were observed to be broken verifying a release had taken place.

Unknown Liquids

Unknown liquids were identified on two occasions found in pits, sumps, and drums at Site 1. Unknown liquids pose a direct exposure hazard to humans and wildlife. Additionally, since the liquids are unknown, health risks are also unknown.

4.1.2.2 Summary of Biological Hazards

Concurrent with the toxic materials survey, building materials were visually observed for indications of biological hazards including surface mold and animal droppings. A total of five (5) biological hazard items were identified. During the site inspection, surface mold was found at three (3) buildings (Building 305, Building 312, and Building 315A). Mold samples were collected at the three (3) locations using tape lift sampling methods. The sampling report is presented in Appendix B.

Heavy levels of animal droppings (predominantly small rodent droppings) were found in two locations collected from Buildings 303 and 305. These droppings present a biohazard due to the possibility of contacting diseases such as Hantavirus or Valley Fever and other similar diseases from exposure to the droppings.

4.2 BEAUMONT SITE 2

A total of 105 safety and toxics related items were identified within Beaumont Site 2. There were 95 safety and 10 toxics related items. The following subsections present the detailed findings of the safety and toxics related items identified. The specific locations of the 105 items identified by historical operational areas are presented in Figure 4-9 through Figure 4-12 and Plate 2. The specific item description and location are presented within the Safety and Toxics Matrices in Appendix C.

4.2.1 Summary of Safety Related Items

The 95 safety related items were subdivided into two categories: structure and debris. The following table defines the various sub-categories of the safety related items. The majority of the items observed were located in the vicinity of the historical operational areas. In general, outside of the historical operational areas, Site 2 is clear of safety related items. Table 4-4 presents a summary of the safety related items by former historical operational areas.

Table 4-4
Summary of Safety Related Items within Operational Areas
For Site 2

Historical Operational Area	*Total Items*	*Category*	
		Structure	*Debris*
J	30	13	17
K	49	25	24
L	9	5	4
M	1	1	0
Outside of Historical Operational Areas	*6*	*4*	*2*
Total	**95**	**48**	**47**

According to Table 4-4, 89 safety items were associated with a historical operational area. However, six (6) additional safety items were identified that were not associated with a specific historical operational area.

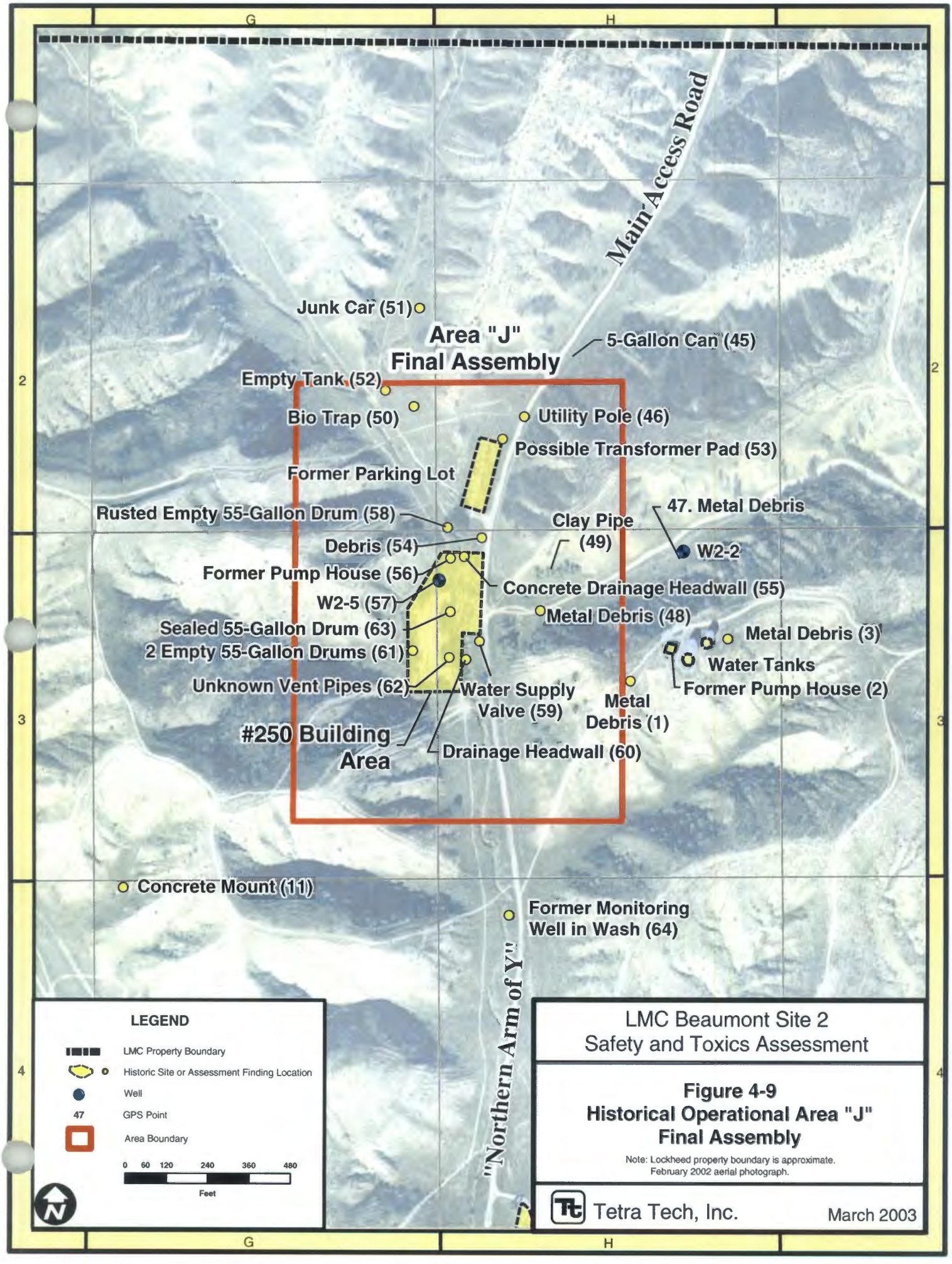
As presented in Table 4-4, historical operational Area "K", former Test Bays & Miscellaneous Facilities, contained the largest number of structural and debris related safety items. The specific locations of the items identified by historical operational areas are presented in Figure 4-9 through Figure 4-12 and LMC Beaumont Site 2 Plate 2.

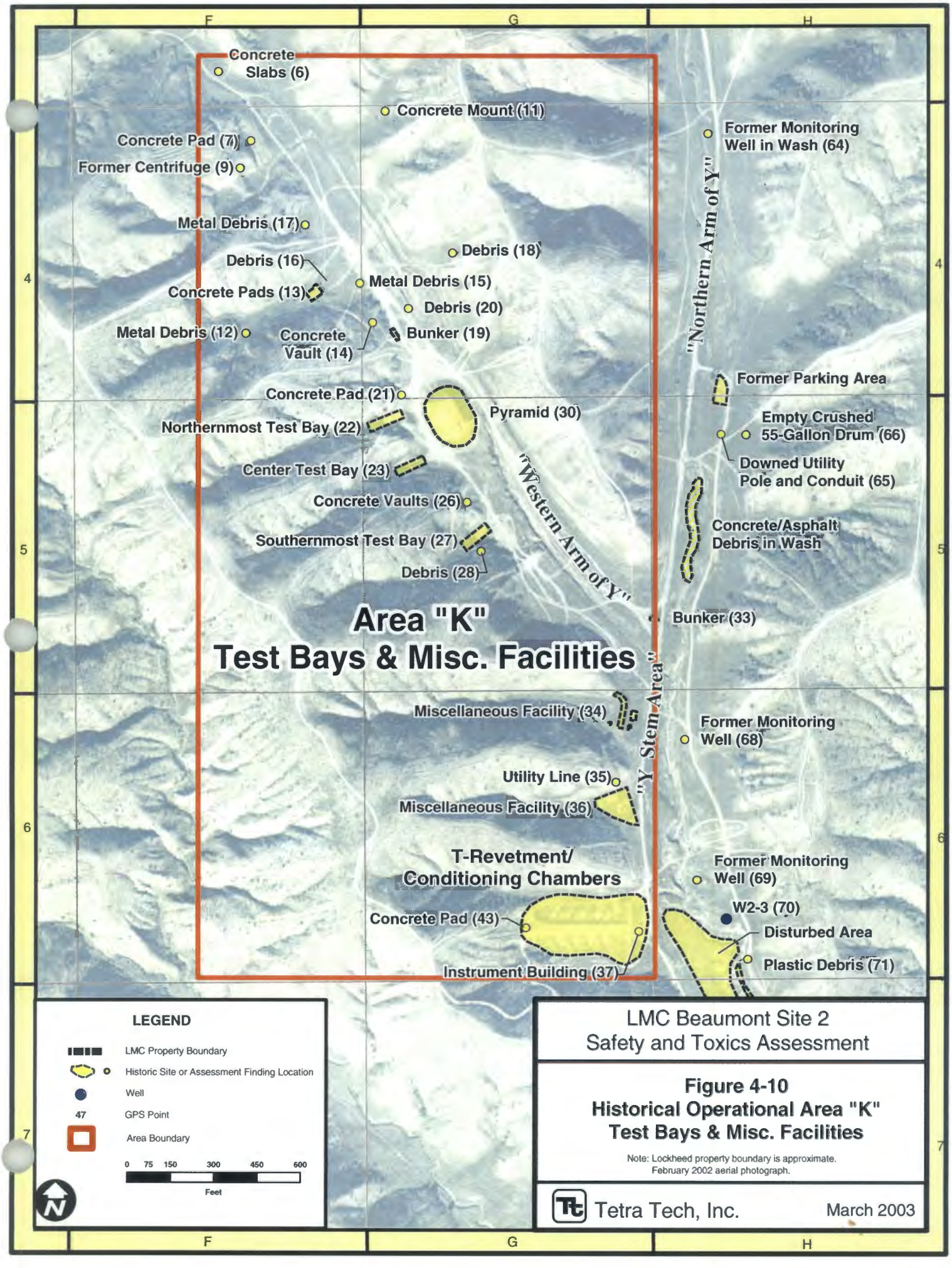
4.2.2 Summary of Toxics Related Items

During the safety and toxics assessment, a total of 10 toxics related items were identified within Beaumont Site 2. All 10 items were identified as toxic materials and no biological hazards were identified at Site 2.

4.2.2.1 Summary of Toxic Materials

During the site inspection of Beaumont Site 2, 10 toxic materials were identified at the site including: ACM, LBP, and other toxic materials (i.e. PCBs, unknown liquids). Table 4-5 presents the toxic materials identified.


G
H
2
3
4
Main Access Road
Junk Car (51)
Area "J"
Final Assembly
5-Gallon Can (45)
Empty Tank (52)
Bio Trap (50)
Utility Pole (46)
Possible Transformer Pad (53)
Former Parking Lot
Rusted Empty 55-Gallon Drum (58)
47. Metal Debris
Clay Pipe
(49)
Debris (54)
W2-2
Former Pump House (56)
Concrete Drainage Headwall (55)
W2-5 (57)
Metal Debris (48)
Sealed 55-Gallon Drum (63)
Metal Debris (3)
2 Empty 55-Gallon Drums (61)
Water Tanks
Unknown Vent Pipes (62)
Water Supply
Valve (59)
Former Pump House (2)
Metal
Debris (1)
#250 Building
Area
Drainage Headwall (60)
Concrete Mount (11)
Former Monitoring
Well in Wash (64)
"Northern Arm of Y"
LEGEND
LMC Property Boundary
Historic Site or Assessment Finding Location
Well
47
GPS Point
Area Boundary
0 60 120 240 360 480
Feet
N
LMC Beaumont Site 2
Safety and Toxics Assessment
Figure 4-9
Historical Operational Area "J"
Final Assembly
Note: Lockheed property boundary is approximate.
February 2002 aerial photograph.
Tetra Tech, Inc.
March 2003

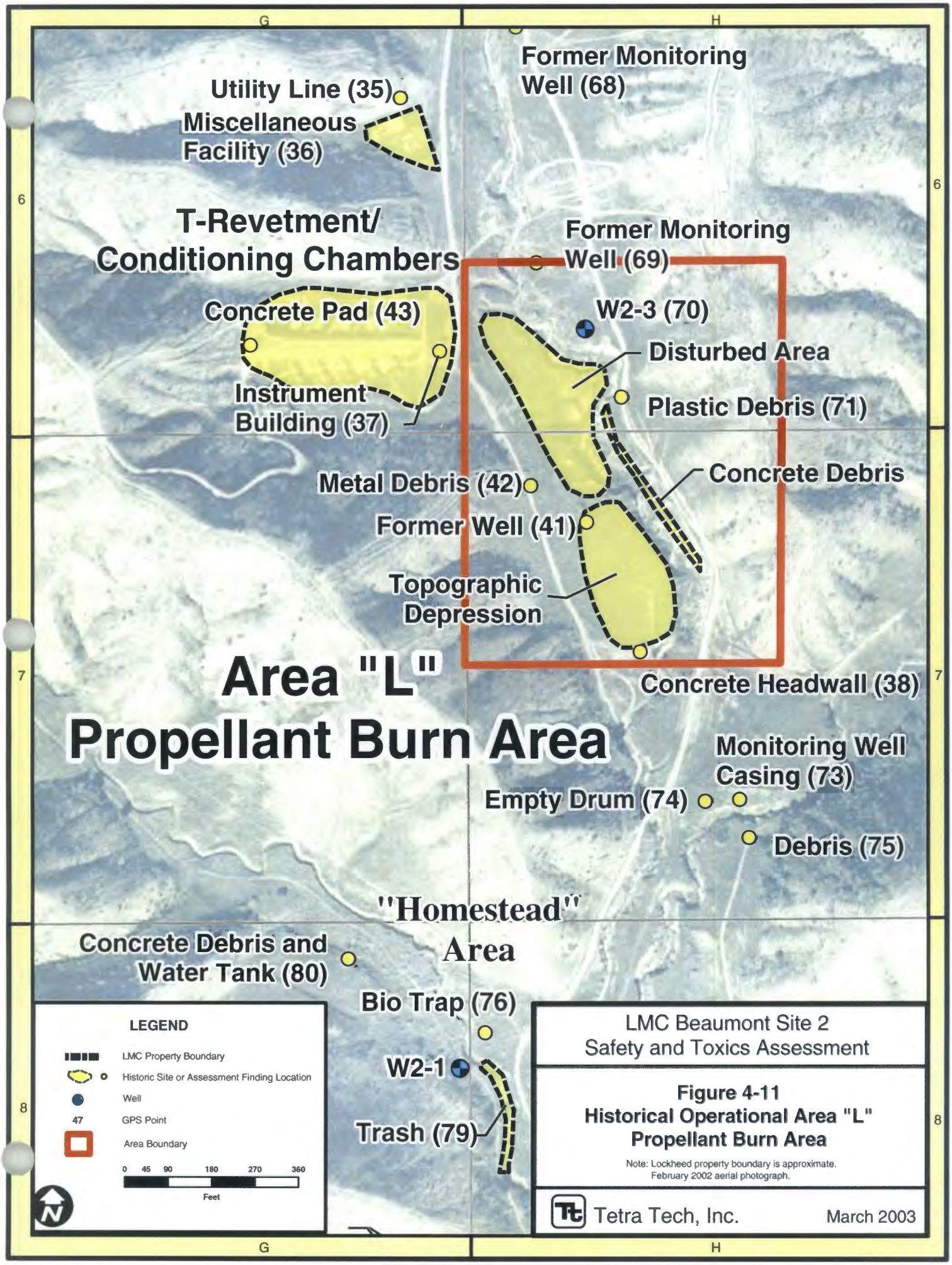


LMC Beaumont Site 2
Safety and Toxics Assessment

Figure 4-10
Historical Operational Area "K"
Test Bays & Misc. Facilities

Note: Lockheed property boundary is approximate.
February 2002 aerial photograph.

Tetra Tech, Inc. March 2003


G
H
6
7
8
Former Monitoring Well (68)
Utility Line (35)
Miscellaneous Facility (36)
T-Revetment/ Conditioning Chambers
Former Monitoring Well (69)
Concrete Pad (43)
W2-3 (70)
Disturbed Area
Instrument Building (37)
Plastic Debris (71)
Concrete Debris
Metal Debris (42)
Former Well (41)
Topographic Depression
Area "L" Propellant Burn Area
Concrete Headwall (38)
Monitoring Well Casing (73)
Empty Drum (74)
Debris (75)
"Homestead" Area
Concrete Debris and Water Tank (80)
Bio Trap (76)
W2-1
Trash (79)
LEGEND
LMC Property Boundary
Historic Site or Assessment Finding Location
Well
47 GPS Point
Area Boundary
0 45 90 180 270 360
Feet
N
LMC Beaumont Site 2
Safety and Toxics Assessment
Figure 4-11
Historical Operational Area "L"
Propellant Burn Area
Note: Lockheed property boundary is approximate.
February 2002 aerial photograph.
Tetra Tech, Inc.
March 2003

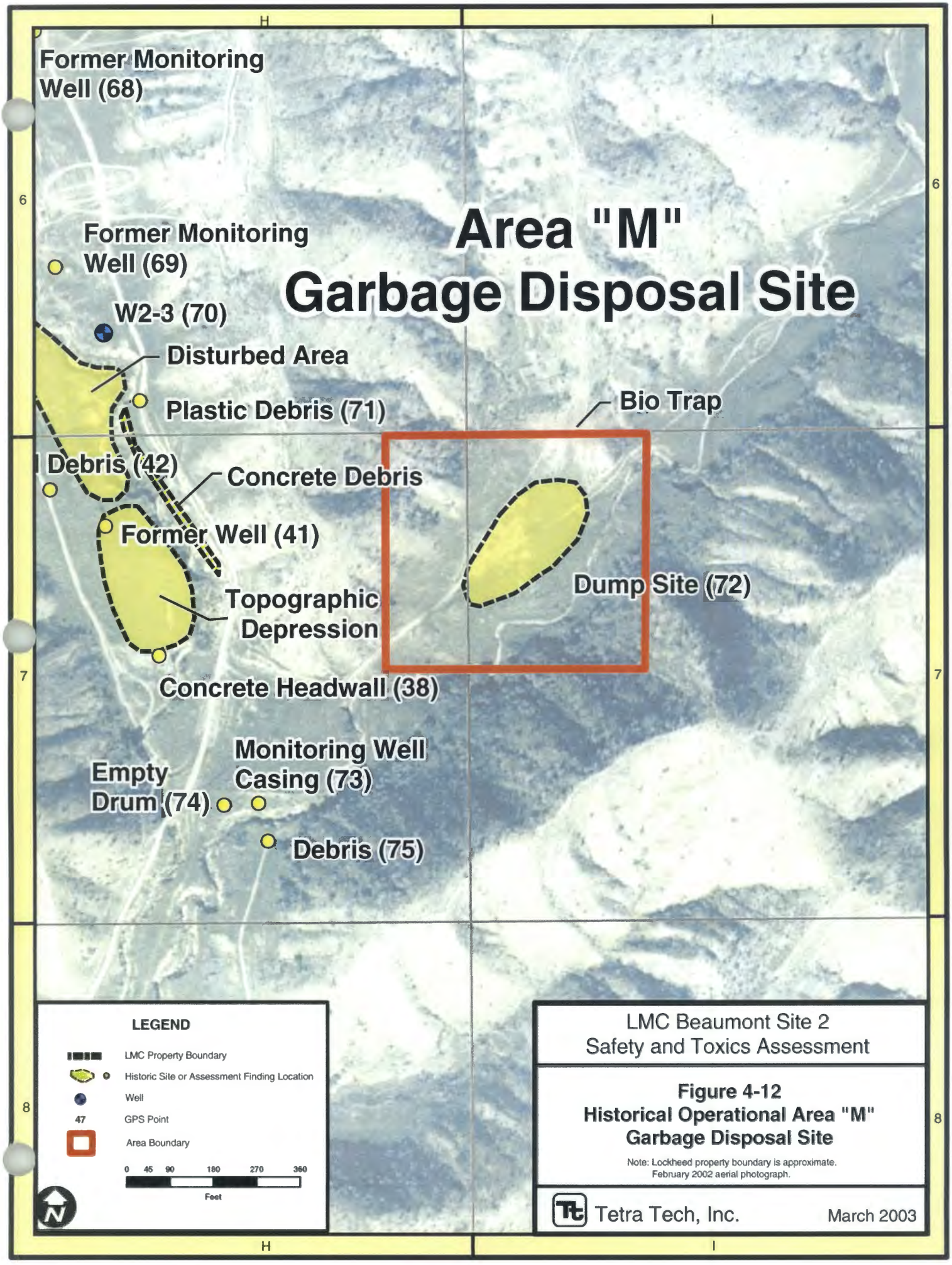

Former Monitoring Well (68)
Area "M"
Garbage Disposal Site
Former Monitoring Well (69)
W2-3 (70)
Disturbed Area
Plastic Debris (71)
Bio Trap
Debris (42)
Concrete Debris
Former Well (41)
Dump Site (72)
Topographic Depression
Concrete Headwall (38)
Monitoring Well Casing (73)
Empty Drum (74)
Debris (75)
H
I
6
7
8
LEGEND
LMC Property Boundary
Historic Site or Assessment Finding Location
Well
47
GPS Point
Area Boundary
0 45 90 180 270 360
Feet
N
LMC Beaumont Site 2
Safety and Toxics Assessment
Figure 4-12
Historical Operational Area "M"
Garbage Disposal Site
Note: Lockheed property boundary is approximate.
February 2002 aerial photograph.
Tetra Tech, Inc.
March 2003

Table 4-5
Summary of Toxic Materials for Site 2

Toxic Material Description	*Total Items*
Asbestos Containing Material	5
Lead-Based Paint	2
Other Toxic Materials	
PCBs	2
Unknown Materials	1
Total	**10**

The following subsections present the finding of the toxic materials assessment.

4.2.2.1.1 Asbestos

During the site inspection activities, a total of twenty-six (26) bulk samples of presumed ACM were collected and analyzed from six primary locations. A representative number of samples were collected from the various types of presumed ACM. The initial asbestos site inspection consisted of identification of presumed ACM based on location – see Appendix C. At the discretion of the certified asbestos contractor, multiple samples were collected from the same type of material at the same location or a representative sample was collected of a specific material type. The certified asbestos inspector further identified additional types of materials at the same location. Table 4-6 presents the specific material types identified at each of the locations presented in Appendix C and the corresponding bulk sample analytical results.

Table 4-6 presents a summary of the sample number, material description, sample location, friable or non-friable, condition and hazardous assessment, approximate quantity, and asbestos content.

Table 4-6
Summary of Asbestos Sample Results
for Site 2

Sample No.	*Material Description*	*Sample / Material Location*	*Friable / Non-Friable*	*Condition & Hazardous Assessment*	*Approximate Quantity*	*Asbestos Content*
37-1-1, 2, 3	Concrete grout/ mortar	In-between concrete block walls throughout interior and exterior walls of building #37	N/A	N/A	N/A	None
33-2-1, 2, 3	Concrete grout/ mortar	In-between concrete block walls throughout interior and exterior walls of building #33	N/A	N/A	N/A	None
33-3-1, -2, -3	Asphalt roofing material	On the roof of building #33 and on the surrounding ground	N/A	N/A	N/A	None

Table 4-6 (continued)
Summary of Asbestos Sample Results
for Site 2

Sample No.	*Material Description*	*Sample / Material Location*	*Friable / Non-Friable*	*Condition & Hazardous Assessment*	*Approximate Quantity*	*Asbestos Content*
TB1-4-1, 2	**4" OD Transite pipes and debris**	**At test bays 1, 2, and 3 protruding from walls, debris scattered on ground in adjacent areas, and some encased in larger concrete pipes – also present in wash near way point 67**	**Non Friable**	**Damaged with moderate potential for further damage**	**Debris and pieces over a 40,000 sq.ft. area**	**10% CH and 2% CR**
TB2-5-1	**Black waterproofing roof tar and felt**	**At base of test bays 1, 2, and 3 mostly under concrete foundation**	**Non-Friable**	**Damaged with moderate potential for further damage**	**400 SF**	**7%CH**
TB2-3-4, -5, -6	Asphalt roofing material	Scattered on ground adjacent to all test bays	Non-Friable	N/A	N/A	None
MB-7-1	**9"x 9" vinyl floor tile and associated black mastic**	**Throughout the interior of the main bunker**	**Non-Friable**	**Damaged with moderate potential for further damage**	**1000 SF**	**2% CH**
MB-6-1, 2, 3	Drywall (no joint compound)	Located in the restroom of the main bunker	N/A	N/A	N/A	None
MB-8-1, 2, 3	Composite plaster material	Located in the restroom of the main bunker	N/A	N/A	N/A	None
TB3-9-1	Transite siding debris	On the ground south of test bay #3	N/A	N/A	N/A	None
TB3-10-1	Black gasket material	On pipe leading into large water tanks	N/A	N/A	N/A	None
54-11-1	White insulation material	In abandoned forced air heating furnace near way point 54	N/A	N/A	N/A	None

Note: CH denotes Chrysotile; CR denotes Crosidolite; LF: denotes linear feet; and SF denotes square feet
<1% Asbestos by Weight is regulated by Cal/OSHA only and exempt from Federal regulations.
None – no asbestos was detected by the Laboratory

Friable ACM was not discovered at the site. However, Category I and II non-friable ACM was discovered in the following materials: waterproofing tar and felt at base of Test Bays, approximately 400 square feet; transite pipes and associated debris, scattered in pieces over a 40,000 square foot area; and 9"x 9" vinyl floor tile and associated mastic in the large bunker, approximately 1,000 square feet.

Details regarding sampling locations, condition, and hazard assessment are provided in the subcontractor's report in Appendix C.

4.2.2.1.2 Lead

The site inspection activities identified one location that was suspect for lead-based paint on building components and equipment. This area and additional areas identified by the LBP subcontractor were sampled for LBP. The following is a summary of those results.

Thirteen paint chip samples were collected from the exterior and interior surfaces of the buildings at Site 2. Paint chip samples were collected from the following locations:

- The small concrete masonry block bunker (GPS waypoint 33);
- The instrumentation building near the T-revetment (GPS waypoint 37);
- Bollards at the concrete headwall of the storm drainage at Building 250 (GPS waypoint 60);
- All 3 test bays;
- The large bunker; and
- The water tanks/appurtenances.

A summary of the analytical results is presented in Table 4-7. The table presents the sample number, description, sample location and condition of material, analytical results, and approximate quantity of material observed.

Table 4-7
Summary of Lead-Based Paint Sample Results
for Site 2

Sample No.	*Description*	*Sample Location / Condition*	*Total Lead Analytical Results (ppm)*	*Approximate Quantity*
37-P-1	Gray/White Paint	Bldg. 37 Interior concrete block walls/Peeling/damaged	38,551.3	320 square feet
37-P-2	Gray/White Paint	Bldg 37 Wood door frame / Peeling/damaged	15,566.5	One door only
33-P-3	Gray Paint	Bldg. 33: On steel door / Intact	31,507.2	One door only
TB1-P-4	Thick white paint	Coating on concrete walls of test bayI/Intact some surface damage	349.7	500 SF
TB2-P-5	Thick white paint	Coating on concrete walls of test bay2/Intact some surface damage	156.1	1,000 SF
MB-P-6	White/yellow/orange thick paint	Exterior walls of main Bunker/Intact	217.9	300 SF
MB-P-7	Silver/gray paint	Exterior walls of main Bunker/Intact	88.1	500 SF
MB-P-8	Silver/gray paint	Interior walls of main Bunker/Intact	603.7	3,900 SF
MB-P-9	Green ceramic tile	In restroom of main Bunker	646.9	50 SF

Table 4-7 (continued)
Summary of Lead-Based Paint Sample Results
for Site 2

Sample No.	*Description*	*Sample Location / Condition*	*Total Lead Analytical Results (ppm)*	*Approximate Quantity*
TB3-P-10	White/Gray paint	Test bay 3 - Concrete walls/ Significant deterioration	178.2	1,500 SF
60-P-11	Yellow paint	On concrete bollards/ Sig deteriorated	177,468.6	12 each 4'
1-P-12	Gray paint & Orange primer	On water tank #1and pipes/appurtenances	277,489.2	1,500 SF - Also on 12 bollards
2-P-13	Gray paint & Orange primer	On water tank #2 and pipes/appurtenances	205,892.5	1,500 SF

Note: PPM-Parts per million, SF-Square Foot, TB-Test Bays, MB-Main Bunker.

All samples collected and analyzed had reportable concentration of total lead. The lead concentrations reported within the paint samples ranged from 88.1 ppm to 277,489 ppm. With the exception of the water tanks, the condition of all other lead paint at Site 2 was considered to be poor (peeling, chipping, damaged, etc.). Cal OSHA and Federal OSHA Lead in construction standards consider any amount of lead in paint to be a concern during renovation and demolition activities.

Details regarding sampling locations, condition, and hazard assessment are provided in the subcontractor's report in Appendix C.

4.2.2.1.3 Other Toxic Materials

During the site inspection, no PCB-containing equipment, fluorescent lights, mercury switches or thermostats were identified at the site. However, only one unknown drum with liquids was identified near the southern boundary of Site 2.

PCBs

Although no PCB-containing equipment was visually identified during the site inspection, historical information acknowledged former locations of PCB usage. PCB-transformers were reportedly vandalized at Building 250. Based on the configuration of concrete pads and the proximity to electrical lines, there are two locations near Building 250 which are likely to have had former transformers.

Unknown Liquids

One unmarked 55-gallon drum with unknown contents (Grid Identification H11) was identified near the southern boundary of Site 2. The drum is intact and partially buried.

SECTION 5

REFERENCES

1. Earth Tech, Inc., 2000. 5-Year Review Lockheed Martin Corporation Beaumont Site No. 1. March 2000.

2. Radian Corporation, 1986. Historical Report, Lockheed Propulsion Company Beaumont Test Facilities, September 1986.

APPENDIX A

PHOTOGRAPHS FOR BEAUMONT SITE 1

Photograph 1. Catalytic Oxidizer (Remediation System)

Photograph 2. Groundwater Treatment System (Remediation System)

Photograph 3. Tank Saddles and Electrical Enclosure (Old Structure)

Photograph 4. Fluorescent Light Fixtures (Toxics)

Photograph 5. Mold (Toxics)

Photograph 6. Typical Vault (Old Structure)

Photograph 7. Mercury Switch (Toxics)

Photograph 8. Transite Pipe (ACM)

Photograph 9. Building 312 (Old Structure)

Photograph 10. Building 312 Interior (Old Structure)

Photograph 11. Former Transformer Location (Toxics) and Former Building Pads (Old Structure)

Photograph 12. Transformers (Possible Toxics)

Photograph 13. Building 325 Bunker (Old Structure)

Photograph 14. Typical Rocket Test Facility (Old Structure)

Photograph 15. Buildings 305 and 306 (Old Structure)

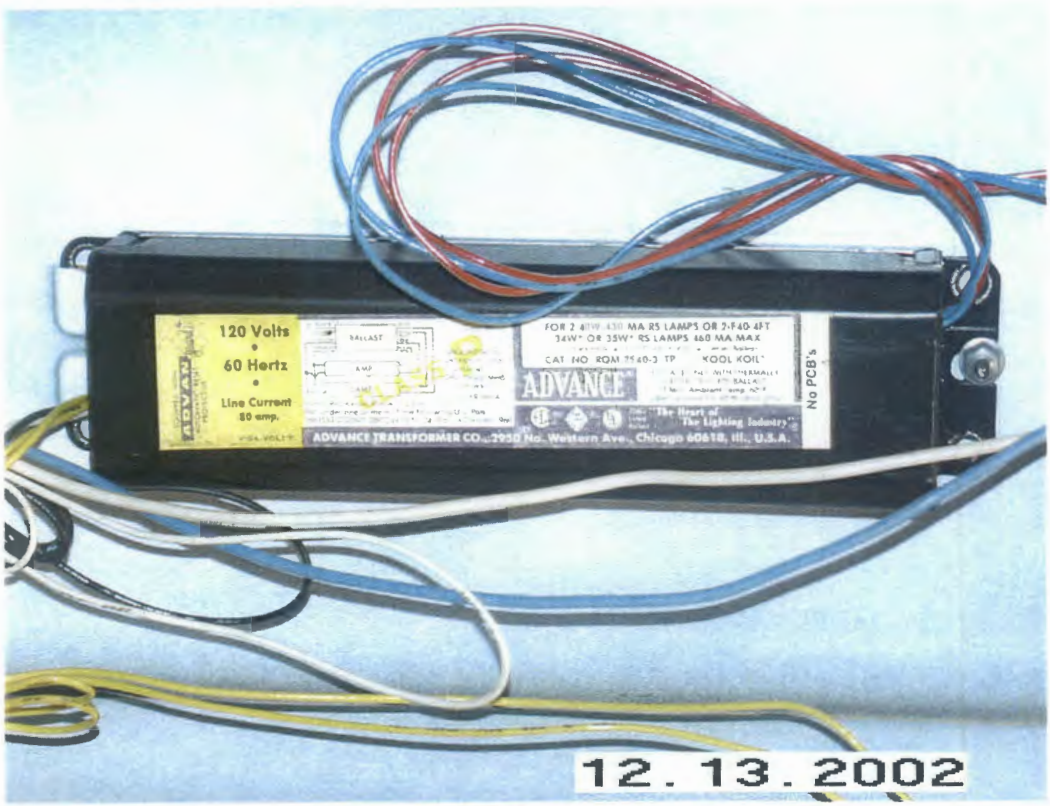
Photograph 16. Typical Concrete Foundation and Debris (Old Structure/Debris)

Photograph 17. Typical Drum (Debris)

Photograph 18. Well (Old Structure)

Photograph 19. Typical Pad with Protruding Bolts (Old Structure)

Photograph 20. Betatron Building 303 (Old Structure)



Photograph 21. Fluorescent Light Ballast (Toxic)

Photograph 22. Concrete Pads (Old Structure)

APPENDIX A

PHOTOGRAPHS FOR BEAUMONT SITE 2

Photograph 1. Water Tanks (Old Structure)

Photograph 2. Typical Bunker (Old Structure)

Photograph 3. View of a Bunker, Two Test Bays, and Pyramid located in the Western Canyon

Photograph 4. Typical Concrete Debris Located in the Wash (Debris)

Photograph 5. Bunker at Junction of Y, GPS pt. 33 (Old Structure)

Photograph 6. Interior of Pump House, GPS pt. 2 (Old Structure)

Photograph 7. Centrifuge GPS pt. 9 (Old Structure)

Photograph 8. Typical Debris, GPS pt. 15 (Debris)

Photograph 9. Vault (Old Structure)

Photograph 10. Transite Pipe

Photograph 11. Concrete Vault for Instrumentation at Test Bay (Old Structure)

Photograph 12. Typical Concrete Pad (Old Structure)

Photograph 13. Revetments at Conditioning Chambers

Photograph 14. Biological Trap

Photograph 15. Test Bay (Old Structure)

APPENDIX B

ASBESTOS SURVEY FOR BEAUMONT SITE 1

CITY Environmental Services, Inc.

Hazardous Materials Inspections &
Abatement Management
1450 S. Burlington Ave., Suite B
Los Angeles, CA 90006
Phone (213)-632-0410
Fax (213)-632-0414

January 23, 2003

Ms. Theresa Congdon
Tetra Tech, Inc.
348 W. Hospitality Lane
Suite 100
San Bernardino, California 92408

Re: **Asbestos Identification Survey Report**
Lockheed Martin Beaumont Site #1
Beaumont, California

Dear Ms. Congdon:

As requested, Buildings 310, 308, 305, 306, 309, 304, 311, 325, 312, T4, 303, 315, Fuel Sullury Station, & Main Transformers was surveyed by CITY Environmental Services, Inc. (CITY) on January 16, 2003 and January 18, 2003, for asbestos-containing materials (ACM). This survey was conducted by Frank Najafi, a California State Certified Asbestos Consultant (Cert. No. 93-1185) and Adrienne Shivak, a California State Certified Site Surveillance Technician (Cert. No. 91-2912). The survey included visual observation for ACM, sampling of accessible suspect materials throughout the interior and exterior areas and laboratory analysis. The survey was performed in accordance with requirements of the Asbestos Hazard Emergency Response Act (AHERA) 40 CFR 763 as well as the National Emissions Standards For Hazardous Air Pollutants (NESHAPS) 40 CFR 61 Subpart M. Findings of the survey, recommendations and conclusions are summarized below.

This survey was comprehensive and including interior, exterior, roof, attic, crawlspace, mechanical room, and common areas of all buildings at the site.

FINDINGS

Materials containing detectable quantities of asbestos – legally defined in California as materials containing percentages of asbestos greater than one-tenth of one percent (>0.1%) by weight[1] – *were* found at this facility. Materials with these concentrations of asbestos are regulated by various government agencies.

[1] California Code of Regulations, Title 8, Section 1529.

A total of one hundred and forty (140) bulk samples of suspect asbestos containing material were collected and delivered to Micron Environmental Laboratories, Inc. (Micron) for analysis by Polarized Light Microscopy (PLM) in accordance with EPA Method 600/M4-82-020.

The following Friable[1] ACM were discovered at this site:

- Pipe elbow insulation material in bldg #303
- HVAC vibration cloth material in bldg. #303

The following *Category I and II Nonfriable*[2] ACM were discovered:

- Transite pipe and debris at various locations throughout the site
- 9''x 9" floor tile and black mastic in bldg. #305
- Drywall Joint Compound on Interior walls/ceilings throughout Building #305
- Black mastic associated with blue 9"x 9" floor tile in bldg #304
- Drywall Joint Compound on Interior ceilings throughout Building #312 (as well as debris on floor)
- Gray roof penetration mastic on bldg #312
- Exterior Concrete Wall Textured Paint on Concrete @ Building # 311
- Gray 9"x 9" vinyl floor tile with yellow glue in bldg #T4
- Gray roof penetration mastic on bldg #T4
- Drywall Joint Compound on Interior ceilings throughout Building #303
- Brown exterior putty/caulking material on the walls of bldg. #303
- Gray mastic on the ground at entrance to bldg #303 as well as on roof (all three levels)
- Brick Wall Grout/Mortar on Structural Walls of Building 303
- Black mastic on tow hitch of bldg. #315B (trailer)
- Silver roof sealant mastics @ Building 315B

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[1] Friable: materials which can be crumbled, pulverized or reduced to powder by hand pressure when dry.

[2] Nonfriable: materials which if used as intended, cannot be broken, crumbled, pulverized or reduced to powder by hand pressure when dry; but can be made friable by mechanical means such as sanding, sandblasting, cutting, Scraping, improper handling and disposal, or leaching of matrix binders amongst other means.

The following material/components were considered inaccessible at the time of the survey and hence must be assumed/presumed to contain asbestos:

- Building 315B – Trailer – interior areas were inaccessible; all interior building material should be presumed to contain asbestos.
- Building 325 – roofing material was inaccessible and buried under earth/soil material.
- Additional asbestos containing Transite pipe material below grade throughout the property.

The following table provides a summary of all samples collected, description, location, condition, quantity, and analytical results:

Sample No.	*Material Description*	*Sample/Material Location*	*Friable / Non-Friable*	*Condition& Hazard Assessment*	*Approximate Quantity*	*Asbestos Content*
310-1-1, -2, -3	Black tar residue	Concrete walls of building #310	N/A	N/A	N/A	None
308-2-1, -2, -3	Brown top coat	On horizontal component affixed to the concrete pad of building #308	N/A	N/A	N/A	None
308-3-1	**Transite pipe and associated debris**	**At building 308 as well as northern hillside behind the building – partially exposed with some pipes underground**	**Non-Friable**	**Damaged with high potential for further damage**	**250 to 1,000 linear feet**	**10% CH 2% CR**
308-4-1, -2, -3	Concrete grout/ mortar	Throughout perimeter concrete block walls of building #308	N/A	N/A	N/A	None
308-5-1, -2, -3	Concrete grout/ mortar	Throughout concrete block walls of the storage building southwest of building #308	N/A	N/A	N/A	None
308-6-1, -2, -3	Black electrical conduit insulation	Northeast of building #308, on electrical conduit	N/A	N/A	N/A	None
305-7-1, -2, -3	Brown vinyl cove base mastic	Base of interior walls of building #305	N/A	N/A	N/A	None
305-8-1	**9"x 9" floor tile and black mastic**	**At base of interior steps in the building**	**Non-Friable**	**Damaged / moderate potential for further damage**	**5 sq.ft.**	**Tile 3% CH Mastic 2% CH**

Sample No.	*Material Description*	*Sample/Material Location*	*Friable / Non-Friable*	*Condition& Hazard Assessment*	*Approximate Quantity*	*Asbestos Content*
305-9-1, -2, -3	2"x 4" acoustical ceiling panels	Back Room of building #305	N/A	N/A	N/A	None
305-10-1, -2, -3	**Drywall and joint compound material**	**Throughout interior walls/ceilings of building #305**	**Non friable**	**Damaged with moderate potential for further damage**	**6,000 sq.ft.**	**<1% CH**
305-11-1, -2, -3	Plaster Debris	Outside of building 305 on the ground	N/A	N/A	N/A	None
305-12-1	**Transite pipe debris**	**Scattered on the exterior of building #305 from the northeast to the northwest – also on rear hillside – some pipes extend underground**	**Non-Friable**	**Damaged with moderate potential for further damage**	**200 to 2000 lf**	**8%CH**
305-13-1, -2, -3	Beige exterior concrete wall texture coat	On the top of the concrete walls of building #308	N/A	N/A	N/A	None
305-14-1, -2, -3	Beige and gray duct joint tape and mastic	On the HVAC duct joints, exterior of building #305 to the west on the hillside	N/A	N/A	N/A	None
305-15-1	Black foam insulation	In between 2 layers of HVAC ducting, exterior of building #305, to the west	N/A	N/A	N/A	None
305-16-1, -2, -3	Gunnite with black tar/mastic	On the roof of building #305	N/A	N/A	N/A	None
305-17-1, -2, -3	Concrete grout/ mortar	In between the concrete block walls of building #305	N/A	N/A	N/A	None
306-18-1, -2, -3	Concrete grout/ mortar	In between the concrete block walls of building #305	N/A	N/A	N/A	None
306-19-1, -2, -3	Plaster debris	On the ground of building #306	N/A	N/A	N/A	None
306-20-1, -2, -3	Black roof tar and felt	Perimeter concrete walls roofing and on the ground	N/A	N/A	N/A	None

Sample No.	*Material Description*	*Sample/Material Location*	*Friable / Non-Friable*	*Condition& Hazard Assessment*	*Approximate Quantity*	*Asbestos Content*
309-21-1, -2, -3	Concrete grout/ mortar	In between the concrete block walls of building #305	N/A	N/A	N/A	None
304-22-1	Caulking putty	Exterior of concrete walls were HVAC ducting used to be on building #304	N/A	N/A	N/A	None
304-23-1, -2, -3	**Blue 9"x 9" floor tile and associated black mastic**	**Throughout the interior of building #304**	**Non-Friable**	**Damaged condition with moderate potential for further damage**	**400 SF**	**Tile <1% CH** **Mastic 2% CH**
304-24-1, -2, -3	Brown vinyl cove base mastic	Throughout the base of the interior walls of building #304	N/A	N/A	N/A	None
304-25-1, -2, -3	Black electrical conduit insulation	On electrical conduit on the hill over building #304	N/A	N/A	N/A	None
311-26-1	Brown filler and mudding compound	At connection point of steel beams and concrete walls inside building #311	N/A	N/A	N/A	None
311-27-1, -2, -3	Concrete texture coating	On the top of the exterior concrete wall of building #311	N/A	N/A	N/A	None
311-28-1, -2, -3	Black roof tar	On top of building #311	N/A	N/A	N/A	None
312-29-1, -2, -3	**Drywall and joint compound material**	**Interior ceiling of building #312**	**Non friable**	**Significantly damaged with high potential for further damage**	**702 SF**	**<1%CH**
312-30-1, -2, -3	Roof tar and felt	Throughout the roof of building #312	N/A	N/A	N/A	None

Sample No.	*Material Description*	*Sample/Material Location*	*Friable / Non-Friable*	*Condition& Hazard Assessment*	*Approximate Quantity*	*Asbestos Content*
312-31-1, -2, -3	Roof base flashing and parapet material	Throughout the perimeter of the roof of building #312	N/A	N/A	N/A	None
312-32-1	**Gray roof penetration mastic**	**Around penetrations on the roof of building #312**	**Non friable**	**Good condition with low potential for damage**	**10 sf**	**3%CH**
311-33-1, -2, -3	**Concrete wall texture coating**	**Exterior walls of building 311**	**Non friable**	**Damaged condition with high potential for further damage**	**1,000 sf**	**<1%CH**
312-34-1, -2, -3	Concrete grout/ mortar	In between concrete block walls of building #312	N/A	N/A	N/A	None
T4-35-1	**Gray 9"x 9" vinyl floor tile with yellow glue**	**Throughout the interior of building #T4**	**Non friable**	**Damaged condition with high potential for further damage**	**120 SF**	**1%CH**
T4-36-1, -2, -3	Drywall and joint compound material	Throughout the ceiling of building #T4	N/A	N/A	N/A	None
T4-37-1	Roof tar and felt	Throughout the roof of building #T4	N/A	N/A	N/A	None
T4-38-1	**Gray roof penetration mastic**	**Around roof penetrations on building #T4**	**Non-Friable**	**Good condition with low potential for damage**	**5 sf**	**3% CH**
T4-39-1, -2, -3	Concrete grout/ mortar	In between the concrete block walls of building #T4	N/A	N/A	N/A	None

Sample No.	*Material Description*	*Sample/Material Location*	*Friable / Non-Friable*	*Condition& Hazard Assessment*	*Approximate Quantity*	*Asbestos Content*
303-40-1	**Pipe elbow insulation**	**In one room and Inside the attic space of building #303, on pipe elbows**	**Friable**	**Good condition with moderate potential for damage**	**29 each**	**5%CH**
303-41-1, -2, -3	**Drywall and joint compound material**	**Throughout the interior ceilings of building #303**	**Non-Fixable**	**Good condition with lo potential for damage – damaged only in 1 room approximate ly 100 sf**	**5,528 SF**	**<1%CH**
303-42-1	Gray electrical wire insulation	Inside electrical box of building #303	N/A	N/A	N/A	None
303-43-1	White and beige caulking material	On the HVAC ducts inside the basement of building #303	N/A	N/A	N/A	None
303-44-1	White putty material	Exterior wall, lower end of building #303	N/A	N/A	N/A	None
303-45-1	**HVAC vibration cloth (2 each)**	**On HVAC units inside the basement of building #303**	**Friable**	**Good condition with moderate potential for damage**	**25 sf**	**30%**
303-46-1	**Brown putty material**	**Exterior of basement on top of the walls of building #303**	**Non-Friable**	**Good with moderate potential for damage**	**400 lf**	**1%CH**
303-47-1	Black mastic	On the ground of the entrance to the high bay of building #303	N/A	N/A	N/A	None
303-48-1	**Gray mastic**	**On the ground of the entrance to the high bay of building #303**	**Non-Friable**	**Good with high potential for damage**	**N/A**	**3%CH**

Sample No.	*Material Description*	*Sample/Material Location*	*Friable / Non-Friable*	*Condition& Hazard Assessment*	*Approximate Quantity*	*Asbestos Content*
303-49-1, -2, -3	Composite field roofing material	Throughout level 1and 2 roofs of building #303	N/A	N/A	N/A	None
303-50-1, -2, -3	Composite roof base flashing an parapet material	Throughout perimeter of roof levels 1and 2 of building #303	N/A	N/A	N/A	None
303-51-1	**Gray roof penetration mastic**	**Around roof penetrations of all roof levels**	**Non-Friable**	**Good condition with low potential for damage**	**350 sf**	**<1%CH**
303-51-1, -2, -3	**Concrete grout/ mortar**	**In between the red brick walls of building #303**	**Non-Friable**	**Good condition with low potential for damage**	**2,400 SF**	**<1%CH**
303-52-1, -2, -3	Concrete grout/ mortar	In between concrete block walls of building #303	N/A	N/A	N/A	None
T4-53-1	Brown cove base mastic	Throughout the interior walls (bottom) of building #T4	N/A	N/A	N/A	None
315-54-1, -2, -3	White fishered, random hole 2'x 4' ceiling panels	Throughout the main office room of building 315A	N/A	N/A	N/A	None
315-55-1, -2	Yellow carpet glue	Throughout under the carpet in the main office room and tool storage room of building #315A	N/A	N/A	N/A	None
315-56-1	White window sealant material	Around exterior windows of building #315A	N/A	N/A	N/A	None
(Trailer)-57-1	White caulking material	Around the electrical boxes located on the exterior south wall of building #315B	N/A	N/A	N/A	None

Sample No.	*Material Description*	*Sample/Material Location*	*Friable / Non-Friable*	*Condition& Hazard Assessment*	*Approximate Quantity*	*Asbestos Content*
(Trailer)-58-1	**Black mastic**	**On the tow hitch located on the exterior south wall of building #315B**	**Non-Friable**	**Good condition with moderate potential for damage**	**15 SF**	**<1%CH**
(Trailer)-59-1	**Silver sealant material**	**On roof seams of building #315B**	**Non-Friable**	**Damaged condition with low potential for damage**	**120 sf**	**7%CH**
315-60-1, -2, -3	Beige/ gray texture material on concrete walls	Top of concrete walls of building #315A	N/A	N/A	N/A	None
315-61-1	Black roof penetration mastic	On top of building #315A, around perimeter of concrete walls at the base	N/A	N/A	N/A	None

CH denotes Chrysotile; CR denotes Crosidolite; LF: denotes linear feet; and SF denotes square feet
<1% Asbestos by Weight is regulated by Cal/OSHA only and exempt from Federal regulations.

RECOMMENDATIONS & CONCLUSIONS

Damaged ACM of any degree, and ACM in good condition with a high potential for damage, warrants immediate abatement to mitigate health and environmental risks.

Removal and handling of ACM must be performed by licensed and registered asbestos abatement contractors with personnel who are properly trained and certified in asbestos abatement work. All identified ACM must be properly removed and disposed by a licensed and Cal/OSHA registered asbestos abatement contractor prior to any construction/demolition activities at this site. A 10 business-day notification is required to the local Air Pollution Control District and a 24 hour notification is required to Cal/OSHA) prior to start of asbestos removal activities.

The California Health & Safety Code Section 25915-25919.7 requires owners of any building constructed prior to 1979, who know the building contains ACM, to furnish notifications to employees, contractors, and agents concerning the existence, location, handling requirements, summary of analytical results, & potential health risks associated with ACM. This notification must be provided in writing within 15 days of the first receipt by the owner of information identifying the presence or location of ACM at the building(s).

LIMITATIONS

CITY is committed to providing quality consulting services. However, asbestos survey work is not an exact science. The possibility of field and general conditions, beyond CITY' control, that affect our work or that present a concern for the safety of our employees, our consultants, building occupants and the public at the site, and insurance constraints, requires that we qualify the services we provide with the following limitations:

The findings of this survey, opinions rendered, recommendations and conclusions provided in this survey report are only valid for a period of up to one year from the date of this survey report

Reasonable effort is made by CITY' personnel to locate and sample all suspect materials. However, for any facility the existence of unique or concealed asbestos-containing materials and debris is a possibility. In addition, sampling and laboratory analysis constraints typically hinder the investigation. CITY does not warrant, guarantee or profess to have the ability to locate or identify all asbestos-containing materials in a facility.

Confined spaces, and areas determined by CITY' personnel as unsafe to access, are excluded from the scope of work.

CITY does not employ professional cost estimators. Statements of probable construction cost or cost estimates prepared by CITY represent CITY' professional opinion of probable costs based upon current industry information. Actual costs may fluctuate due to several variables including, but not limited to, the time the work is performed, phasing, labor availability, quantity of work performed, product availability, specification requirements, and unforeseeable changes in the economy and asbestos regulations.

CITY is not, and has no responsibility as, a generator, operator, treater, storer, transporter or disposer of hazardous materials or waste found or identified as a result of CITY' work.

CITY does not guarantee or warrant that the facility or workplace is safe, nor does CITY' involvement in this property relieve the Client, building owner/operator or tenant of any continuing responsibility of providing a safe facility or workplace.

This report was based on those conditions observed on the day(s) the field evaluation was accomplished. In the event that changes in the nature of the property have occurred, or additional relevant information about the property is subsequently discovered, the findings and recommendations contained in this report may not be valid unless these changes and additional relevant information are reviewed and the conclusion of this report is modified and verified in writing.

In as such that no destructive investigation has been performed during the survey, the report may not reveal concealed asbestos-containing materials. Subsequently, additional investigation including construction documents review and/or destructive investigation is recommended as a precaution to prevent accidental exposure when construction or demolition is planned for this facility.

ATTACHMENTS

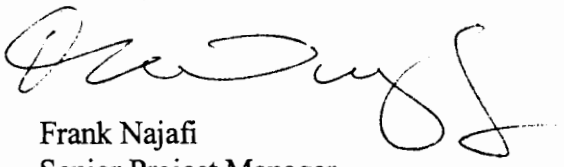
1) Field sampling chain-of-custody and lab analysis reports

2) Sample and material location drawings

3) Procedures and Methodology

Please do not hesitate to contact us should there be any questions or if additional services are necessary.

Sincerely,



Frank Najafi
Senior Project Manager
Cal/OSHA Certified Asbestos Consultant, No. 93-1185

BULK MATERIAL SAMPLING FORM AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site 1	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
310	1	1	1	Black Tar Resilve on concrete walls	Bldg 310				NF	GC	H	H	H	
			2	↓	↓				↓	↓	↓	↓	↓	
			3	↓	↓				↓	↓	↓	↓	↓	
308		2	1	Brown concrete top coat	Bldg 308				NF	D	H	H	H	
			2	Horizontal component on gravel	↓				↓	↓	↓	↓	↓	
			3	↓	↓				↓	↓	↓	↓	↓	
308		3	1	Transite Pipe Debris	↓		100 LF	10CH 2CM	NF	D	H	L	H	
305		16	1 2 3	Granite with Black Tar/mastic	Roof Bldg 380				NF	GC	L	L	M	
					under soils/earth material.									

HGN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)	**Deliver Report & Bill To:**	**Lab Name: Micron** Environmental labs
SN:	Sample No.	D:	Damaged	Frank Najafi	**Analysis Requested:** (PLM) TEM AAS
AR:	Analytical Result	SD:	Significant Damage	CITY Env Services, Inc.	**Turn Around Time:** 5 DAY
F/NF:	Friable/Non-Friable			1450 S. Burlington Avenue	**Analyze to First Positive?** (YES) ~~NO~~
DR:	Damage Rating	L:	Low	Suite B	
CP:	Contact Potential	M:	Moderate	Los Angeles, CA 90006	**Project Reference:** Lockheed Beaumont Site No. 1
VI:	Vibration Influence	H:	High	Phone: (213) 632-0410	**Project Number:** 2614
EP:	Erosion Potential			Fax: (213) 632-0414	

Relinquished By: [signature] **Date:** 1/17/03

Received By: **Date:**

BULK MATERIAL SAMPLING ' 'M AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site 1	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
308	1	4	1	Concrete grout/mortar	Perimeter concrete Block walls				NF	GC	H	L	L	
			2											
			3											
		5	1		concrete Block walls of the storage Bldg									
			2											
			3											
		6	1	Black electrical Conduit Insulat	NE of 308 in embankment				NF	GC	H	L	L	
			2											
			3											

HGN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)	**Deliver Report & Bill To:**	**Lab Name:** Micron Environmental labs
SN:	Sample No.	D:	Damaged	Frank Najafi	**Analysis Requested:** (PLM) TEM AAS
AR:	Analytical Result	SD:	Significant Damage	CITY Env Services, Inc.	**Turn Around Time:** 5 DAY
F/NF:	Friable/Non-Friable			1450 S. Burlington Avenue	**Analyze to First Positive?** (YES) ~~NO~~
DR:	Damage Rating	L:	Low	Suite B	
CP:	Contact Potential	M:	Moderate	Los Angeles, CA 90006	**Project Reference:** Lockheed Beaumont Site No. 1
VI:	Vibration Influence	H:	High	Phone: (213) 632-0410	**Project Number:** 2614
EP:	Erosion Potential			Fax: (213) 632-0414	

Relinquished By: [signature] **Date:** 1/17/03 | **Received By:** **Date:**

BULK MATERIAL SAMPLING FORM AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site 1	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
305		7	1 2 3	Brown vinyl cove base mastic	Bldg 305				NF	D	H	M	M	
		8	1	9x9 floor tile & black mastic	↓		~~3 tile~~ ~~2 M~~ ~~5 SF~~	3 tile 2 M	↓	↓	↓	↓	↓	
		9	1 2 3	2x4 acoustic ceiling panels	↓				↓	↓	↓	↓	↓	
		10	1 2 3	Drywall & Joint compound	walls & ceilings throughout		6000 SF	<1%	NF	D	H	M	M	
		11	1 2 3	Plaster Debris	outside on ground				NF	D	↓	↓	↓	
		12	1	~~Transite~~ Fire Debris		Above hill @ 2000 LF	200 SF	8%	NF	D	↓	↓	↓	
		13	1 2 3	Beige concrete ~~texture~~ coat top of walls					NF	GC	H	M	M	
		~~14~~ 15	1	Black foam lining insulation	in between 2 layers of FG ductinel				NF	D	H	H	H	
↓		14	1 2 3	Beige/gray Duct Joint tape/mastic		on Hillside on HVAC unit			NF	D	H	H	H	

HGN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)
SN:	Sample No.	D:	Damaged
AR:	Analytical Result	SD:	Significant Damage
F/NF:	Friable/Non-Friable		
DR:	Damage Rating	L:	Low
CP:	Contact Potential	M:	Moderate
VI:	Vibration Influence	H:	High
EP:	Erosion Potential		

Deliver Report & Bill To:
Frank Najafi
CITY Env Services, Inc.
1450 S. Burlington Avenue
Suite B
Los Angeles, CA 90006
Phone: (213) 632-0410
Fax: (213) 632-0414

Lab Name: Micron Environmental labs
Analysis Requested: (PLM) TEM AAS
Turn Around Time: 5 DAY
Analyze to First Positive? (YES) NO

Project Reference: Lockheed Beaumont Site No. 1
Project Number: 2614

Relinquished By: [signature] **Date:** 1/17/03

Received By: **Date:**

BULK MATERIAL SAMPLING FORM AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site 1	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
305		17	1 2 3	grout/mortar	Between concrete block walls				NF	GC	H	L	L	
306		18	1 2 3	↓	↓				↓	↓	↓	↓	↓	
306		19	1 2 3	Plaster Debris	on ground				NF	D	H	H	H	
306		20	1 2 3	Black Roof tar & felt	Perimeter concrete walls/Roof	Debris on ground			NF	D	H	L	H	
309		21	1 2 3	grout/mortar	Between concrete Block walls				NF	GC	H	L	L	
304		22	1	caulking Putty	exterior concrete wall former around HVAC opening				NF	GC	H	L	L	
304		23	1 2 3	Blue 929 floor tile & black mastic	Inside Room		800SF	2%	NF	D	H	L	H	1
304		24	1 2 3	Brown Vinyl coveBase mastic					NF	D	H	L	M	
304		25	1	Black Insulation on electric conduit	on Hall over Bldg				NF	GC	H	L	L	Possible waterproofing on roof under Soil

HGN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)
SN:	Sample No.	D:	Damaged
AR:	Analytical Result	SD:	Significant Damage
F/NF:	Friable/Non-Friable		
DR:	Damage Rating	L:	Low
CP:	Contact Potential	M:	Moderate
VI:	Vibration Influence	H:	High
EP:	Erosion Potential		

Deliver Report & Bill To:
Frank Najafi
CITY Env Services, Inc.
1450 S. Burlington Avenue
Suite B
Los Angeles, CA 90006
Phone: (213) 632-0410
Fax: (213) 632-0414

Lab Name: Micron Environmental labs
Analysis Requested: (PLM) TEM AAS
Turn Around Time: 5 DAY
Analyze to First Positive? (YES) NO

Project Reference: Lockheed Beaumont Site No. 1
Project Number: 2614

Relinquished By: [signature] **Date:** 1/17/03

Received By: **Date:**

3<>

BULK MATERIAL SAMPLING FORM AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
311		26	1	Brown filler & mastic compound	at connection point between steel beams & concrete walls				NF	GC	L	L	L	
↓		27	1 2 3	concrete top coat / texture coat	top of exterior concrete walls				NF	GC	H	M	M	
↓		28	1 2 3	Black Roof tar					NF	GC	H	M	M	
325														Suspect underlayment on roof underside
312		29	1 2 3	Drywall & Joint compound	ceiling		400 ft²	<1%	NF	D	M	M	M	Mold growth on ceiling
312		30	1 2 3	Roof tar & felt					NF	D	L	M	H	
312		31	1 2 3	Roof base flashing & parapet					NF	D	L	M	H	
312		32	1	Gray Roof Penetration mastic			20 ft²	3%	NF	GC	L	L	L	
311		33	1 2 3	exterior concrete wall texture coating			1000 ft²	<1%	NF	D	H	H	H	

HGN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)
SN:	Sample No.	D:	Damaged
AR:	Analytical Result	SD:	Significant Damage
F/NF:	Friable/Non-Friable		
DR:	Damage Rating	L:	Low
CP:	Contact Potential	M:	Moderate
VI:	Vibration Influence	H:	High
EP:	Erosion Potential		

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Phone: (213) 632-0410
Fax: (213) 632-0414

Lab Name: Micron Environmental labs
Analysis Requested: (PLM) TEM AAS
Turn Around Time: 5 DAY
Analyze to First Positive? (YES) NO

Project Reference: Lockheed Beaumont Site No. 1
Project Number: 2614

Relinquished By: [signature] **Date:** 1/17/03

Received By: **Date:**

BULK MATERIAL SAMPLING [illegible]M AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site 1	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
312		34	1 2 3	grout/Mortar between Concrete Block walls					NF	GC	H	L	L	
K4		35	1	9x9 Gray Vinyl floor tile with Yellow glue			100 ft²	1%	NF	D	H	L	H	
T4		36	1 2 3	Drywall ceiling					NF	D	L	H	H	Debris on floor
↓		37	1	Roof tar & felt					NF	D	H	L	H	Debris on ground outside of Bldg.
		38	1	Gray roof Patch mastic			10 ft²	3%	NF	GC	L	L	L	
↓		39	1 2 3	grout/Mortar Concrete Block walls					NF	GC	H	L	L	
303		40	1	Pipe elbow/fitting Insulation/Domestic			29 each	5%	F	GC	H	M	M	
303		41	1 2 3	Drywall/JC	ceilings	Indoor	5000 ft²	<1%	NF	D	L	M	M	
303		42	1	Gray electrical wire Insulation					NF	D	H	L	L	

HGN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)
SN:	Sample No.	D:	Damaged
AR:	Analytical Result	SD:	Significant Damage
F/NF:	Friable/Non-Friable		
DR:	Damage Rating	L:	Low
CP:	Contact Potential	M:	Moderate
VI:	Vibration Influence	H:	High
EP:	Erosion Potential		

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Los Angeles, CA 90006
Phone: (213) 632-0410
Fax: (213) 632-0414

Lab Name: Micron Environmental labs
Analysis Requested: (PLM) TEM AAS
Turn Around Time: 5 DAY
Analyze to First Positive? (YES) NO

Project Reference: Lockheed Beaumont Site No. 1
Project Number: 2614

Relinquished By: [signature] **Date:** 1/19/03

Received By: **Date:**

BULK MATERIAL SAMPLING FORM AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site 1	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
303		43	1	white/beige caulking	Exterior HVAC window				NF	GC	H	L	L	
		44	1	white putty	exterior wall lower level				NF	D	H	L	L	
		45	1	HVAC vibration cloth	lower level floor		2 each	30%	NF	GC	L	H	L	
		46	1	Brown putty	lower level upper walls		400 LF	1%	NF	GC	H	L	L	
		47	1	~~Brown~~ Black mastic	on ground entrance	to ~~Lab~~ High Bay			NF	GC	H	L	M	
		48	1	Gray mastic	"	"	100 LF	3%	↓	↓	↓	↓	↓	
		49	1 2 3	Composite Roofing	level 1 & 2				NF	GC	L	L	L	
		50	1 2 3	composite roofing parapet & base flashing	level 1				↓	↓	↓	↓	↓	
↓		51	1	gray Bitumastic	level 1 & 2		150ft	<1	↓	↓	↓	↓	↓	

HGN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)
SN:	Sample No.	D:	Damaged
AR:	Analytical Result	SD:	Significant Damage
F/NF:	Friable/Non-Friable		
DR:	Damage Rating	L:	Low
CP:	Contact Potential	M:	Moderate
VI:	Vibration Influence	H:	High
EP:	Erosion Potential		

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Lab Name: Micron Environmental labs
Analysis Requested: (PLM) TEM AAS
Turn Around Time: 5 DAY
Analyze to First Positive? (YES) NO

Project Reference: Lockheed Beaumont Site No. 1
Project Number: 2614

Relinquished By: [signature] **Date:** 1/17/03

Received By: **Date:**

BULK MATERIAL SAMPLING AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site 1	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
303	1	51	1 2 3	grout-Mortar	Red Brick CMU		~~5000~~ 1000 SF	C1	NF	GC	H	L	L	
303	Lower	52	1 2 3	↓	concrete Blockwalls		5000 SF	C1	↓	↓	↓	↓	↓	

HGN: Homogenous Group Number
SN: Sample No.
AR: Analytical Result
F/NF: Friable/Non-Friable
DR: Damage Rating
CP: Contact Potential
VI: Vibration Influence
EP: Erosion Potential

GC: Good Condition (None, or minimal damage)
D: Damaged
SD: Significant Damage

L: Low
M: Moderate
H: High

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CITY Env Services, Inc.
1450 S. Burlington Avenue
Suite B
Los Angeles, CA 90006
Phone: (213) 632-0410
Fax: (213) 632-0414

Lab Name: Micron Environmental labs
Analysis Requested: (PLM) TEM AAS
Turn Around Time: 5 D.T.
Analyze to First Positive? (YES) NO

Project Reference: Lockheed Beaumont Site No. 1
Project Number: 2614

Relinquished By: [signature] **Date:** 1/17/03

Received By: **Date:**

BULK MATERIAL SAMPLING FORM AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site#	PROJECT NO.	2614.1	DATE:	1/18/03	SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
T4 ~~318~~	1	53	1	Cove base Mastic Brown	Inside base of walls behind baseboard				NF	GC	L	M	H	
315	1	54	1 2 3	White fissured Random pinhole 2'x4 Ceiling tile	Inside Main Office RM + Hall Storage w/ glue				F	D	H	H	H	
315	1	55	1 2	Yellow Carpet Adhesive	Under brown carpet throughout #315				NF	GC	H	H	H	
315	1	56	1	window Sealant Ext.	outside windows S. side				NF	GC	H	H	H	
trailer by 315	1	57	1	Caulking, white	around electrical boxes on S. side.				NF	GC	H	H	H	
▽	1	58	1	Black mastic	on tow Hitch		10 ☐	<1	NF	GC	H	H	H	
▽	1	59	1	Silver sealant material	top of trailer on roof		20 ☐	7	NF	GC	L	M	H	
315		60	1 2 3	texture on Concrete, beige and grey	Roof top of Concrete walls				NF	GC	L	M	H	
315		61	1	Black patch Mastic	Roof, around walls, base				NF	GC	L	M	H	

HGN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)
SN:	Sample No.	D:	Damaged
AR:	Analytical Result	SD:	Significant Damage
F/NF:	Friable/Non-Friable		
DR:	Damage Rating	L:	Low
CP:	Contact Potential	M:	Moderate
VI:	Vibration Influence	H:	High
EP:	Erosion Potential		

Deliver Report & Bill To:
Frank Najafi
CITY Env Services, Inc.
1450 S. Burlington Avenue
Suite B
Los Angeles, CA 90006
Phone: (213) 632-0410
Fax: (213) 632-0414

Lab Name: Micron Environmental labs
Analysis Requested: PLM TEM AAS
Turn Around Time: 5 days
Analyze to First Positive? YES NO ?
Project Reference: Lockheed Beaumont Site No. 1
Project Number: 2614.1

Relinquished By: [signature] **Date:** 1/18/03

Received By: **Date:**

to Micron - 5 day turn around!

Micron Environmental Labs
292 E. Foothill Blvd. Suite B
Arcadia, California 91006

(626) 357-8627
fax (626) 256-9017

Preliminary PLM Bulk Results

Client Job # 2614_LOCKHEED BEAUMONT SITE \ Micron Labs Ref # 113023017

To: FRANK NAJAFI Of: City
From: **DANIEL GAMEZ** Date 1-24-03 Time 3:50 PM
Total # of pages: 1/5

Client ID#	Asbestos % Chrysotile	Amosite	Crocidolite	Other	Non Detected	☒ PLM ☐ POINT COUNT (GRAVIMETRY) ☐ 400 POINTS ☐ 1000 POINTS Comments
1-1					✓	
2					✓	
3					✓	
2-1					✓	
2					✓	
3					✓	
3-1	10		2			
16-1					✓	
2					✓	
3					✓	
4-1					✓	
2					✓	
3					✓	
5-1					✓	
2					✓	
3					✓	
6-1					✓	
2					✓	
3					✓	
7-1					✓	
2					✓	
3					✓	
T-8-1	3					T=Tile
M-8-1	2					M=MASTIC
9-1					✓	

Preliminary results are subject to final review.

Micron Environmental Labs
292 E. Foothill Blvd. Suite B
Arcadia, California 91006

(626) 357-8627
fax (626) 256-9017

Preliminary PLM Bulk Results

Client Job # 2614-LOCKHEED BEAUMONT SITE \ Micron Labs Ref # 11303017

To: FRANK NAJAFI Of: CITY
From: DANIEL GAMEZ Date 1-24-03 Time 3:50 PM
Total # of pages: 2/5

Client ID#	Asbestos % Chrysotile	Amosite	Crocidolite	Other	Non Detected	☒ PLM ☐ POINT COUNT (GRAVIMETRY) ☐ 400 POINTS ☐ 1000 POINTS Comments
9_2					✓	
3					✓	
10_1	<1					CHRY DETECTED IN J.C.
2					✓	DRYWALL ONLY
3	<1					SAME # 10-1
11_1					✓	
2					✓	
3					✓	
12_1	B					
13_1					✓	
2					✓	
3					✓	
15_1					✓	
14_1					✓	
2					✓	
3					✓	
17_1					✓	
2					✓	
3					✓	
18_1					✓	
2					✓	
3					✓	
19_1					✓	
2					✓	
3					✓	

Preliminary results are subject to final review.

Micron Environmental Labs
292 E. Foothill Blvd. Suite B
Arcadia, California 91006

(626) 357-8627
fax (626) 256-9017

Preliminary PLM Bulk Results

Client Job # 2614_LOCKHEED BEAUMONT SITE \ Micron Labs Ref # 113023017

To: FRANK NAJAFI Of: City
From: DANIEL GAMEZ Date 1-24-03 Time 3:50 PM
Total # of pages: 3/5

Client ID#	Asbestos % Chrysotile	Amosite	Crocidolite	Other	Non Detected	☒ PLM ☐ POINT COUNT (GRAVIMETRY) ☐ 400 POINTS ☐ 1000 POINTS Comments
20_1					✓	
2					✓	
3					✓	
21_1					✓	
2					✓	
3					✓	
22_1					✓	
T_23_1	<1					
M_23_1	2					
T_23_2	<1					
M_23_2	2					
T_23_3	<1					
M_23_3	2					
24_1					✓	
2					✓	
3					✓	
25_1					✓	
26_1					✓	
27_1					✓	
2					✓	
3					✓	
28_1					✓	
2					✓	
3					✓	
29_1	<1					CHRY Detected in J.C

Preliminary results are subject to final review.

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Arcadia, California 91006

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Preliminary PLM Bulk Results

Client Job # 2614_LOCKHEED BEAUMONT SITE \ Micron Labs Ref # 11303017

To: FRANK NAJAFI Of: CITY
From: DANIEL GAMEZ Date 1-24-03 Time 3:50 PM
Total # of pages: 4/5

Client ID#	Asbestos % Chrysolite	Amosite	Crocidolite	Other	Non Detected	☒ PLM ☐ POINT COUNT (GRAVIMETRY) ☐ 400 POINTS ☐ 1000 POINTS Comments
29_2					✓	
3	<1					SAME # 29_1
30_1					✓	
2					✓	
3					✓	
31_1					✓	
2					✓	
3					✓	
32_1	3					
33_1	<1					
2	<1					
3	<1					
34_1					✓	
2					✓	
3					✓	
35_1	1					
36_1					✓	
2					✓	
3					✓	
37_1					✓	
38_1	3					
39_1					✓	
2					✓	
3					✓	
40_1	5					

Preliminary results are subject to final review.

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Preliminary PLM Bulk Results

Client Job # 2614_LOCKHEED BEAUMONT SITE \ Micron Labs Ref # 11303017

To: FRANK NAJAFI Of: CITY
From: DANIEL GAMEZ Date 1-24-03 Time 3:50PM
Total # of pages: 5/5

Client ID#	Asbestos % Chrysotile	Amosite	Crocidolite	Other	Non Detected	☒ PLM ☐ POINT COUNT (GRAVIMETRY) ☐ 400 POINTS ☐ 1000 POINTS Comments
41_1	<1					
2	<1					
3	<1					
42_1					✓	
43_1					✓	
44_1					✓	
45_1	30					
46_1	1					
47_1					✓	
48_1	3					
49_1					✓	
2					✓	
3					✓	
50_1					✓	
2					✓	
3					✓	
51_1	<1					
51_1	<1					CHRY DETECTED IN BEIGE LAYER
2	<1					SAME # 51_1
3	<1					SAME # 51_1
52_1	<1					CHRY DETECTED IN BEIGE LAYER
2	<1					SAME # 52_1
3	[illegible]				✓	NO BEIGE LAYER

Preliminary results are subject to final review.

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292 E. Foothill Blvd. Suite B
Arcadia, California 91006

(626) 357-8627
fax (626) 256-9017

Preliminary PLM Bulk Results

Client Job # Jack Head Beaumont Micron Labs Ref # _____

To: Frank Natale Of: City
From: **Enrique Quintero** Date Jan 24, 2003 Time 4PM
Total # of pages: 1

Client ID#	Asbestos % Chrysotile	Amosite	Crocidolite	Other	Non Detected	☑ PLM ☐ POINT COUNT (GRAVIMETRY) ☐ 400 POINTS ☐ 1000 POINTS Comments
53-1					✓	
CT - 54-1					✓	
54-2 M					✓	
CT 54-2					✓	
54-2 M					✓	
CT - 54-3					✓	
54-3 M					✓	
55-1					✓	
55-2					✓	
56-1					✓	
57-1					✓	
58-1	<1					
59-1	7					
60-1					✓	
60-2					✓	
60-3					✓	
61-1					✓	

Preliminary results are subject to final review.

BULK MATERIAL SAMPLING FO AND CHAIN OF CUSTODY

11303017

PROJECT NAME:	Lockheed Beaumont Site 1	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
310	1	1	1	Black Tar Residue on concrete walls										
			2	↓										
			3	↓										
308		2	1	Brown concrete top coat										
			2	Horizontal component										
			3											
308		3	1	Transite pipe Debris										
305		16	1 2 3	Granite with Black Tar/mastic	Roof									

GN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)	**Deliver Report & Bill To:**	**Lab Name:** Micron Environmental labs
N:	Sample No.	D:	Damaged	Frank Najafi	**Analysis Requested:** (PLM) TEM AAS
R:	Analytical Result	SD:	Significant Damage	CITY Env Services, Inc.	**Turn Around Time:** 5 DAY
NF:	Friable/Non-Friable			1450 S. Burlington Avenue	**Analyze to First Positive?** (YES) ~~NO~~
R:	Damage Rating	L:	Low	Suite B	
P:	Contact Potential	M:	Moderate	Los Angeles, CA 90006	**Project Reference:** Lockheed Beaumont Site No. 1
I:	Vibration Influence	H:	High	Phone: (213) 632-0410	**Project Number:** 2614
P:	Erosion Potential			Fax: (213) 632-0414	

Relinquished By: [signature] **Date:** 1/17/03

Received By: [signature] **Date:** 1-17-03

BULK MATERIAL SAMPLING FORM AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
308	1	4	1	Concrete grout/mortar	Perimeter Block	concrete walls								
			2	↓	↓									
			3											
		5	1		concrete walls	Block of the								
			2		storage Building									
			3	↓		↓								
		6	1	Black electrical conduit insulation	NE of 308 in ewbank rd									
			2	↓										
↓			3	↓										

HGN:	Homogenous Group Number
SN:	Sample No.
AR:	Analytical Result
F/NF:	Friable/Non-Friable
DR:	Damage Rating
CP:	Contact Potential
VI:	Vibration Influence
EP:	Erosion Potential

GC:	Good Condition (None, or minimal damage)
D:	Damaged
SD:	Significant Damage
L:	Low
M:	Moderate
H:	High

Deliver Report & Bill To:
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CITY Env Services, Inc.
1450 S. Burlington Avenue
Suite B
Los Angeles, CA 90006
Phone: (213) 632-0410
Fax: (213) 632-0414

Lab Name: Micron Environmental labs
Analysis Requested: (PLM) TEM AAS
Turn Around Time: 5 DAY
Analyze to First Positive? (YES) NO

Project Reference: Lockheed Beaumont Site No. 1
Project Number: 2614

Relinquished By: [signature] **Date:** 1/17/03

Received By: [signature] **Date:** 1-17-03

BULK MATERIAL SAMPLING FO. .I AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site 1	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
305		7	1 2 3	Brown vinyl cove base mastic										
		8	1	9x9 floor tile & black mastic										
		9	1 2 3	2x4 acoustic ceiling panels										
		10	1 2 3	Drywall & joint compound	walls & ceiling throughout									
		11	1 2 3	Plaster Debris	outside on ground									
		12	1	Transite Pipe Debris										
		13	1 2 3	Beige concrete textured coat top of walls										
		~~14~~ 15	1	Black foam lining insulation	in between 2 layers of FG duct insl									
		14	1 2 3	Beige/gray Dried joint compound/mastic		on Hillside								

HGN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)
SN:	Sample No.	D:	Damaged
AR:	Analytical Result	SD:	Significant Damage
F/NF:	Friable/Non-Friable		
DR:	Damage Rating	L:	Low
CP:	Contact Potential	M:	Moderate
VI:	Vibration Influence	H:	High
EP:	Erosion Potential		

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Fax: (213) 632-0414

Lab Name: Micron Environmental labs
Analysis Requested: (PLM) TEM AAS
Turn Around Time: 5 DAY
Analyze to First Positive? (YES) NO

Project Reference: Lockheed Beaumont Site No. 1
Project Number: 2614

Relinquished By: [signature] **Date:** 1/17/03

Received By: [signature] **Date:** 1-17-03

BULK MATERIAL SAMPLING FORM AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site 1	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
305		17	1 2 3	grout/mortar	Between concrete block walls									
306		18	1 2 3	↓	↓									
306		19	1 2 3	Plaster Debris	on ground									
306		20	1 2 3	Black Roof tar & felt	Perimeter concrete walls/Roof	Debris on ground						✓		
309		21	1 2 3	grout/mortar	Between concrete block walls									
304		22	1	caulking Putty	exterior concrete wall former a/c HVAC opening									
304		23	1 2 3	Blue 9"x9" floor tile & black mastic	Inside Room					D				
304		24	1 2 3	Brown Vinyl cove base mastic										
304		25	1	Black Insulation on electric conduit	on Hill over Bldg									Possible waterproofing on roof under Sand

HGN: Homogenous Group Number
SN: Sample No.
AR: Analytical Result
F/NF: Friable/Non-Friable
DR: Damage Rating
CP: Contact Potential
VI: Vibration Influence
EP: Erosion Potential

GC: Good Condition (None, or minimal damage)
D: Damaged
SD: Significant Damage

L: Low
M: Moderate
H: High

Deliver Report & Bill To:
Frank Najafi
CITY Env Services, Inc.
1450 S. Burlington Avenue
Suite B
Los Angeles, CA 90006
Phone: (213) 632-0410
Fax: (213) 632-0414

Lab Name: Micron Environmental labs
Analysis Requested: (PLM) TEM AAS
Turn Around Time: 5 DAY
Analyze to First Positive? (YES) NO

Project Reference: Lockheed Beaumont Site No. 1
Project Number: 2614

Relinquished By: [signature] **Date:** 1/17/03

Received By: [signature] **Date:** 1-17-03

BULK MATERIAL SAMPLING FORM AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
311		26	1	Brown filler & mastic compound	at connection point between steel beams & concrete walls									
		27	1 2 3	concrete top coat/texture coat	top of exterior concrete walls									
		28	1 2 3	Black Roof tar										
325														Suspect underlayment on roof underside
312		29	1 2 3	drywall & joint compound ceiling										Mold growth on ceiling
312		30	1 2 3	Roof tar & felt										
312		31	1 2 3	Roof base flashing & Parapet										
312		32	1	Gray Roof Penetration mastic										
311		33	1 2 3	exterior concrete wall texture coating										

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Project Reference: Lockheed Beaumont Site No. 1
Project Number: 2614

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BULK MATERIAL SAMPLING FORM AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
312		34	1 2 3	grout/Morta: between concrete block walls										
R4		35	1	9x9 Gray Vinyl floor tile with yellow glue						D				
14		36	1 2 3	Drywall ceiling						D				Debris on floor
		37	1	Roof tar & felt						D				Debris on ground outside of bldg.
		38	1	Gray roof Patch mastic										
		39	1 2 3	grout/mortar concrete block walls										
303		40	1	Pipe elbow/fitting Insulation/Cement			2 Feet		F	GC				
303		41	1 2 3	Drywall/JC	ceilings	Indoor								
303		42	1	Gray electrical wire insulation										

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Lab Name: Micron Environmental labs
Analysis Requested: (PLM) TEM AAS
Turn Around Time: 5 DAY
Analyze to First Positive? (YES) NO

Project Reference: Lockheed Beaumont Site No. 1
Project Number: 2614

Relinquished By: [signature] **Date:** 1/17/03

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BULK MATERIAL SAMPLING FORM AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
303		43	1	white/Beige caulking	Exterior HVAC window									
		44	1	white putty	exterior wall lower level									
		45	1	HVAC V. blanket cloth	lower level floor		2 each							
		46	1	Brown Putty	lower level upper walls									
		47	1	~~Brown~~ Black mastic	on ground entrance	to last High Bay								
		48	1	Gray mastic	"	"								
		49	1 2 3	Composite Roofing	level 1 #2									
		50	1 2 3	composite roofing Parapet & base flashing	level 1									
✓		51	1	grey Bituminous mastic	level 1 #2									

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SN: Sample No.
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F/NF: Friable/Non-Friable
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Lab Name: Micron Environmental labs
Analysis Requested: (PLM) TEM AAS
Turn Around Time: 5 DAY
Analyze to First Positive? (YES) NO

Project Reference: Lockheed Beaumont Site No. 1
Project Number: 2614

Relinquished By: [signature] **Date:** 1/17/03

Received By: [signature] **Date:** 1-17-03

BULK MATERIAL SAMPLING FORM AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
303	1	51	1 2 3	grout Mortar	Red Brick CMU									
303	Lower	52	1 2 3	↓	Concrete Blockwalls									

HGN: Homogenous Group Number
SN: Sample No.
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F/NF: Friable/Non-Friable
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Lab Name: Micron Environmental labs
Analysis Requested: (PLM) TEM AAS
Turn Around Time: 5 DAY
Analyze to First Positive? (YES) NO

Project Reference: Lockheed Beaumont Site No. 1
Project Number: 2614

Relinquished By: [signature] **Date:** 1/17/03

Received By: [signature] **Date:** 1-17-03

BULK MATERIAL SAMPLING FORM AND CHAIN OF CUSTODY

1130301

PROJECT NAME:	Lockheed Beaumont Site#	PROJECT NO.	2614 •	DATE:	1/18/03	SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
T-4 ~~Bldg~~	1	53	1	Cove base Mastic Brown	Inside base of wheels behind baseboard				NF	GC	H	M	H	
315	1	54	1 2 3	White textured Random pinhole 2'x4 ceiling tile	Inside Main Office RM + Hall Storage RM				F	D	H	H	H	
315	1	55	1 2	Yellow Carpet adhesive	Under brown carpet throughout #315				NF	GC	H	H	H	
315	1	56	1	window Sealant Ext.	outside windows S. side				NF	GC	H	H	H	
trailer #315	1	57	1	Caulking, white	around electrical boxes on S. side.				NF	GC	H	H	H	
↓	1	58	1	Black Mastic	on tow Hitch				NF	GC	H	H	H	
↓	1	59	1	Silver sealant material	top of trailer on Roof				NF	GC	L	M	H	
315		60	1 2 3	texture on Concrete, beige and grey	Roof top of Concrete walls				NF	GC	L	M	H	
315		61	1	Black patch Mastic	Roof, around walls, base				NF	GC	L	M	H	

HGN: Homogenous Group Number
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Lab Name: Micron Environmental labs
Analysis Requested: PLM TEM AAS
Turn Around Time: 5 days ?
Analyze to First Positive? YES NO
Project Reference: Lockheed Beaumont Site No. 1
Project Number: 2614 •

Relinquished By: [signature] **Date:** 1/18/03

Received By: ~~1-20-03~~ [signature] **Date:** 1-20-03

to Micron Environ. – 5 day turn around!

Micron Environmental Labs
292 E. Foothill Blvd., suite B
Arcadia, CA 91006
626-357-8627
FAX: 626-256-9017

Analytical Method: EPA 600/R-93/116
NIST / NVLAP Lab Code No. 200294-0
California ELAP Certificate No. 2297

Micron Ref. No.
11303017

Sample Summary Results

Customer Project: 2614/ Lockheed Beaumont-Site1 Microscopist: Leonardo Cristofaro

February 05, 2003

Frank Najafi
City Environmental Services, Inc.
P.O. Box 641818
Los Angeles, CA 90064

Date Collected: January 17, 2003
Date Received: January 17, 2003
Date Analyzed: January 22, 2003
No. Samples: 123

Cust ID No. / Micron ID No.	Sample Description / Color	Asbestos Detected	Analytical Results	Q.C.
1-1 / 98391	Tar Residue on Concrete Wall, beige & black	No	100% Mineral Filler	
1-2 / 98392	Tar Residue on Concrete Wall, beige & black	No	100% Mineral Filler	
1-3 / 98393	Tar Residue on Concrete Wall, beige & black	No	100% Mineral Filler	
2-1 / 98394	Concrete Top Coat, grey	No	100% Mineral Filler	
2-2 / 98395	Concrete Top Coat, grey	No	100% Mineral Filler	
2-3 / 98396	Concrete Top Coat, grey	No	100% Mineral Filler	

Sample Summary Results

Date: February 05, 2003

Microscopist: Leonardo Cristofaro

Micron Ref. No.: 11303017

Cust ID No. / Micron ID No.	Sample Description / Color	Asbestos Detected	Analytical Results	Q.C.
3-1 98397	Transite Pipe Debris gray & black	Yes	10% chrysotile 2% Crocidolite 88% Mineral Filler	
16-1 98398	Granite with Tar/Mastic gray & black	No	90% Mineral Filler 10% Organic Binders	
16-2 98399	Granite with Tar/Mastic gray & black	No	90% Mineral Filler 10% Organic Binders	
16-3 98400	Granite with Tar/Mastic gray & black	No	90% Mineral Filler 10% Organic Binders	
4-1 98401	Concrete Grout/Mortar beige	No	100% Mineral Filler	
4-2 98402	Concrete Grout/Mortar beige	No	100% Mineral Filler	
4-3 98403	Concrete Grout/Mortar beige	No	100% Mineral Filler	
5-1 98404	Concrete Grout/Mortar beige	No	100% Mineral Filler	

Sample Summary Results

Date: February 05, 2003

Microscopist: Leonardo Cristofaro

Micron Ref. No.: 11303017

Cust ID No. / Micron ID No.	Sample Description / Color	Asbestos Detected	Analytical Results	Q.C.
5-2 98405	Concrete Grout/Mortar beige	No	100% Mineral Filler	
5-3 98406	Concrete Grout/Mortar beige	No	100% Mineral Filler	
6-1 98407	Conduit Insulation black	No	40% Cellulose 10% Mineral Filler 50% Organic Binders	
6-2 98408	Conduit Insulation black	No	40% Cellulose 10% Mineral Filler 50% Organic Binders	
6-3 98409	Conduit Insulation black	No	40% Cellulose 10% Mineral Filler 50% Organic Binders	
7-1 98410	Covebase Mastic brown	No	10% Mineral Filler 90% Organic Binders	
7-2 98411	Covebase Mastic brown	No	10% Mineral Filler 90% Organic Binders	
7-3 98412	Covebase Mastic brown	No	10% Mineral Filler 90% Organic Binders	

Sample Summary Results

Date: February 05, 2003 Microscopist: Leonardo Cristofaro

Micron Ref. No.: 11303017

Cust ID No. / Micron ID No.	Sample Description / Color	Asbestos Detected	Analytical Results	Q.C.
8-1 98413	Floor Tile grey	Yes	3% chrysotile 97% Mineral Filler	
8-1 98413	Floor Tile-Mastic black	Yes	2% chrysotile 98% Organic Binders	
9-1 98414	Acoustic Ceiling Panels beige	No	40% Cellulose 55% Fibrous Glass 5% Mineral Filler	
9-2 98415	Acoustic Ceiling Panels beige	No	40% Cellulose 55% Fibrous Glass 5% Mineral Filler	
9-3 98416	Acoustic Ceiling Panels beige	No	40% Cellulose 55% Fibrous Glass 5% Mineral Filler	
10-1 98417	Drywall & Joint Compound white & beige	Yes	<1% chrysotile 99% Mineral Filler	
CHRY detected in J.C.				
10-2 98418	Drywall & Joint Compound white	No	100% Mineral Filler	
Drywall only				
10-3 98419	Drywall & Joint Compound white & beige	Yes	<1% chrysotile 99% Mineral Filler	
CHRY detected in J.C.				

Sample Summary Results

Date: February 05, 2003

Microscopist: Leonardo Cristofaro

Micron Ref. No.: 11303017

Cust ID No. / Micron ID No.	Sample Description / Color	Asbestos Detected	Analytical Results	Q.C.
11-1 98420	Plaster Debris white	No	1% Cellulose 99% Mineral Filler	X
11-2 98421	Plaster Debris white	No	1% Cellulose 99% Mineral Filler	
11-3 98422	Plaster Debris white	No	1% Cellulose 99% Mineral Filler	
12-1 98423	Transite Pipe Debris grey	Yes	8% chrysotile 92% Mineral Filler	
13-1 98424	Concrete Texture Coat grey	No	95% Mineral Filler 5% Organic Binders	
13-2 98425	Concrete Texture Coat grey	No	95% Mineral Filler 5% Organic Binders	X
13-3 98426	Concrete Texture Coat grey	No	95% Mineral Filler 5% Organic Binders	
15-1 98427	Foam Lining Insulation gray & black	No	30% Cellulose 70% Mineral Filler	X

Sample Summary Results

Date: February 05, 2003

Microscopist: Leonardo Cristofaro

Micron Ref. No.: 11303017

Cust ID No. / Micron ID No.	Sample Description / Color	Asbestos Detected	Analytical Results	Q.C.
14-1 98428	Duct Joint Tape/ Mastic white & beige	No	70% Cellulose 20% Mineral Filler 10% Organic Binders	
14-2 98429	Duct Joint Tape/ Mastic white & beige	No	70% Cellulose 20% Mineral Filler 10% Organic Binders	
14-3 98430	Duct Joint Tape/ Mastic white & beige	No	70% Cellulose 20% Mineral Filler 10% Organic Binders	
17-1 98431	Grout/ Mortar beige	No	100% Mineral Filler	
17-2 98432	Grout/ Mortar beige	No	100% Mineral Filler	X
17-3 98433	Grout/ Mortar beige	No	100% Mineral Filler	
18-1 98434	Grout/ Mortar beige	No	100% Mineral Filler	X
18-2 98435	Grout/ Mortar beige	No	100% Mineral Filler	

Sample Summary Results

Date: February 05, 2003

Microscopist: Enrique Quintero Jr.

Micron Ref. No.: 11303017

Cust ID No. / Micron ID No.	Sample Description / Color	Asbestos Detected	Analytical Results	Q.C.
18-3 98436	Grout/ Mortar white	No	100% Mineral Filler	
19-1 98437	Plaster Debris white	No	100% Mineral Filler	
19-2 98438	Plaster Debris white	No	100% Mineral Filler	
19-3 98439	Plaster Debris white	No	100% Mineral Filler	
20-1 98440	Roof Tar & Felt black	No	60% Cellulose 20% Mineral Filler 20% Organic Binders	
20-2 98441	Roof Tar & Felt black	No	60% Cellulose 20% Mineral Filler 20% Organic Binders	
20-3 98442	Roof Tar & Felt black	No	60% Cellulose 20% Mineral Filler 20% Organic Binders	
21-1 98443	Grout/ Mortar gray & white	No	100% Mineral Filler	

Sample Summary Results

Date: February 05, 2003

Microscopist: Enrique Quintero Jr.

Micron Ref. No.: 11303017

Cust ID No. / Micron ID No.	Sample Description / Color	Asbestos Detected	Analytical Results	Q.C.
21-2 98444	Grout/ Mortar grey	No	100% Mineral Filler	
21-3 98445	Grout/ Mortar gray & white	No	100% Mineral Filler	
22-1 98446	Caulking Putty beige	No	100% Mineral Filler	X
23-1 98447	Floor Tile grey	Yes	<1% chrysotile 99% Mineral Filler	
23-1 98447	Floor Tile-Mastic black	Yes	2% chrysotile 98% Organic Binders	
23-2 98448	Floor Tile grey	Yes	<1% chrysotile 99% Mineral Filler	
23-2 98448	Floor Tile-Mastic black	Yes	2% chrysotile 98% Organic Binders	
23-3 98449	Floor Tile grey	Yes	<1% chrysotile 99% Mineral Filler	

Sample Summary Results

Date: February 05, 2003

Microscopist: Enrique Quintero Jr.

Micron Ref. No.: 11303017

Cust ID No. / Micron ID No.	Sample Description / Color	Asbestos Detected	Analytical Results	Q.C.
23-3 98449	Floor Tile-Mastic black	Yes	2% chrysotile 98% Organic Binders	
24-1 98450	Covebase Mastic brown	No	100% Organic Binders	
24-2 98451	Covebase Mastic brown	No	100% Organic Binders	
24-3 98452	Covebase Mastic brown	No	100% Organic Binders	
25-1 98453	Conduit Insulation black	No	60% Cellulose 20% Mineral Filler 20% Organic Binders	
26-1 98454	Filler & Molding Compound grey	No	100% Mineral Filler	
27-1 98455	Concrete Top Coat grey	No	100% Mineral Filler	
27-2 98456	Concrete Top Coat beige & grey	No	100% Mineral Filler	

Sample Summary Results

Date: February 05, 2003

Microscopist: Enrique Quintero Jr.

Micron Ref. No.: 11303017

Cust ID No. / Micron ID No.	Sample Description / Color	Asbestos Detected	Analytical Results	Q.C.
27-3 98457	Concrete Top Coat beige & grey	No	100% Mineral Filler	
28-1 98458	Roof Tar black	No	100% Organic Binders	
28-2 98459	Roof Tar black	No	100% Organic Binders	
28-3 98460	Roof Tar black	No	100% Organic Binders	
29-1 98461	Drywall & Joint Compound white & beige	Yes	<1% chrysotile 99% Mineral Filler	
CHRY detected in J.C.				
29-2 98462	Drywall & Joint Compound white	No	100% Mineral Filler	
29-3 98463	Drywall & Joint Compound white & beige	Yes	<1% chrysotile 99% Mineral Filler	
CHRY detected in J.C.				
30-1 98464	Roof Tar & Felt black	No	100% Organic Binders	

Sample Summary Results

Date: February 05, 2003

Microscopist: Enrique Quintero Jr.

Micron Ref. No.: 11303017

Cust ID No. / Micron ID No.	Sample Description / Color	Asbestos Detected	Analytical Results	Q.C.
30-2 98465	Roof Tar & Felt black	No	100% Organic Binders	
30-3 98466	Roof Tar & Felt black	No	100% Organic Binders	
31-1 98467	Roof Material black	No	100% Organic Binders	
31-2 98468	Roof Material black	No	100% Organic Binders	
31-3 98469	Roof Material black	No	100% Organic Binders	
32-1 98470	Penetration Mastic black	Yes	3% chrysotile 97% Organic Binders	
33-1 98471	Concrete Wall Texture Coating white & beige	Yes	<1% chrysotile 99% Mineral Filler	
33-2 98472	Concrete Wall Texture Coating white & beige	Yes	<1% chrysotile 99% Mineral Filler	

Sample Summary Results

Date: February 05, 2003

Microscopist: Enrique Quintero Jr.

Micron Ref. No.: 11303017

Cust ID No. / Micron ID No.	Sample Description / Color	Asbestos Detected	Analytical Results	Q.C.
33-3 98473	Concrete Wall Texture Coating white & beige	Yes	<1% chrysotile 99% Mineral Filler	
34-1 98474	Grout/ Mortar grey	No	100% Mineral Filler	
34-2 98475	Grout/ Mortar gray & white	No	100% Mineral Filler	
34-3 98476	Grout/ Mortar grey	No	100% Mineral Filler	
35-1 98477	Vinyl Floor Tile beige	Yes	<1% chrysotile 99% Mineral Filler	
36-1 98478	Drywall white	No	100% Mineral Filler	
36-2 98479	Drywall white	No	100% Mineral Filler	
36-3 98480	Drywall white	No	100% Mineral Filler	

Sample Summary Results

Date: February 05, 2003

Microscopist: Enrique Quintero Jr.

Micron Ref. No.: 11303017

Cust ID No. / Micron ID No.	Sample Description / Color	Asbestos Detected	Analytical Results	Q.C.
37-1 98481	Roof Tar & Felt black	No	60% Cellulose 40% Mineral Filler	
38-1 98482	Roof Mastic black	Yes	3% chrysotile 97% Mineral Filler	
39-1 98483	Grout/ Mortar grey	No	100% Mineral Filler	
39-2 98484	Grout/ Mortar grey	No	100% Mineral Filler	
39-3 98485	Grout/ Mortar grey	No	100% Mineral Filler	
40-1 98486	Pipe Insulation beige	Yes	5% chrysotile 95% Organic Binders	
41-1 98487	Drywall & Joint beige	Yes	<1% chrysotile 99% Mineral Filler	X
41-2 98488	Drywall & Joint beige	Yes	<1% chrysotile 99% Mineral Filler	

Sample Summary Results

Date: February 05, 2003

Microscopist: Enrique Quintero Jr.

Micron Ref. No.: 11303017

Cust ID No. / Micron ID No.	Sample Description / Color	Asbestos Detected	Analytical Results	Q.C.
41-3 98489	Drywall & Joint beige	Yes	<1% chrysotile 99% Mineral Filler	
42-1 98490	Wire Insulation grey	No	60% Cellulose 20% Mineral Filler 20% Organic Binders	
43-1 98491	Caulking clear	No	100% Organic Binders	
44-1 98492	Putty white	No	100% Mineral Filler	
45-1 98493	HVAC Cloth beige	Yes	30% chrysotile 40% Cellulose 15% Mineral Filler 15% Organic Binders	
46-1 98494	Putty grey	Yes	1% chrysotile 99% Mineral Filler	X
47-1 98495	Mastic black	No	100% Organic Binders	
48-1 98496	Mastic black	Yes	3% chrysotile 97% Organic Binders	

Sample Summary Results

Date: February 05, 2003

Microscopist: Enrique Quintero Jr.

Micron Ref. No.: 11303017

Cust ID No. / Micron ID No.	Sample Description / Color	Asbestos Detected	Analytical Results	Q.C.
49-1 98497	Composite Roof Material black	No	100% Organic Binders	
49-2 98498	Composite Roof Material black	No	50% Cellulose 50% Organic Binders	
49-3 98499	Composite Roof Material black	No	50% Cellulose 50% Organic Binders	
50-1 98500	Composite Roof Material black	No	50% Cellulose 25% Mineral Filler 25% Organic Binders	
50-2 98501	Composite Roof Material black	No	50% Cellulose 25% Mineral Filler 25% Organic Binders	
50-3 98502	Composite Roof Material black	No	50% Cellulose 25% Mineral Filler 25% Organic Binders	
51-1 98503	Roof Mastic gray & black	Yes	<1% chrysotile 99% Organic Binders	X
51-1 98504	Grout/ Mortar beige & grey	Yes	<1% chrysotile 99% Mineral Filler	

CHRY detected in beige layer

Sample Summary Results

Date: February 05, 2003

Microscopist: Enrique Quintero Jr.

Micron Ref. No.: 11303017

Cust ID No. / Micron ID No.	Sample Description / Color	Asbestos Detected	Analytical Results	Q.C.
51-2 / 98505	Grout/ Mortar, beige & grey	Yes	<1% chrysotile, 99% Mineral Filler	X
CHRY detected in beige layer				
51-3 / 98506	Grout/ Mortar, beige & grey	Yes	<1% chrysotile, 99% Mineral Filler	
CHRY detected in beige layer				
52-1 / 98507	Grout/ Mortar, beige & grey	Yes	<1% chrysotile, 99% Mineral Filler	
CHRY detected in beige layer				
52-2 / 98508	Grout/ Mortar, beige & grey	Yes	<1% chrysotile, 99% Mineral Filler	
CHRY detected in beige layer				
52-3 / 98509	Grout/ Mortar, gray & white	No	100% Mineral Filler	
No beige layer				

Microscopist:

The limit of detection for this analytical method is less than one percent asbestos (visual area estimates).

BULK MATERIAL SAMPLING FORM AND CHAIN OF CUSTODY

1/30/2017

PROJECT NAME:	Lockheed Beaumont Site 1	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
310	1	1	1	Black Tar Residue on concrete walls										
			2	↓										
			3											
308		2	1	Brown concrete top coat										
			2	Horizontal component										
			3											
308		3	1	Transite Pipe Debris										
305		16	1 2 3	Granite with Black Tar/mastic	Roof									

HGN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)	**Deliver Report & Bill To:**	**Lab Name:** Micron Environmental labs
SN:	Sample No.	D:	Damaged	Frank Najafi	**Analysis Requested:** (PLM) TEM AAS
AR:	Analytical Result	SD:	Significant Damage	CITY Env Services, Inc.	**Turn Around Time:** 5 DAY
F/NF:	Friable/Non-Friable			1450 S. Burlington Avenue	**Analyze to First Positive?** (YES) NO
DR:	Damage Rating	L:	Low	Suite B	
CP:	Contact Potential	M:	Moderate	Los Angeles, CA 90006	**Project Reference:** Lockheed Beaumont Site No. 1
VI:	Vibration Influence	H:	High	Phone: (213) 632-0410	**Project Number:** 2614
EP:	Erosion Potential			Fax: (213) 632-0414	

Relinquished By: [signature] **Date:** 1/17/03 **Received By:** JBarrios **Date:** 1-17-03

BULK MATERIAL SAMPLING FORM AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site 1	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
308	1	4	1	Concrete grout/mortar	Perimeter concrete Block walls									
			2											
			3											
		5	1		concrete Block walls of the storage Bldg									
			2											
			3											
		6	1	Black electrical conduit insulat	NE of 308 in embankment									
			2											
			3											

HGN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)	**Deliver Report & Bill To:**	**Lab Name: Micron** Environmental labs
SN:	Sample No.	D:	Damaged	Frank Najafi	**Analysis Requested:** (PLM) TEM AAS
AR:	Analytical Result	SD:	Significant Damage	CITY Env Services, Inc.	**Turn Around Time:** 5 DAY
F/NF:	Friable/Non-Friable			1450 S. Burlington Avenue	**Analyze to First Positive?** (YES) ~~NO~~
DR:	Damage Rating	L:	Low	Suite B	
CP:	Contact Potential	M:	Moderate	Los Angeles, CA 90006	**Project Reference:** Lockheed Beaumont Site No. 1
VI:	Vibration Influence	H:	High	Phone: (213) 632-0410	**Project Number:** 2614
EP:	Erosion Potential			Fax: (213) 632-0414	

Relinquished By: [signature] **Date:** 1/17/03 **Received By:** Barrios **Date:** 1-17-03

BULK MATERIAL SAMPLING FORM AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Side 1	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
305		7	1 2 3	Brown Vinyl Cove base mastic										
		8	1	9x9 floor tile & black mastic										
		9	1 2 3	2x4 acoustic ceiling panels										
		10	1 2 3	Drywall & Joint compound	walls & ceiling throughout									
		11	1 2 3	Plaster Debris	outside on ground									
		12	1	Transite Pipe Debris										
		13	1 2 3	Beige concrete texture coat top of walls										
		~~14~~ 15	1	Black foam lining insulation	in between 2 layers of EA ductwork									
		14	1 2 3	Beige/grey Drywall Joint tape/mastic		on Hillside								

HGN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)	**Deliver Report & Bill To:**	**Lab Name:** Micron Environmental labs
SN:	Sample No.	D:	Damaged	Frank Najafi	**Analysis Requested:** (PLM) TEM AAS
AR:	Analytical Result	SD:	Significant Damage	CITY Env Services, Inc.	**Turn Around Time:** 5 DAY
F/NF:	Friable/Non-Friable			1450 S. Burlington Avenue	**Analyze to First Positive?** (YES) NO
DR:	Damage Rating	L:	Low	Suite B	
CP:	Contact Potential	M:	Moderate	Los Angeles, CA 90006	**Project Reference:** Lockheed Beaumont Site No. 1
VI:	Vibration Influence	H:	High	Phone: (213) 632-0410	**Project Number:** 2614
EP:	Erosion Potential			Fax: (213) 632-0414	

Relinquished By: [signature] **Date:** 1/17/03 **Received By:** [signature] **Date:** 1-17-03

BULK MATERIAL SAMPLING FORM AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site 1	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
305		17	1 2 3	grout/mortar	Between concrete Block walls									
306		18	1 2 3	↓	↓									
306		19	1 2 3	Plaster Debris	on ground									
306		20	1 2 3	Black roof tar & felt	Perimeter concrete walls/Roof	Debris on ground								
309		21	1 2 3	grout/mortar	Between concrete Block walls									
304		22	1	caulking Putty	exterior concrete wall corner around HVAC opening									
304		23	1 2 3	Blue 9x9 floor tile & black mastic	Inside Room					D				
304		24	1 2 3	Brown Vinyl covebase mastic										
304		25	1	Black Insulation on electric conduit on Hill over Bldg										Possible waterproofing on roof under soil

HGN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)	**Deliver Report & Bill To:**	**Lab Name: Micron Environmental labs**
SN:	Sample No.	D:	Damaged	Frank Najafi	**Analysis Requested:** (PLM) TEM AAS
AR:	Analytical Result	SD:	Significant Damage	CITY Env Services, Inc.	**Turn Around Time:** 5 DAY
F/NF:	Friable/Non-Friable			1450 S. Burlington Avenue	**Analyze to First Positive?** (YES) NO
DR:	Damage Rating	L:	Low	Suite B	
CP:	Contact Potential	M:	Moderate	Los Angeles, CA 90006	**Project Reference:** Lockheed Beaumont Site No. 1
VI:	Vibration Influence	H:	High	Phone: (213) 632-0410	**Project Number:** 2614
EP:	Erosion Potential			Fax: (213) 632-0414	

Relinquished By: [signature] **Date:** 1/17/03 **Received By:** J Barrios **Date:** 1-17-03

BULK MATERIAL SAMPLING FORM AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site 1	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
311		26	1	Brown filler & mudding compound	at connection point between steel beams & concrete walls									
		27	1 2 3	concrete top coat / texture coat	top of exterior concrete walls									
		28	1 2 3	Black Roof tar										
325														Suspect waterproofing on roof under soil
312		29	1 2 3	drywall & Joint compound ceiling										Mold growth on ceiling
312		30	1 2 3	Roof tar & felt										
312		31	1 2 3	Roof base flashing & Parapet										
312		32	1	Gray Roof Penetration mastic										
311		33	1 2 3	exterior concrete wall texture coating										

IGN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)
N:	Sample No.	D:	Damaged
.R:	Analytical Result	SD:	Significant Damage
/NF:	Friable/Non-Friable		
R:	Damage Rating	L:	Low
P:	Contact Potential	M:	Moderate
I:	Vibration Influence	H:	High
P:	Erosion Potential		

Deliver Report & Bill To:
Frank Najafi
CITY Env Services, Inc.
1450 S. Burlington Avenue
Suite B
Los Angeles, CA 90006
Phone: (213) 632-0410
Fax: (213) 632-0414

Lab Name: Micron Environmental labs
Analysis Requested: (PLM) TEM AAS
Turn Around Time: 5 DAY
Analyze to First Positive? (YES) NO

Project Reference: Lockheed Beaumont Site No. 1
Project Number: 2614

Relinquished By: [signature] **Date:** 1/17/03

Received By: BARRIOS **Date:** 1-17-03

BULK MATERIAL SAMPLING F ᵀM AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site 1	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
312		34	1 2 3	grout/Mortar between Concrete Block walls										
T4		35	1	929 Gray Vinyl floor tile with yellow glue						D				
T4		36	1 2 3	Drywall ceiling						D				Debris on floor
		37	1	Roof tar & felt						D				Debris on ground outside of Bldg.
		38	1	Gray roof Patch mastic										
		39	1 2 3	grout/Mortar Concrete Block walls										
303		40	1	Pipe elbow/fitting Insulation/Asbestos			29 each		F	AC				
303		41	1 2 3	Drywall/JC	ceilings	Entire								
303		42	1	Gray electrical wire Insulation										

HGN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)
SN:	Sample No.	D:	Damaged
AR:	Analytical Result	SD:	Significant Damage
F/NF:	Friable/Non-Friable		
DR:	Damage Rating	L:	Low
CP:	Contact Potential	M:	Moderate
VI:	Vibration Influence	H:	High
EP:	Erosion Potential		

Deliver Report & Bill To:
Frank Najafi
CITY Env Services, Inc.
1450 S. Burlington Avenue
Suite B
Los Angeles, CA 90006
Phone: (213) 632-0410
Fax: (213) 632-0414

Lab Name: Micron Environmental labs
Analysis Requested: (PLM) TEM AAS
Turn Around Time: 5 DAY
Analyze to First Positive? (YES) NO

Project Reference: Lockheed Beaumont Site No. 1
Project Number: 2614

Relinquished By: [signature] **Date:** 1/17/03

Received By: [signature] **Date:** 1-17-03

BULK MATERIAL SAMPLING FORM AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
303		43	1	white/Beige caulking	Exterior HVAC window									
		44	1	white Putty	exterior wall lower level									
		45	1	HVAC vibration cloth	lower level floor		2 each							
		46	1	Brown Putty	lower level upper walls									
		47	1	~~Brown~~ Black mastic	on ground entrance to ~~Lab~~ High Bay									
		48	1	Gray mastic	" "	" "								
		49	1 2 3	Composite Roofing	level 1 & 2									
		50	1 2 3	composite roofing Parapet & Base flashing	level 1									
		51	1	gray Roof mastic	level 1 & 2									

IGN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)	**Deliver Report & Bill To:**	**Lab Name:** Micron Environmental labs
N:	Sample No.	D:	Damaged	Frank Najafi	**Analysis Requested:** (PLM) TEM AAS
.R:	Analytical Result	SD:	Significant Damage	CITY Env Services, Inc.	**Turn Around Time:** 5 DAY
/NF:	Friable/Non-Friable			1450 S. Burlington Avenue	**Analyze to First Positive?** (YES) NO
R:	Damage Rating	L:	Low	Suite B	
P:	Contact Potential	M:	Moderate	Los Angeles, CA 90006	**Project Reference:** Lockheed Beaumont Site No. 1
I:	Vibration Influence	H:	High	Phone: (213) 632-0410	**Project Number:** 2614
?:	Erosion Potential			Fax: (213) 632-0414	

Relinquished By: [signature] **Date:** 1/17/03 **Received By:** [signature] **Date:** 1-17-03

BULK MATERIAL SAMPLING F[illegible]M AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site	PROJECT NO.	2614	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
303	1	51	1 2 3	grout Mortar	Red Brick CMU									
303	Lower	52	1 2 3	↓	Concrete Blockwalls									

HGN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)	**Deliver Report & Bill To:**	**Lab Name: Micron** Environmental labs
SN:	Sample No.	D:	Damaged	Frank Najafi	**Analysis Requested:** (PLM) TEM AAS
AR:	Analytical Result	SD:	Significant Damage	CITY Env Services, Inc.	**Turn Around Time:** 5 DAY
F/NF:	Friable/Non-Friable			1450 S. Burlington Avenue	**Analyze to First Positive?** (YES) NO
DR:	Damage Rating	L:	Low	Suite B	
CP:	Contact Potential	M:	Moderate	Los Angeles, CA 90006	**Project Reference:** Lockheed Beaumont Site No. 1
VI:	Vibration Influence	H:	High	Phone: (213) 632-0410	**Project Number:** 2614
EP:	Erosion Potential			Fax: (213) 632-0414	

Relinquished By: [signature] **Date:** 1/17/03 **Received By:** [signature] **Date:** 1-17-03

Micron Environmental Labs
292 E. Foothill Blvd., suite B
Arcadia, CA 91006
626-357-8627
FAX: 626-256-9017

Analytical Method: EPA 600/R-93/116
NIST / NVLAP Lab Code No. 200294-0
California ELAP Certificate No. 2297

Micron Ref. No.
11303021

Sample Summary Results

Customer Project: 2614.1/ Lockheed Beaumont-Site #1 Microscopist: Maria L. Kowalski

February 06, 2003

Frank Najafi
City Environmental Services, Inc.
P.O. Box 641818
Los Angeles, CA 90064

Date Collected: January 18, 2003
Date Received: January 20, 2003
Date Analyzed: January 24, 2003
No. Samples: 17

Cust ID No. / Micron ID No.	Sample Description / Color	Asbestos Detected	Analytical Results	Q.C.
53-1 98550	Covebase Mastic brown	No	100% Organic Binders	X
54-1 98551	2x4 Ceiling Tile gray & white	No	40% Cellulose 10% Fibrous Glass 50% Mineral Filler	
54-1 98551	2x4 Ceiling Tile- Mastic yellow	No	100% Organic Binders	X
54-2 98552	2x4 Ceiling Tile gray & white	No	40% Cellulose 10% Fibrous Glass 50% Mineral Filler	
54-2 98552	2x4 Ceiling Tile- Mastic yellow	No	100% Organic Binders	
54-3 98553	2x4 Ceiling Tile gray & white	No	40% Cellulose 10% Fibrous Glass 50% Mineral Filler	

Sample Summary Results

Date: February 06, 2003

Microscopist: Maria L. Kowalski

Micron Ref. No.: 11303021

Cust ID No. / Micron ID No.	Sample Description / Color	Asbestos Detected	Analytical Results	Q.C.
54-3 98553	2x4 Ceiling Tile- Mastic yellow	No	100% Organic Binders	
55-1 98554	Carpet Adhesive yellow	No	100% Organic Binders	
55-2 98555	Carpet Adhesive yellow	No	100% Organic Binders	
56-1 98556	Window Sealant grey	No	100% Organic Binders	
57-1 98557	Caulking gray & white	No	100% Organic Binders	
28-1 98558	Mastic black	Yes	<1% chrysotile 99% Organic Binders	
59-1 98559	Sealant Material silver	Yes	7% chrysotile 10% Cellulose 83% Mineral Filler	
60-1 98560	Texture on Concrete Walls grey	No	100% Mineral Filler	

Sample Summary Results

Date: February 06, 2003

Microscopist: Maria L. Kowalski

Micron Ref. No.: 11303021

Cust ID No. / Micron ID No.	Sample Description / Color	Asbestos Detected	Analytical Results	Q.C.
60-2 / 98561	Texture on Concrete Walls / grey	No	100% Mineral Filler	
60-3 / 98562	Texture on Concrete Walls / grey	No	100% Mineral Filler	
61-1 / 98563	Patch Mastic / black	No	100% Organic Binders	

Microscopist: _____

The limit of detection for this analytical method is less than one percent asbestos (visual area estimates).

BULK MATERIAL SAMPLING F M AND CHAIN OF CUSTODY

11303011

PROJECT NAME:	Lockheed Beaumont site #1	PROJECT NO.	2614.1	DATE:	1/18/03	SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
T-4 ~~315~~	1	53	1	Cove base Mastic Brown	Inside base of walls behind baseboard				NF	GC	H	M	H	
315	1	54	1 2 3	white fishered Random pinhole 2'x4 ceiling tile	Inside Main office RM + tool storage rm w/ glue				F	D	H	H	H	
315	1	55	1 2	yellow carpet adheisive	under brown carpet throughout #315				NF	GC	H	H	H	
315	1	56	1	window Sealant Ext.	outside windows S. side				NF	GC	H	H	H	
trailer by 315	1	57	1	caulking, white	around electrical boxes on S. side.				NF	GC	H	H	H	
↓	1	58	1	Black Mastic	on tow Hitch				NF	GC	H	H	H	
↓	1	59	1	Silver sealant material	top of trailer on Roof				NF	GC	L	M	H	
315		60	1 2 3	texture on Concrete, beige and grey	Roof top of Concrete walls				NF	GC	L	M	H	
315		61	1	Black patch Mastic	Roof, around walls, base				NF	GC	L	M	H	

HGN: Homogenous Group Number
SN: Sample No.
AR: Analytical Result
F/NF: Friable/Non-Friable
DR: Damage Rating
CP: Contact Potential
VI: Vibration Influence
EP: Erosion Potential

GC: Good Condition (None, or minimal damage)
D: Damaged
SD: Significant Damage

L: Low
M: Moderate
H: High

Deliver Report & Bill To:
Frank Najafi
CITY Env Services, Inc.
1450 S. Burlington Avenue
Suite B
Los Angeles, CA 90006
Phone: (213) 632-0410
Fax: (213) 632-0414

Lab Name: Micron Environmental labs
Analysis Requested: (PLM) TEM AAS
Turn Around Time: 5 days
Analyze to First Positive? (YES) NO ?

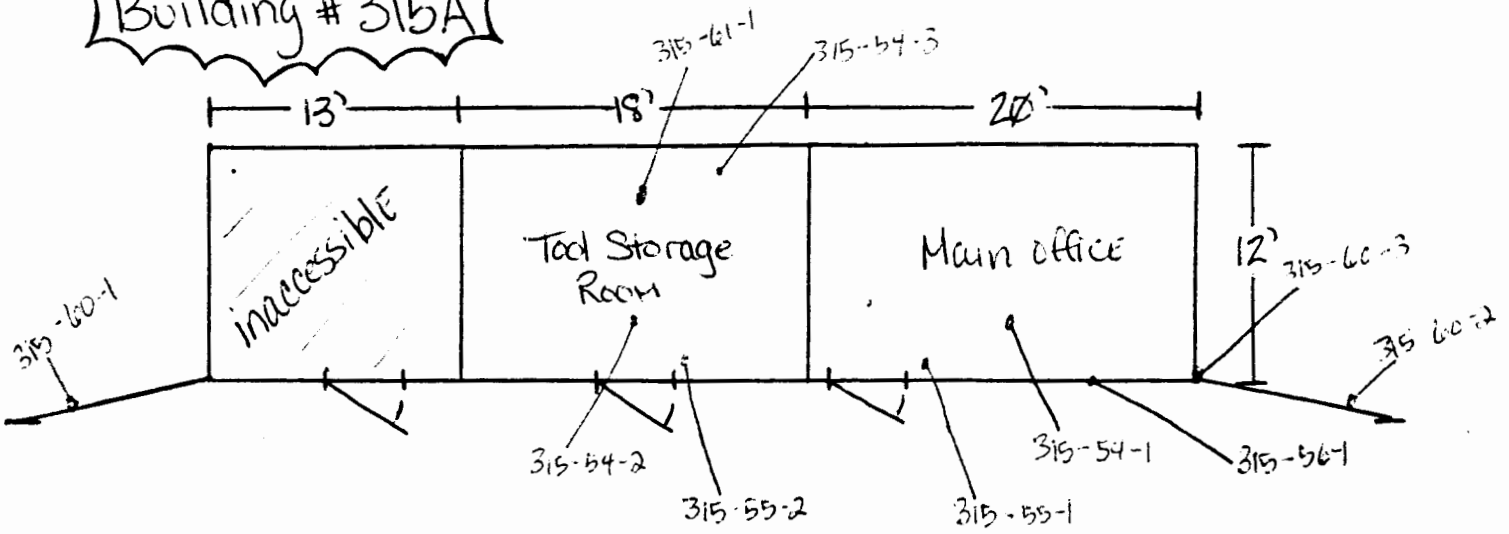
Project Reference: Lockheed Beaumont Site No. 1
Project Number: 2614.1

Relinquished By: [signature] **Date:** 1/18/03
Received By: [illegible] **Date:** 1-20-03

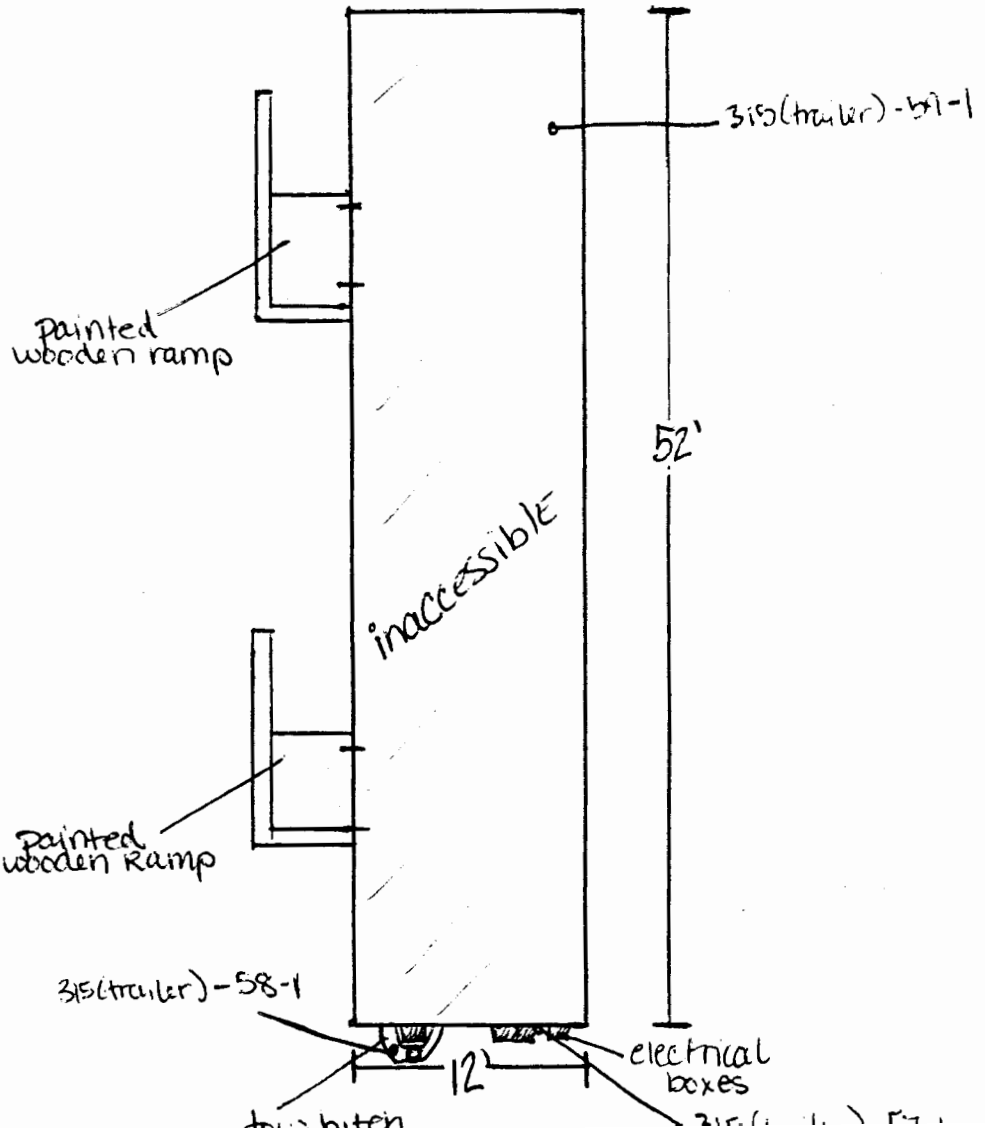
to Micron Environ. - 5 day turn around!

Lockheed Martin's Beaumont Site #1
Beaumont, California
(asbestos bulk sample locations)

Building #315A

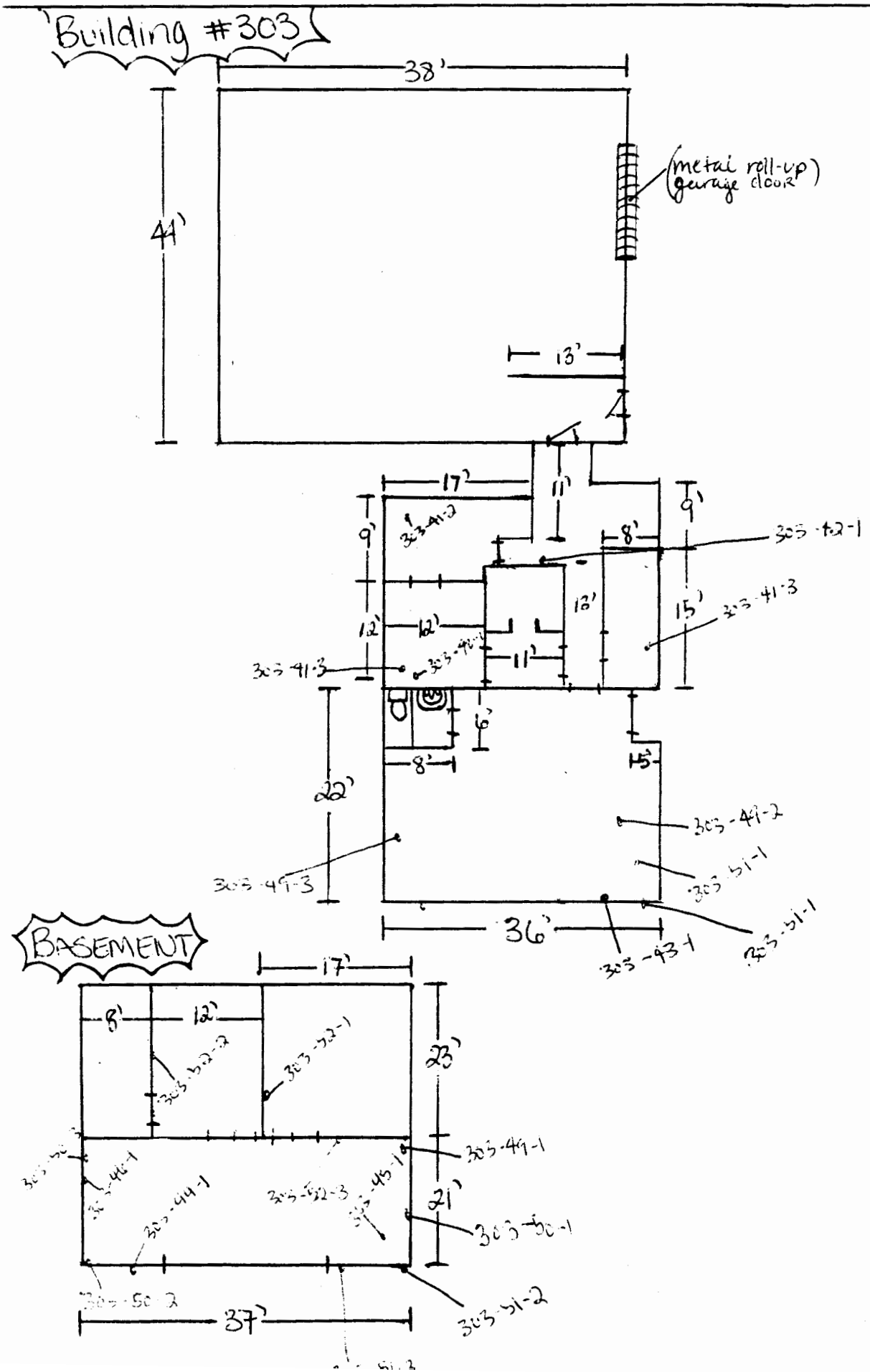


Building #315B (trailer)



Lockheed Martins Beaumont Site #1
Beaumont, California (asbestos bulk sample locations)

-not to scale-

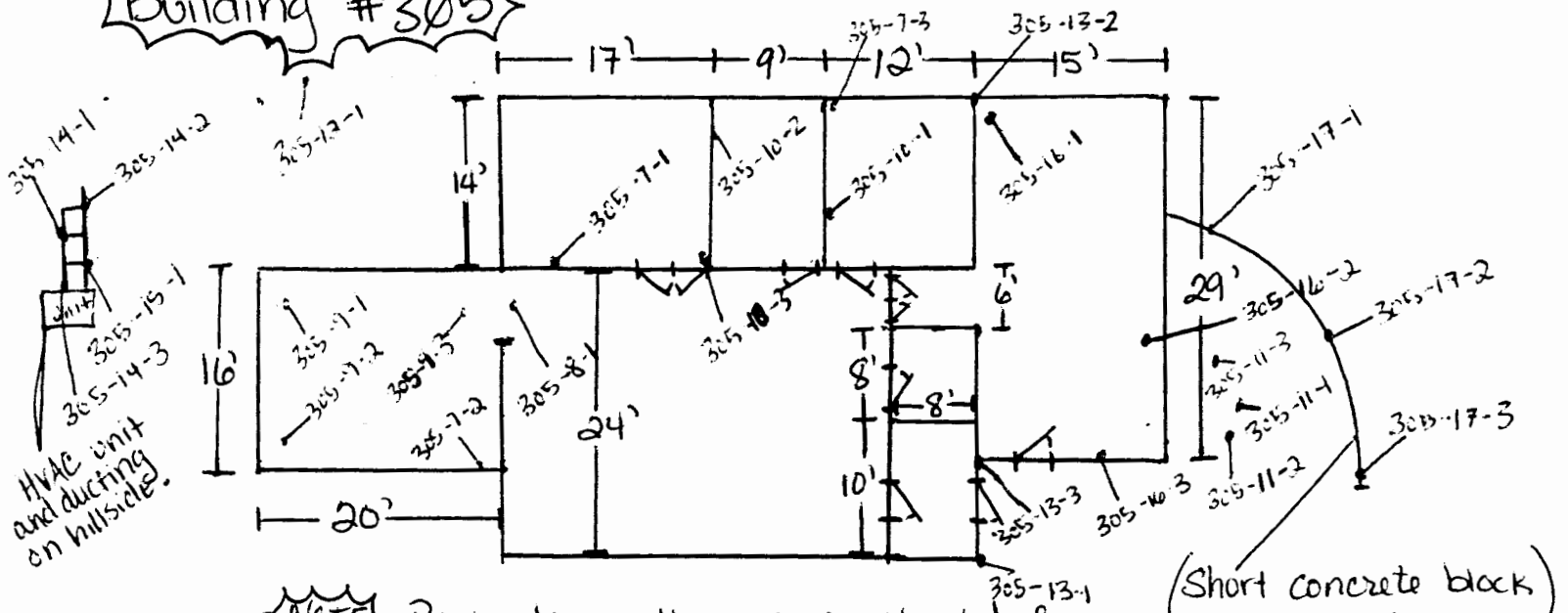


Lockheed Martin's Beaumont Site #1
Beaumont, California

(asbestos bulk sample locations)

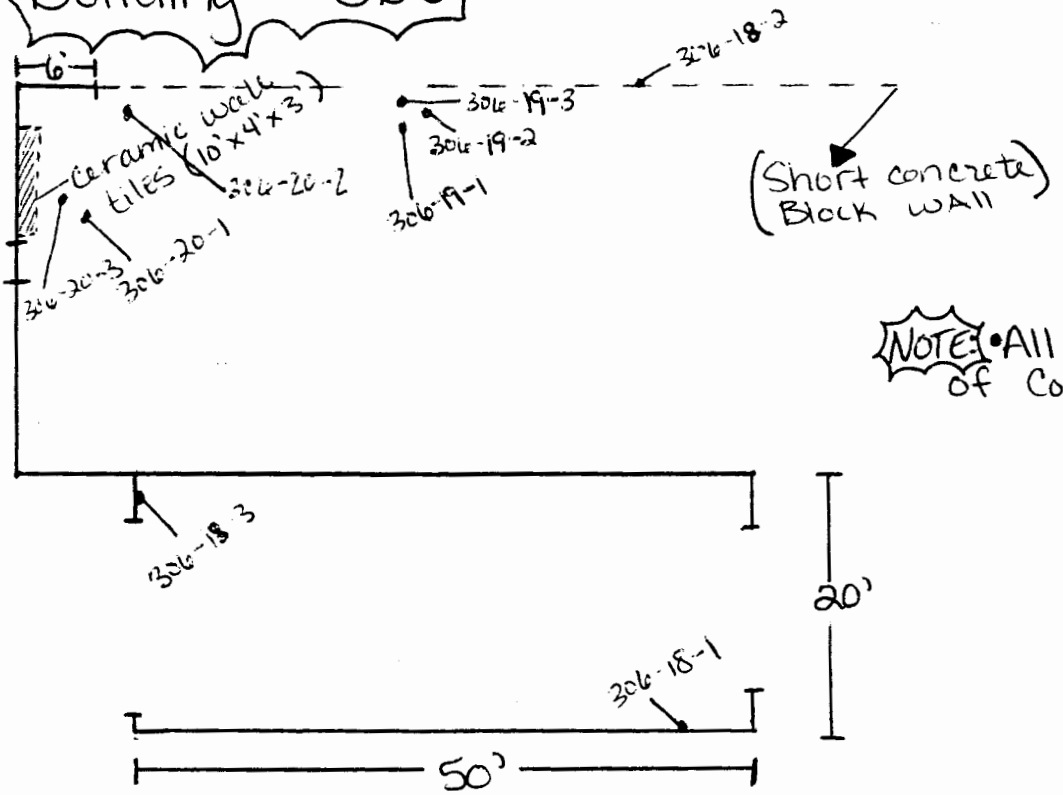
- Not to scale -

Building #305



NOTE
- Perimeter walls are constructed of concrete, and concrete block.
- Interior walls are constructed of Drywall and joint compound, wood framing.
- Ceiling is constructed of concrete.

Building #306



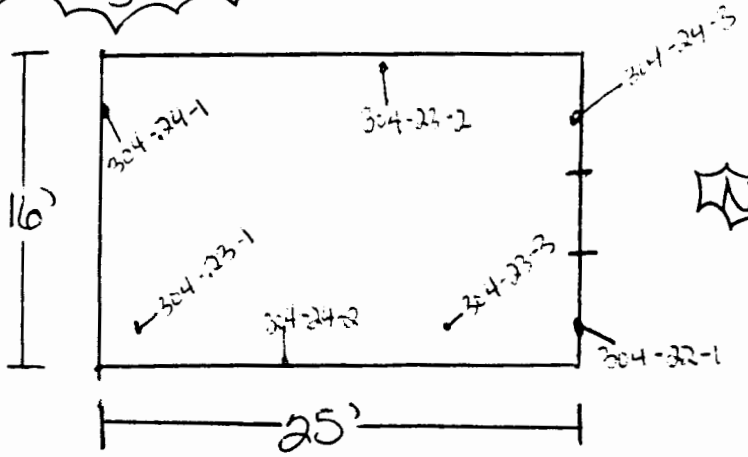
NOTE: • All walls are constructed of Concrete block.

Lockheed Martin's Beaumont Site #1
Beaumont, California

(asbestos bulk sample locations)

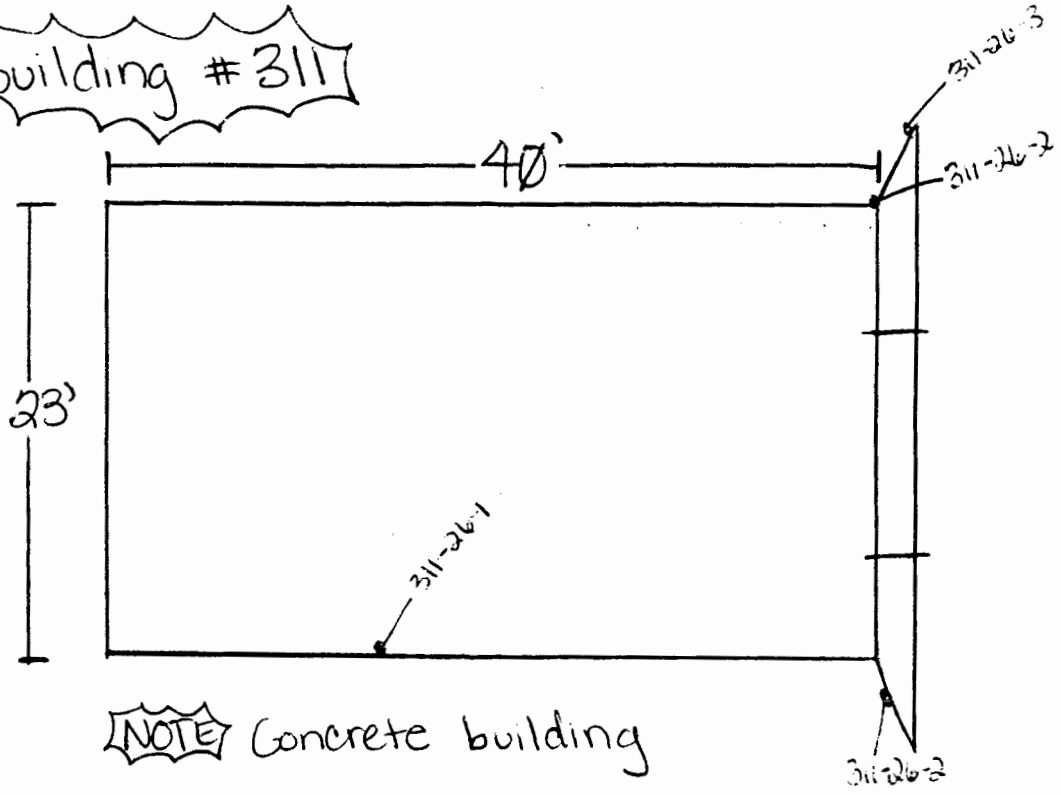
- Not to scale

Building #304



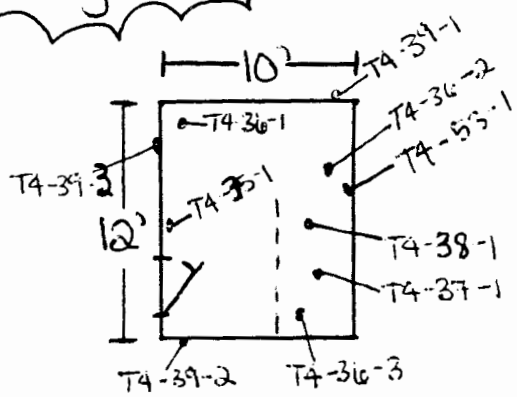
NOTE: Concrete building

Building #311



NOTE: Concrete building

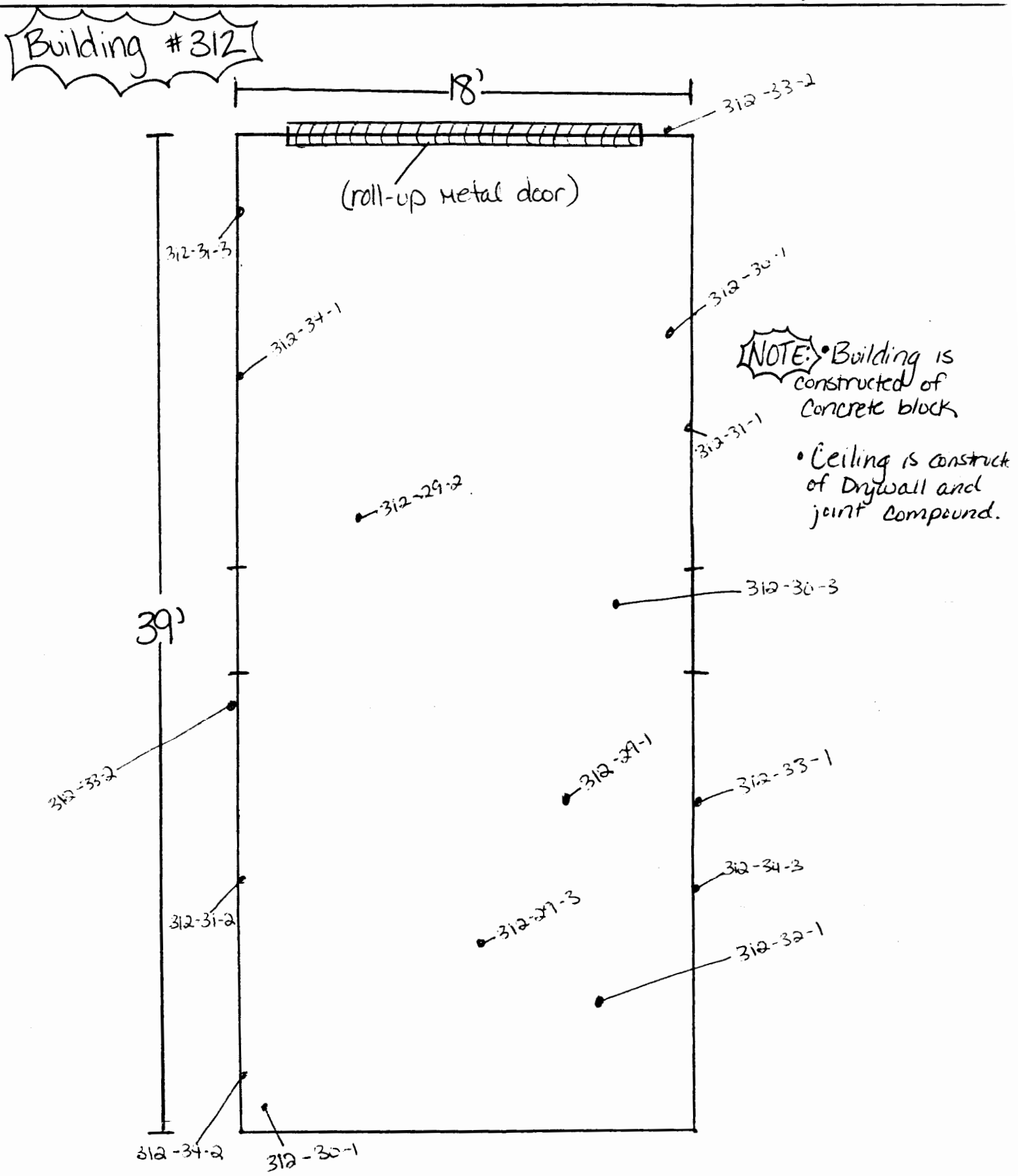
Building #T4



NOTE: Building constructed of concrete block.

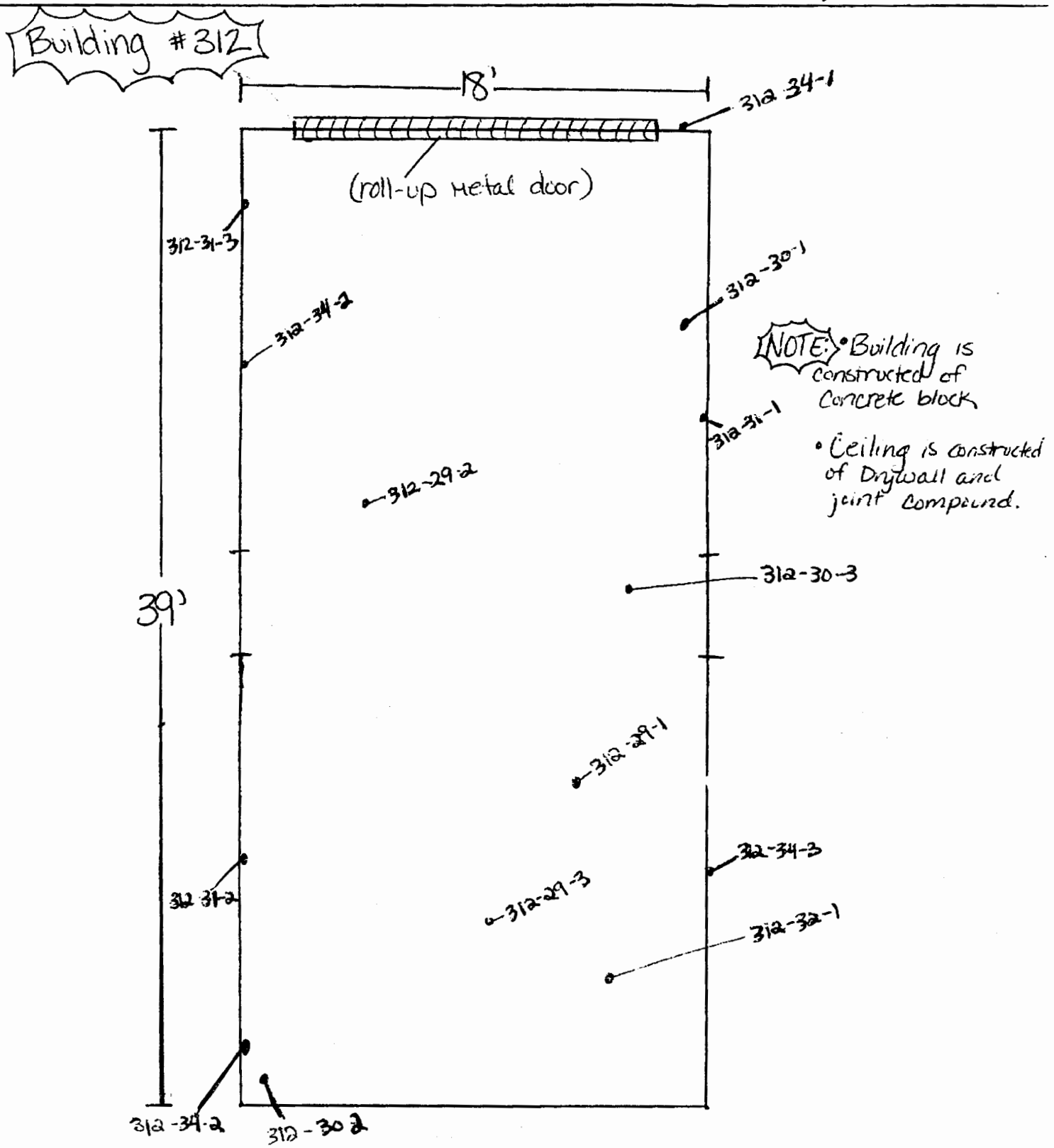
Lockheed Martin's Beaumont Site #1
Beaumont, California

(asbestos Bulk Sample Locations) – Not to scale –



Lockheed Martin's Beaumont Site #1
Beaumont, California

(asbestos Bulk Sample locations) – Not to scale –

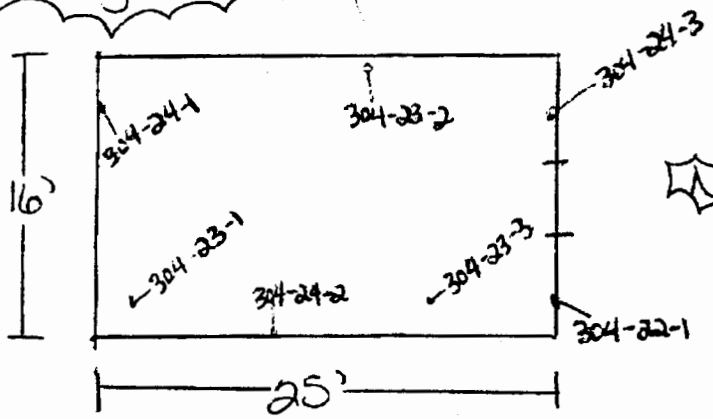


Lockheed Martin's Beaumont Site #1
Beaumont, California

(asbestos bulk sample locations)

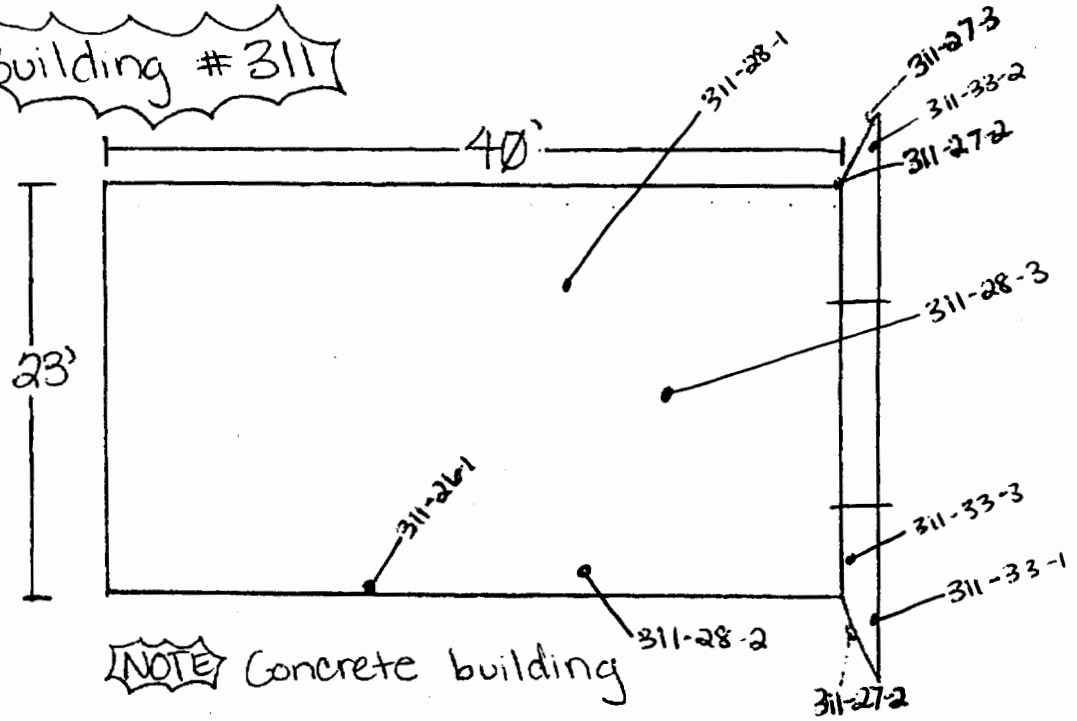
- Not to scale -

Building #304



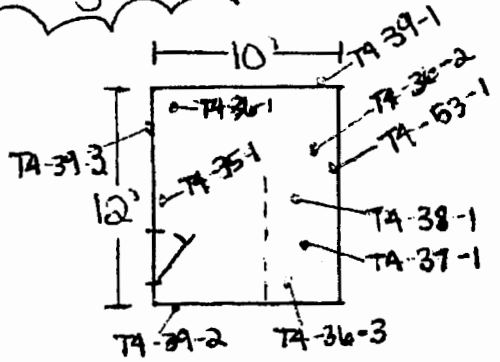
NOTE: Concrete building

Building #311



NOTE: Concrete building

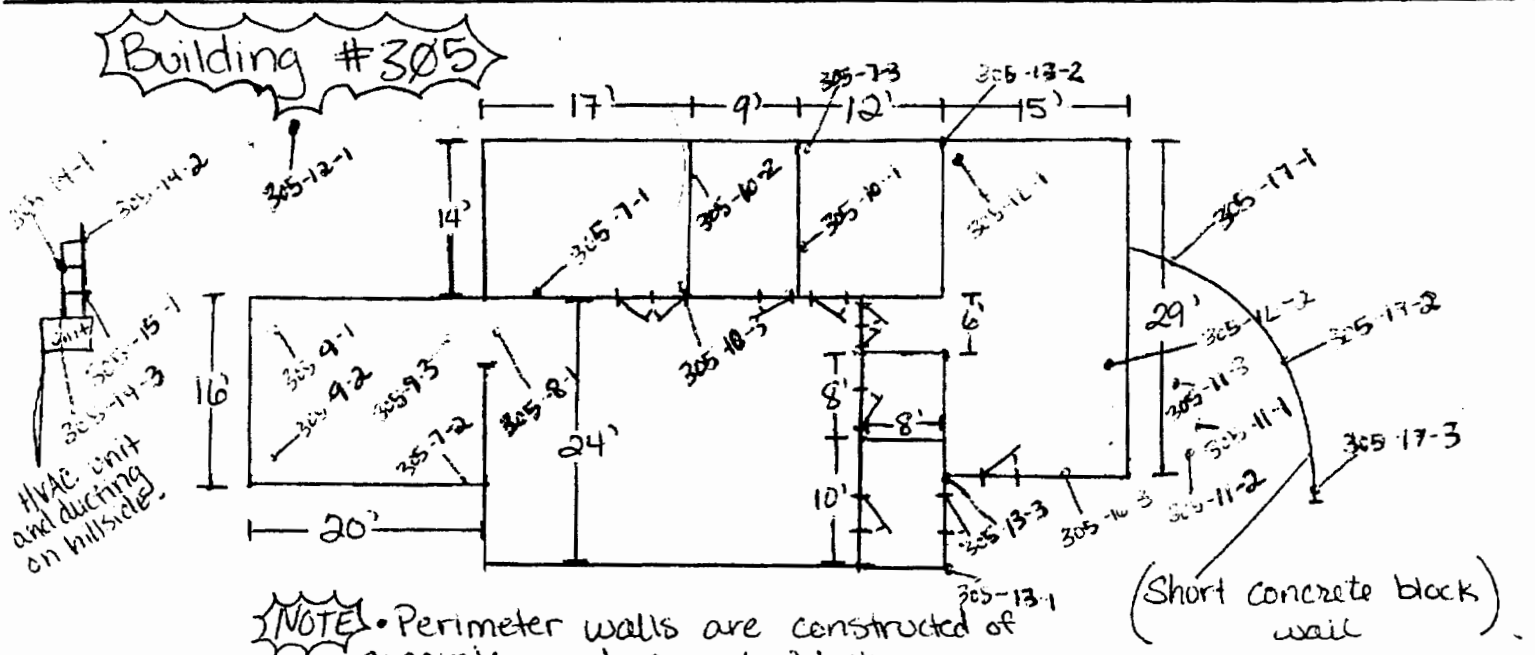
Building #T4



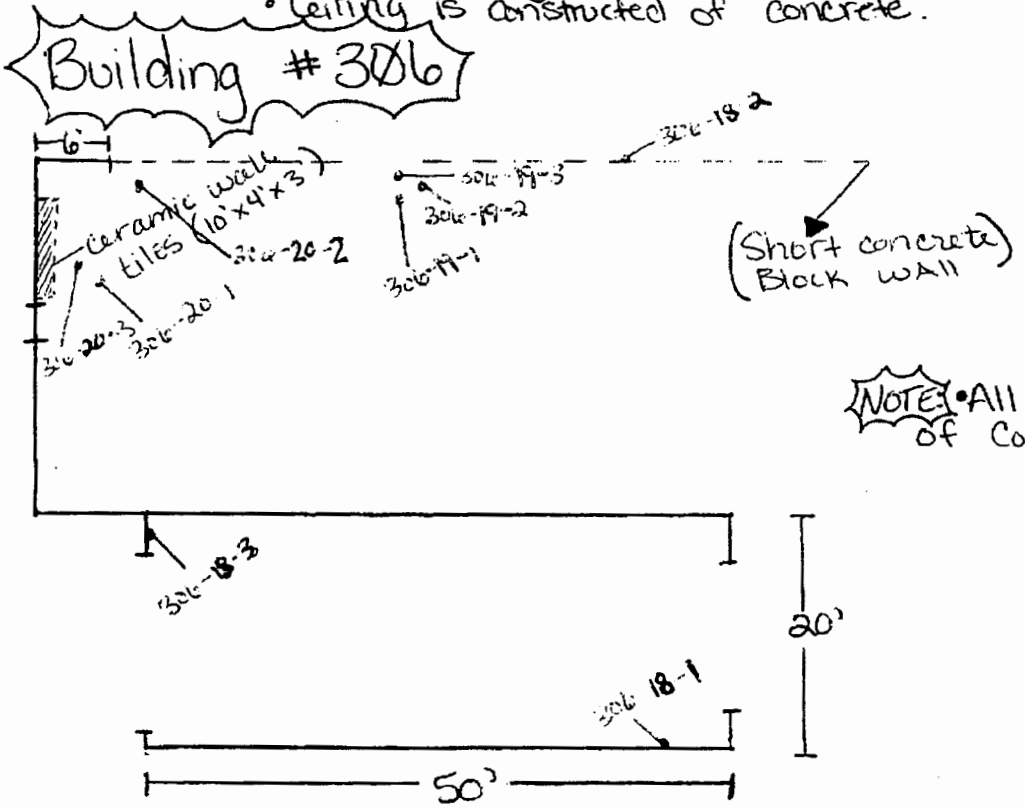
NOTE: Building constructed of concrete block.

Lockheed Martin's Beaumont Site #1
Beaumont, California

(asbestos bulk sample locations)
- Not to scale -

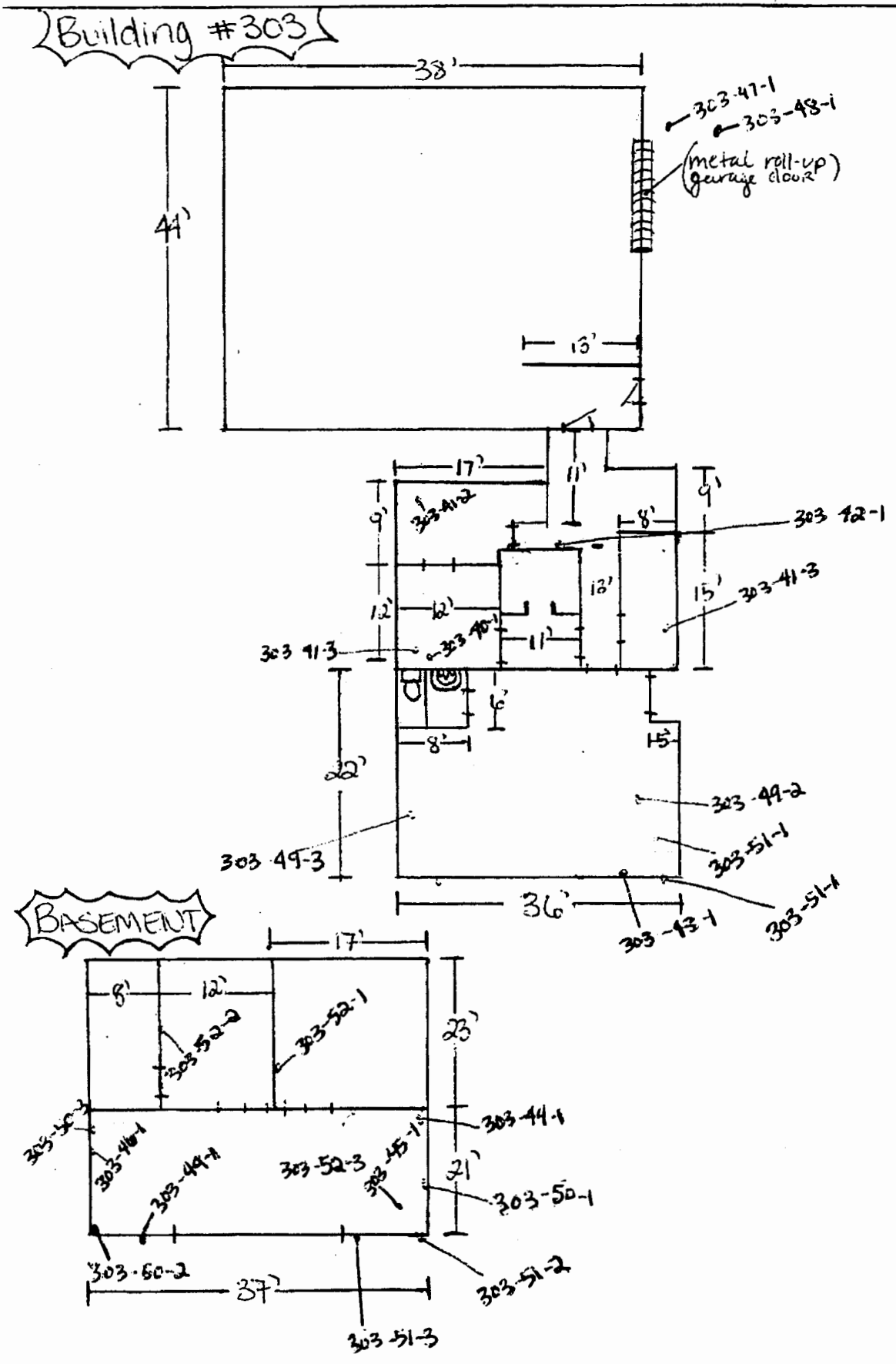


NOTE
- Perimeter walls are constructed of concrete, and concrete block.
- Interior walls are constructed of Drywall and joint compound, wood framing.
- Ceiling is constructed of concrete.



NOTE
- All walls are constructed of Concrete block.

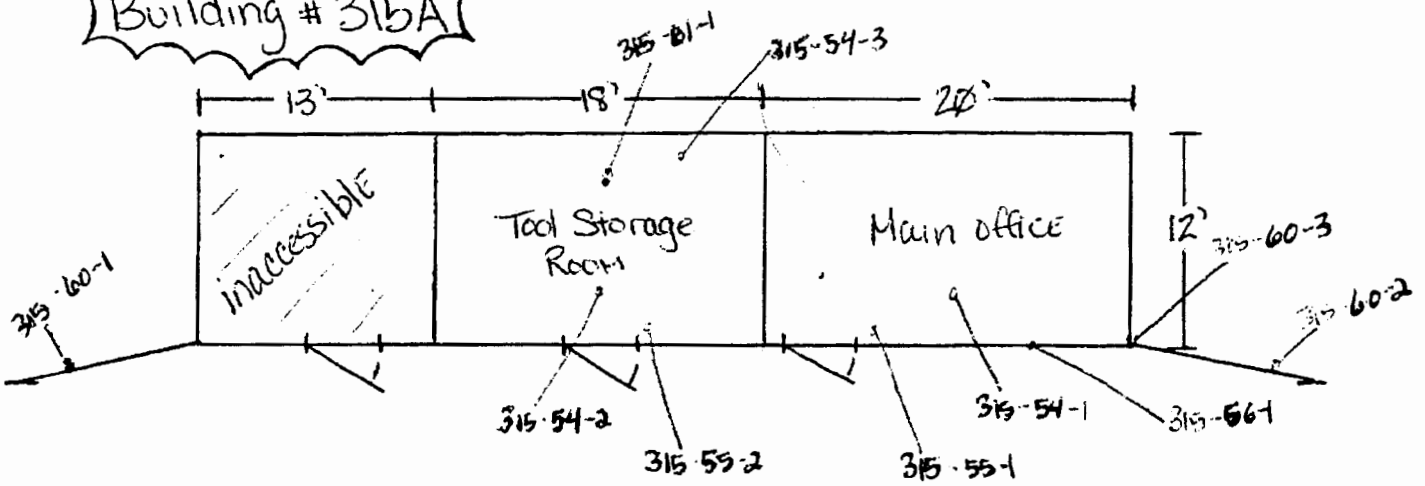
Lockheed Martins Beaumont Site #1
Beaumont, California (asbestos bulk sample locations) -Not to scale-



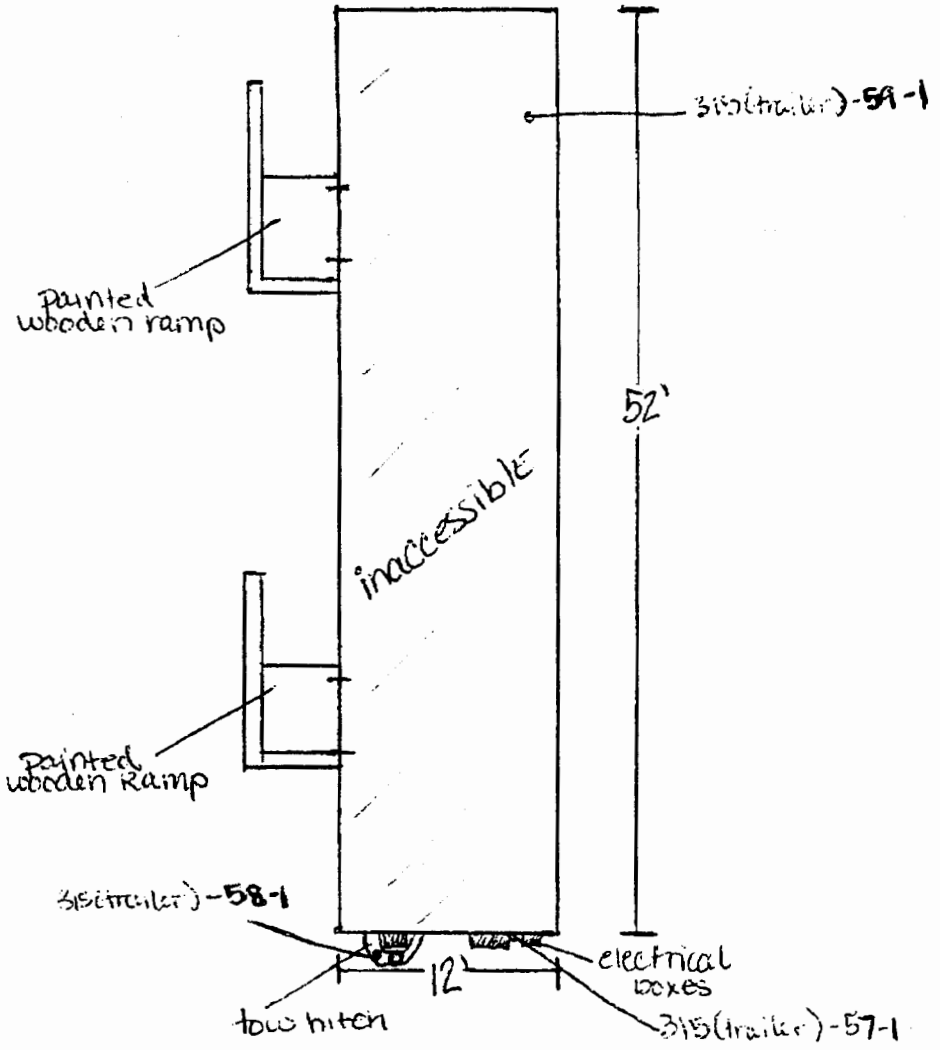
Lockheed Martin's Beaumont Site #1
Beaumont, California (asbestos bulk sample locations)

1/28/03 — Not to scale -

Building #315A



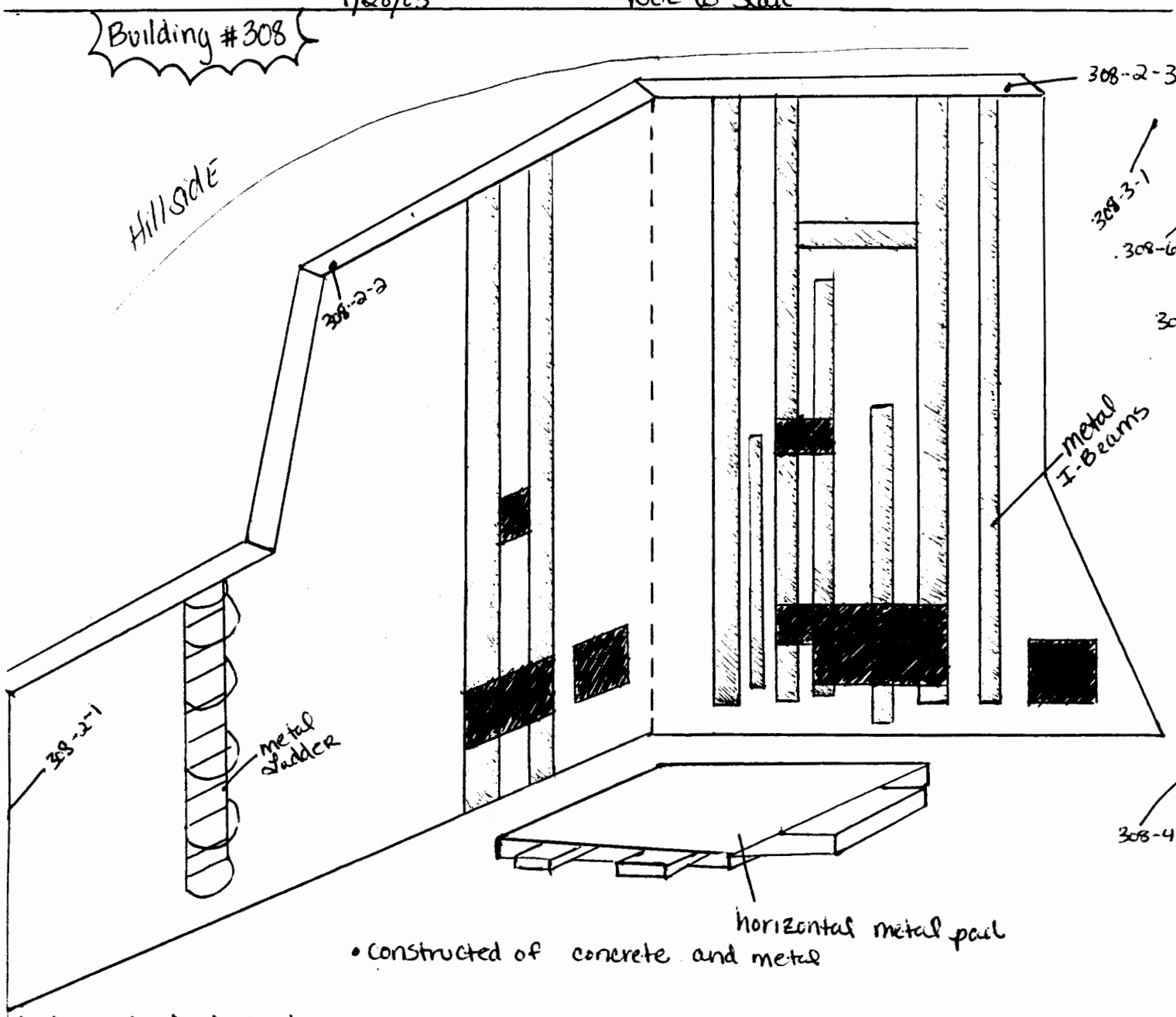
Building #315B (trailer)



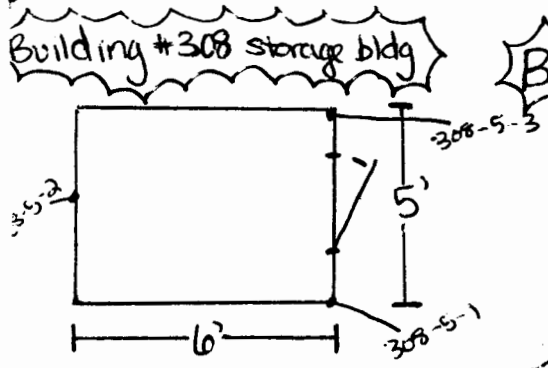
Lockheed Martin's Beaumont Site #1
Beaumont, CA

(asbestos bulk sample locations)

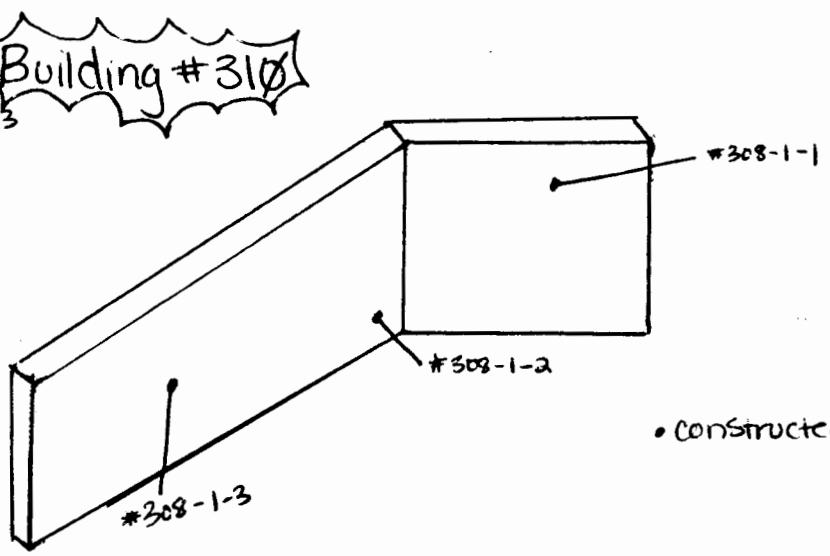
1/28/03 - Not to scale -



- constructed of concrete and metal



- constructed of concrete Block walls, metal roof



- constructed of concrete

N
W E
S

Lockheed Martin's Beaumont Site #1
Beaumont, CA

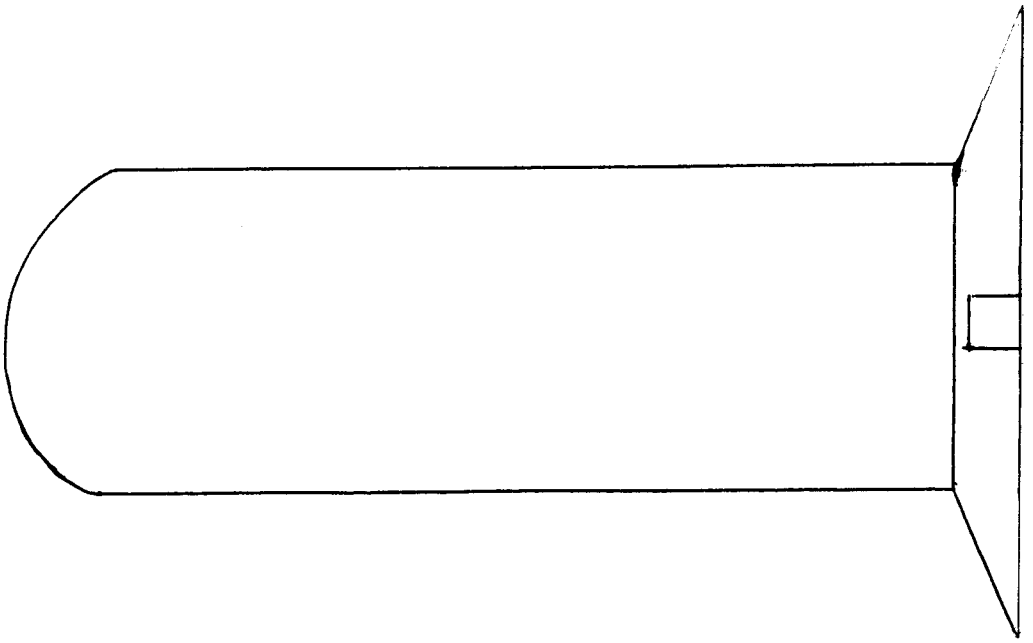
(asbestos Bulk Sample locations)

- Not to scale -

1/28/03

Building #325

NOTE: NO asbestos samples taken



PROCEDURES AND METHODOLOGY

The objective of the survey is to locate and identify suspect asbestos-containing materials (ACM), and to determine their friability, condition and potential for damage. Bulk sampling and laboratory analyses conforming to contract requirements are performed to confirm asbestos content of suspect materials. Samples are analyzed by Micron Environmental Laboratories, Inc. (MICRON). On the basis of survey information and laboratory analysis, CITY determines hazard ratings and recommendations in order to assist the Client in its environmental risk management program. The procedures and methodology followed for this project are summarized below:

Inspection and Sampling

Typical Suspect Materials - Suspect materials include, but are not limited to, the following: *surfacing materials* (sprayed or troweled on structural members, ceilings and walls, such as fireproofing, thermal insulation, acoustic or decorative materials); *thermal system insulation* (pipe, boiler, tank, equipment, duct or other HVAC insulation materials); and *miscellaneous materials* (construction materials for roofs, ceilings, floors and walls, such as tiles/panels, sheeting, wallboard/joint compound, paints, coatings and roofing materials).

Inspection and Sampling - CITY typically surveys building in teams of two, one person documenting the proceedings of the survey, the other performing bulk sampling and other miscellaneous activities. Small facilities are often surveyed by one individual. The team performs a preliminary visual inspection of the facility to identify and quantify suspect ACM. A sampling strategy is then developed to provide representative sampling. Efforts are made to obtain the samples from inconspicuous areas. Each sample is placed in a plastic or metal container, the container is sealed, labeled and placed in a larger storage bag. Destructive inspection methods to find concealed asbestos are used only in those areas specified, and to the extent approved by, the Client.

Throughout the process, care is taken to prevent cross-contamination of the collected samples. Sampling equipment is cleaned after each sample is obtained. In addition, sample containers are placed directly beneath each sample location, when feasible, to collect any materials which may become dislodged during the sampling process. Any debris generated by the sampling is cleaned by wet-cleaning methods. Sample locations are appropriately repaired.

Field Documentation - Samples are documented by entering the sample data on a bulk log, including a description of the material, sample number, location, condition, accessibility, friability, potential for damage, and quantity. Typically, the sample location is marked on an 8-1/2 x 11 inch floor plan (not to scale). In addition, a photograph is taken to further document the material sampled, its condition and location.

Laboratory Procedures and Results

Upon completion of the survey, Chain-of Custody forms are filled out and the samples are transferred to Micron Environmental Labs for analysis. Bulk sample analysis is conducted by Polarized Light Microscopy (PLM) with dispersion staining as described in the "Interim Method for the Determination of Asbestos in Bulk Insulation samples," Method EPA-600/R-93/116. A suspect material is immersed in a solution of known refractive index and subjected to illumination by polarized light. The color displayed enables mineral identification.

Quality Control - Quality control samples at a rate of 10% or one per project, whichever is greater, are reanalyzed by a second, independent analyst. Samples estimated to contain asbestos in amounts of 1% or less are also reanalyzed. Once analyzed, results are delivered to CITY for evaluation and inclusion in the report.

NOTE: The amended National Emission Standard for Hazardous Air Pollutants (NESHAP), November 20, 1990, included a requirement that when the asbestos content of a bulk sample material is determined using procedures outlined in the interim method and the asbestos content is estimated to be less than 10% by a method other than *point counting*, the parties legally responsible for a building (owner/operator) may (1) elect to assume the amount to be greater than 1% and treat the material as a regulated asbestos-containing material, or (2) require verification of the amount by the point counting method.

The purpose of this procedure is to minimize *false negative* analysis (reporting the sample as containing less than 1% asbestos for asbestos-containing samples actually containing greater than 1%) and *false positives* (reporting the sample as containing greater than 1% asbestos). Point counting was included in NESHAP in response to an EPA study that found an unacceptable amount of false negative and false positive analyses by methods outlined in the interim method. Unless directed otherwise by the Client, CITY will assume that PLM analysis is acceptable for this facility.

Reminder: in California the abatement of materials with detectable quantities of asbestos - legally defined as materials containing percentages of asbestos grater than one-tenth of one percent (>0.1%) by area - are regulated by Cal/OSHA and therefore considered positive in this report.

Material Assessment

Friability - During the survey, materials are classified as either *friable* or *nonfriable*. For most materials friability is simple to determine. However, select materials require special consideration. For example, joint compound in generally good condition and covered by an impermeable finish (e.g., paint, coatings or wall covering) is usually considered by CITY standards to be nonfriable. The same material left unfurnished and exposed is classified as friable. Materials such as

wallboard, joint compound, plaster, and stucco in their finished state and in generally good condition are classified as nonfriable; however, these materials often may be rendered friable when they are involved in repair, renovation or demolition activities. Some typically nonfriable materials also may become friable due to aging or deterioration causing elements to separate from their binding agents. Visual inspection and physical handling is performed for all suspect materials to ensure proper friability classification.

Condition and Potential Damage - Materials are assessed for any damage by impact, water, aging, deterioration, or delamination from their substrata. In addition, assessment is made of potential for damage by contact, vibration, or air erosion. Refer to the following Exhibits:

1. Condition Assessment Criteria for Surfacing and Miscellaneous Material.
2. Condition Assessment Criteria for Thermal System Insulation.
3. Potential for Damage Criteria.

Hazard Rating - Once all assessments are made, the material is assigned a hazard rating based on material condition and potential for damage. The hazard rating system utilized for this survey is derived from the federal Asbestos Hazard Emergency Response Act (AHERA) and consists of seven categories. Refer to Exhibit 4 - Response Action Options.

EXHIBIT 1 - CONDITION ASSESSMENT CRITERIA FOR SURFACING AND MISCELLANEOUS MATERIAL

Material Condition	Description
Significantly Damaged	Material with one or more of the following characteristics: • The surface is crumbling or blistered over at least one-tenth of the surface if the damage is evenly distributed, one-quarter if the damage is localized. • Large areas of material hanging from the surface, delaminated, or showing adhesive failure. • Water stains, gouges, or mars over at least one-tenth of the surface if damage is evenly distributed, one-quarter if damage is localized • Accumulation of powder, dust, or debris similar in appearance to the suspect material on surfaces beneath the material.
Damaged	Material with the following characteristics: • The surface is crumbling, blistered, water-stained, gouged, marred or otherwise abraded over less than one-tenth of the surface if the damage is evenly distributed, one-quarter if the damage is localized. • Accumulation of powder, dust, or debris similar in appearance to the suspect material.
Good	Material with no visible damage or deterioration, or showing only very limited damage or deterioration.

EXHIBIT 2 - CONDITION ASSESSMENT CRITERIA FOR THERMAL SYSTEM INSULATION

Material Condition	Description
Significantly Damaged	Material with one or more of the following characteristics: • Mostly missing jackets. • Crushed or heavily gouged or punctured insulation on at least one-tenth of pipe runs/risers if the damage is evenly disturbed, one-quarter if the damage is localized. • Accumulation of powder, dust, or debris similar in appearance to the suspect material on surfaces beneath the pipe, boiler, tank, etc.
Damage	Material with one or more of the following characteristics: • A few water stains or section of missing jackets. • Crushed insulation or water stains, gouges, punctures, or mars on up to one-tenth of the insulation if the damage is evenly distributed, or up to one-quarter if the damage is localized. • Accumulation of powder, dust, or debris similar in appearance to the suspect material on surfaces beneath the pipe, boiler, tank, etc.
Good	Material with no visible damage of deterioration, or showing only very limited damage or deterioration.

EXHIBIT 3 - POTENTIAL FOR DAMAGE CRITERIA

Potential For Damage	Description
Low	• *Contact* - Service workers or tenants are in the vicinity of the material less than once per month, or the material is visible but not within reach of building occupants, or the material is nonfriable and difficult to render friable; and • *Vibration* - Low to none; and • *Air Erosion* - Low to none
Moderate	• *Contact* - Service workers or tenants are in the vicinity of the material once per month to once per week, or the material is in a room or office and accessible to the occupants; or • *Vibration* - Motors or engines present but not obtrusive (e.g., ducts vibrating but no fan in the area), or occasional loud sounds (e.g., a music room); or • *Air Erosion* - Noticeable movement of air (e.g., air shaft, ventilator air stream)
High	• *Contact* - Service workers or tenants are in the vicinity of the material more than once per week, or the material is in a public area (e.g., hallway, corridor, auditorium) and accessible to building occupants; or • *Vibration* - Loud motors or engines present (e.g., some fan rooms), or intrusive noises or easily sensed vibrations (e.g., major airports, a major highway); or • *Air Erosion* - High velocity air (e.g., elevator shaft, fan room)

Response Action Options

Once the hazard ratings for materials are determined, the AHERA-based recommended response actions for asbestos abatement or management are applied. The following Exhibit 4, Response Action Options, illustrates the relationship of material condition, potential for damage, hazard rating, and response action options. *Note: Removal is an option for all conditions, even when not indicated.*

EXHIBIT 4 - RESPONSE ACTION OPTIONS

Material Condition	**Potential For Damage**	**Hazard Rating**	**Response Action Options**
Significantly Damaged	Any	7	Evacuation or isolation of the area if necessary. Immediate abatement. Repair of thermal system insulation optional if feasible, cost-effective and safe. O & M required for all ACM not removed.
Damaged	High potential	6	Evacuation or isolation of the area if necessary. Immediate removal, enclosure, encapsulation or repair to correct damage. Take steps to reduce potential for disturbance. O & M required for all ACM not removed.
Damaged	Moderate potential for further damage	5	Removal, enclosure, encapsulation, or repair to correct. O & M required for all ACM not removed.
Damaged	Low potential for further damage	4	Removal, enclosure, encapsulation, or repair to correct. O & M required for all ACM not removed
Good	High potential for damage	3	Evacuation or isolation of the area if needed. Take for significant steps to reduce potential for disturbance. O&M damage required to reduce potential for disturbance. O&M required for all ACM not removed.
Good	Moderate potential for damage	2	O & M required for all ACM not removed.
Good	Low potential for damage	1	O & M required for all ACM.

Inaccessible Areas and Suspect Materials

Inaccessible Areas - Unless directed otherwise by the Client, the scope of the survey is confined to rooms and areas accessible on the day(s) of the survey. Rooms or areas that are not made available for inspection or are inaccessible for reasons of safety or inclement weather are identified in the report.

Inaccessible Suspect Materials - Inaccessible suspect materials fall into two categories: (1) materials which may contain asbestos but which are not sampled because of *physical barriers*; i.e., cores within fire-rated/insulated doors, file cabinets and safes; thermal insulation concealed in equipment (boilers, duct work and other HVAC equipment, etc.); and thermal insulation concealed in voids (wall, floor, ceiling and other cavities, etc.); and (2) material which are visible but which are not sampled due to *inaccessibility*; i.e., material that cannot be safely reached with available ladders/man-lifts, or material within confined spaces (as defined by Cal/OSHA) that cannot be safely accessed by survey personnel.

Recommendations - Potential ACM within inaccessible areas and suspect materials that are inaccessible can significantly affect the management and abatement cost for the facility. Areas that have not been accessed should be surveyed as soon as possible to complete the characterization of the facility. Inaccessible materials need not be sampled immediately, but must be sampled prior to any repair, renovation or demolition activity that may affect the material; access in some instances may require destructive investigation. Until sampling is performed, inaccessible suspect material should be assumed to contain asbestos. Inaccessible areas and suspect materials in this facility, if any, are identified under the Findings and Recommendations section of this report.

Sampling and Laboratory Analysis Constraints

Representative Sampling Constraints - This facility may have been constructed with materials that hinder representative sampling. These materials typically include, but are not limited to, plaster, stucco, joint compound, flooring mastic, roofing materials, plaster, door cores and wallboard. Such materials often are concealed, covered, coated, painted, or have undergone multiple applications which may not permit CITY' personnel to determine with a high degree of certainty that the material sampled is representative of all suspect materials in the facility with the same characteristics, or in technical terms, that the material sampled is *homogeneous* (uniform in color, texture, construction/application date, and general appearance). These materials are classified as *possibly non-representative* and therefore will require careful scrutiny and potentially additional investigation and sampling to resolve questions or to improve the accuracy of their characterization, particularly if *mixed results* (positive and negative) are produced by the original laboratory analysis. However, regardless of whether or not mixed results are produced, or additional investigation and sampling is performed, the level of certainty in characterizing these obscured materials still may not be as high as with exposed materials where homogeneous characteristics can be visually confirmed.

Laboratory Analysis Constraints - Certain materials (generally nonfriable types) such as roofing products, joint compound, floor tiles and mastics have a mix of components (a matrix) which can interfere with the polarized light method of analysis, and/or are composed of asbestos fibers of small diameter which are invisible to the PLM microscope. These types of material can yield false positive or false negative results. It sometimes is necessary to utilize Point Counting or Transmission Electron Microscopy (TEM) techniques, whichever is appropriate for the type of material involved, to better confirm the presence or absence of asbestos fibers in these materials. This type of analysis (initial or subsequent to the initial analysis by PLM) is not performed by CITY unless otherwise directed by the Client.

Mixed Results - Bulk samples collected from an apparently homogeneous material and yielding mixed results may in fact have been taken from different homogeneous materials displaying similar visual characteristics but composed of different constituents. Although materials may appear to be homogeneous, they may have been produced in different batches or by different manufacturers. Material which appears to be homogeneous but yield mixed results is typically assumed, in accordance with AHERA procedures, to be asbestos-containing in all areas where the material is located. CITY will only reclassify the material into separate homogeneous materials (one containing asbestos and one that does not) when both of the following conditions apply: there is strong evidence that the samples represent more than one homogeneous material (constituents of the materials do not match), and the locations or boundaries of the materials are unmistakably clear. In situations where the locations or boundaries are not clear, additional research and sampling may be recommended.

Further Investigation - The above *sampling and laboratory analytical constraints* can individually or collectively affect the findings and recommendations of the survey. However, CITY will not recommend further investigation, sampling or laboratory analysis to minimize their affects unless it is clear that (1) the effort will be cost-effective (the benefits significantly outweigh the costs), and (2) the desired results are reasonably achievable from a technical standpoint. For example, it would not be cost-effective to conduct additional sampling of sprayed-on acoustical ceiling material in a 100 square foot room because of mixed sample results. However, this additional effort would be cost-effective if sample results for an acoustical ceiling material used abundantly throughout a facility reveal a pattern of positive material on one floor and negative material on another. Recommendations for further investigation and sampling or laboratory analysis, if any, are discussed in the Findings and Recommendations section of this report.

Site 1, Bldg 305, Asbestos Containing Drywall Joint Compound & Mold Growth

Site 1, Bldg 305, Asbestos Containing Drywall Joint Compound & Mold Growth

Site 1, Bldg 305, Asbestos Containing Drywall Joint Compound & Mold Growth

Site 1, Bldg 305, Asbestos Containing Drywall Joint Compound & Mold Growth

Site 1, Bldg. 303, damaged asbestos containing drywall joint compound

Site 1, Bldg. 303, Asbestos Containing Pipe Elbow Insulation

Site 1, Bldg. 303, Non-Asbestos Caulking

Site 1, Bldg. 303, Asbestos Containing HVAC Vibration Damper Cloth

Site 1, Bldg. 305, Lead Paint on Exterior Walls

Site 1, Bldg. 305, Asbestos Containing Drywall Joint Compound

Site 1, Bldg. 305, Asbestos Containing Vinyl Floor Tile & Mastic & Base of Step

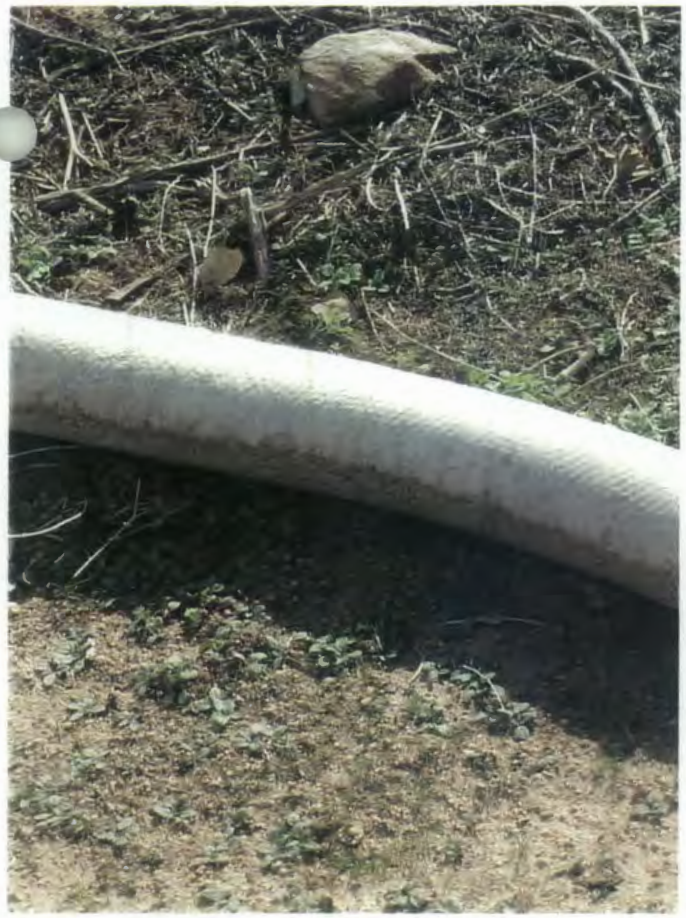
Site 1, Bldg. 305, Non-Asbestos Plaster Debris

Site 1, Bldg. 312, Asbestos Containing Gray Roof Patch/Penetration Mastics

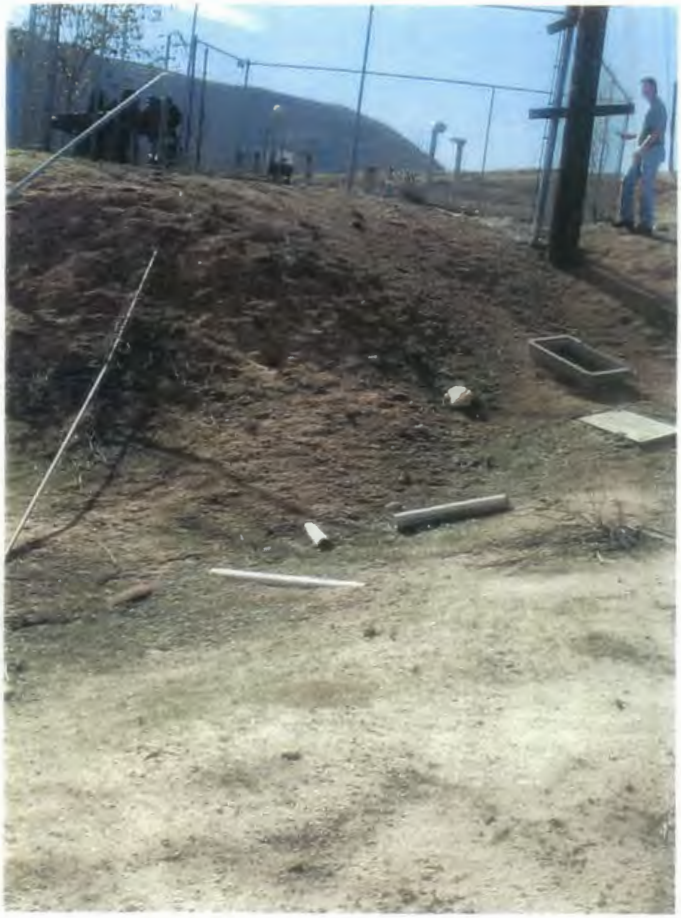
Site 1, Bldg. 305, Non-Asbestos HVAC Duct Joint Tape & Mastics

Site 1, Bldg. 305, Non-Asbestos Containing Pipe Insulation Layers

Site 1, Bldg. 305, Non-Asbestos Pipe Insulation Layers

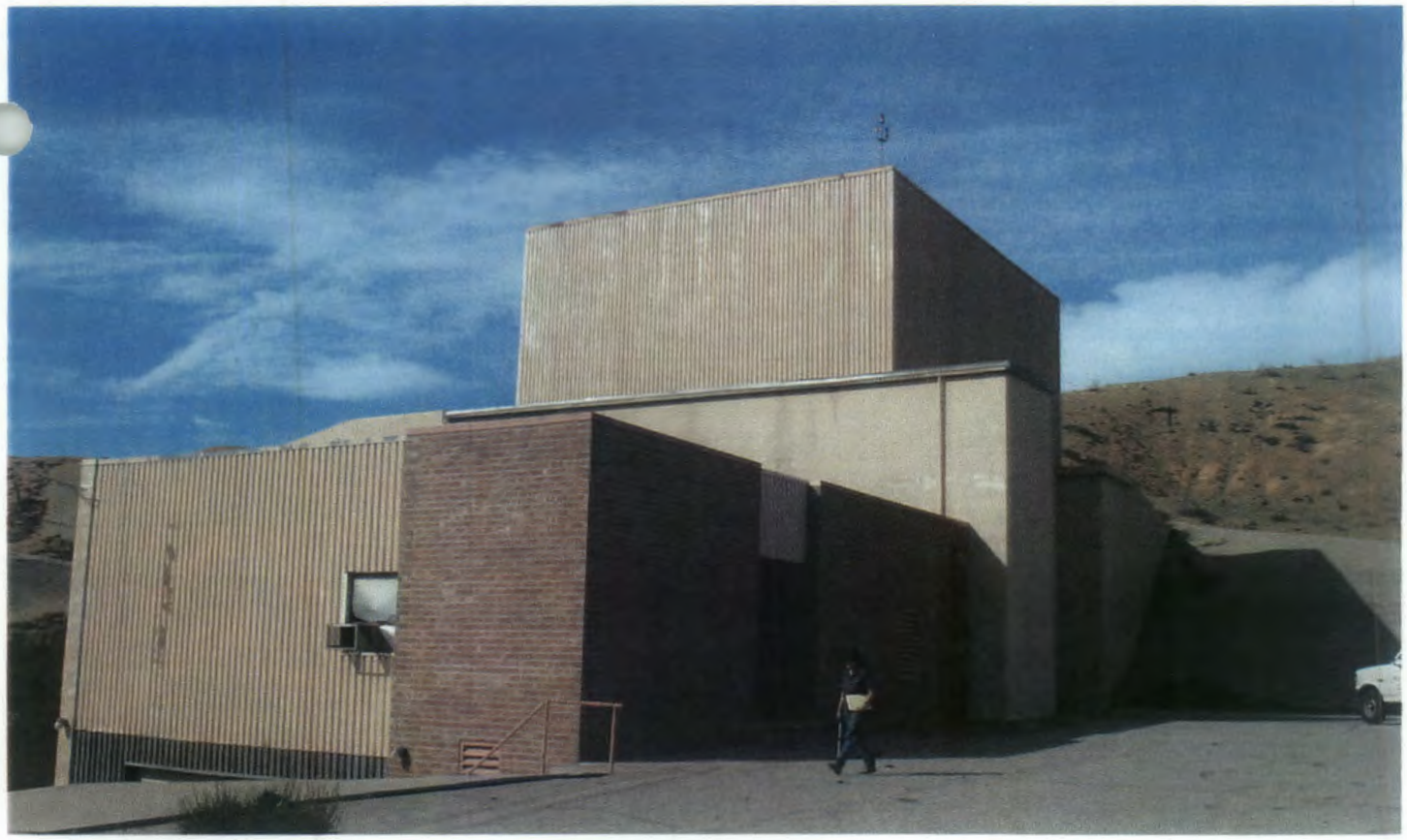


Site 1, Asbestos Transite Pipe Debris Scattered on Hillsides Around Buidlings 308 and 305



Site 1, Asbestos Transite Pipe Debris Scattered on Hillsides Around Buidlings 308 and 305

Site 1, Asbestos Transite Pipe Debris Scattered on Hillsides Around Buidlings 308 and 305



Site 1, Bldg. 303, Exterior Lead Paint on Steel/Concrete Walls; Asbestos Containing Red Brick Grout/Mortar & Asbestos Containing Wall Putty/Caulking

Site 1, Bldg. 303, Exterior Lead Paint on Steel/Concrete Walls; Asbestos Containing Red Brick Grout/Mortar & Asbestos Containing Wall Putty/Caulking

Site 1, Bldg. 310, Non-Asbestos Black Tar Residue on Walls

Site 1, Bldg. 325, Lead Paint on Walls & Components

Site 1, Bldg. 311, Lead Paint on Walls & Components; Asbestos Containing Exterior Textured Paint

Site 1, Bldg T4, Lead Paint on Exterior Walls & Wood Components

Site 1, Bldg. T4, Lead Paint on Interior Walls

Site 1, Bldg T4, Non-Asbestos Wall/Ceiling Material

Site 1, Bldg. T4, Lead Paint on Exterior Walls

Site 1, Bldg. T4, Lead Paint on Fence Components

Site 1, Bldg 305, Asbestos Transite Pipes Extending Below Grade

APPENDIX B

LEAD BASED PAINT SURVEY FOR BEAUMONT SITE 1

LEAD-PAINT SURVEY REPORT
Lockheed Martin Beaumont Site #1
Beaumont, California

Prepared for:

Mrs. Theresa Congdon
Tetra Tech, Inc.
348 W. Hospitality Ln. #100
San Bernardino, Ca 92408

Prepared by:

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1450 South Burlington Avenue, Suite B
Los Angeles, California 90006
Phone: (213) 632-0410
Fax: (213) 632-0414

January 23, 2003

Mr. Frank Najafi
California Department of Health Services Certified Lead Inspector/Assessor (#I-089)

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LEAD PAINT SURVEY REPORT
Lockheed Martin Beaumont Site #1
Beaumont, California

1.0 INTRODUCTION

On January 16, 2003, and January 18, 2003, CITY Environmental Services, Inc. (CITY) performed a lead-based paint survey of specific buildings on the Lockheed Martin Beaumont Site #1, Beaumont, California. The survey was performed in general conformance with the 1995 HUD Guidelines for the evaluation and control of lead-based paint hazards in housing (1997 revised chapter 7 of the HUD guidelines) using a Niton X-ray fluorescent spectrum analyzer (XRF). This report provides lead concentrations in painted surfaces as general guidance information for the purpose of conducting safe renovation or demolition activities at the building.

This report was prepared for the express use and benefit of Tetra Tech, Inc., its agents and employees and may be used at its discretion in connection with the possible financing, refinancing or notifications that pertain to the property referenced above. The information in this report or portions there of, may be required to be included in notifications to the tenants, employees, contractors or other visitors to the building. This report is not intended to be used by the Owner or its agents as a specification or work plan for any of the work suggested or recommended here in.

CITY shall not be responsible for identifying lead-paints located behind walls and/or columns, beneath flooring, under carpeting, above solid ceilings, underground or in any other inaccessible areas.

On January 16 and on January 18, 2003, Ms. Adrienne Shivak, a CA Department of Health Services (DHS) Certified Lead Inspector/Risk Assessors & Certified Niton XRF Operators, conducted the lead-based paint survey of the above property.

2.0 EXECUTIVE SUMMARY – FINDINGS AND RECOMMENDATIONS

A representative number of all interior, and exterior surfaces/components and common areas, were tested for LBP.

A total of 257 XRF readings (including 14 calibration readings) were collected from various painted surfaces/components throughout this site.

Of the 243 actual surface readings, 239 had detectable levels of lead in paint.

DEFINITIONS

Lead-Containing Paint: painted material or surfaces containing ***any*** detectable level of lead.

Lead-Containing paint removal and disposal must be performed in accordance with OSHA regulations

SUMMARY OF POSITIVE READINGS: Lead Containing Paint

The locations of the identified Lead Containing Paint at this project site by XRF includes the following components/surfaces:

Building 310:

- All Exterior concrete block walls – approximately 1,200 square feet – poor condition

Building 308, small storage:

- Metal door and door components – 1 each – good condition
- Brick walls interior and exterior – approx. 800 square feet - intact
- Metal roof – approx. 100 square feet - intact

Building 308:

- All metal bollard poles – 4 each - intact
- Metal ladder – 300 square feet – poor condition

- Metal I-Beams/Columns and horizontal pad components – 1,200 square feet – poor condition
- All concrete wall – 5,800 square feet – poor condition

Building 305:

- All exterior/interior concrete and brick walls – approx. 4,100 square feet – poor condition
- Interior metal HVAC registers – 12 each - intact
- All interior/exterior metal and wood door components – 8 each – poor condition
- All interior drywall walls/ceilings – 6,000 square feet - damaged
- All metal HVAC units and ducting – 900 square feet - intact
- Electrical panel box – 2 each - intact
- All metal poles – 300 linear feet – poor condition
- All metal electrical conduit pipes – 400 linear feet - intact

Building 306:

- All exterior/interior concrete walls – 2,200 square feet – poor condition
- Electrical panel box – 1 each - intact
- All metal electrical conduit pipes – 100 linear feet - intact
- All interior concrete floors – 1,200 square feet – poor condition
- All wood door components – 3 each – poor condition
- All ceramic wall tiles – 200 square feet - intact
- Metal downspout - 100 linear feet - intact
- Sheet metal component debris – 200 square feet - damaged

Building 309:

- All metal horizontal I-beams – 400 square feet - intact
- Metal platform – 500 square feet - intact
- Exterior metal box – 1 each - intact
- All concrete walls – 1,200 square feet – poor condition

Building 309, small:

- All brick walls – 400 square feet – poor condition
- Metal roof – 100 square feet - intact

Building 304:

- Metal tank – 100 square feet - intact
- All interior/exterior concrete walls/ceilings – 1,800 square feet – poor condition
- All interior/exterior metal door components – 3 each – poor condition
- All metal electrical conduit pipes – 300 linear feet - intact
- Electrical box/panel – 1 each - intact

Building 311:

- All interior/exterior concrete walls/ceilings – 2,000 square feet – poor condition
- Metal I-Beams – 300 square feet - intact
- All interior/exterior metal door components – 2 each – poor condition
- All exterior metal bollard pole – 4 each - intact

Building 325:

- All interior/exterior metal/concrete walls – 800 square feet – poor condition

- All interior/exterior metal door components – 1 each – poor condition

Building 312:

- All interior/exterior brick/metal walls – 2,000 square feet - intact
- All wood door components – 3 each – poor condition
- Exterior metal roll-up-door – 2 each – 300 square feet
- All interior/exterior electrical conduit pipes – 400 linear feet - intact
- All wood shelves – 200 square feet - damaged

Building T4:

- All interior/exterior brick walls – 800 square feet – poor condition
- Metal rain gutter – 100 linear feet - damaged
- All metal door components – 1 each – poor condition
- All metal window components – 3 each – poor condition
- All wood facia board – 200 linear feet – poor condition
- All metal electrical conduit pipe – 200 linear feet - intact
- All metal fence – 200 square feet - intact
- All metal warning signs – 3 each - intact

Building 303:

- All interior/exterior concrete/brick walls – 5000 square feet - intact
- All exterior/interior metal walls – 3,000 square feet – poor condition
- All interior wood walls – 1,000 square feet - intact
- All metal roll-up-door components – 1,000 square feet -intact
- All metal I-beams – 2,200 square feet - intact

- All metal electrical conduit pipes – 600 linear feet - intact
- All metal access ladders – 800 square feet – poor condition
- All HVAC metal ducts – 1,200 square feet - intact
- All interior/exterior metal/wood door components – 12 each - intact
- All interior drywall ceilings – 1,800 square feet - intact
- All divider metal walls in restrooms – 200 square feet - intact
- All metal rain gutters – 400 linear feet - intact
- All metal pipes – 800 linear feet - intact
- All electrical metal boxes – 3 each - intact
- All exterior metal hand rails – 400 square feet – poor condition
- All interior concrete floors – 3,000 square feet - intact

Main Transformer:

- All metal generator components – 200 square feet - intact
- All metal electrical conduit pipes – 400 linear feet - intact

Building 315:

- All interior/exterior concrete walls – 3,300 square feet - intact
- All interior/exterior metal door components – 8 each - intact
- All metal exhaust pipes – 4 each - intact

Building 315 trailer:

- Metal electrical boxes – 1 each - intact
- Metal tow hitch – I each - intact
- All interior/exterior metal walls – 800 square feet - intact

- All metal door components – 3 each - intact
- Metal transformers – 1 each - intact
- All metal A/C units – 2 each- poor condition

Fuel Slurry Station:

- All concrete walls – 800 square feet - intact
- All metal frames – 200 square feet - intact
- All metal I-beams – 600 square feet - intact
- All metal railing – 200 square feet - intact
- All sheet metals on ground – 400 square feet - damaged

The general overall condition of the subject building painted surfaces and interior/exterior finishes is considered poor (deteriorated, peeling, chipping, etc.)

Renovation or demolition activities planned in the future at this site affecting lead containing surfaces/components must be performed under controlled conditions using properly trained personnel to prevent exposure to and resultant contamination from lead particles and dust. Renovation/remodeling/demolition activities affecting any painted surface/component must be performed under OSHA regulations (see OSHA disclosure language).

Prior to renovation/remodeling, or demolition activities, all loose and flaking lead paint at this site must be properly removed, containerized, and disposed by a qualified contractor in accordance with applicable regulations and under proper engineer controls/containments. The surfaces must then be stabilized prior to any further disturbance.

Due to the condition of the painted components/surfaces at this site, there is a potential for surface contamination (soils and grounds) at the base of walls at all buildings. This issue must be addresses when remediation/demolition activities area planned at the facility or if the facility will be reoccupied.

3.0 LEAD-BASED PAINT SURVEY BY X-RAY FLUORESCENCE SPECTRUM ANALYZER (XRF)

The XRF unit used for this survey irradiates the paint on a given surface causing the lead in the paint, if present, to emit a characteristic frequency of x-ray radiation. The instrument identifies and counts these x-rays to determine a lead concentration. The intensity of this radiation is measured by the detector and is related to the amount of lead in the paint. The lead concentration results are reported in milligrams per square centimeter (mg/cm^2).

While the sample is being measured, the lead concentration is displayed on the XRF's display. The device stores the reading and spectrum data. The XRF analyzer provides information on the "K-shell" (high energy) and "L-shell" (low energy) lead. In most XRF analyzers, the K-shell lead reading reflects the amount of lead present in the deeper layers of paint, and the L-shell reading reflects the amount in the surface layers of paint.

Measurements were taken at points representative of all paint or varnished surfaces in the areas inspected. In order to obtain a reading, the XRF analyzer is placed with the face of the instrument flush against the surface to be tested. It is then held in place for the duration of the sample, approximately 20 sources seconds or until the measurement has reached an acceptable range of accuracy as determined by the inspector. The sampling time is dependent on the age of the radioactive source inside the XRF and the accuracy desired by the inspector. The radioactive source for the Niton XL Spectrum Analyzer used at the property is 40 millicurie $Cadmium^{109}$. As the $Cadmium^{109}$ source ages, longer sampling times are necessary to maintain the same level of accuracy.

The Depth Index (DI) reading given by the XRF is a numerical indication of the amount of unleaded paint covering the lead detected by the instrument. A DI of less than 1.5 indicates lead very near the surface layer of paint. A DI between 1.5 and 4.0 indicates moderately covered lead. A DI greater than 4 indicates deeply buried lead.

The XRF sample location is described in the table in Appendix 1 using the system used by HUD. The room function and number identify each sample where the side within that room took the sample, and where applicable, by the number of the structure on that side. Room identification codes used for this project consisted of Sides A, B, C, and D, Side A is located on the North of the building, side B is East, Side C is South and Side D is West.

4.0 OSHA REGULATORY THRESHOLDS FOR LBP

A representative number of all interior, and exterior surfaces/components and common areas, were tested for LBP. The property is comprised of various buildings and test bays. A total of 257 XRF readings (including 14 calibration readings) were collected from various painted surfaces/components throughout this site. Of the 243 actual surface readings, 239 readings confirmed detectable levels of lead in paint.

Cal/OSHA and Federal OSHA Lead in Construction Standards consider any amount of lead in paint to be a concern during renovation and demolition activities. Please see attached the general disclosure language for compliance with OSHA regulations.

4.1 OSHA LEAD REGULATION SUMMARY

The Federal Occupational Safety and Health Administration (OSHA) have enacted a lead standard, which was adopted by Cal/OSHA as 8 CCR 1532.1. The purpose of both standards is to protect construction workers from exposure to lead. OSHA is primarily concerned with activities that disturb paints with ***any detectable amounts of lead***. Lead was used in most paints until the mid 1950's and was banned in amounts in excess of 0.06% by weight in 1978 for most non-industrial paints by the Consumer Product Safety Commission (CPSC).

The new standards require contractors and employers who perform paint removal activities to monitor their employees to determine whether they are being exposed in excess of the action level of 30 micrograms per cubic meter of air ($\mu g/m^3$) over an eight-hour time weighted average (TWA) or the "Permissible Exposure Limit" (PEL) of 50 $\mu g/m^3$ TWA. Monitoring is performed by personal air sampling.

Even when concentrations are below the action level, an employer must provide employees with High Efficiency Particulate Air (HEPA) filtered vacuums, wetting agents and hand-washing facilities. If the exposure exceeds the action level or the PEL, other procedures such as containing the area, local exhaust ventilation, respiratory and worker protection, worker training, decontamination facilities and medical monitoring are required.

OSHA has identified several work practices that pose varying levels of lead exposure to laborers disturbing lead-containing paint. Estimated exposure levels of lead are founded on the activity itself, rather than the concentrations of lead present in paint. Therefore, as an example, paint that contains 0.5% versus 15% of lead by weight or 0.8 mg/cm^2 versus 3.5 mg/cm^2 of lead in paint could pose the same exposure levels to workers depending on the activities that cause the disturbance and the administrative and engineering controls that are followed.

The following is a summary of work activities that disturb paint, the expected exposure and the respiratory protection requirements that result as outlined in the OSHA standards:

Activities	Potential Exposure	Minimum Respiratory Protection
Class I activities include: Manual demolition, manual scraping, manual sanding, heat gun applications, general cleanup, power tool cleaning with dust collection systems and spray painting activities	50 $\mu g/m^3$ to 500 $\mu g/m^3$	Half mask air purifying respirator equipped with HEPA filters having a protection factor of 10
Class II activities include: Using lead-containing mortars, lead burning, lead riveting, rivet busting, power tool cleaning without dust collection systems, cleanup of dry expendable abrasives and abrasive blasting	500 $\mu g/m^3$ to 2,500 $\mu g/m^3$	Full face powered air purifying respirators equipped with HEPA filters having a protection factor of 100
Class III activities include: Abrasive blasting, welding, cutting and torch burning on steel structures	Greater than 2,500 $\mu g/m^3$	Full face supplied air respirator operated in pressure demand mode or other positive pressure mode (type "C")

5.0 GENERAL DISCLOSURE FOR LEAD-CONTAINING PAINTS FOR USE IN SPECIFICATIONS

The following language can be used in conjunction with planned renovations. The language identifies possible lead-paint hazards and informs the contractors they are responsible for complying with all applicable lead regulations.

The Contractor and its subcontractors are required to comply with 29 CFR 1926.62 & Title 8 CCR 1532.1 the Lead in Construction Standards on this project. The regulations require Contractors to protect their employees from exposures in excess of the action level of 30 micrograms per cubic meter (ug/m^3), and the Permissible Exposure Level of 50 ug/m^3 of air. The Federal OSHA standard does not define the amount of lead in paint that constitutes lead containing paint; therefore, the contractor must determine the worker exposure level for any regulated activity disturbing paint containing any amount of lead. The lead sampling results for this structure are contained in Appendix 1 of this report.

Until the worker exposure level is determined, Contractors are required to provide their workers with personal protection including respirators and protective clothing while performing manual demolition, sanding, scraping, abrasive blasting, and burning of paint. If the exposure level indicates that additional worker protection and engineering controls are required for this project, they shall be provided by the Contractor. The owner of the structure shall not be charged additional costs for any additional measures required for the Contractor to comply with the Federal OSHA Lead in Construction Standard.

Prior to the commencement of lead paint disturbance, in accordance with OSHA, Contractor shall prepare a written compliance program for this project that will outline the methods, procedures and controls to be followed by the Contractor and each subcontractor during the disturbance of lead-containing paint. The Contractor's written compliance program shall be submitted to the owner prior to the start of any work covered under the lead standard.

It is the Contractor's responsibility to maintain adequate controls and conduct personal air monitoring to ensure worker safety during the duration of this work. Initial exposure assessment monitoring results shall be supplied to the owner within 48 hours of the collection of the samples.

It is the Contractor's responsibility to test lead-containing paint and debris to determine its disposal requirements. It is the Contractor's responsibility to dispose of all lead-containing waste materials in accordance with applicable hazardous waste disposal regulations. First a Total Threshold Limit Concentration (TTLC) analysis must be done to determine if the total lead content is >350 PPM in which case the waste must be

disposed as California Hazardous Waste per CA Health & Safety Code 25157.8.

Then, also, a Soluble Threshold Limit Concentration (STLC) analysis must be done to find out how much lead is soluble in the waste. STLC per 22 CCR. If more than 5.0 mg/l lead then the waste must be disposed as RCRA waste in California. If the waste is to be transported and disposed outside CA, then a Toxicity Characteristic Leaching Potential (TCLP) analysis must be performed to determine leachability. If >5.0 mg/l, then the waste is Federal RCRA waste.

CITY ENVIRONMENTAL SERVICES, INC
Ranges (NEG<INC<POS): 0.00<0.01<0.01Times: minL = 20 Ssec minK= 120 Ssec
Serial #XL309-U904NR1728 Site: Lockheed Beaumont Site #1 Date: 1/16/2003 to 1/18/2003

lo	XLNo	Site	Insp	Flr	Side	Room	Strc	Sub	Feat	Cnd	Clr	Ssec	DI	Result	Pbl ± Prec	Pbk ± Prec	Pbc ± Prec	Res ± Prec
	125					**Shutter Cal 1**						**108.0**	**0.0**	**...**	**NA**	**NA**	**NA**	**446 ± NA**
2	126	1	1			Calibration						10.1	1.1	POS	1.62 ± 0.30	1.97 ± 0.99	1.62 ± 0.30	NA
3	127	1	1			Calibration						21.7	1.0	POS	1.06 ± 0.15	1.44 ± 0.63	1.06 ± 0.15	NA
4	128	1	1			Calibration						9.8	1.2	POS	4.14 ± 1.95	3.42 ± 1.21	3.42 ± 1.21	NA
5	129	1	1			Calibration						5.6	1.3	NEG	0.47 ± 0.25	0.56 ± 1.31	0.47 ± 0.25	NA
6	130	1	1		West	Bldg. #310	Wall	Concrete	Middle	Fair	Black	8.1	1.0	NEG	0.00 ± 0.11	-0.39 ± 0.91	-0.39 ± 0.91	NA
7	131	1	1		North	Bldg. #310	Wall	Concrete	Middle	Fair	Blue	3.3	1.2	NEG	0.06 ± 0.22	-0.94 ± 2.08	0.06 ± 0.22	NA
8	132	1	1		East	Bldg. #308	Bollard pole	Metal		Cracking	Yellow	5.2	1.0	POS	1.96 ± 0.47	1.98 ± 1.75	1.96 ± 0.47	NA
9	133	1	1		A	Bldg. #308 (smll bldg)	Wall	Brick	Middle	Fair	Beige	5.7	1.0	NEG	0.00 ± 0.08	-0.26 ± 1.48	0.00 ± 0.08	NA
10	134	1	1		A	Bldg. #308 (smll bldg)	Door	Metal	Middle	Pealing	Green	3.2	1.0	NEG	0.09 ± 0.05	-0.16 ± 2.23	0.09 ± 0.05	NA
11	135	1	1		B	Bldg. #308 (smll bldg)	Wall	Brick	Middle	Fair	Beige	10.4	1.5	NEG	0.01 ± 0.13	0.13 ± 1.00	0.01 ± 0.13	NA
12	136	1	1		D	Bldg. #308 (smll bldg)	Wall	Brick	Middle	Fair	Beige	5.7	1.0	NEG	0.00 ± 0.08	-0.50 ± 1.38	0.00 ± 0.08	NA
13	137	1	1		D	Bldg. #308 (smll bldg)	Roof	Metal	Underside	Fair	Brown	8.1	1.0	NEG	0.00 ± 0.06	-0.72 ± 1.12	-0.72 ± 1.12	NA
14	138	1	1		C	Bldg. #308 (smll bldg)	Wall	Brick	Middle	Fair	Beige	3.3	1.0	NEG	0.15 ± 0.14	-0.39 ± 2.28	0.15 ± 0.14	NA
15	139	1	1			Bldg. #308 (smll bldg)	Roof	Metal	Top	Fair	Beige	3.2	1.0	NEG	0.05 ± 0.07	0.13 ± 2.09	0.05 ± 0.07	NA
16	140	1	1		A	Bldg. #308 (smll bldg)	Door	Metal	Header	Cracked	Green	3.2	1.0	NEG	0.10 ± 0.13	0.51 ± 2.26	0.10 ± 0.13	NA
17	141	1	1		West	Bldg. #308	Ladder	Metal		Cracked	Blue	3.3	1.5	NEG	0.09 ± 0.26	1.09 ± 2.06	0.09 ± 0.26	NA
18	142	1	1			Bldg. #308	Pad	Metal	Horizontal	Cracked	Gray	3.2	2.1	POS	>>5.0	8.95 ± 3.35	8.95 ± 3.35	NA
19	143	1	1			Bldg. #308	Pad	Metal	I-Beam	Cracked	Yellow	5.5	1.2	POS	2.14 ± 0.55	1.91 ± 1.83	2.14 ± 0.55	NA
20	144	1	1		West	Bldg. #308	Wall	Metal	I-Beam	Cracked	Gray	3.1	2.1	POS	>>5.0	21.86 ± 4.90	21.86 ± 4.90	NA
21	145	1	1		North	Bldg. #308	Wall	Metal	I-Beam	Cracked	Gray	3.0	1.7	POS	>>5.0	23.32 ± 5.45	23.32 ± 5.45	NA
22	146	1	1		North	Bldg. #308	Wall	Concrete	Lower	Cracked	Blue	22.2	1.0	NEG	0.10 ± 0.05	0.07 ± 0.72	0.10 ± 0.05	NA
23	147	1	1		West	Bldg. #305 (exterior)	Wall	Concrete	Middle	Peeling	Beige	8.1	4.4	NEG	0.02 ± 0.06	-1.06 ± 1.14	0.02 ± 0.06	NA
24	148	1	1		South	Bldg. #305 (exterior)	Wall	Brick	Middle	Cracked	Beige	8.1	3.0	NEG	0.01 ± 0.04	-0.43 ± 1.17	0.01 ± 0.04	NA
25	149	1	1		East	Bldg. #305 (exterior)	Wall	Brick	Middle	Cracked	Beige	5.7	1.0	NEG	0.00 ± 0.08	-0.41 ± 1.36	0.00 ± 0.08	NA
26	150	1	1		North	Bldg. #305 (exterior)	Wall	Brick	Middle	Cracked	Beige	12.8	1.0	NEG	0.00 ± 0.07	-0.40 ± 0.83	-0.40 ± 0.83	NA
27	151	1	1		West	Bldg. #305 (exterior)	Register	Metal	Lwr wall	Peeling	Beige	3.2	1.7	NEG	0.04 ± 0.38	-0.53 ± 1.98	0.04 ± 0.38	NA
28	152	1	1		South	Bldg. #305 (exterior)	Door	Metal	Middle	Peeling	Green	5.4	1.2	NEG	0.40 ± 0.24	0.14 ± 1.24	0.40 ± 0.24	NA
29	153	1	1		South	Bldg. #305 (exterior)	Door	Metal	Frame	Peeling	Green	3.3	1.0	NEG	0.09 ± 0.05	-0.17 ± 2.19	0.09 ± 0.05	NA
30	154	1	1		West	Bldg. #305 (exterior)	Wall	Concrete	Entryway	Peeling	Beige	12.8	1.4	NEG	0.06 ± 0.08	0.20 ± 0.91	0.06 ± 0.08	NA
31	155	1	1		West	Bldg. #305 (exterior)	Door	Metal	Middle	Peeling	Green	8.1	2.7	NEG	0.19 ± 0.26	-0.40 ± 1.12	0.19 ± 0.26	NA
32	156	1	1		East	Bldg. #305 (interior)	Door	Metal	Frame	Peeling	Green	3.3	1.9	NEG	0.06 ± 0.39	-0.23 ± 2.05	0.06 ± 0.39	NA
33	157	1	1		East	Bldg. #305 (interior)	Door	Metal	Middle	Peeling	Green	8.1	3.6	NEG	0.23 ± 0.37	-0.29 ± 1.15	0.23 ± 0.37	NA
34	158	1	1		East	Bldg. #305 (interior)	Wall	Concrete	Middle	Peeling	Green	10.4	1.0	NEG	0.03 ± 0.04	-0.91 ± 0.96	0.03 ± 0.04	NA
35	159	1	1		North	Bldg. #305 (interior)	Door	Wood	Frame	Cracked	Green	3.3	7.2	NEG	0.12 ± 0.30	0.00 ± 1.23	0.12 ± 0.30	NA
36	160	1	1		West	Bldg. #305 (interior)	Wall	Drywall	Middle	Peeling	Green	5.7	1.0	NEG	0.04 ± 0.07	0.40 ± 0.94	0.04 ± 0.07	NA
37	161	1	1			Bldg. #305 (interior)	Door	Wood	Middle	Fair	Green	3.3	1.0	NEG	0.02 ± 0.34	-0.32 ± 1.03	0.02 ± 0.34	NA
38	162	1	1		North	Bldg. #305 (interior)	Wall	Concrete	Middle	Cracked	Blue	15.2	1.4	NEG	0.04 ± 0.07	-0.27 ± 0.80	-0.27 ± 0.80	NA
39	163	1	1		East	Bldg. #305 (interior)	HVAC duct	Metal		Fair	Green	3.3	1.6	NEG	0.08 ± 0.35	-1.03 ± 1.54	0.08 ± 0.35	NA
40	164	1	1		West	Bldg. #305 (interior)	Wall	Drywall	Middle	Comply	Green	3.3	1.7	NEG	0.05 ± 0.43	-0.10 ± 1.17	0.05 ± 0.43	NA
41	165	1	1			Bldg. #305 (interior)	Ceiling	Drywall		Fair	White	12.8	7.1	NEG	0.07 ± 0.14	-0.12 ± 0.66	0.07 ± 0.14	NA
42	166	1	1		South	Bldg. #305 (interior)	HVAC register	Metal		Fair	Blue	3.3	1.0	NEG	0.03 ± 0.17	0.59 ± 1.84	0.03 ± 0.17	NA
43	167	1	1		Top	Bldg. #305 (exterior)	HVAC duct	Metal		Fair	Beige	3.1	1.4	NEG	0.03 ± 0.42	0.59 ± 1.82	0.03 ± 0.42	NA
44	168	1	1		Top	Bldg. #305 (exterior)	HVAC unit	Metal		Fair	Green	9.6	6.6	NEG	0.26 ± 0.45	0.10 ± 0.95	0.26 ± 0.45	NA
45	169	1	1		Top	Bldg. #305 (exterior)	Electrical Box	Metal	on HVAC unit	Fair	Gray	5.1	1.0	NEG	0.03 ± 0.03	-0.41 ± 1.43	0.03 ± 0.03	NA
46	170	1	1		Top	Bldg. #305 (exterior)	Pole	Metal	w. of HVAC ducting	Peeling		7.5	2.5	NEG	0.12 ± 0.40	-0.89 ± 1.14	0.12 ± 0.40	NA
47	171	1	1		Top	Bldg. #305 (exterior)	Electrical Box	Metal	on electrical pad	Fair	Gray	3.2	1.0	NEG	0.03 ± 0.07	0.36 ± 1.88	0.03 ± 0.07	NA
48	172	1	1		Top	Bldg. #305 (exterior)	Conduit pipe	Metal	on electrical pad	Fair	Silver	10.4	1.4	NEG	0.02 ± 0.10	0.66 ± 0.89	0.02 ± 0.10	NA
49	173	1	1		Top	Bldg. #305 (exterior)	Electrical Box	Metal		Fair	Black	3.2	1.0	NEG	0.00 ± 0.02	0.83 ± 1.76	0.00 ± 0.02	NA
50	174	1	1		North	Bldg #306 (exterior)	Wall	Brick	Middle	Fair	Beige	8.1	1.0	NEG	0.00 ± 0.01	0.23 ± 1.16	0.00 ± 0.01	NA
51	175	1	1		North	Bldg #306 (exterior)	Electrical Box	Metal		Fair	Gray	5.1	1.0	NEG	0.02 ± 0.03	1.03 ± 1.41	0.02 ± 0.03	NA
52	176	1	1		East	Bldg #306 (exterior)	Wall	Brick	Middle	Fair	Beige	12.8	1.7	NEG	0.05 ± 0.10	0.82 ± 0.82	0.05 ± 0.10	NA
53	177	1	1		East	Bldg #306 (exterior)	Conduit pipe	Metal	Electrical	Fair	Beige	8.0	1.4	NEG	0.05 ± 0.12	0.50 ± 1.16	0.05 ± 0.12	NA
54	178	1	1		South	Bldg #306 (exterior)	Wall	Brick	Middle	Fair	Beige	8.1	1.0	NEG	0.02 ± 0.07	0.27 ± 1.18	0.02 ± 0.07	NA
55	179	1	1		South	Bldg #306 (interior)	Wall	Brick	Middle	Cracking	Brick	8.1	3.0	NEG	0.12 ± 0.31	0.22 ± 1.22	0.12 ± 0.31	NA
56	180	1	1		South	Bldg #306 (interior)	Wall	Brick	Middle	Cracked	Blue	3.3	1.0	INCOM	0.01 ± 0.22	0.43 ± 1.87	0.01 ± 0.22	NA
57	181	1	1		South	Bldg #306 (interior)	Wall	Brick	Middle	Cracked	Blue	5.7	2.2	NEG	0.02 ± 0.25	-0.58 ± 1.42	0.02 ± 0.25	NA

No	XLNo	Site	Insp	Flr	Side	Room	Strc	Sub	Feat	Cnd	Clr	Ssec	DI	Result	Pbl ± Prec	Pbk ± Prec	Pbc ± Prec	Res ± Prec
58	182	1	1		North	Bldg #306 (interior)	Conduit pipe	Metal	Electical	Fair	Gray	3.3	1.0	NEG	0.00 ± 0.03	-0.73 ± 1.94	0.00 ± 0.03	NA
59	183	1	1			Bldg #306 (interior)	Floor	Concrete		Poor	Green	8.1	4.0	NEG	0.05 ± 0.24	0.43 ± 1.26	0.05 ± 0.24	NA
60	184	1	1		West	Bldg #306 (interior)	Wall	Brick	Middle	Fair	Green	5.7	1.0	NEG	0.00 ± 0.11	-0.36 ± 1.39	0.00 ± 0.11	NA
61	185	1	1		West	Bldg #306 (interior)	Door	Wood	Frame	Pealing	Green	7.9	1.4	NEG	0.04 ± 0.15	0.53 ± 0.76	0.04 ± 0.15	NA
62	186	1	1		West	Bldg #306 (interior)	Wall Tile	Ceramic	Middle	Poor	White/Blue	3.0	1.6	POS	>>5.0	16.65 ± 4.49	16.65 ± 4.49	NA
63	187	1	1		South	Bldg #306 (interior)	Wall	Brick	Middle	Cracked	Yellow	22.0	1.2	NEG	0.70 ± 0.13	0.76 ± 0.69	0.70 ± 0.13	NA
64	188	1	1		South	Bldg #306 (interior)	Wall	Brick	Middle	Cracked	Red	24.5	1.6	POS	0.63 ± 0.14	1.72 ± 0.67	1.72 ± 0.67	NA
65	189	1	1		South	Bldg #306 (interior)	Water drain pipe	Metal		Fair	Green	3.3	1.0	NEG	0.10 ± 0.05	-0.97 ± 2.14	0.10 ± 0.05	NA
66	190	1	1		southend	Bldg #306	5'x2' Sheeting	Metal	on the ground	Cracked	White	5.5	1.9	NEG	0.18 ± 0.27	-0.74 ± 1.12	0.18 ± 0.27	NA
67	191	1	1			Bldg #309	I-Beam	Metal	Horizontal Platform	Cracked	Grey	8.0	1.2	NEG	0.41 ± 0.17	0.09 ± 1.21	0.41 ± 0.17	NA
68	192	1	1		West	Bldg #309 (smll bldg.)	Wall	Brick	Middle	Fair	Beige	5.7	1.1	NEG	0.03 ± 0.11	-0.05 ± 1.36	0.03 ± 0.11	NA
69	193	1	1		North	Bldg #309 (smll bldg.)	Wall	Brick	Middle	Fair	Beige	5.7	1.0	NEG	0.01 ± 0.04	-0.27 ± 1.38	0.01 ± 0.04	NA
70	194	1	1		East	Bldg #309 (smll bldg.)	Wall	Brick	Middle	Fair	Beige	8.1	4.6	NEG	0.03 ± 0.13	-0.49 ± 1.13	0.03 ± 0.13	NA
71	195	1	1		South	Bldg #309 (smll bldg.)	Wall	Brick	Middle	Fair	Beige	8.1	2.7	NEG	0.01 ± 0.04	-0.27 ± 1.10	0.01 ± 0.04	NA
72	196	1	1		South	Bldg #309 (smll bldg.)	Roof	Metal	Underside	Fair	Brown	3.3	2.0	NEG	0.14 ± 0.38	0.56 ± 2.27	0.14 ± 0.38	NA
73	197	1	1		South	Bldg #309 (smll bldg.)	Roof	Metal	Top	Fair	Brown	3.2	1.3	NEG	0.04 ± 0.22	0.65 ± 2.23	0.04 ± 0.22	NA
74	198	1	1			Bldg #309	Platform	Metal	on the ground	Fair	Gray	5.7	1.6	NEG	0.33 ± 0.25	0.99 ± 1.39	0.33 ± 0.25	NA
75	199	1	1			Bldg #309	Box	Metal	Exterior	Fair	Gray	3.3	1.1	NEG	0.37 ± 0.28	-0.74 ± 2.15	0.37 ± 0.28	NA
76	200	1	1			Bldg #309	Block	Concrete	Middle	Cracked	Gray	15.1	1.2	NEG	0.24 ± 0.10	0.43 ± 0.86	0.24 ± 0.10	NA
77	201	1	1			Bldg #309	smll I-Beam	Metal		Cracked	Gray	3.3	1.0	NEG	0.34 ± 0.16	0.37 ± 2.05	0.34 ± 0.16	NA
78	202	1	1		Top	Bldg. #304	Tank	Metal	Exterior	Poor	Yellow	3.2	1.2	POS	2.93 ± 0.89	3.52 ± 2.56	2.93 ± 0.89	NA
79	203	1	1			Bldg. #304 (exterior)	Wall	Concrte	Middle	Cracked	Beige	8.1	10.0	NEG	0.12 ± 0.26	-0.90 ± 1.26	0.12 ± 0.26	NA
80	204	1	1			Bldg. #304 (exterior)	Door	Metal	Frame	Cracked	Beige	3.3	1.0	NEG	0.01 ± 0.16	-0.32 ± 1.90	0.01 ± 0.16	NA
81	205	1	1		North	Bldg. #304 (interior)	Wall	Concrete	Middle	Cracked	Blue	5.7	3.3	NEG	0.05 ± 0.30	0.06 ± 1.59	0.05 ± 0.30	NA
82	206	1	1		South	Bldg. #304 (interior)	Wall	Concrete	Middle	Cracked	Blue	8.1	1.0	NEG	0.01 ± 0.07	0.07 ± 1.24	0.01 ± 0.07	NA
83	207	1	1		East	Bldg. #304 (interior)	Wall	Concrete	Middle	Cracked	Blue	8.1	3.5	NEG	0.08 ± 0.36	0.11 ± 1.21	0.08 ± 0.36	NA
84	208	1	1		West	Bldg. #304 (interior)	Wall	Concrete	Middle	Cracked	Blue	17.6	1.0	NEG	0.02 ± 0.04	-0.15 ± 0.78	-0.15 ± 0.78	NA
85	209	1	1			Bldg. #304 (interior)						15.2	1.2	NEG	0.02 ± 0.06	-0.13 ± 0.82	-0.13 ± 0.82	NA
86	210	1	1			Bldg. #304 (interior)	Ceiling	Concrete		Cracked	White	12.8	1.6	NEG	0.02 ± 0.11	-0.20 ± 0.90	-0.20 ± 0.90	NA
87	211	1	1			Bldg. #304 (interior)	Door	Metal	Middle	Cracked	Green	7.8	1.5	POS	2.12 ± 0.51	1.35 ± 1.08	2.12 ± 0.51	NA
88	212	1	1		C	Bldg. #304 (interior)	Conduit pipe	Metal	Electrical	Fair	Gray	5.1	3.4	NEG	0.09 ± 0.45	-0.10 ± 1.53	0.09 ± 0.45	NA
89	213	1	1		C	Bldg. #304 (interior)	Electrical Box	Metal	Exterior	Fair	Gray	3.2	2.0	NEG	0.03 ± 0.29	1.68 ± 2.03	0.03 ± 0.29	NA
90	214	1	1			Bldg. #304 (exterior)	Pannel	Metal		Cracked	Blue	17.6	1.0	NEG	0.04 ± 0.02	-0.14 ± 0.79	-0.14 ± 0.79	NA
91	215	1	1		North	Bldg. #311 (interior)	Wall	Concrete	Middle	Cracked	Gray	12.8	10.0	NEG	0.09 ± 0.16	-0.00 ± 0.78	-0.00 ± 0.78	NA
92	216	1	1		East	Bldg. #311 (interior)	Wall	Concrete	Middle	Cracked	Gray	8.1	1.0	NEG	0.00 ± 0.13	-0.35 ± 0.93	0.00 ± 0.13	NA
93	217	1	1		South	Bldg. #311 (interior)	Wall	Concrete	Middle	Cracked	Gray	5.7	1.0	NEG	0.01 ± 0.13	-0.30 ± 1.21	0.01 ± 0.13	NA
94	218	1	1		West	Bldg. #311 (interior)	Wall	Concrete	Middle	Cracked	Gray	5.7	1.0	NEG	0.00 ± 0.13	0.14 ± 1.21	0.00 ± 0.13	NA
95	219	1	1			Bldg. #311 (interior)	I-Beams	Metal	Ceiling	Cracked	Black	3.2	1.0	NEG	0.00 ± 0.07	-0.46 ± 2.11	0.00 ± 0.07	NA
96	220	1	1			Bldg. #311 (interior)	I-Beams	Metal	Ceiling	Cracked	White	3.2	1.0	NEG	0.01 ± 0.19	-0.78 ± 2.13	0.01 ± 0.19	NA
97	221	1	1			Bldg. #311 (interior)	Ceiling	Concrete		Fair	Gray	5.7	1.0	NEG	0.00 ± 0.10	0.02 ± 1.20	0.00 ± 0.10	NA
98	222	1	1			Bldg. #311 (interior)	Door	Metal	on the ground	Peeling	White	3.2	1.4	NEG	0.11 ± 0.26	-1.30 ± 1.84	0.11 ± 0.26	NA
99	223	1	1		East	Bldg. #311 (exterior)	Wall	Concrete	Middle	Peeling	Beige	8.1	1.6	NEG	0.05 ± 0.14	-0.54 ± 1.17	0.05 ± 0.14	NA
00	224	1	1			Bldg. #311 (exterior)	Door	Metal	Frame	Cracked	Green	3.3	1.3	NEG	0.17 ± 0.26	-0.72 ± 2.18	0.17 ± 0.26	NA
01	225	1	1			Bldg. #311 (exterior)	Door	Metal	Jamb	Cracked	Blue	3.3	1.2	NEG	0.11 ± 0.21	-0.05 ± 2.01	0.11 ± 0.21	NA
02	226	1	1			Bldg. #311 (exterior)	Bollard Poles (2)	Metal		Cracked	Yellow	3.1	1.2	POS	>>5.0	5.40 ± 3.08	5.10 ± 1.15	NA
03	227	1	1			Bldg. #311 (exterior)		Wood	on the ground	Cracked	White	3.3	1.0	NEG	0.00 ± 0.12	0.12 ± 1.16	0.00 ± 0.12	NA
04	228	1	1		A	Bldg #325 (exterior)	Wall	Concrete	Middle	Cracked	Beige	12.8	1.4	NEG	0.01 ± 0.11	-0.43 ± 0.89	-0.43 ± 0.89	NA
05	229	1	1		A	Bldg #325 (exterior)	Door	Metal	Frame	Cracked	Gray	3.3	1.0	NEG	0.02 ± 0.02	-0.24 ± 1.98	0.02 ± 0.02	NA
06	230	1	1		B	Bldg #325 (interior)	Wall	Metal	Middle	Fair	Brown	3.2	1.2	NEG	0.16 ± 0.23	-0.60 ± 2.10	0.16 ± 0.23	NA
07	**231**	**1**	**1**			**Shutter Cal 1**						**110.5**	**0.0**	**...**	**NA**	**NA**	**NA**	**446 ± NA**
08	232	1	1			Bldg #325 (interior)	Door	Metal		Cracked	Green	3.2	1.0	NEG	0.02 ± 0.05	-0.68 ± 2.06	0.02 ± 0.05	NA
09	233	1	1		North	Bldg. #312 (exterior)	Wall	Brick	Middle	Fair	Beige	5.7	1.0	NEG	0.00 ± 0.08	-0.80 ± 1.34	0.00 ± 0.08	NA
10	234	1	1		East	Bldg. #312 (exterior)	Wall	Brick	Middle	Fair	Yellow	5.5	1.4	POS	2.99 ± 0.74	5.44 ± 2.04	2.99 ± 0.74	NA
	235	1	1		East	Bldg. #312 (exterior)	Wall	Brick	Middle	Fair	Red	5.5	1.4	POS	2.27 ± 0.60	1.58 ± 1.62	2.27 ± 0.60	NA
	236	1	1		East	Bldg. #312 (exterior)	Wall	Brick	Middle	Fair	Beige	8.0	7.0	NEG	0.05 ± 0.12	-0.44 ± 1.16	0.05 ± 0.12	NA
	237	1	1		South	Bldg. #312 (exterior)	Wall	Brick	Middle	Fair	Beige	8.1	1.0	NEG	0.00 ± 0.03	-0.63 ± 1.05	0.00 ± 0.03	NA
	238	1	1		South	Bldg. #312 (exterior)	Structure	Metal	Wall	Fair	Green	3.2	1.0	NEG	0.08 ± 0.12	0.20 ± 2.12	0.08 ± 0.12	NA
	239	1	1		West	Bldg. #312 (exterior)	Wall	Brick	Middle	Fair	Beige	8.1	1.6	NEG	0.01 ± 0.18	-0.05 ± 1.18	0.01 ± 0.18	NA
	240	1	1		West	Bldg. #312 (interior)	Door	Wood	Jamb	Cracked	Green	3.2	1.4	NEG	0.06 ± 0.35	-1.12 ± 1.34	0.06 ± 0.35	NA
	241	1	1		North	Bldg. #312 (interior)	Wall	Brick	Middle	Cracked	Beige	5.7	1.0	NEG	0.00 ± 0.08	0.21 ± 1.38	0.00 ± 0.08	NA

o	XI.No	Site	Insp	Flr	Side	Room	Strc	Sub	Feat	Cnd	Clr	Ssec	DI	Result	Pbl ± Prec	Pbk ± Prec	Pbc ± Prec	Res ± Prec
8	242	1	1		East	Bldg. #312 (interior)	Wall	Brick	Middle	Cracked	Beige	10.5	10.0	NEG	0.08 ± 0.18	-0.45 ± 0.92	-0.45 ± 0.92	NA
9	243	1	1		South	Bldg. #312 (interior)	Wall	Brick	Middle	Cracked	Beige	5.7	1.0	NEG	0.00 ± 0.09	-0.02 ± 1.39	0.00 ± 0.09	NA
0	244	1	1		West	Bldg. #312 (interior)	Wall	Brick	Middle	Cracked	Beige	39.0	5.1	NEG	0.02 ± 0.08	0.53 ± 0.47	0.02 ± 0.08	NA
1	245	1	1		North	Bldg. #312 (exterior)	Roll-Up Door	Metal	Frame	Cracked	White	3.3	1.1	NEG	0.19 ± 0.22	-0.32 ± 2.22	0.19 ± 0.22	NA
2	246	1	1		North	Bldg. #312 (exterior)	Roll-Up Door	Metal	Door	Cracked	White	5.1	5.5	NEG	0.11 ± 0.25	-0.96 ± 1.16	0.11 ± 0.25	NA
3	247	1	1			Bldg. #312 (interior)						3.3	1.0	NEG	0.04 ± 0.04	-0.09 ± 1.18	0.04 ± 0.04	NA
4	248	1	1		West	Bldg. #312 (interior)	Conduit run	Wood	Electrical	Fair	Green	3.1	10.0	INCOM	0.53 ± 1.29	0.45 ± 2.10	0.53 ± 1.29	NA
5	249	1	1		West	Bldg. #312 (interior)	Conduit pipe	Metal	Electrical	Fair	White	7.6	3.4	NEG	0.10 ± 0.44	0.05 ± 1.05	0.10 ± 0.44	NA
6	250	1	1		South	Bldg. #312 (interior)	Structure	Metal	Wall	Cracked	Gray	3.3	1.0	NEG	0.22 ± 0.22	-0.25 ± 2.14	0.22 ± 0.22	NA
7	251	1	1			Bldg. #312 (interior)	Shelve	Wood	on the ground	Cracked	Green	3.3	2.4	NEG	0.05 ± 0.42	-0.66 ± 1.28	0.05 ± 0.42	NA
8	252	1	1			Bldg. #312 (interior)	Shelve	Wood	on the ground	Cracked	White	3.3	1.4	NEG	0.04 ± 0.44	0.31 ± 1.45	0.04 ± 0.44	NA
9	253	1	1		West	Bldg. #312 (exterior)	Conduit pipe	Metal	Electical	Fair	Beige	5.4	7.7	NEG	0.21 ± 0.35	0.46 ± 1.45	0.21 ± 0.35	NA
0	254	1	1		North	Bldg. T4 (exterior)	Wall	Brick	Middle	Fair	Beige	8.1	3.5	NEG	0.04 ± 0.20	-0.61 ± 1.07	0.04 ± 0.20	NA
1	255	1	1		West	Bldg. T4 (exterior)	Wall	Brick	Middle	Fair	Beige	5.7	5.5	NEG	0.05 ± 0.18	0.11 ± 1.27	0.05 ± 0.18	NA
2	256	1	1		South	Bldg. T4 (exterior)	Wall	Brick	Middle	Fair	Beige	8.0	1.0	NEG	0.01 ± 0.09	-0.36 ± 1.11	0.01 ± 0.09	NA
3	257	1	1		East	Bldg. T4 (exterior)	Wall	Brick	Middle	Fair	Beige	5.7	2.7	NEG	0.02 ± 0.17	0.28 ± 1.38	0.02 ± 0.17	NA
4	258	1	1			Bldg. T4 (exterior)	Rain Gutter	Metal	on the ground	Cracked	Green	5.4	4.9	NEG	0.14 ± 0.43	-0.69 ± 0.89	0.14 ± 0.43	NA
5	259	1	1		West	Bldg. T4 (exterior)	Door	Metal	Frame	Cracked	Green	5.6	1.0	NEG	0.34 ± 0.18	0.68 ± 1.43	0.34 ± 0.18	NA
6	260	1	1		West	Bldg. T4 (interior)	Door	Metal	Jamb	Cracked	White	24.4	1.8	POS	0.99 ± 0.19	0.53 ± 0.68	0.99 ± 0.19	NA
7	261	1	1		East	Bldg. T4 (interior)	Wall	Brick	Middle	Peeling	White	8.1	2.4	NEG	0.03 ± 0.24	-0.50 ± 1.06	0.03 ± 0.24	NA
8	262	1	1		North	Bldg. T4 (interior)	Wall	Brick	Middle	Peeling	White	5.7	3.6	NEG	0.04 ± 0.21	-1.21 ± 1.41	0.04 ± 0.21	NA
9	263	1	1		West	Bldg. T4 (interior)	Wall	Brick	Middle	Peeling	White	5.7	1.3	NEG	0.01 ± 0.18	-0.65 ± 1.47	0.01 ± 0.18	NA
0	264	1	1		South	Bldg. T4 (interior)	Wall	Brick	Middle	Peeling	White	8.1	9.3	NEG	0.08 ± 0.17	-0.78 ± 1.12	-0.78 ± 1.12	NA
1	265	1	1		East	Bldg. T4 (interior)	Window	Metal	Frame	Peeling	White	12.8	2.9	NEG	0.51 ± 0.28	0.20 ± 0.98	0.51 ± 0.28	NA
2	266	1	1		North	Bldg. T4 (exterior)	Facia Board	Wood	on the ground	Peeling	Green	3.3	1.0	NEG	0.05 ± 0.13	-0.64 ± 1.20	0.05 ± 0.13	NA
3	267	1	1		Top	Bldg. T4 (Elect. pad))	Conduit pipe	Metal	Electical	Fair	silver	17.6	1.0	NEG	0.00 ± 0.04	0.13 ± 0.67	0.13 ± 0.67	NA
4	268	1	1			Bldg. T4 (west of)						2.9	1.0	INCOM	0.02 ± 0.04	0.42 ± 2.89	0.02 ± 0.04	NA
5	269	1	1			Bldg. T4 (elect. pad)	Conduit pipe	Metal	Electical	Fair	Gray	4.9	1.0	NEG	0.03 ± 0.02	-0.05 ± 1.50	0.03 ± 0.02	NA
6	270	1	1			Bldg. T4 (Elect. pad))	Fence	Metal		Fair	Gray	4.9	1.0	NEG	0.08 ± 0.05	0.20 ± 1.28	0.08 ± 0.05	NA
7	271	1	1			Bldg. T4 (Elect. pad))	Warning sign	Metal	on the fence	Fair	Red/Back	3.2	2.7	NEG	0.03 ± 0.08	-0.17 ± 1.75	0.03 ± 0.08	NA
8	272	1	1		East	Bldg. #303	Wall	Brick	Middle	Cracked	Beige	8.1	1.3	NEG	0.04 ± 0.10	-1.24 ± 1.15	0.04 ± 0.10	NA
9	273	1	1		East	Bldg. #303	Roll-Up Door	Metal	Frame	Peeling	Beige	12.8	2.7	NEG	0.58 ± 0.28	0.59 ± 0.98	0.58 ± 0.28	NA
0	274	1	1		East	Bldg. #303	Roll-Up Door	Metal		Cracked	Beige	3.1	1.5	NEG	0.03 ± 0.47	0.23 ± 1.62	0.03 ± 0.47	NA
1	275	1	1		East	Bldg. #303 (interior)	I-Beam	Metal		Fair	White	3.3	1.0	NEG	0.08 ± 0.17	1.07 ± 2.04	0.08 ± 0.17	NA
2	276	1	1		West	Bldg. #303 (interior)	Wall	Concrete	Middle	Fair	Beige	12.8	1.1	NEG	0.03 ± 0.06	-0.28 ± 0.92	-0.28 ± 0.92	NA
3	277	1	1		East	Bldg. #303 (interior)	Conduit pipe	Metal	Electical	Fair	Beige	5.1	1.6	NEG	0.08 ± 0.33	0.71 ± 1.56	0.08 ± 0.33	NA
4	278	1	1			Bldg. #303 (interior)	Access Ladder	Metal		Cracked	Yellow	7.8	1.2	POS	1.85 ± 0.39	2.05 ± 1.39	1.85 ± 0.39	NA
5	279	1	1		South	Bldg. #303 (interior)	Hvac Duct	Metal		Fair	Beige	8.1	3.5	NEG	0.18 ± 0.37	-1.01 ± 1.20	0.18 ± 0.37	NA
6	280	1	1			Bldg. #303 (interior)	Door	Metal		Fair	Green	5.7	1.3	NEG	0.43 ± 0.24	0.84 ± 1.41	0.43 ± 0.24	NA
7	281	1	1			Bldg. #303 (interior)	Door	Metal	Jamb	Fair	Green	3.3	1.0	NEG	0.28 ± 0.24	0.83 ± 2.30	0.28 ± 0.24	NA
8	282	1	1		East	Bldg. #303 (interior)	Wall	Brick	Middle	Cracked	Green	5.7	1.0	NEG	0.03 ± 0.10	0.20 ± 1.44	0.03 ± 0.10	NA
9	283	1	1			Bldg. #303 (interior)	Electrical Box	Metal	in hallway	Fair	Gray	3.2	1.0	NEG	0.00 ± 0.02	0.20 ± 1.83	0.00 ± 0.02	NA
0	284	1	1			Bldg. #303 (interior)	Ceiling	Drywall		Fair	Green	10.4	1.7	NEG	0.06 ± 0.12	-0.07 ± 0.96	0.06 ± 0.12	NA
1	285	1	1			Bldg. #303 (interior)	Wall	Wood	Middle	Fair	Green	8.1	1.5	NEG	0.05 ± 0.12	0.34 ± 1.13	0.05 ± 0.12	NA
2	286	1	1			Bldg. #303 (interior)	Wall	Brick	Middle	Fair	Green	3.3	1.0	NEG	0.02 ± 0.11	-0.31 ± 1.22	0.02 ± 0.11	NA
3	287	1	1			Bldg. #303 (interior)	Door	Metal		Fair	White	3.3	1.2	NEG	0.19 ± 0.24	-0.90 ± 1.60	0.19 ± 0.24	NA
4	288	1	1			Bldg. #303 (interior)	Door	Wood	Frame	Cracked	White	3.3	1.7	NEG	0.17 ± 0.32	-0.47 ± 2.05	0.17 ± 0.32	NA
5	289	1	1		West	Bldg. #303 (interior)	Wall	Brick	Middle	Fair	Beige	8.1	2.4	NEG	0.06 ± 0.21	0.01 ± 1.00	0.06 ± 0.21	NA
6	290	1	1		South	Bldg. #303 (interior)	Wall	Brick	Middle	Fair	Beige	8.1	7.3	NEG	0.24 ± 0.39	0.24 ± 1.06	0.24 ± 0.39	NA
7	291	1	1			Bldg. #303 (interior)	Ceiling	Drywall		Fair	White	3.2	1.0	NEG	0.08 ± 0.11	0.31 ± 1.63	0.08 ± 0.11	NA
8	292	1	1			Bldg. #303 (interior)	divider	Metal	in restroom	Fair	Brown	12.8	2.2	NEG	0.51 ± 0.23	-0.01 ± 0.84	0.51 ± 0.23	NA
9	293	1	1			Bldg. #303 (interior)	Door	Metal		Fair	White	5.7	1.4	NEG	0.33 ± 0.22	0.35 ± 1.38	0.33 ± 0.22	NA
0	294	1	1		East	Bldg. #303 (exterior)	Wall	Metal	Middle	Cracked	White	5.7	1.4	NEG	0.40 ± 0.24	-0.47 ± 1.25	0.40 ± 0.24	NA
1	295	1	1		East	Bldg. #303 (exterior)	Rain Gutter	Metal		Cracked	Red	5.4	1.5	NEG	0.33 ± 0.25	0.18 ± 1.33	0.33 ± 0.25	NA
2	296	1	1		South	Bldg. #303 (exterior)	Wall	Concrte	Middle	Fair	Beige	5.7	1.6	NEG	0.05 ± 0.19	-0.14 ± 1.40	0.05 ± 0.19	NA
3	297	1	1		South	Bldg. #303 (exterior)	Door	Metal	Jamb	Fair	White	10.3	1.6	NEG	0.55 ± 0.21	0.34 ± 1.06	0.55 ± 0.21	NA
4	298	1	1		South	Bldg. #303 (exterior)	Roll-Up Door	Metal	Jamb	Cracked	White	5.6	1.6	NEG	0.06 ± 0.18	-0.31 ± 1.53	0.06 ± 0.18	NA
5	299	1	1		South	Bldg. #303 (exterior)	Roll-Up Door	Metal		Cracked	White	7.2	1.7	NEG	0.08 ± 0.26	-0.26 ± 0.95	0.08 ± 0.26	NA
6	300	1	1			Bldg. #303 (basement)	Door	Metal		Fair	Red	3.3	1.0	NEG	0.28 ± 0.19	-0.29 ± 2.12	0.28 ± 0.19	NA
7	301	1	1			Bldg. #303 (basement)	Door	Metal	Header	Fair	Red	5.7	1.6	NEG	0.41 ± 0.28	0.68 ± 1.64	0.41 ± 0.28	NA

No	XLNo	Site	Insp	Flr	Side	Room	Strc	Sub	Feat	Cnd	Clr	Ssec	DI	Result	Pbl ± Prec	Pbk ± Prec	Pbc ± Prec	Res ± Prec
178	302	1	1			Bldg. #303 (basement)	I-Beam	Metal	Ceiling	Fair	White	5.6	1.7	NEG	0.38 ± 0.28	-1.10 ± 1.61	0.38 ± 0.28	NA
179	303	1	1			Bldg. #303 (basement)	HVAC duct	Metal	Ceiling	Fair	Beige	3.2	1.0	NEG	0.00 ± 0.01	-0.63 ± 1.62	0.00 ± 0.01	NA
180	304	1	1		East	Bldg. #303 (basement)	Wall	Concrete	Middle	Cracked	Beige	10.4	1.0	NEG	0.02 ± 0.04	-0.62 ± 1.07	-0.62 ± 1.07	NA
181	305	1	1			Bldg. #303 (basement)	Wall	Brick	Middle	Fair	Beige	5.7	1.0	NEG	0.02 ± 0.14	-1.35 ± 1.36	0.02 ± 0.14	NA
182	306	1	1			Bldg. #303 (basement)	Pipe	Metal		Fair	Beige	3.3	1.4	NEG	0.02 ± 0.29	0.03 ± 1.71	0.02 ± 0.29	NA
183	307	1	1			Bldg. #303 (basement)	Wall	Brick	Middle	Fair	Beige	5.7	1.0	NEG	0.03 ± 0.11	-0.34 ± 1.23	0.03 ± 0.11	NA
184	308	1	1		North	Bldg. #303 (basement)	Conduit pipe	Metal	Electrical	Fair	Gray	3.2	1.5	NEG	0.04 ± 0.31	0.29 ± 1.88	0.04 ± 0.31	NA
185	309	1	1		North	Bldg. #303 (basement)	Electrical Box	Metal		Fair	Gray	3.3	1.0	NEG	0.01 ± 0.17	-0.77 ± 1.85	0.01 ± 0.17	NA
186	310	1	1		South	Bldg. #303 (exterior)	Wall	Metal	Middle	Fair	Gray	3.3	1.3	NEG	0.05 ± 0.23	-0.48 ± 1.77	0.05 ± 0.23	NA
187	311	1	1		South	Bldg. #303 (exterior)	Wall	Metal	Middle	Fair	White	3.0	1.0	NEG	0.02 ± 0.38	0.04 ± 1.70	0.02 ± 0.38	NA
188	312	1	1		West	Bldg. #303 (exterior)	Wall	Brick	Middle	Fair	Beige	19.9	1.5	NEG	0.05 ± 0.06	0.10 ± 0.64	0.05 ± 0.06	NA
189	313	1	1		West	Bldg. #303 (exterior)	Rain Gutter	Metal		Fair	Beige	9.8	4.8	NEG	0.15 ± 0.43	-0.00 ± 0.68	0.15 ± 0.43	NA
190	314	1	1		West	Bldg. #303 (exterior)	Conduit pipe	Metal	Electical	Fair	Beige	5.1	1.0	NEG	0.06 ± 0.16	0.88 ± 1.55	0.06 ± 0.16	NA
191	315	1	1		South	Bldg. #303 (exterior)	Hand Rail	Metal	Stairs	Peeling	Yellow	3.3	1.0	NEG	0.24 ± 0.22	0.28 ± 2.25	0.24 ± 0.22	NA
192	316	1	1			Calibration						5.5	1.3	POS	2.23 ± 0.57	2.13 ± 1.62	2.23 ± 0.57	NA
193	317	1	1			Calibration						21.8	1.1	POS	1.14 ± 0.16	1.62 ± 0.63	1.14 ± 0.16	NA
194	318	1	1			Calibration						3.1	1.0	POS	2.95 ± 0.83	4.40 ± 2.53	2.95 ± 0.83	NA
195	**319**	**1**	**1**			**Shutter Cal 1**						**107.8**	**0.0**	**...**	**NA**	**NA**	**NA**	**448 ± NA**
196	320	1	1			Calibration						5.6	1.0	NEG	0.31 ± 0.15	-0.27 ± 1.55	0.31 ± 0.15	NA
197	321	1	1			Calibration						21.7	1.1	POS	1.15 ± 0.16	0.79 ± 0.75	1.15 ± 0.16	NA
198	322	1	1			Calibration						5.5	1.2	POS	2.25 ± 0.57	1.93 ± 1.75	2.25 ± 0.57	NA
199	323	1	1			Calibration						5.4	1.1	POS	3.59 ± 0.77	2.91 ± 1.96	3.59 ± 0.77	NA
200	324	1	1		Top	Bldg. #303 (interior)	I-Beam	Metal	Wall	fair	Beige	3.2	1.2	NEG	0.36 ± 0.31	0.41 ± 2.32	0.36 ± 0.31	NA
201	325	1	1		North	Bldg. #303 (interior)	Wall	Metal	Top	Fair	Beige	3.3	1.0	NEG	0.02 ± 0.04	-0.16 ± 1.79	0.02 ± 0.04	NA
202	326	1	1		North	Bldg. #303 (exterior)	Wall	Metal	Top	Fair	Beige	3.3	1.6	NEG	0.04 ± 0.34	-0.56 ± 1.78	0.04 ± 0.34	NA
203	327	1	1		West	Bldg. #303 (exterior)	Wall	Metal	Top	Fair	Beige	3.3	1.0	NEG	0.03 ± 0.10	-0.40 ± 1.85	0.03 ± 0.10	NA
204	328	1	1		South	Bldg. #303 (exterior)	Wall	Metal	Top	Fair	Beige	5.7	2.6	NEG	0.10 ± 0.33	0.36 ± 1.30	0.10 ± 0.33	NA
205	329	1	1			Bldg #303 (interior)	Floor	Concrete		Poor	Red	10.4	7.1	NEG	0.06 ± 0.14	-0.97 ± 1.05	0.06 ± 0.14	NA
206	330	1	1			Bldg #303 (interior)	Floor	Concrete		Poor	Red	8.1	1.0	NEG	0.00 ± 0.01	-0.96 ± 1.24	-0.96 ± 1.24	NA
207	331	1	1			Main Transformers	Generator	Metal	Door	Poor	Brown	5.6	1.0	NEG	0.03 ± 0.06	0.80 ± 1.53	0.03 ± 0.06	NA
208	332	1	1			Main Transformers	Electrical Box	Metal		Fair	Gray	3.3	1.0	NEG	0.00 ± 0.09	-2.72 ± 2.00	0.00 ± 0.09	NA
209	333	1	1			Main Transformers	Conduit pipe	Metal	Electrical	Fair	Gray	5.0	1.0	NEG	0.01 ± 0.31	-0.64 ± 1.55	0.01 ± 0.31	NA
210	334	1	1			Main Transformers	Generator	Metal	Base	Poor	White	3.3	1.0	NEG	0.05 ± 0.13	0.33 ± 2.25	0.05 ± 0.13	NA
211	335	1	1		East	Bldg. #315 (exterior)	Wall	Concrete	Middle	Cracked	Beige	8.1	1.0	NEG	0.00 ± 0.10	0.20 ± 1.25	0.00 ± 0.10	NA
12	336	1	1		East	Bldg. #315 (exterior)	Door	Metal		Fair	White	5.7	2.5	NEG	0.07 ± 0.33	-0.36 ± 1.27	0.07 ± 0.33	NA
13	337	1	1		East	Bldg. #315 (exterior)	Door	Metal	Lock Area	Fair	Red	3.2	3.3	NEG	0.05 ± 0.30	-0.58 ± 2.20	0.05 ± 0.30	NA
14	338	1	1		East	Bldg. #315 (exterior)	Conduit pipe	Metal	Electrical	Fair	Beige	3.3	1.0	NEG	0.00 ± 0.09	-0.44 ± 2.18	0.00 ± 0.09	NA
15	339	1	1		East	Bldg. #315 (exterior)	Door	Metal	Frame	Fair	White	3.3	1.7	NEG	0.02 ± 0.23	0.09 ± 1.63	0.02 ± 0.23	NA
16	340	1	1		South	Bldg. #315 (in office)	Wall	Concrete	Middle	Fair	White	8.1	1.1	NEG	0.01 ± 0.12	-0.33 ± 1.20	0.01 ± 0.12	NA
17	341	1	1		East	Bldg. #315 (in office)	Wall	Concrete	Middle	Fair	White	8.1	1.0	NEG	0.01 ± 0.03	0.29 ± 1.21	0.01 ± 0.03	NA
18	342	1	1		North	Bldg. #315 (in office)	Wall	Concrete	Middle	Fair	White	10.4	1.4	NEG	0.01 ± 0.16	-0.22 ± 1.04	0.01 ± 0.16	NA
19	343	1	1		West	Bldg. #315 (in office)	Wall	Concrete	Middle	Fair	White	8.1	6.2	NEG	0.13 ± 0.28	-0.95 ± 1.23	0.13 ± 0.28	NA
20	344	1	1		East	Bldg. #315 (in office)	Door	Metal		Fair	White	3.3	1.5	NEG	0.05 ± 0.27	-0.33 ± 1.92	0.05 ± 0.27	NA
21	345	1	1		East	Bldg. #315 (in office)	Door	Metal	Jamb	Fair	White	5.7	1.4	NEG	0.03 ± 0.15	-0.58 ± 1.32	0.03 ± 0.15	NA
22	346	1	1		North	Bldg. #315 (tool room)	Wall	Concrete	Interior	Fair	Beige	10.4	1.0	NEG	0.01 ± 0.04	-0.23 ± 1.02	0.01 ± 0.04	NA
3	347	1	1		East	Bldg. #315 (tool room)	Wall	Concrete	Interior	Fair	Beige	8.1	3.9	NEG	0.02 ± 0.05	0.05 ± 1.23	0.02 ± 0.05	NA
4	348	1	1		South	Bldg. #315 (tool room)	Wall	Concrete	Interior	Fair	Beige	8.1	4.3	NEG	0.05 ± 0.21	-1.04 ± 1.19	0.05 ± 0.21	NA
5	349	1	1		West	Bldg. #315 (tool room)	Wall	Concrete	Interior	Fair	Beige	8.1	7.6	NEG	0.15 ± 0.24	-0.15 ± 1.24	0.15 ± 0.24	NA
6	350	1	1		East	Bldg. #315 (tool room)	Door	Metal	Jamb	Fair	White	3.3	1.0	NEG	0.06 ± 0.15	0.22 ± 1.84	0.06 ± 0.15	NA
7	351	1	1		East	Bldg. #315 (tool room)	Door	Metal		Fair	White	8.1	4.8	NEG	0.15 ± 0.44	-0.19 ± 1.23	0.15 ± 0.44	NA
8	352	1	1		East	Bldg. #315 (tool room)	Electrical Box	Metal		Fair	Gray	3.2	1.0	NEG	0.00 ± 0.14	-0.17 ± 2.06	0.00 ± 0.14	NA
9	353	1	1		East	Bldg. #315 (in office)	Electrical Box	Metal		Fair	Gray	3.3	1.0	NEG	0.00 ± 0.13	1.17 ± 1.13	0.00 ± 0.13	NA
0	354	1	1		West	Bldg. #315 (trailer)	Wall	Metal	Exterior	Fair	White	8.1	1.9	NEG	0.01 ± 0.12	-0.05 ± 0.55	-0.05 ± 0.55	NA
	355	1	1		North	Bldg. #315 (trailer)	Wall	Metal	Exterior	Fair	White	10.4	1.0	NEG	0.00 ± 0.01	0.39 ± 0.55	0.00 ± 0.01	NA
2	356	1	1		East	Bldg. #315 (trailer)	Wall	Metal	Exterior	Fair	White	10.4	3.4	NEG	0.02 ± 0.14	0.37 ± 0.53	0.02 ± 0.14	NA
	357	1	1		South	Bldg. #315 (trailer)	Wall	Metal	Exterior	Fair	White	10.4	1.0	NEG	0.00 ± 0.01	0.68 ± 0.54	0.00 ± 0.01	NA
	358	1	1		East	Bldg. #315 (trailer)	Electrical Box	Metal	Exterior	Fair	Gray	3.0	1.0	NEG	0.02 ± 0.15	-0.20 ± 1.92	0.02 ± 0.15	NA
	359	1	1		East	Bldg. #315 (trailer)	Transformer	Metal		Fair	Gray	3.3	1.0	NEG	0.01 ± 0.05	1.41 ± 2.06	0.01 ± 0.05	NA
	360	1	1		East	Bldg. #315 (trailer)	Tow Hitch	Metal		Fair	Black	3.2	1.0	NEG	0.03 ± 0.07	-0.95 ± 2.02	0.03 ± 0.07	NA
	361	1	1		East	Bldg. #315 (trailer)	Wall	Metal	Base	Poor	Red	15.2	1.0	NEG	0.00 ± 0.01	0.54 ± 0.40	0.00 ± 0.01	NA

Io	XLNo	Site	Insp	Flr	Side	Room	Strc	Sub	Feat	Cnd	Clr	Ssec	DI	Result	Pbl ± Prec	Pbk ± Prec	Pbc ± Prec	Res ± Prec
38	362	1	1		South	Bldg. #315 (trailer)	Door	Metal		Cracked	Brown	3.2	1.0	NEG	0.00 ± 0.01	0.95 ± 1.91	0.00 ± 0.01	NA
39	363	1	1		South	Bldg. #315 (trailer)	Door	Metal	Jamb	Cracked	White	3.2	1.2	NEG	0.05 ± 0.23	0.53 ± 1.66	0.05 ± 0.23	NA
40	364	1	1		South	Bldg. #315 (trailer)	Ramp	Wood		Cracked	Blue	3.3	1.0	NEG	0.00 ± 0.17	-0.10 ± 1.14	0.00 ± 0.17	NA
41	365	1	1		East	Bldg. #315 (trailer)	AC unit	Metal	exterior	Fair	Beige	3.1	4.1	NEG	0.06 ± 0.15	0.69 ± 1.50	0.06 ± 0.15	NA
42	366	1	1		Top	Bldg. #315	Exaust pipe	Metal		Fair	Silver	5.1	1.1	NEG	0.06 ± 0.17	-0.39 ± 1.49	0.06 ± 0.17	NA
43	367	1	1		Top	Bldg. #315	Wall	Concrete		Fair	Beige	5.7	1.0	NEG	0.00 ± 0.13	0.07 ± 1.51	0.00 ± 0.13	NA
44	368	1	1		East	Fuel Sullury Station	Wall	Concrete	Middle	Poor	Blue	8.0	1.8	NEG	0.10 ± 0.16	-0.13 ± 1.17	0.10 ± 0.16	NA
45	369	1	1		East	Fuel Sullury Station	Frame	Metal	into sullury	Cracked	Blue	3.1	1.6	POS	>>5.0	9.12 ± 3.21	9.12 ± 3.21	NA
46	370	1	1		East	Fuel Sullury Station	smll I-Beam	Metal	in concrete pad	Cracked	Red	3.2	3.1	POS	>>5.0	4.26 ± 2.84	5.10 ± 1.90	NA
47	371	1	1		East	Fuel Sullury Station	Frame	Metal		Cracked	Blue	3.2	1.1	POS	2.78 ± 0.82	3.60 ± 2.56	2.78 ± 0.82	NA
48	372	1	1		East	Fuel Sullury Station	Railing	Metal		Peeling	Yellow	5.5	1.0	POS	1.91 ± 0.36	2.54 ± 1.72	1.91 ± 0.36	NA
49	373	1	1			Fuel Sullury Station	3'x6' sheeting	Metal	on the ground	Poor	White	7.4	1.4	NEG	0.05 ± 0.20	0.56 ± 1.23	0.05 ± 0.20	NA
50	374	1	1		South	Fuel Sullury Station	Wall	Concrete	Middle	Cracked	Beige	8.1	1.0	NEG	0.00 ± 0.12	-0.94 ± 1.15	0.00 ± 0.12	NA
51	375	1	1		East	Fuel Sullury Station	Frame	Concrete	in slab	Cracked	Orange	10.0	1.2	POS	1.64 ± 0.32	1.72 ± 1.20	1.64 ± 0.32	NA
52	376	1	1		South	Fuel Sullury Station	Frame	Metal	in slab	Cracked	Blue	3.1	1.3	POS	>>5.0	8.99 ± 3.56	8.99 ± 3.56	NA
53	377	1	1		North	Fuel Sullury Station	Bollard pole	Metal	north of sullury	Peeling	Yellow	3.2	1.2	POS	2.89 ± 0.88	4.24 ± 2.71	2.89 ± 0.88	NA
54	378	1	1		North	Fuel Sullury Station	Bollard pole	Metal	(2)	Cracked	Yellow	5.2	1.1	POS	2.28 ± 0.56	1.93 ± 1.73	2.28 ± 0.56	NA
55	379	1	1			Calibrations						9.9	1.2	POS	3.78 ± 0.60	3.51 ± 1.19	3.78 ± 0.60	NA
56	380	1	1			Calibrations						3.3	1.2	NEG	0.38 ± 0.30	1.31 ± 1.92	0.38 ± 0.30	NA
57	381	1	1			Calibrations						21.7	1.0	POS	1.11 ± 0.15	0.85 ± 0.68	1.11 ± 0.15	NA

PERFORMANCE CHARACTERISTIC SHEET

EFFECTIVE DATE: April 17, 1998 **EDITION NO: 4**

MANUFACTURER AND MODEL

Make:	Niton Corporation
Models:	XL-309, 701-A, 702A, and 703-A Spectrum Analyzers
Source:	^{109}Cd (10 - 40 mCi initial source strength)
Note:	This Performance Characteristic Sheet (PCS) is applicable to the listed Niton XRF instruments which have an operating software version of 5.1 (or equivalent) using a variable-time mode, and to Niton instruments having an operating software version of 1.2C (or equivalent) using a fixed-time mode. This sheet supersedes all previous sheets for the XRF instruments made by the Niton Corporation and the 1993 testing of XL prototypes reported in the document titled: A Field Test of Lead-Based Paint Testing Technologies: Technical Report (EPA Report No. 747-R-95-002b, May 1995).

FIELD OPERATION GUIDANCE

This PCS provides supplemental information to be used in conjunction with Chapter 7 (Lead-Based Paint Inspection) of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* ("HUD Guidelines"). Performance parameters shown in this sheet are applicable only when operating the instrument using the manufacturer's instructions and the procedures described in Chapter 7 of the HUD Guidelines.

OPERATING PARAMETERS

Use of variable-time paint test mode ("K & L + Spectra" mode) on instruments running software version 5.1 (or equivalent) using the "Combined Lead Reading" with the instrument's display of a 95%--confident (2-sigma) *Positive* or *Negative* determination versus the action-level as the stopping point of the measurement.

Use of nominal 20-second readings for L-shell results or 120-second readings for K-shell results on instruments running software version 1.2C (or equivalent) in a fixed-time mode.

XRF CALIBRATION CHECK LIMITS

0.9 to 1.2 mg/cm^2 (inclusive for instruments running software version 5.1 (or equivalent)
0.9 to 1.1 mg/cm^2 (inclusive for instruments running software version 1.2C (or equivalent)

SUBSTRATE CORRECTION:

(applicable to instruments running software versions 5.1 (or equivalent) or 1.2C (or equivalent)

For XRF results below 4.0 mg/cm^2, substrate correction recommended for:

None

Substrate correction is not recommended for:

Brick, Concrete, Drywall, Metal, Plaster, and Wood

THRESHOLDS

(applicable to instruments running software versions 5.1 (or equivalent) or 1.2C (or equivalent)

DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm^2)
Results not corrected for substrate bias	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	1.0
	Plaster	1.0
	Wood	1.0
For instruments running software version 1.2C (or equivalent), application of the decision making methodology recommended in this PCS can result in inconclusive results regardless of whether decisions are based on L-shell readings, K-shell readings, or both.		

BACKGROUND INFORMATION

EVALUATION DATA SOURCE AND DATE

Performance parameters shown on this sheet are calculated from the EPA/HUD evaluation using archived building components. Three rounds of tests were conducted on approximately 150 test locations in each round.

One round of testing was conducted March 1995 using a single instrument with an October 1994 source at 10 mCi initial strength while running software version 1.2C in a fixed-time mode with nominal 20-second readings for L-shell results or 120-second readings for K-shell results.

The two other rounds of testing were conducted December 1997 using three different instruments, each running software version 5.1. Two of these instruments had new sources installed November 1997, the other instrument had a new source installed December 1997, all with 10 mCi initial strength. The December 1997 testing was performed in the variable-time paint test mode "K & L + Spectra" using the "combined Lead Reading" with 2-sigma confidence interval as the stopping point of the measurement.

XRF CALIBRATION CHECK

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm^2 in the NIST Standard Reference Material (SRM) (e.g. for NIST SRM 2579, use the 1.02 mg/cm^2 film). Measurements should be bracketed by successful XRF calibration check readings. XRF calibration checks are performed at the beginning and end of the day's inspections or at extended delays in testing, and (at least) every four hours during inspections or at a frequency recommended by the manufacturer, whichever is more stringent. If readings are outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instrument into control before XRF testing proceeds. Measurements which are not bracketed by successful calibration checks should be considered suspect.

EVALUATING THE QUALITY OF XRF TESTING

Randomly select ten testing combinations for re-testing from each house or from two randomly selected units in multifamily housing (a testing combination is a location on a painted surface as defined in Chapter 7 of the HUD Guidelines). For testing combinations involving up to four walls in a room, each wall is classified on its individual XRF reading (see Chapter 7 for testing procedures if there are more than four walls in a room, and for testing exterior walls).

For instruments running software version 5.1 (or equivalent), conduct the test in the variable-time paint test mode "K & L + Spectra" using the "Combined Lead Reading" with 2-sigma confidence interval as the stopping point of the measurement. For instruments running software version 1.2C (or equivalent) in the fixed-time mode, use either 20-second readings for the L-shell results or 120-second readings for the K-shell results, as described in the "Classifications of Results" section below.

Conduct XRF re-testing at the ten testing combinations selected for re-testing.

Determine if the XRF testing in the units or house passed or failed the test by applying the steps below.

Compute the Retest Tolerance Limit by the following steps:

Determine XRF results for the original and retest XRF readings. Do not correct the original or retest results for substrate bias. In single-family and multifamily housing, a result is defined as a single reading. Therefore, there will be ten original and ten retest XRF results for each house or for the two selected units.

Calculate the average of the original XRF result and retest XRF result for each testing
combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF results.

Compute the average of all ten re-test XRF results.

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, this procedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to or greater than the Retest Tolerance Limit a second time, then the inspection should be considered deficient.

Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 swelling units tested.

BIAS AND PRECISION

Bias and precision data were not computed for instruments using software version 5.1 and taking variable mode readings (see Appendix B, Section B3.2 of the document titled *Methodology for XRF Performance Characteristic Sheets*, EPA-747-R-45-008, September 1997). During the 1997 testing, there were 12 testing locations with laboratory-measured lead level equal to or greater than 4.0 mg/cm^2 lead which were tested using two instruments in the variable-time paint test mode. None of these testing locations had XRF readings less than 1.0 mg/cm^2. These data are for illustrative purposes only. Substrate correction is not recommended for this XRF instrument.

The bias and precision data given below are for instruments running software version 1.2C (or equivalent) and were computed without substrate correction using the 20-second L-shell readings from samples with reported laboratory results less than 4.0 mg/cm^2 lead. Readings reported by the instrument in the "x" or ">>x" format were not used in the computation. During the 1995 testing there were 15 test locations with a laboratory reported results equal to or greater than 4.0 mg/cm^2 lead. Of these, 12 readings were reported in the ">x" or ">>x" format, but of the 3 remaining, 1 had an XRF reading less than 1.0 mg/cm^2.

Bias and Precision Results for Niton Model XL-309 Instruments Using Software Version 1.2C (or equivalent)

MEASURED AT	SUBSTRATE	BIAS (mg/cm^2)	PRECISION (mg/cm^2)
0.0 mg/cm^2	All	0.0	<0.1
0.5 mg/cm^2	All	0.0	0.2
1.0 mg/cm^2	All	0.0	0.3
2.0 mg/cm^2	All	-0.1	0.5
Precision at 1 standard deviation			

CLASSIFICATION OF RESULTS

This section describes how to apply information disp' d by this instrument to determine the presence or absence of lead in paint using the proced.. recommended in Chapter 7 of the HUD Guidelines. These guidelines recommend classifying XRF results as positive, negative, or inconclusive compared to the lead-based paint 1.0 mg/cm^2 standard.

For Niton Model XL-309, 701-A, 702-A, and 703-A instruments running software version 5.1 (or equivalent), XRF results are classified using a threshold. There is no inconclusive classification when using the threshold for instruments running software version 5.1 in single-family and multifamily housing, an XRF result is a single reading taken on each testing combination (a testing combination is a location on a painted surface as defined in Chapter 7 of the HUD Guidelines). For testing combinations involving up to four walls in a room, each wall is classified on its individual XRF reading (see Chapter 7 for testing procedures if there are more than four walls in a room, and for testing exterior walls). For computing the XRF result, use all digits that are displayed by the instrument as the "Combined Lead Reading". Results are classified as positive (i.e., $\geq$1.0 mg/cm^2), if greater than or equal to the threshold, or negative (<1.0 mg/cm^2) if less than the threshold. Threshold values, provided in the tables above, were determined by comparing XRF test results to the 1.0 mg/cm^2) standard.

For Niton Model XL-309 instruments running software version 1.2C (or equivalent), additional procedures are needed to classify readings because this software displays readings and ancillary information useful for classification purposes. An algorithmic procedure is described that makes use of the XRF reading and other displayed information.

The algorithm for classifying results is first applied to 20-second nominal L-shell readings followed by 120-second nominal K-shell readings to resolve inconclusive results, or to recommend laboratory analysis of paint-chip samples, if necessary. A listing of laboratories recognized by the EPA National Lead Laboratory Accreditation Program (NLLAP) for the confirmational analysis of inconclusive results is available from the National Lead Clearinghouse at 1-800-424-LEAD.

XRF results are classified using threshold values for the Model XL-309 software version 1.2C (or equivalent). Results are classified as positive if greater than or equal to the threshold, and as negative if less than the threshold. There is no inconclusive classification when using threshold values.

However, in some cases, inconclusive results still may be obtained regardless of whether decisions are based on L-shell readings, K-shell readings, or both, as described below. Use all digits that are reported by the instrument. Threshold values, which were determined for comparing results to the 1.0 mg/cm^2 standard, are provided in the table above.

This instrument displays its lead-based paint measurements as both L-shell and K-shell readings based on the corresponding L-shell and K-shell X-ray fluorescence (refer to Chapter 7 of the HUD Guidelines for more details). The L-shell readings (or L-readings) are displayed as a numerical result alone, or as a numerical result preceded by either one greater-than symbol (">") or preceded by two greater-than symbols (">>"). The two greater-than symbols will only be displayed when the detected lead level is greater than 5.0 mg/cm^2. Since the maximum lead level reported by this instrument is 5.0 mg/cm^2, lead levels greater than 5.0 mg/cm^2 are displayed as ">>5.0". Other examples of how L-readings can be displayed (in mg/cm^2 units) are "0.6" and "<0.9". The numerical display alone implies that the instrument measured the lead in the paint at the displayed level using L-shell X-ray fluorescence; 0.6 mg/cm^2 in the example. A number preceded by a single greater-than symbol indicates that the measurable lead is deeply buried in the paint and the detected lead level is greater than the displayed value. In the example, >0.9 indicates that the instrument detected lead deeply buried in paint at a level greater than 0.9 mg/cm^2. K-shell readings (or K-shell readings) are displayed in one of two ways: 1) as a single K-reading plus and minus a "precision" value or 2) as an upper K-reading and lower K-reading.

The same method is used for testing in single-family and multifamily housing. The HUD Guidelines recommend taking a single XRF reading on a testing combination (a testing combination is a location on a painted surface as defined in Chapter 7 of the HUD Guidelines). For testing combinations involving up to four walls in a room, each wall is classified on its individual XRF reading (see Chapter 7 for testing procedures if there are more than four walls in a room, and for testing exterior walls).

A. Take a single 20-second nominal reading on each testing combination.

B. Classify the L-reading based on the type of information displayed.

<u>If two greater-than symbols are displayed then:</u>

- Classify the >>5.0 L-reading as POSITIVE

<u>If one greater-than symbol is displayed then:</u>

- Classify the L-reading as POSITIVE if the numerical result that follows the greater than symbol is equal to or greater than 1.0

- Classify the L-reading as INCONCLUSIVE if the numerical result that follows the greater than symbol is less than 1.0

<u>If the numerical L-reading is displayed alone (that is, without any preceding greater-than symbols) then:</u>

- Classify the L-reading as POSITIVE if the numerical result is equal to or greater than 1.0

- Classify the L-reading as NEGATIVE if the numerical result is less than 1.0

C. Resolution of results classified as inconclusive.

All results classified as inconclusive above require further investigation. Take a 120-second nominal XRF reading and use the K-shell reading. In multifamily housing, resolve the inconclusive classification with a single K-shell reading or laboratory analysis as described below.

- Classify the result as POSITIVE if either the K-reading minus the displayed precision value or the lower K-reading is equal to or greater than 1.0.

- Classify the result as NEGATIVE if either the K-reading plus the displayed precision value or the upper K-reading is less than 1.0.

- Classify the result as INCONCLUSIVE if neither of the above decision rules using the K-reading provided a classification which can occur when the upper K-reading is equal to or greater than 1.0 or the lower K-reading is less than 1.0.

- To resolve a remaining INCONCLUSIVE classification, remove a paint-chip sample as described in Chapter 7 of the HUD Guidelines and have it analyzed by a qualified laboratory as described in Chapter 7.

TESTING TIMES (FOR SOFTWARE VERSION 5.1)

For the variable-time paint test mode "K & L + Spectra," the instrument continues measuring until a positive or negative result is indicated relative to an action level (1.0 mg/cm^2 for active testing) and the current precision, or until the reading is terminated by moving the instrument away from the testing surface. None of the variable mode readings were terminated because of the two-minute limit used for archive testing. The following table provides testing time information for this testing mode. Source strength and type of substrate will affect actual testing times.

Testing Times for Instruments Running Software Version 5.1						
Variable mode testing times (seconds)						
	All Data			Median for laboratory - measured lead levels (mg/cm^2)		
Substrate	25th Percentile	Median	75th Percentile	Pb<0.25	0.25<=Pb<10	1.0<=Pb
Wood Drywall	6	8	15	6	20	5
Metal	6	13	20	13	20	6
Brick Concrete Plaster	6	11	20	9	10	6

DOCUMENTATION

This PCS was developed in accordance with the methodology in the EPA report titled *Methodology for XRF Performance Characteristic Sheets* (EPA 747-R-95-008, September 1997). This report provides an explanation of the statistical methodology used to construct the data in the sheets, and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. For a copy of this document call the National Lead Clearinghouse at 1-800-424-LEAD.

This XRF Performance Characteristic Sheet was developed by the Midwest Research Institute (MRI) under a grant from the U.S. Environmental Protection Agency and a separate contract between MRI and the XRF manufacturer. The U.S. Department of Housing and Urban Development (HUD) has determined that the information provided here is acceptable when used as guidance in conjunction with Chapter 7, Lead-Based Paint Inspection, of HUD's *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*. While MRI reserves the right to revise this XRF Performance Characteristic Sheet at any time, HUD's statement of acceptance would not apply to a revision until HUD has reviewed the revision and made a determination of its acceptability.

Site 1, Bldg. 305, Lead Paint on Exterior Walls

Site 1, Bldg. 305, Asbestos Containing Drywall Joint Compound

Site 1, Bldg. 305, Asbestos Containing Vinyl Floor Tile & Mastic & Base of Step

Site 1, Bldg. 305, Non-Asbestos Plaster Debris

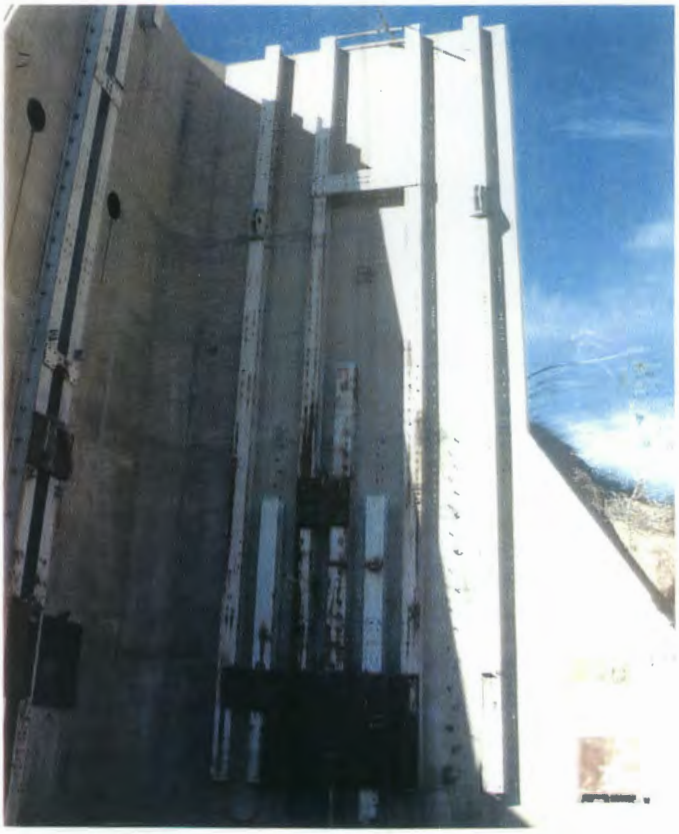
Site 1, Bldg. 303, Exterior Lead Paint on Steel/Concrete Walls; Asbestos Containing Red Brick Grout/Mortar & Asbestos Containing Wall Putty/Caulking

Site 1, Bldg. 303, Exterior Lead Paint on Steel/Concrete Walls; Asbestos Containing Red Brick Grout/Mortar & Asbestos Containing Wall Putty/Caulking

Site 1, Bldg. 308, Lead Paint on Walls & Steel Components

Site 1, Bldg. 308, Lead Paint on Walls & Steel Components

Site 1, Bldg. 308, Lead Paint on Walls & Steel Components



Site 1, Bldg. 308, Lead Paint on Walls & Steel Components

Site 1, Bldg. 325, Lead Paint on Walls & Components

Site 1, Bldg. 311, Lead Paint on Walls & Components; Asbestos Containing Exterior Textured Paint

Site 1, Lead Paint on Steel/Metal Components

Site 1, Lead Paint on Steel/Metal Components

Site 1, Lead Paint on all Steel/Metal Components

Site 1, Lead Paint on all Steel/Metal Components

Site 1, Lead Paint on all Steel/Metal Components

Site 1, Lead Paint on all Steel/Metal Components

Site 1, Lead Paint on all Steel/Metal Components

Site 1, Lead Paint on all Steel/Metal Components

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Site 1, Lead Paint on all Metal Components

Site 1, Lead Paint on all Metal Components

Site 1, Lead Paint on all Metal Components

Site 1, Lead Paint on all Metal Components

Site 1, Bldg T4, Lead Paint on Exterior Walls & Wood Components

Site 1, Bldg. T4, Lead Paint on Interior Walls

Site 1, Bldg T4, Non-Asbestos Wall/Ceiling Material

Site 1, Bldg. T4, Lead Paint on Exterior Walls

Site 1, Bldg. T4, Lead Paint on Fence Components

APPENDIX B

MOLD SURVEY FOR BEAUMONT SITE 1

CITY Environmental Services, Inc.

Hazardous Materials Inspections &
Abatement Management
1450 S. Burlington Ave., Suite B
Los Angeles, CA 90006
Phone 213-632-0410
Fax 213-632-0414

January 27, 2002

CITY Project No. 2614

Ms. Theresa Congdon
TETRA TECH, INC.
348 West Hospitality Lane
Suite 100
San Bernardino, California 92408

Subject: **Limited Mold Indoor Air Quality Assessment Report Performed at Lockheed Beaumont Site No. 1, as well a recommended remediation work plan**

Dear Ms. Congdon:

As requested, CITY Environmental Services, Inc. (CITY) performed a limited indoor air quality assessment (LIAQA) at the above project site in response to concerns of potential mold growth.

This letter report presents a summary of the results of the LIAQA conducted by CITY on the dates of January 17, 18, & 24, 2002 at the above project site. The LIAQA included visual observations for mold, a moisture survey, sampling of suspect materials, and laboratory analysis of samples collected. Six (6) tape-lift samples, and eight (8) total spore air samples were collected during this assessment.

All samples were delivered to City Laboratory Services for analysis. The laboratory analytical results for samples collected during this LIAQA are enclosed in the attachments to this report.

A LIAQA does not include a destructive investigation.

CITY is not responsible for changes in the site conditions after the date/time of this survey, nor is it responsible for identifying potential concerns in inaccessible or non-visible areas of the site.

Note: The client is advised that the consultant provides no guarantee the sample analysis results will not change since mold, mildew and/or fungus are naturally occurring. The client should understand that the analysis results are true and accurate as of the date and time collected.

Findings of the assessment, conclusions, and recommendations are summarized below.

1.0 Findings

1.1 Visual Inspection for Evidence of Fungal Growth or Moisture Damage

Please see section 2.0 below for a summary of all interior building components/surfaces with visible evidence of mold growth and/or water intrusion.

1.2 Moisture Survey

CITY used a Delmhorst BD-10 moisture meter to identify locations where moisture may be leaking into the building.

The Delmhorst BD-10 moisture meter readings indicate the following conditions for wood:

Delmhorst BD-10 moisture content of ≥6% but ≤ 15%: DRY
Delmhorst BD-10 moisture content of > 15 % but ≤ 17 %: AT RISK
Delmhorst BD-10 moisture content of > 17 % but ≤ 40 %: WET

For non-wood surfaces Delmhorst BD-10 moisture meter gives a reference scale and reads from 0-100 on a relative basis:

Delmhorst BD-10 reading of > 0 but ≤ 85: DRY
Delmhorst BD-10 reading of > 85 but < 95: AT RISK
Delmhorst BD-10 reading of ≥ 95: WET

Please see section 2.0 below for a summary of all interior building components/surfaces with WET moisture content.

1.3 Tape Lift Samples

Tape-lift samples were collected using Scotch brand adhesive tape mounted directly onto pre-cleaned microscope slides.

Laboratory sample analysis has confirmed the presence of the following molds on interior components/surfaces at this site (See Tape Lift Samples T-01 through T-03 collected on January 17, 2002) Buildings 305 and 312 interior walls and ceilings:

- Aspergillus/Penicillium
- Basidiospores;
- Chaetomium
- Cladosporium

- Hyphal-Like-Fragments
- Stachybotrys

Laboratory sample analysis has confirmed the presence of the following molds on interior components/surfaces at this site (See Tape Lift Samples T-01 through T-03 collected on January 18, 2002) building 315 interior walls and ceilings:

- Alternaria
- Ascospores
- Aspergillus/Penicillium
- Epicoccum
- Hyphal-Like-Fragments
- Pithomyces
- Stachybotrys

1.4 Total Mold Spore Air Samples

Mold spore air sampling was performed using Cyclex-d cassettes and high volume air sampling pumps. Samples were collected at flow rates of 20 liters of air per minute (LPM) for a period of 10 minutes to yield a total volume of 200 liters of air.

The following describes the amount and type of total airborne mold spores collected on January 24, 2002 present inside and outside of the buildings at the time of CITY's assessment.

The exterior air sample of bldg.# 305 contained 210 total spores per cubic meter of air and confirmed the presence of the following airborne mold species (Sample No. A-01):

- Ascospores
- Aspergillus/Penicillium
- Basidiospores
- Chaetomium
- Hyphal-Like-Fragment
- Stachybotrys

The air samples collected inside bldg.# 305, in the middle of the bldg. & NE corner, contained 380-435 total spores per cubic meter of air and confirmed the presence of the following airborne mold species (Sample No. A-02 and A-03):

- Ascospores

- Aspergillus/Penicillium
- Basidiospores
- Chaetomium
- Hyphal-Like-Fragment
- Stachybotrys

The exterior air sample of bldg.# 312 contained 135 total spores per cubic meter of air and confirmed the presence of the following airborne mold species (Sample No. A-04):

- Ascospores
- Basidiospores
- Hyphal-Like-Fragment

The air samples collected inside bldg.# 312, in the middle of the bldg., contained 195 total spores per cubic meter of air and confirmed the presence of the following airborne mold species (Sample No. A-05):

- Ascospores
- Aspergillus/Penicillium
- Basidiospores
- Chaetomium
- Hyphal-Like-Fragment
- Stachybotrys

The exterior air sample of bldg.# 315 contained 190 total spores per cubic meter of air and confirmed the presence of the following airborne mold species (Sample No. A-06):

- Ascospores
- Aspergillus/Penicillium
- Basidiospores
- Hyphal-Like-Fragment

The air samples collected inside bldg.# 315, inside main office of bldg., middle & inside tool storage room of bldg., contained 340-435 total spores per cubic meter of air and confirmed the presence of the following airborne mold species (Sample No. A-07 & A-08):

- Ascospores
- Aspergillus/Penicillium
- Basidiospores
- Chaetomium
- Hyphal-Like-Fragment

- Stachybotrys

1.5 Interpretation of Sample Analysis Data

Generally speaking, the indoor air sample data were considered high, as the total mold spore level and individual mold spore distribution recorded indoors, were higher to the outdoor control data.

Molds occur naturally in our environment. Many of the molds identified in this survey live in soils or on plants. Identification of mold in indoor environments is not unusual and should generally not be of concern when low concentrations are found in indoor environments. There are a limited species of known molds that are classified as Toxigenic (capable of producing potent toxins) or pathogenic (infectious) to humans and animals. These molds include but are not limited to the following:

- Stachybotrys chartarum (atra)
- Penicillium species
- Aspergillus fumigatus
- Aspergillus flavus
- Aspergillus niger
- Aspergillus versicolor
- Aspergillus ustus
- Other Aspergillus species
- Fusarium species
- Memnoniella species
- Myrothecium species
- Trichoderma species

Of the above noted molds Penicillium, Aspergillus, and Stachybotrys were identified inside buildings 305, 312, and 315 at this site during this LIAQA. The attachment section of this report provides a summary of all laboratory analytical results.

2.0 Conclusions and Recommendations

The following conclusions and recommendations are made based on visual observations for mold, a moisture survey, sampling of suspect materials, and laboratory analysis of samples collected from the building.

Toxigenic molds have been identified in bldg. # 305, 312, & 315 of the project site. CITY recommends immediate isolation and restriction of access to these buildings to mitigate potential health risks until remediation activities have been completed.

Summary of Findings and Recommended Remediation Activity Requirements

The source of moisture intrusion for all three building is apparently the roofs and roofing membranes of the buildings. CITY did not observe any leaking plumbing lines while at the site.

Location	WET Moisture Readings	Visible Suspect Mold	Other evidence of deterioration or moisture intrusion	Recommendations for Remediation AFTER IDENTIFYING AND REMEDIATION THE SOURCE OF MOISTURE INTRUSION
Bldg. 305	Interior drywall walls and ceilings, interior wood studs, interior concrete floors	On majority of all drywall and wood studs	Deterioration/damage evident on walls and ceilings	Remove and dispose all affected drywall; decontaminate all structural members Approx 6,000 square feet
Bldg. 312	Interior ceilings	Interior ceilings	Deterioration/damage evident on walls – roofing material also deteriorated and exposing the plywood roof deck	Remove and dispose all affected ceiling components and associated debris; decontaminate all structural members Approx 700 square feet
Bldg. 315	Interior walls and ceilings	Interior ceilings	N/A	Remove and dispose all affected ceiling components; decontaminate structural members Approx 1,500 square feet

With the exception of the above noted items, all other surfaces/components at this site(s) confirmed DRY moisture readings and showed no visible evidence of mold growth.

To prevent further growth of molds in this unit, all sources of water intrusion must be repaired/remediated. The surfaces with mold growth should remain dried and dehumidified. Ceiling space or other inaccessible areas must be ventilated. The building components showing visible mold growth as well as those surfaces confirmed, by tape-lift sampling, to contain mold should be removed. Additional investigation may be necessary to determine the full extent of mold growth in other possible locations. Exhaust/ventilation systems should be cleaned as deemed appropriate using HEPA vacuuming and/or biocide gas treatment techniques. Walls, ceilings, floors, counters, fixtures (within the work area) and other surfaces deemed appropriate that do not show visible mold growth should be cleaned using HEPA vacuuming and/or biocide agent-cleaning techniques. Walls/ceilings may then be painted with paint containing a biocide additive.

Under certain circumstances, the occupant's personal belongings such as clothes, as well as furniture, etc. may be decontaminated by high temperature dry-cleaning/laundering, HEPA vacuuming, and decontamination using biocide agents.

All interior remediation work should be performed under controlled conditions such that mold contamination is not dispersed to other areas of the unit. HEPA filtered negative air pressure units should be used to control emissions and to reduce the potential to disperse molds and other contaminants throughout the unit. Additional air and tape lift sampling may be required during remediation activities to measure the effectiveness of the engineering controls. Additional air and tape lift sampling is strongly recommended at the completion of each remediation activity (per controlled

work area) to confirm/certify the complete/successful removal of mold, drying of surfaces, and application of biocide prior to reapplication of permanent building components.

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3.0 Asbestos & Lead-Based Paint

Buildings constructed prior to 1979 are presumed to contain asbestos and lead-based paint unless the building material and surfaces are tested and confirmed otherwise. An asbestos survey is required for any building (regardless of age) prior to renovation or demolition. The presence of asbestos containing material (ACM) and lead-based paint (LBP) must be confirmed prior to any activity that would disturb such material. ACM and LBP are regulated by many local, state, and federal agencies. The handling, removal and disposal of ACM and LBP must be performed by licensed and Cal/OSHA registered contractors with properly trained and certified personnel.

4.0 Disclaimer

Indoor air quality is the product of multiple influences and attempts to ascertain the source of any problems does not always produce the expected results. Environmental stresses such as improper lighting, noise, vibration, ergonomic stresses and job-related psychosocial problems can produce symptoms that are similar to those associated with poor air quality.

CITY has made its best effort to perform this LIAQA to evaluate the indoor air quality in the unit, using standard indoor air quality evaluation techniques as recommended by the U.S. Environmental Protection Agency and the National Institute of Occupational Safety and Health. However CITY shall not be responsible for claims that may arise out of failure to correct problems or to identify all problems that may exist due to the air quality in this unit.

Services performed by CITY under our contract were conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in the same general area and under the same general conditions. No other representation and no warranty express or implied, or guarantee is included or intended in this report or in any subsequent opinion or document. The client should recognize that special risks occur whenever engineering or related disciplines are applied to identify indoor air quality. Even a comprehensive sampling and testing program, carefully implemented with the appropriate equipment and experienced personnel under the direction of a trained and registered professional who functions in accordance with a professional standard of care, may fail to detect certain conditions because they are hidden, and therefore cannot be considered in the development of an indoor air quality assessment program. The passage of time must also be considered, and the client should recognize that, due to natural occurrences or direct or indirect human intervention at the unit or at areas distant from it, actual conditions might change quickly. It should be recognized that nothing can be done to eliminate risks altogether, but certain techniques can be applied by CITY to help reduce the risks to that level deemed tolerable by the client. In any event,

the scope of services provided by CITY must be that which the client agrees to or selects in light of personal risk preferences and other considerations.

Since the facts forming the basis for this letter report are subject to professional interpretation, differing conclusions could be reached. CITY does not assume responsibility for the discovery and elimination of hazards that could possibly cause accidents, injuries, or damage. Compliance with submitted recommendations or suggestions does not assure elimination of hazards or the fulfillment of client's obligation under federal, state, or local laws or any modifications or changes to such laws.

None of the work performed hereunder shall constitute or be represented as a legal opinion of any kind or nature, but shall be a representation of findings of fact from records examined.

Please do not hesitate to contact us at (213) 632-0410 if you have any questions regarding this LIAQA report.

Sincerely,

CITY Environmental Services, Inc.

Frank Najafi
Industrial Hygienist/Project Manager
Certified Indoor Air Quality Manager
Cal/OSHA Certified Asbestos Consultant, No. 93-1185
Cal/DHS Lead-Based Paint project Designer, No. 089
California Registered Environmental Assessor, No. 05542

Enclosures: Laboratory sample analysis reports including field data sheets and chain-of custody forms.
Standard Mold Remediation Work Plan

Sent to Lab Name: City For Total Mold Analysis. Turn Around Time Required: Rush

Lab To Provide Results To: Theresa Congdon Phone: _____ Fax: _____
Tetra Tech. San Bernardino office

NON-VIABLE MOLD AIR SAMPLE DATA SHEET

JOB NAME:	Lockheed Beaumont site #1		**SAMPLING DATE:**	1-24-03	
JOB LOCATION:	Beaumont, CA		**SAMPLED BY:**	Adrienne Shivek	
CLIENT:	Tetra Tech		**ANALYZED BY:**	Mike Arroyo	
JOB NUMBER:	264		**PAGE:**	1	of 2

NAME / REFERENCE SSN / TITLE	WORK AREA / ACTIVITIES	SAMPLE NUMBER	COLLECTOR	FLOWRATE (Lpm)	TIME ON	TIME OFF	DURATION (Minutes)	VOLUME (Liters)			
	Exterior Ambient From Bldg. #305	A-01	Cyclex-d	ST: 20.0 L SP 20 L AV 20 L	9:15 AM	9:25 AM	10	200			
	Inside Middle of Bldg. #305	A-02	Cyclex-d	ST: 20.0 L SP 20. L AV 20 L	9:26 AM	9:36 AM	10	200			
	Inside Bldg #305 NE Corner	A-03	Cyclex-d	ST: 20.0 L SP 20 L AV 20 L	9:43 AM	9:53 AM	10	200			
	Exterior Ambient of Bldg #312	A-04	Cyclex-d	ST: 20.0 L SP 20. L AV 20 L	9:55 AM	10:05 AM	10	200			
	Inside middle of Bldg. #312	A-05	Cyclex-d	ST: 20.0 SP 20 AV 20	10:16 AM	10:26 AM	10	200			

CITY ENVIRONMENTAL SERVICES, INC. Phone: 213-632-0410 Fax: 213-632-0414 1450 S. Burlington Avenue, #B, LA, CA 90006

Relinquished By: _____ Date: 1/23/03 Time: _____

Received By: _____ Date: 1/25/03 Time: _____

Submit to Lab Name: City For Total Mold Analysis. Turn Around Time Required: Rush

Lab To Provide Results To: Theresa Congdon Phone: _____ Fax: _____
Tetra Tech San Bernardino

NON-VIABLE MOLD AIR SAMPLE DATA SHEET

JOB NAME:	Lockheed Beaumont, CA Site #1	**SAMPLING DATE:**	1-24-03	
JOB LOCATION:	Beaumont, CA	**SAMPLED BY:**	Adrienne Shivak	
CLIENT:	Tetra Tech	**ANALYZED BY:**	Mike Araujo	
JOB NUMBER:	2614	**PAGE:**	2	of 2

NAME / REFERENCE SSN / TITLE	WORK AREA / ACTIVITIES	SAMPLE NUMBER	COLLECTOR	FLOWRATE (Lpm)	TIME ON	TIME OFF	DURATION (Minutes)	VOLUME (Liters)			
	Exterior Ambient of Bldg. #315	A-06	Cyclex-d	ST: 20.0 SP 20 L AV 20L	10:25 AM	10:35 AM	10	200			
	Inside main office of Bldg. #315, middle	A-07	Cyclex-d	ST: 20.0 SP 20L AV 20L	10:39 A.M	10:49	10	200			
	Inside tool storage room of bldg. #315 middle	A-08	Cyclex-d	ST: 20.0 L SP 20 L AV 20 L	10:55 A M	11:05 A.M	10	200			
			Cyclex-d	ST: 20.0 SP AV							
			Cyclex-d	ST: 20.0 SP AV							

CITY ENVIRONMENTAL SERVICES, INC. Phone: 213-632-0410 Fax: 213-632-0414 1450 S. Burlington Avenue, #B, LA, CA 90006

Relinquished By: _____ Date: 1/25/03 Time: _____

Received By: _____ Date: 1/25/03 Time: _____

CITY Laboratory Services
1450 South Burlington Avenue, Suite B
Los Angeles, California 90006
Phone: 213-632-0410
Fax: 213-632-0414

Laboratory Reference No. 177954
Date Collected: 1/24/03
Date Received: 1/25/03
Date: Analyzed: 1/25/03
Client Project No.: 2614

Client:
Tetra Tech, Inc.
Project Name:
Lockheed Beaumont site # 1

Analyst:
Mike Araujo
Approved Signatory:

Total Mold Spore Analysis – Air - Microbiological Analysis

Sample Number	A-01		A-02		A-03		A-04		A-05		A-06	
Sample Location	Exterior Ambient from Bldg. # 305		Inside middle of bldg.#305		Inside bldg. #305, NE corner		Exterior Ambient of bldg.#312		Inside middle of bldg.#312		Exterior ambient of Bldg.#315	
Air Volume (Liters)	200		200		200		200		200		200	
SPORE TYPES	Count	Count/m3	Count	Count/m3	Count	Count/m3	Count	Count/m3	Count	Count/m3	Count	Count/m3
Alternaria	-	-	-	-	-	-	-	-	-	-	-	-
Arthrinium	-	-	-	-	-	-	-	-	-	-	-	-
Ascospores	7	35	13	65	11	55	5	25	5	25	6	30
Aspergillus/Penicillium	3	15	12	60	13	65	-	-	2	10	4	20
Aureobasidium	-	-	-	-	-	-	-	-	-	-	-	-
Basidiospores	6	30	14	70	12	60	4	20	5	25	7	35
Cercospora	-	-	-	-	-	-	-	-	-	-	-	-
Chaetomium	8	40	5	25	6	30	-	-	2	10	-	-
Cladosporium	-	-	-	-	-	-	-	-	-	-	-	-
Conifer	-	-	-	-	-	-	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-	-	-	-
Debris	6	30	7	35	4	20	7	35	9	45	9	45
Drechslera/Bipolaris	-	-	-	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-	-	-	-
Fibers	-	-	-	-	-	-	-	-	-	-	-	-
Grass	-	-	-	-	-	-	-	-	-	-	-	-
Hyphal-Like Fragments	5	25	4	20	6	30	4	20	5	25	8	40
Myxomycete/Smut	-	-	-	-	-	-	-	-	-	-	-	-
Pithomyces	-	-	-	-	-	-	-	-	-	-	-	-
Pollen	4	20	9	45	7	35	6	30	8	40	4	20
Skin Cells	-	-	-	-	-	-	-	-	-	-	-	-
Stachybotrys	3	15	15	75	17	85	-	-	3	15	-	-
Stemphylium	-	-	-	-	-	-	-	-	-	-	-	-
Unknown	-	-	8	40	-	-	1	5	-	-	-	-
TOTAL SPORES		210		435		380		135		195		190

One to two drops of staining/mounting media (Lacto Phenol Cotton Blue) is placed in the center of a clean pre-labeled slide. Glass cover slip is removed from sample cassette and slowly placed inside staining solution on an angle with the exposed collection media up. Another drop of staining/mounting media is placed on top of the exposed collection media and covered with the cover slip. The slide is scanned initially to locate the sampling trace. Fields are analyzed in entire focal depth and examined in other planes then moved down to next field in same travis. Six fields are counted in each travis. Thirty travises are counted in entire sampling trace. Identification of spores is based on spore morphology, characteristics, appearance, color, pores, scars, points of attachment and pegs. Some fungi cannot be seen under the light microscope. Total spore count is measured in spores/m3 of air. This report applies only to the specific items tested. It is indicative of the quantities of apparently identical or similar products or procedures and may not reflect other conditions present. It is not the intent of this report to make any statements regarding potential health effects or suggest any remedial procedures. For information regarding remediation call CITY. This report should not be produced except in full, without the written approval of CITY. Analytical results and reports are generated by CITY at the request of and for the exclusive use of the person or entity named on the report. Results, reports or copies of same will not be released by CITY to any third party without prior written request from client. This report applies only to the samples(s) tested. This report must not be reproduced except in full, unless approved by CITY. The client is solely responsible for the use and interpretation of test results and reports requested from CITY. CITY is not able to assess the degree of hazard resulting from materials analyzed. CITY reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

American Industrial Hygiene Association (AIHA) Environmental Microbiology Proficiency Analytical Testing (EMPAT) Laboratory Accreditation No. 164134

CITY Laboratory Services
1450 South Burlington Avenue, Suite B
Los Angeles, California 90006
Phone: 213-632-0410
Fax: 213-632-0414

Laboratory Reference No. 177954
Date Collected: 1/24/03
Date Received: 1/25/03
Date: Analyzed: 1/25/03
Client Project No.: 2614

Client:
Tetra Tech, Inc.
Project Name:
Lockheed Beaumont site # 1

Analyst:
Mike Araujo
Approved Signatory:

Total Mold Spore Analysis – Air - Microbiological Analysis

Sample Number	A-07		A-08									
Sample Location	Inside main office of Bldg. # 315, middle		Inside tool storage room of bldg.#315, Middle									
Air Volume (Liters)	200		200									
SPORE TYPES	Count	Count/m3	Count	Count/m3	Count	Count/m3	Count	Count/m3	Count	Count/m3	Count	Count/m3
Alternaria	-	-	-	-	-	-	-	-	-	-	-	-
Arthrinium	-	-	-	-	-	-	-	-	-	-	-	-
Ascospores	10	50	13	65	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	8	40	12	60	-	-	-	-	-	-	-	-
Aureobasidium	-	-	-	-	-	-	-	-	-	-	-	-
Basidiospores	7	35	14	70	-	-	-	-	-	-	-	-
Cercospora	-	-	-	-	-	-	-	-	-	-	-	-
Chaetomium	8	40	5	25	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	-	-	-	-	-	-
Conifer	-	-	-	-	-	-	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-	-	-	-
Debris	12	60	7	35	-	-	-	-	-	-	-	-
Drechslera/Bipolaris	-	-	-	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-	-	-	-
Fibers	-	-	-	-	-	-	-	-	-	-	-	-
Grass	-	-	-	-	-	-	-	-	-	-	-	-
Hyphal-Like Fragments	9	45	4	20	-	-	-	-	-	-	-	-
Myxomycete/Smut	-	-	-	-	-	-	-	-	-	-	-	-
Pithomyces	-	-	-	-	-	-	-	-	-	-	-	-
Pollen	8	40	9	45	-	-	-	-	-	-	-	-
Skin Cells	-	-	-	-	-	-	-	-	-	-	-	-
Stachybotrys	6	30	15	75	-	-	-	-	-	-	-	-
Stemphylium	-	-	-	-	-	-	-	-	-	-	-	-
Unknown	-	-	8	40	-	-	-	-	-	-	-	-
TOTAL SPORES		340		435								

One to two drops of staining/mounting media (Lacto Phenol Cotton Blue) is placed in the center of a clean pre-labeled slide. Glass cover slip is removed from sample cassette and slowly placed inside staining solution on an angle with the exposed collection media up. Another drop of staining/mounting media is placed on top of the exposed collection media and covered with the cover slip. The slide is scanned initially to locate the sampling trace. Fields are analyzed in entire focal depth and examined in other planes then moved down to next field in same travis. Six fields are counted in each travis. Thirty travises are counted in entire sampling trace. Identification of spores is based on spore morphology, characteristics, appearance, color, pores, scars, points of attachment and pegs. Some fungi cannot be seen under the light microscope. Total spore count is measured in spores/m3 of air. This report applies only to the specific items tested. It is indicative of the quantities of apparently identical or similar products or procedures and may not reflect other conditions present. It is not the intent of this report to make any statements regarding potential health effects or suggest any remedial procedures. For information regarding remediation call CITY. This report should not be produced except in full, without the written approval of CITY. Analytical results and reports are generated by CITY at the request of and for the exclusive use of the person or entity named on the report. Results, reports or copies of same will not be released by CITY to any third party without prior written request from client. This report applies only to the samples(s) tested. This report must not be reproduced except in full, unless approved by CITY. The client is solely responsible for the use and interpretation of test results and reports requested from CITY. CITY is not able to assess the degree of hazard resulting from materials analyzed. CITY reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

American Industrial Hygiene Association (AIHA) Environmental Microbiology Proficiency Analytical Testing (EMPAT) Laboratory Accreditation No. 164134

CHAIN OF CUSTODY FOR LABORATORY SAMPLE ANALYSIS

Date: 1/17/03	**Project Location:** Lockheed Seaward Site No. 1	**Project Name:**		**Page:** 1	**Of:** 1
Project Number: 2614	**Laboratory Name:** CITY	**Analysis Requested:** Total Nickel		**Results Needed By:** RUSH	

Laboratory to fax a copy of the results to 213-632-0414 and a copy to the attention of: Theresa Conyder **@ fax no.** 909-882-1391

SAMPLE #	DATE	MATERIAL DESCRIPTION	MATERIAL LOCATION(S)	QUANTITY & UNITS OF MEASURE
305-M-1	1/17/03	Built Drywall	Bldg 305 Interior Drywall walls	1
305-M-2	↓	↓	↓	
312-M-3	↓	↓	Bldg 312 Interior Drywall Ceiling	1

Relinquished By: [signature]	Received By: Mike Araujo	**Laboratory Services Requested By:**
Signature:	Signature:	Frank Najafi
Date: 1/17/03	Date: 1-17-03	CITY Environmental Services, Inc.
Time:	Time:	PO BOX 641818
		Los Angeles, CA 90064
Relinquished By:	Received By:	**Phone: (213) 632-0410**
Signature:	Signature:	**Fax: (213) 632-0414**
Date:	Date:	
Time:	Time:	

CITY Laboratory Services
1450 South Burlington Avenue, Suite B
Los Angeles, California 90006
Phone: 213-632-0410
Fax: 213-632-0414

Laboratory Reference No. 177214
Date Collected: 1/17/03
Date Received: 1/17/03
Date: Analyzed: 1/17/03
Client Project No.: 2614

Client:
Tetra Tech, Inc.
Project Name:
Lockheed Beaumont-Site No. 1

Analyst:
Mike Araujo
Approved Signatory:

Mold Direct Examination – Bulk / Tape Lift Microbiological Analysis

Sample Number	305-m-1	305-m-2	312-m-3	
Sample Location	Bldg. 305 Interior Drywall walls	Bldg. 305 Interior Drywall walls	Bldg. 312 Interior Drywall Ceiling	
IDENTIFICATION	Count	Count	Count	Count
Alternaria	-	-	-	-
Arthrinium	-	-	-	-
Ascospores	-	-	-	-
Aspergillus/Penicillium	XXXX	XXXX	XXXX	-
Aureobasidium	-	-	-	-
Basidiospores	XX	X	XXX	-
Botrytis	-	-	-	-
Cercospora	-	-	-	-
Chaetomium	XXX	XX	XXX	-
Cladosporium	X	XX	X	-
Conifer	-	-	-	-
Curvularia	-	-	-	-
Debris	-	-	-	-
Drechslera/Bipolaris	-	-	-	-
Epicoccum	-	-	-	-
Fibers	-	-	-	-
Fusarium	-	-	-	-
Grass	-	-	-	-
Hyphal-Like Fragments	XX	X	X	-
Myxomycete/Smut	-	-	-	-
Rust	-	-	-	-
Pithomyces	-	-	-	-
Pollen	-	-	-	-
Skin Cells	-	-	-	-
Stachybotrys	XXXX	XXXX	XXXX	-
Stemphylium	-	-	-	-
Torula	-	-	-	-
Ulocladium/Stemphylium	-	-	-	-
Unknown	XX	X	XX	-

One to two drops of staining/mounting media (Lacto Phenol Cotton Blue) is placed in the center of a clean pre-labeled slide. Approximately 1" of the tape is cut and lifted from sampling slide and slowly placed on an angle with the sticky side up on the slide, another drop of staining/mounting media is placed onto the tape and covered with a cover slip. The slide is scanned initially and individual spores and particulates are identified and estimation is made to indicate amount of spores and coverage. Fields are analyzed in entire focal depth and examined in other planes. Identification of spores is made based on spore morphology, characteristics, appearance, color, pores, scars, points of attachments and pegs. Some fungi cannot be seen under the light microscope. **Total spores count is measured in counts: X=trace (less then 10) XX=minor (between 10-20) XXX= major (between 21-50) XXXX=abundant (greater then 50).** This report applies only to the specific items tested. It is indicative of the quantities of apparently identical or similar produets or procedures and may not reflect other conditions present. It is not the intent of this report to make any statements regarding potential health effects or suggest any remedial procedures. For information regarding remediation call CITY. This report should not be produced except in full, without the written approval of CITY. Analytical results and reports are generated by CITY at the request of and for the exclusive use of the person or entity named on such report. Results, reports or copies of same will not be released by CITY to any third party without prior written request from client. This report applies only to the samples(s) tested. This report must not be reproduced except in full, unless approved by CITY. The client is solely responsible for the use and interpretation of test results and reports requested from CITY. CITY is not able to assess the degree of hazard resulting from materials analyzed. CITY reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

American Industrial Hygiene Association (AIHA) Environmental Microbiology ' ciency Analytical Testing (EMPAT) Laboratory Accreditation No. 164134

CHAIN OF CUSTODY FOR LABORATORY SAMPLE ANALYSIS

Date: 1/ /03	**Project Location:** Lockheed Beaumont Site #1	**Project Name:** Lockheed Beaumont Site #1	**Page:** 1	**Of:** 1	
Project Number: 2-614.1	**Laboratory Name:** City	**Analysis Requested:** Total Mold	**Results Needed By:** 5 day ~~10 day~~		

Laboratory to fax a copy of the results to 213-632-0414 and a copy to the attention of: ~~Adrienne S~~ Theresa Congdon **@ fax no.** _____

SAMPLE #	DATE	MATERIAL DESCRIPTION	MATERIAL LOCATION(S)	QUANTITY & UNITS OF MEASURE
T-01	1/18/03	tape lift sample	Main Office Bldg. 315 on ceiling tile by light fixture, directly above desk	
T-02		" "	tool storage rm Bldg. 315 on ceiling tile above tool bench	
T-03	↓	" "	" " west side above cabinet on ceiling tile	
			Suspect Black Mold	

Relinquished By: Adrienne Shivak Signature: Date: 1/20/03 Time:	Received By: Signature: Date: Time:	**Laboratory Services Requested By:** Frank Najafi CITY Environmental Services, Inc. PO BOX 641818 Los Angeles, CA 90064 **Phone: (213) 632-0410** **Fax: (213) 632-0414**
elinquished By: ignature: ate: me:	Received By: Signature: Date: Time:	

CITY Laboratory Services
1450 South Burlington Avenue, Suite B
Los Angeles, California 90006
Phone: 213-632-0410
Fax: 213-632-0414

Laboratory Reference No. 177242
Date Collected: 1/18/03
Date Received: 1/22/03
Date: Analyzed: 1/22/03
Client Project No.: 2614.1

Client:
Tetra Tech, Inc.
Project Name:
Lockheed Beaumont Site # 1

Analyst:
Mike Araujo
Approved Signatory:

Mold Direct Examination – Bulk / Tape Lift Microbiological Analysis

Sample Number	T-01	T-02	T-03	
Sample Location	Main office, by the light fixture on ceiling tile above desk. Bldg. 315	Tool storage room, on ceiling tile above tool bench. Bldg. 315	Tool storage room, west side above cabinet on ceiling tile	
IDENTIFICATION	Count	Count	Count	Count
Alternaria	XXXX	XXXX	XXXX	-
Arthrinium	-	-	-	-
Ascospores	XX	XXXX	XXXX	-
Aspergillus/Penicillium	XX	-	-	-
Aureobasidium	-	-	-	-
Basidiospores	-	-	-	-
Botrytis	-	-	-	-
Cercospora	-	-	-	-
Chaetomium	-	-	-	-
Cladosporium	-	-	-	-
Conifer	-	-	-	-
Curvularia	-	-	-	-
Debris	X	-	-	-
Drechslera/Bipolaris	-	-	-	-
Epicoccum	-	-	X	-
Fibers	-	-	-	-
Fusarium	-	-	-	-
Grass	-	-	-	-
Hyphal-Like Fragments	XXX	XXXX	XXXX	-
Myxomycete/Smut	-	-	-	-
Rust	-	-	-	-
Pithomyces	X	-	-	-
Pollen	-	-	-	-
Skin Cells	-	-	-	-
Stachybotrys	-	XXXX	-	-
Stemphylium	-	-	-	-
Torula	-	-	-	-

One to two drops of staining/mounting media (Lacto Phenol Cotton Blue) is placed in the center of a clean pre-labeled slide. Approximately 1" of the tape is cut and lifted from sampling slide and slowly placed on an angle with the sticky side up on the slide, another drop of staining/mounting media is placed onto the tape and covered with a cover slip. The slide is scanned initially and individual spores and particulates are identified and estimation is made to indicate amount of spores and coverage. Fields are analyzed in entire focal depth and examined in other planes. Identification of spores is made based on spore morphology, characteristics, appearance, color, pores, scars, points of attachments and pegs. Some fungi cannot be seen under the light microscope. **Total spores count is measured in counts: X=trace (less then 10) XX=minor (between 10-20) XXX= major (between 21-50) XXXX=abundant (greater then 50).** This report applies only to the specific items tested. It is indicative of the quantities of apparently identical or similar products or procedures and may not reflect other conditions present. It is not the intent of this report to make any statements regarding potential health effects or suggest any remedial procedures. For information regarding remediation call CITY. This report should not be produced except in full, without the written approval of CITY. Analytical results and reports are generated by CITY at the request of and for the exclusive use of the person or entity named on such report. Results, reports or copies of same will not be released by CITY to any third party without prior written request from client. This report applies only to the samples(s) tested. This report must not be reproduced except in full, unless approved by CITY. The client is solely responsible for the use and interpretation of test results and reports requested from CITY. CITY is not able to assess the degree of hazard resulting from materials analyzed. CITY reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

CHAIN OF CUSTODY FOR LABORATORY SAMPLE ANALYSIS

Date: 1/ /03	**Project Location:** Beaumont SITE #1	**Project Name:** Lockheed Beaumont SITE #1	**Page:** 1	**Of:** 1	
Project Number: 2614.1	**Laboratory Name:** City	**Analysis Requested:** Total Mold	**Results Needed By:** ~~10 day~~ 5 day		

Laboratory to fax a copy of the results to 213-632-0414 and a copy to the attention of: ~~Adrienne S~~ Theresa Congdon **@ fax no.** _____

SAMPLE #	DATE	MATERIAL DESCRIPTION	MATERIAL LOCATION(S)	QUANTITY & UNITS OF MEASURE
T-01	1/18/03	tape lift sample	Main Office Bldg. 315 on ceiling tile by light fixture, directly above des	
T-02	↓	" "	tool Storage rm Bldg. 315 on ceiling tile above tool bench	
T-03	↓	" "	" " west side above cabinet on ceiling tile	

Suspect Black Mold

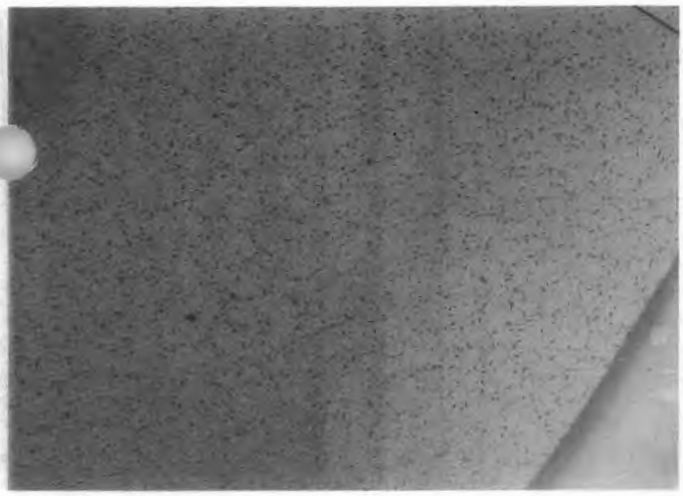
Relinquished By: Adrienne Shivak Signature: [signature] Date: 1/20/03 Time:	Received By: Signature: Date: Time:	**Laboratory Services Requested By:** Frank Najafi CITY Environmental Services, Inc. PO BOX 641818 Los Angeles, CA 90064 **Phone: (213) 632-0410** **Fax: (213) 632-0414**
Relinquished By: Signature: Date: Time:	Received By: Signature: Date: Time:	

Site 1, Bldg. 312, Mold Growth on Ceiling Components

Site 1, Bldg. 312, Mold Growth on Ceiling Components

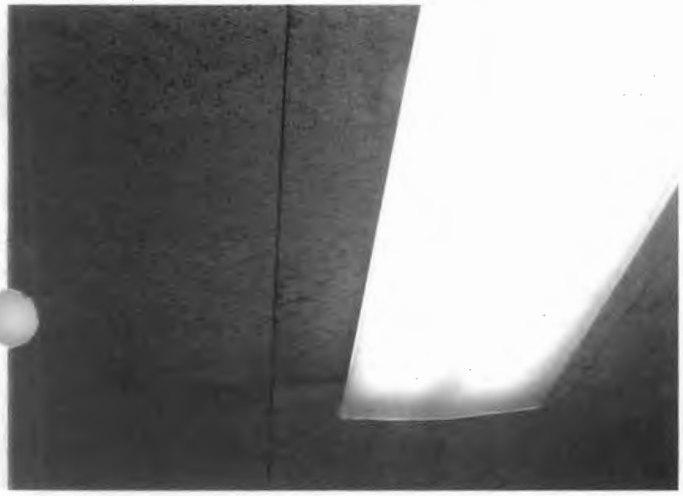
Site 1, Bldg. 312, Mold Growth on Ceiling Components

Site 1, Bldg. 312, Mold Growth on Ceiling Components



Site 1, Bldg. 315, Mold Growth on Interior Ceiling Components

Site 1, Bldg. 315, Mold Growth on Interior Ceiling Components



Site 1, Bldg. 315, Mold Growth on Interior Ceiling Components

Site 1, Bldg. 315, Mold Growth on Interior Ceiling Components

Site 1, Bldg. 315, Mold Growth on Interior Ceiling Components

Site 1, Bldg. 315, Mold Growth on Interior Ceiling Components

Site 1, Bldg. 312, Mold Growth on Ceiling Components

Site 1, Bldg. 312, Mold Growth on Ceiling Components

Site 1, Bldg. 312, Mold Growth on Ceiling Components

Site 1, Bldg. 312, Mold Growth on Ceiling Components

APPENDIX B

ASBESTOS SURVEY FOR BEAUMONT SITE 2

CITY Environmental Services, Inc.

Hazardous Materials Inspections &
Abatement Management
1450 S. Burlington Ave., Suite B
Los Angeles, CA 90006
Phone (213)-632-0410
Fax (213)-632-0414

January 23, 2003

Ms. Theresa Congdon
Tetra Tech, INC.
348 West Hospitality Lane #100
San Bernardino, California 92408

Re: **Asbestos Identification Survey Report**
Lockheed Martin Beaumont Site #2
Beaumont, California

Dear Ms. Congdon:

As requested, the Lockheed Martin Beaumont Site #2 was surveyed by CITY Environmental Services, Inc. (CITY) on January 15, 2003, for asbestos-containing materials (ACM). This survey was conducted by Frank Najafi, a California State Certified Asbestos Consultant (Cert. No. 93-1195). The survey included visual observation for ACM, sampling of accessible suspect materials throughout the interior and exterior areas and laboratory analysis. The survey was performed in accordance with requirements of the Asbestos Hazard Emergency Response Act (AHERA) 40 CFR 763 as well as the National Emissions Standards For Hazardous Air Pollutants (NESHAPS) 40 CFR 61 Subpart M. Findings of the survey, recommendations and conclusions are summarized below.

This survey was comprehensive and including interior, exterior, roof, attic, crawlspace, mechanical room, and common areas of all structures present at the site.

FINDINGS

Materials containing detectable quantities of asbestos – legally defined in California as materials containing percentages of asbestos greater than one-tenth of one percent (>0.1%) by weight[1] – *were* found at this facility. Materials with these concentrations of asbestos are regulated by various government agencies.

A total of twenty-six (26) bulk samples of suspect asbestos containing material were collected and delivered to Micron Environmental Laboratories, Inc. (Micron) for analysis by Polarized Light Microscopy (PLM) in accordance with EPA Method 600/M4-82-020.

No Friable[2] ACM were discovered at this site:

[1] California Code of Regulations, Title 8, Section 1529.

The following *Category I and II Nonfriable*[1] ACM were discovered:

- Waterproofing tar and felt at base of Test Bays
- Transite pipes and associated debris
- 9"x 9" vinyl floor tile and associated mastic

The following table provides a summary of all samples collected, description, location, condition, quantity, and analytical results:

Sample No.	*Material Description*	*Sample/Material Location*	*Friable / Non-Friable*	*Condition& Hazard Assessment*	*Approxima te Quantity*	*Asbestos Content*
37-1-1, 2, 3	Concrete grout/ mortar	In-between concrete block walls throughout interior and exterior walls of building #37	N/A	N/A	N/A	None
33-2-1, 2, 3	Concrete grout/ mortar	In-between concrete block walls throughout interior and exterior walls of building #33	N/A	N/A	N/A	None
33-3-1, -2, -3	Asphalt roofing material	On the roof of building #33 and on the surrounding ground	N/A	N/A	N/A	None
TB1-4-1, 2	**4" OD Transite pipes and debris**	**At test bays 1, 2, and 3 protruding from walls, debris scattered on ground in adjacent areas, and some encased in larger concrete pipes – also present in wash near way point 67**	**Non Friable**	**Damaged with moderate potential for further damage**	**Debris and pieces over a 40,000 sq.ft. area**	**10% Chrysotile and 2% Crocidolite**

CH denotes Chrysotile; LF: denotes linear feet; and SF denotes square feet.

Continued on next page.

[2] Friable: materials which can be crumbled, pulverized or reduced to powder by hand pressure when dry.

[1] Nonfriable: materials which if used as intended, cannot be broken, crumbled, pulverized or reduced to powder by hand pressure when dry; but can be made friable by mechanical means such as sanding, sandblasting, cutting, Scraping, improper handling and disposal, or leaching of matrix binders amongst other means.

Continued from previous page.

Sample No.	*Material Description*	*Sample/Material Location*	*Friable / Non-Friable*	*Condition& Hazard Assessment*	*Approximate Quantity*	*Asbestos Content*
TB2-5-1	**Black waterproofing roof tar and felt**	**At base of test bays 1, 2, and 3 mostly under concrete foundation**	**Non-Friable**	**Damaged with moderate potential for further damage**	**400 SF**	**7%CH**
TB2-3-4, -5, -6	Asphalt roofing material	Scattered on ground adjacent to all test bays	Non-Friable	N/A	N/A	None
MB-7-1	**9"x 9" vinyl floor tile and associated black mastic**	**Throughout the interior of the main bunker**	**Non-Friable**	**Damaged with moderate potential for further damage**	**1000 SF**	**2% CH in tile and mastic**
MB-6-1, 2, 3	Drywall (no joint compound)	Located in the restroom of the main bunker	N/A	N/A	N/A	None
MB-8-1, 2, 3	Composite plaster material	Located in the restroom of the main bunker	N/A	N/A	N/A	None
TB3-9-1	Transite siding debris	On the ground south of test bay #3	N/A	N/A	N/A	None
TB3-10-1	Black gasket material	On pipe leading into large water tanks	N/A	N/A	N/A	None
54-11-1	White insulation material	In abandoned forced air heating furnace near way point 54	N/A	N/A	N/A	None

CH denotes Chrysotile; and SF denotes square feet.

RECOMMENDATIONS & CONCLUSIONS

The damaged asbestos containing Transite pipes/debris, waterproofing membrane, and vinyl floor tiles/mastic must be abated (removed, repaired, replaced, enclosed) as soon as possible to mitigate health and environmental risks.

Removal and handling of ACM must be performed by licensed and registered asbestos abatement contractors with personnel who are properly trained and certified in asbestos abatement work. All identified ACM must be properly removed and disposed by a licensed and Cal/OSHA registered asbestos abatement contractor prior to any construction/demolition activities at this site. A 10 business-day notification is required to the local Air Pollution Control District and a 24 hour notification is required to

Cal/OSHA) prior to start of asbestos removal activities.

The California Health & Safety Code Section 25915-25919.7 requires owners of any building constructed prior to 1979, who know the building contains ACM, to furnish notifications to employees, contractors, and agents concerning the existence, location, handling requirements, summary of analytical results, & potential health risks associated with ACM. This notification must be provided in writing within 15 days of the first receipt by the owner of information identifying the presence or location of ACM at the building(s).

LIMITATIONS

CITY is committed to providing quality consulting services. However, asbestos survey work is not an exact science. The possibility of field and general conditions, beyond CITY' control, that affect our work or that present a concern for the safety of our employees, our consultants, building occupants and the public at the site, and insurance constraints, requires that we qualify the services we provide with the following limitations:

The findings of this survey, opinions rendered, recommendations and conclusions provided in this survey report are only valid for a period of up to one year from the date of this survey report

Reasonable effort is made by CITY' personnel to locate and sample all suspect materials. However, for any facility the existence of unique or concealed asbestos-containing materials and debris is a possibility. In addition, sampling and laboratory analysis constraints typically hinder the investigation. CITY does not warrant, guarantee or profess to have the ability to locate or identify all asbestos-containing materials in a facility.

Confined spaces, and areas determined by CITY' personnel as unsafe to access, are excluded from the scope of work.

CITY does not employ professional cost estimators. Statements of probable construction cost or cost estimates prepared by CITY represent CITY' professional opinion of probable costs based upon current industry information. Actual costs may fluctuate due to several variables including, but not limited to, the time the work is performed, phasing, labor availability, quantity of work performed, product availability, specification requirements, and unforeseeable changes in the economy and asbestos regulations.

CITY is not, and has no responsibility as, a generator, operator, treater, storer, transporter or disposer of hazardous materials or waste found or identified as a result of CITY' work.

CITY does not guarantee or warrant that the facility or workplace is safe, nor does CITY' involvement in this property relieve the Client, building owner/operator or tenant of any continuing responsibility of providing a safe facility or workplace.

This report was based on those conditions observed on the day(s) the field evaluation was accomplished. In the event that changes in the nature of the property have occurred, or additional relevant information about the property is subsequently discovered, the findings and recommendations contained in this report may not be valid unless these changes and additional relevant information are reviewed and the conclusion of this report is modified and verified in writing.

In as such that no destructive investigation has been performed during the survey, the report may not reveal concealed asbestos-containing materials. Subsequently, additional investigation including construction documents review and/or destructive investigation is recommended as a precaution to prevent accidental exposure when construction or demolition is planned for this facility.

ATTACHMENTS

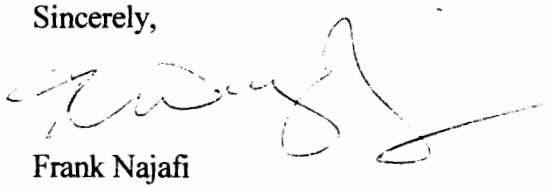
1) Field sampling chain-of-custody and lab analysis reports

2) Sample and material location drawings

3) Procedures and Methodology

Please do not hesitate to contact us should there be any questions or if additional services are necessary.

Sincerely,



Frank Najafi
Senior Project Manager
Cal/OSHA Certified Asbestos Consultant, No. 93-1185

BULK MATERIAL SAMPLING FORM AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site 2	PROJECT NO.	2614 - 2	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
37	1	1	1	Coved / Mastic for concrete block walls	Interior / exterior walls	None	8 x 8 x 10		NF	GC	H	L	L	8 x 8 x 10
	1	1	2											
	1	1	3											
33	1	2	1				20 x 20 x 8							20 x 21 x 8
	1	2	2											
	1	2	3											
		3	1	Asphalt debris with Rock/gravel surface on	Road		200#		NF	D	H	L	H	
		3	2	Road/ground to the south of map point 33										
		3	3											

HGN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)	**Deliver Report & Bill To:**	**Lab Name: Micron** Environmental labs
SN:	Sample No.	D:	Damaged	Frank Najafi	**Analysis Requested:** (PLM) TEM AAS
AR:	Analytical Result	SD:	Significant Damage	CITY Env Services, Inc.	**Turn Around Time:** 5 DAY
F/NF:	Friable/Non-Friable			1450 S. Burlington Avenue	**Analyze to First Positive?** (YES) NO
DR:	Damage Rating	L:	Low	Suite B	
CP:	Contact Potential	M:	Moderate	Los Angeles, CA 90006	**Project Reference:** Lockheed Beaumont Site No. 2
VI:	Vibration Influence	H:	High	Phone: (213) 632-0410	**Project Number:** 2614 - 2
EP:	Erosion Potential			Fax: (213) 632-0414	

Relinquished By: _____ **Date:** 1/17/03 **Received By:** _____ **Date:** _____

BULK MATERIAL SAMPLING I M AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site 2	PROJECT NO.	2614 - 2	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
TB-1	1	4	1	4" OD Transite Pipe	In the Test Bay #1	Debris & other pipes encased in concrete	100 lf	10%CH 2%CH	NF	D	H	L	H	
						above & on the North								
TB 2	1	5	1	Black waterproofing tar/felt	on concrete footing	/	10 ft	[illegible] CH	NF	D	H	H	H	
		4	2	Transite pipe Debris	North of TB2 on ground	Misc. debris scattered on ground		10 CH	NF	D	H	L	H	Also on concrete cylinder cap East on North Bunker
						in large open area East of TB2	200 ft							scattered over ~~50 ft~~ 50K ft area
		3	4	Asphalt composite Debris & Intact	TB2 & Main Bunker	loose pieces scattered as well as			NF	D	H	L	H	
		3	5	↓	↓	Intact ground surface			↓	↓	↓	↓	↓	
		3	6	↓	↓	↓			↓	↓	↓	↓	↓	
Main Bunker		7	1	9x9 Vinyl floor tile & Black mastic	Inside the Main Bunker	N/A	1000 ft	4 2 CH	NF	D	H	M	M	

HGN: Homogenous Group Number
SN: Sample No.
AR: Analytical Result
F/NF: Friable/Non-Friable
DR: Damage Rating
CP: Contact Potential
VI: Vibration Influence
EP: Erosion Potential

GC: Good Condition (None, or minimal damage)
D: Damaged
SD: Significant Damage

L: Low
M: Moderate
H: High

Deliver Report & Bill To:
Frank Najafi
CITY Env Services, Inc.
1450 S. Burlington Avenue
Suite B
Los Angeles, CA 90006
Phone: (213) 632-0410
Fax: (213) 632-0414

Lab Name: Micron Environmental labs
Analysis Requested: (PLM) TEM AAS
Turn Around Time: 5 DAY
Analyze to First Positive? (YES) NO

Project Reference: Lockheed Beaumont Site No. 2
Project Number: 2614 - 2

Relinquished By: [signature] **Date:** [illegible]/17/03 **Received By:** **Date:**

BULK MATERIAL SAMPLING FORM AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site 2	PROJECT NO.	2614 - 2	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
Main Bunker	1	6	1	Drywall (No Joint compound)	Random		100ft		NF	D	H	M	H	
			2	↓	↓		↓		↓	↓	↓	↓	↓	
			3	↓	↓		↓		↓	↓	↓	↓	↓	
Main Bunker		8	1	Composite Plaster walls	Random		100ft		NF	D	H	M	H	
			2	↓	↓		↓		NF	↓	↓	↓	↓	
			3	↓	↓		↓		NF	↓	↓	↓	↓	
TB-3		9	1	Transite siding Debris	on ground	Scattered Debris			NF	D	H	M	H	
1	1	10	1	Blade gasket	Pipe leading to water tanks				NF	GC	H	M	L	
54	1	11	1	White insulation	Found on Heating furnace				F	D	H	H	H	

HGN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)	**Deliver Report & Bill To:**	**Lab Name: Micron** Environmental labs
SN:	Sample No.	D:	Damaged	Frank Najafi	**Analysis Requested:** (PLM) TEM AAS
AR:	Analytical Result	SD:	Significant Damage	CITY Env Services, Inc.	**Turn Around Time:** 5 DAY
F/NF:	Friable/Non-Friable			1450 S. Burlington Avenue	**Analyze to First Positive?** (YES) NO
DR:	Damage Rating	L:	Low	Suite B	
CP:	Contact Potential	M:	Moderate	Los Angeles, CA 90006	**Project Reference:** Lockheed Beaumont Site No. 2
VI:	Vibration Influence	H:	High	Phone: (213) 632-0410	**Project Number:** 2614 - 2
EP:	Erosion Potential			Fax: (213) 632-0414	

Relinquished By: Frank Najafi **Date:** **Received By:** **Date:**

BULK MATERIAL SAMPLING F[illegible] AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site 2	PROJECT NO.	2614 - 2	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

1180315

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
37	1	1	1	Grout / Mortar for concrete block walls	Interior / exterior walls	None	8x8x10		NF	GC				8x8x10
↓	1	1	2	↓	↓	↓	↓		↓	↓				
↓	1	1	3	↓	↓	↓	↓		↓	↓				
33	1	2	1	↓	↓	↓	20x20 8		↓	↓				20x20 x8
↓	1	2	2	↓	↓	↓	↓		↓	↓				
↓	1	2	3	↓	↓	↓	↓		↓	↓				
		3	1	Asphalt debris with Rock/ground surface on	on Road		200#							
		3	2	Road ground to the south of way point 33										
↓		3	3	↓	↓		↓							

HGN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)
SN:	Sample No.	D:	Damaged
AR:	Analytical Result	SD:	Significant Damage
F/NF:	Friable/Non-Friable		
DR:	Damage Rating	L:	Low
CP:	Contact Potential	M:	Moderate
VI:	Vibration Influence	H:	High
EP:	Erosion Potential		

Deliver Report & Bill To:
Frank Najafi
CITY Env Services, Inc.
1450 S. Burlington Avenue
Suite B
Los Angeles, CA 90006
Phone: (213) 632-0410
Fax: (213) 632-0414

Lab Name: Micron Environmental labs
Analysis Requested: (PLM) TEM AAS
Turn Around Time: 5 DAY
Analyze to First Positive? (YES) NO
Project Reference: Lockheed Beaumont Site No. 2
Project Number: 2614 - 2

Relinquished By: [signature] **Date:** 1/17/03

Received By: Barrick **Date:** 1-17-03

BULK MATERIAL SAMPLING FORM AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site 2	PROJECT NO.	2614.2	DATE:	1/23/03	SAMPLED BY:	Frank Najafi CAC 93-1185

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
TB-1	1	4	1	4" OD Transite Pipe	In the Test Bay #1	Debris & other pipes encased in concrete	100 LF		NF	D				
						above & to the North								
TB-2	1	5	1	Black waterproofing tar/felt	on concrete footing	1	10 SF							
		4	2	Transite pipe Debris	North of TB2 on ground	Misc. debris scattered on ground								Also on concrete cylinder 200' east of Main Bunker
						in large open area East of TB2	200 SF							scattered over ~~500~~ 50K SF area
		3	4	Asphalt composite Debris & Soil	TB2 & Main Bunker	loose pieces scattered as well as								
		3	5			Soil and ground surface								
		3	6											
Main Bunker		7	1	9x9 Vinyl floor tile & Black mastic	Inside the Main Bunker	N/A	1000 SF		NF	D				

HGN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)
SN:	Sample No.	D:	Damaged
AR:	Analytical Result	SD:	Significant Damage
F/NF:	Friable/Non-Friable		
DR:	Damage Rating	L:	Low
CP:	Contact Potential	M:	Moderate
VI:	Vibration Influence	H:	High
EP:	Erosion Potential		

Deliver Report & Bill To:
Frank Najafi
CITY Env Services, Inc.
1450 S. Burlington Avenue
Suite B
Los Angeles, CA 90006
Phone: (213) 632-0410
Fax: (213) 632-0414

Lab Name: Micron Environmental labs
Analysis Requested: (PLM) TEM AAS
Turn Around Time: 5 DAY
Analyze to First Positive? (YES) NO

Project Reference: Lockheed Beaumont Site No. 2
Project Number: 2614 - 2

Relinquished By: [signature] **Date:** 1/17/03

Received By: [signature] **Date:** 1-17-03

BULK MATERIAL SAMPLING FO[illegible] AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site 2	PROJECT NO.	2614 - 2	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

1130015

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
Main Bldg	1	6	1	Drywall (No Joint compound)	Restroom		100ft		NF	D				
			2											
			3											
Main Bldg		8	1	composite Plaster walls	Restroom		100ft		NF	D				
			2	↓										
			3	↓										
TB-3		9	1	Transite siding Debris	on ground	scattered debris								
1	1	10	1	Black gasket	Pipe leading to water heater									
54	1	11	1	white insulation	Forced air heating furnace				F	D				

HGN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)
SN:	Sample No.	D:	Damaged
AR:	Analytical Result	SD:	Significant Damage
F/NF:	Friable/Non-Friable		
DR:	Damage Rating	L:	Low
CP:	Contact Potential	M:	Moderate
VI:	Vibration Influence	H:	High
EP:	Erosion Potential		

Deliver Report & Bill To:
Frank Najafi
CITY Env Services, Inc.
1450 S. Burlington Avenue
Suite B
Los Angeles, CA 90006
Phone: (213) 632-0410
Fax: (213) 632-0414

Lab Name: Micron Environmental labs
Analysis Requested: (PLM) TEM AAS
Turn Around Time: 5 DAY
Analyze to First Positive? (YES) NO

Project Reference: Lockheed Beaumont Site No. 2
Project Number: 2614 - 2

Relinquished By: [signature] **Date:**

Received By: Barrios **Date:** 1-17-03

Micron Environmental Labs
292 E. Foothill Blvd. Suite B
Arcadia, California 91006

(626) 357-8627
fax (626) 256-9017

Preliminary PLM Bulk Results

Client Job # LOCKHEED BEAUMONT Micron Labs Ref # 113015

To: FRANK NAFAFI Of: — City —
From: **Enrique Quintero** Date JAN 04 2003 Time 4PM
Total # of pages: 2

☑ PLM ☐ POINT COUNT (GRAVIMETRY) ☐ 400 POINTS ☐ 1000 POINTS

	Client ID#	Asbestos % Chrysotile	Amosite	Crocidolite	Other	Non Detected	Comments
	1-1					✓	
	1-2					✓	
	1-3					✓	
	2-1					✓	
	2-2					✓	
	2-3					✓	
	3-1					✓	
	3-2					✓	
	3-3					✓	
*	4-1	*10		*2		~~✓~~	transcription error corrected 1-29-03 ~~ND~~ (10% CHRY, 2% Crocidolite)
	5-1	7					
*	4-2	10		*2			transcription error 1-29-03 ~~ND~~ (2% Crocidolite)
	3-4					✓	
	3-5					✓	
	3-6					✓	
	7-1 (T)	21					
	7-1 (M)	2					
	6-1					✓	
	6-2					✓	
	6-3					✓	
	8-1					✓	
	8-2					✓	
	8-3					✓	
	9-1					✓	QC-same result 1-29-03 ~~ND~~ (different transite than 4-1)
	10-1					✓	

Preliminary results are subject to final review.

Micron Environmental Labs
292 E. Foothill Blvd. Suite B
Arcadia, California 91006

(626) 357-8627
fax (626) 256-9017

Preliminary PLM Bulk Results

Client Job # Lockheed Beaumont Micron Labs Ref # 1130315

To: Frank Kafafi Of: — City —
From: **Enrique Quintero** Date Jan 29 2003 Time 4PM
Total # of pages: 2

Client ID#	Asbestos % Chrysotile	Amosite	Crocidolite	Other	Non Detected	☑ PLM ☐ POINT COUNT (GRAVIMETRY) ☐ 400 POINTS ☐ 1000 POINTS Comments
11-1					✓	RC - Same result 1-29-03 SD

Preliminary results are subject to final review.

PROCEDURES AND METHODOLOGY

The objective of the survey is to locate and identify suspect asbestos-containing materials (ACM), and to determine their friability, condition and potential for damage. Bulk sampling and laboratory analyses conforming to contract requirements are performed to confirm asbestos content of suspect materials. Samples are analyzed by Micron Environmental Laboratories, Inc. (MICRON). On the basis of survey information and laboratory analysis, CITY determines hazard ratings and recommendations in order to assist the Client in its environmental risk management program. The procedures and methodology followed for this project are summarized below:

Inspection and Sampling

Typical Suspect Materials - Suspect materials include, but are not limited to, the following: *surfacing materials* (sprayed or troweled on structural members, ceilings and walls, such as fireproofing, thermal insulation, acoustic or decorative materials); *thermal system insulation* (pipe, boiler, tank, equipment, duct or other HVAC insulation materials); and *miscellaneous materials* (construction materials for roofs, ceilings, floors and walls, such as tiles/panels, sheeting, wallboard/joint compound, paints, coatings and roofing materials).

Inspection and Sampling - CITY typically surveys building in teams of two, one person documenting the proceedings of the survey, the other performing bulk sampling and other miscellaneous activities. Small facilities are often surveyed by one individual. The team performs a preliminary visual inspection of the facility to identify and quantify suspect ACM. A sampling strategy is then developed to provide representative sampling. Efforts are made to obtain the samples from inconspicuous areas. Each sample is placed in a plastic or metal container, the container is sealed, labeled and placed in a larger storage bag. Destructive inspection methods to find concealed asbestos are used only in those areas specified, and to the extent approved by, the Client.

Throughout the process, care is taken to prevent cross-contamination of the collected samples. Sampling equipment is cleaned after each sample is obtained. In addition, sample containers are placed directly beneath each sample location, when feasible, to collect any materials which may become dislodged during the sampling process. Any debris generated by the sampling is cleaned by wet-cleaning methods. Sample locations are appropriately repaired.

Field Documentation - Samples are documented by entering the sample data on a bulk log, including a description of the material, sample number, location, condition, accessibility, friability, potential for damage, and quantity. Typically, the sample location is marked on an 8-1/2 x 11 inch floor plan (not to scale). In addition, a photograph is taken to further document the material sampled, its condition and location.

Laboratory Procedures and Results

Upon completion of the survey, Chain-of Custody forms are filled out and the samples are transferred to Micron Environmental Labs for analysis. Bulk sample analysis is conducted by Polarized Light Microscopy (PLM) with dispersion staining as described in the "Interim Method for the Determination of Asbestos in Bulk Insulation samples," Method EPA-600/R-93/116. A suspect material is immersed in a solution of known refractive index and subjected to illumination by polarized light. The color displayed enables mineral identification.

Quality Control - Quality control samples at a rate of 10% or one per project, whichever is greater, are reanalyzed by a second, independent analyst. Samples estimated to contain asbestos in amounts of 1% or less are also reanalyzed. Once analyzed, results are delivered to CITY for evaluation and inclusion in the report.

NOTE: The amended National Emission Standard for Hazardous Air Pollutants (NESHAP), November 20, 1990, included a requirement that when the asbestos content of a bulk sample material is determined using procedures outlined in the interim method and the asbestos content is estimated to be less than 10% by a method other than *point counting*, the parties legally responsible for a building (owner/operator) may (1) elect to assume the amount to be greater than 1% and treat the material as a regulated asbestos-containing material, or (2) require verification of the amount by the point counting method.

The purpose of this procedure is to minimize *false negative* analysis (reporting the sample as containing less than 1% asbestos for asbestos-containing samples actually containing greater than 1%) and *false positives* (reporting the sample as containing greater than 1% asbestos). Point counting was included in NESHAP in response to an EPA study that found an unacceptable amount of false negative and false positive analyses by methods outlined in the interim method. Unless directed otherwise by the Client, CITY will assume that PLM analysis is acceptable for this facility.

Reminder: in California the abatement of materials with detectable quantities of asbestos - legally defined as materials containing percentages of asbestos grater than one-tenth of one percent (>0.1%) by area - are regulated by Cal/OSHA and therefore considered positive in this report.

Material Assessment

Friability - During the survey, materials are classified as either *friable* or *nonfriable*. For most materials friability is simple to determine. However, select materials require special consideration. For example, joint compound in generally good condition and covered by an impermeable finish (e.g., paint, coatings or wall covering) is usually considered by CITY standards to be nonfriable. The same material left unfurnished and exposed is classified as friable. Materials such as

wallboard, joint compound, plaster, and stucco in their finished state and in generally good condition are classified as nonfriable; however, these materials often may be rendered friable when they are involved in repair, renovation or demolition activities. Some typically nonfriable materials also may become friable due to aging or deterioration causing elements to separate from their binding agents. Visual inspection and physical handling is performed for all suspect materials to ensure proper friability classification.

Condition and Potential Damage - Materials are assessed for any damage by impact, water, aging, deterioration, or delamination from their substrata. In addition, assessment is made of potential for damage by contact, vibration, or air erosion. Refer to the following Exhibits:

1. Condition Assessment Criteria for Surfacing and Miscellaneous Material.
2. Condition Assessment Criteria for Thermal System Insulation.
3. Potential for Damage Criteria.

Hazard Rating - Once all assessments are made, the material is assigned a hazard rating based on material condition and potential for damage. The hazard rating system utilized for this survey is derived from the federal Asbestos Hazard Emergency Response Act (AHERA) and consists of seven categories. Refer to Exhibit 4 - Response Action Options.

EXHIBIT 1 - CONDITION ASSESSMENT CRITERIA FOR SURFACING AND MISCELLANEOUS MATERIAL

Material Condition	Description
Significantly Damaged	Material with one or more of the following characteristics: • The surface is crumbling or blistered over at least one-tenth of the surface if the damage is evenly distributed, one-quarter if the damage is localized. • Large areas of material hanging from the surface, delaminated, or showing adhesive failure. • Water stains, gouges, or mars over at least one-tenth of the surface if damage is evenly distributed, one-quarter if damage is localized • Accumulation of powder, dust, or debris similar in appearance to the suspect material on surfaces beneath the material.
Damaged	Material with the following characteristics: • The surface is crumbling, blistered, water-stained, gouged, marred or otherwise abraded over less than one-tenth of the surface if the damage is evenly distributed, one-quarter if the damage is localized. • Accumulation of powder, dust, or debris similar in appearance to the suspect material.
Good	Material with no visible damage or deterioration, or showing only very limited damage or deterioration.

EXHIBIT 2 - CONDITION ASSESSMENT CRITERIA FOR THERMAL SYSTEM INSULATION

Material Condition	Description
Significantly Damaged	Material with one or more of the following characteristics: • Mostly missing jackets. • Crushed or heavily gouged or punctured insulation on at least one-tenth of pipe runs/risers if the damage is evenly disturbed, one-quarter if the damage is localized. • Accumulation of powder, dust, or debris similar in appearance to the suspect material on surfaces beneath the pipe, boiler, tank, etc.
Damage	Material with one or more of the following characteristics: • A few water stains or section of missing jackets. • Crushed insulation or water stains, gouges, punctures, or mars on up to one-tenth of the insulation if the damage is evenly distributed, or up to one-quarter if the damage is localized. • Accumulation of powder, dust, or debris similar in appearance to the suspect material on surfaces beneath the pipe, boiler, tank, etc.
Good	Material with no visible damage of deterioration, or showing only very limited damage or deterioration.

EXHIBIT 3 - POTENTIAL FOR DAMAGE CRITERIA

Potential For Damage	Description
Low	• *Contact* - Service workers or tenants are in the vicinity of the material less than once per month, or the material is visible but not within reach of building occupants, or the material is nonfriable and difficult to render friable; and • *Vibration* - Low to none; and • *Air Erosion* - Low to none
Moderate	• *Contact* - Service workers or tenants are in the vicinity of the material once per month to once per week, or the material is in a room or office and accessible to the occupants; or • *Vibration* - Motors or engines present but not obtrusive (e.g., ducts vibrating but no fan in the area), or occasional loud sounds (e.g., a music room); or • *Air Erosion* - Noticeable movement of air (e.g., air shaft, ventilator air stream)
High	• *Contact* - Service workers or tenants are in the vicinity of the material more than once per week, or the material is in a public area (e.g., hallway, corridor, auditorium) and accessible to building occupants; or • *Vibration* - Loud motors or engines present (e.g., some fan rooms), or intrusive noises or easily sensed vibrations (e.g., major airports, a major highway); or • *Air Erosion* - High velocity air (e.g., elevator shaft, fan room)

Response Action Options

Once the hazard ratings for materials are determined, the AHERA-based recommended response actions for asbestos abatement or management are applied. The following Exhibit 4, Response Action Options, illustrates the relationship of material condition, potential for damage, hazard rating, and response action options. *Note: Removal is an option for all conditions, even when not indicated.*

EXHIBIT 4 - RESPONSE ACTION OPTIONS

Material Condition	**Potential For Damage**	**Hazard Rating**	**Response Action Options**
Significantly Damaged	Any	7	Evacuation or isolation of the area if necessary. Immediate abatement. Repair of thermal system insulation optional if feasible, cost-effective and safe. O & M required for all ACM not removed.
Damaged	High potential	6	Evacuation or isolation of the area if necessary. Immediate removal, enclosure, encapsulation or repair to correct damage. Take steps to reduce potential for disturbance. O & M required for all ACM not removed.
Damaged	Moderate potential for further damage	5	Removal, enclosure, encapsulation, or repair to correct. O & M required for all ACM not removed.
Damaged	Low potential for further damage	4	Removal, enclosure, encapsulation, or repair to correct. O & M required for all ACM not removed
Good	High potential for damage	3	Evacuation or isolation of the area if needed. Take for significant steps to reduce potential for disturbance. O&M damage required to reduce potential for disturbance. O&M required for all ACM not removed.
Good	Moderate potential for damage	2	O & M required for all ACM not removed.
Good	Low potential for damage	1	O & M required for all ACM.

Inaccessible Areas and Suspect Materials

Inaccessible Areas - Unless directed otherwise by the Client, the scope of the survey is confined to rooms and areas accessible on the day(s) of the survey. Rooms or areas that are not made available for inspection or are inaccessible for reasons of safety or inclement weather are identified in the report.

Inaccessible Suspect Materials - Inaccessible suspect materials fall into two categories: (1) materials which may contain asbestos but which are not sampled because of *physical barriers*; i.e., cores within fire-rated/insulated doors, file cabinets and safes; thermal insulation concealed in equipment (boilers, duct work and other HVAC equipment, etc.); and thermal insulation concealed in voids (wall, floor, ceiling and other cavities, etc.); and (2) material which are visible but which are not sampled due to *inaccessibility*; i.e., material that cannot be safely reached with available ladders/man-lifts, or material within confined spaces (as defined by Cal/OSHA) that cannot be safely accessed by survey personnel.

Recommendations - Potential ACM within inaccessible areas and suspect materials that are inaccessible can significantly affect the management and abatement cost for the facility. Areas that have not been accessed should be surveyed as soon as possible to complete the characterization of the facility. Inaccessible materials need not be sampled immediately, but must be sampled prior to any repair, renovation or demolition activity that may affect the material; access in some instances may require destructive investigation. Until sampling is performed, inaccessible suspect material should be assumed to contain asbestos. Inaccessible areas and suspect materials in this facility, if any, are identified under the Findings and Recommendations section of this report.

Sampling and Laboratory Analysis Constraints

Representative Sampling Constraints - This facility may have been constructed with materials that hinder representative sampling. These materials typically include, but are not limited to, plaster, stucco, joint compound, flooring mastic, roofing materials, plaster, door cores and wallboard. Such materials often are concealed, covered, coated, painted, or have undergone multiple applications which may not permit CITY' personnel to determine with a high degree of certainty that the material sampled is representative of all suspect materials in the facility with the same characteristics, or in technical terms, that the material sampled is *homogeneous* (uniform in color, texture, construction/application date, and general appearance). These materials are classified as *possibly non-representative* and therefore will require careful scrutiny and potentially additional investigation and sampling to resolve questions or to improve the accuracy of their characterization, particularly if *mixed results* (positive and negative) are produced by the original laboratory analysis. However, regardless of whether or not mixed results are produced, or additional investigation and sampling is performed, the level of certainty in characterizing these obscured materials still may not be as high as with exposed materials where homogeneous characteristics can be visually confirmed.

Laboratory Analysis Constraints - Certain materials (generally nonfriable types) such as roofing products, joint compound, floor tiles and mastics have a mix of components (a matrix) which can interfere with the polarized light method of analysis, and/or are composed of asbestos fibers of small diameter which are invisible to the PLM microscope. These types of material can yield false positive or false negative results. It sometimes is necessary to utilize Point Counting or Transmission Electron Microscopy (TEM) techniques, whichever is appropriate for the type of material involved, to better confirm the presence or absence of asbestos fibers in these materials. This type of analysis (initial or subsequent to the initial analysis by PLM) is not performed by CITY unless otherwise directed by the Client.

Mixed Results - Bulk samples collected from an apparently homogeneous material and yielding mixed results may in fact have been taken from different homogeneous materials displaying similar visual characteristics but composed of different constituents. Although materials may appear to be homogeneous, they may have been produced in different batches or by different manufacturers. Material which appears to be homogeneous but yield mixed results is typically assumed, in accordance with AHERA procedures, to be asbestos-containing in all areas where the material is located. CITY will only reclassify the material into separate homogeneous materials (one containing asbestos and one that does not) when both of the following conditions apply: there is strong evidence that the samples represent more than one homogeneous material (constituents of the materials do not match), and the locations or boundaries of the materials are unmistakably clear. In situations where the locations or boundaries are not clear, additional research and sampling may be recommended.

Further Investigation - The above *sampling and laboratory analytical constraints* can individually or collectively affect the findings and recommendations of the survey. However, CITY will not recommend further investigation, sampling or laboratory analysis to minimize their affects unless it is clear that (1) the effort will be cost-effective (the benefits significantly outweigh the costs), and (2) the desired results are reasonably achievable from a technical standpoint. For example, it would not be cost-effective to conduct additional sampling of sprayed-on acoustical ceiling material in a 100 square foot room because of mixed sample results. However, this additional effort would be cost-effective if sample results for an acoustical ceiling material used abundantly throughout a facility reveal a pattern of positive material on one floor and negative material on another. Recommendations for further investigation and sampling or laboratory analysis, if any, are discussed in the Findings and Recommendations section of this report.

Micron Environmental Labs
292 E. Foothill Blvd., suite B
Arcadia, CA 91006
626-357-8627
FAX: 626-256-9017

Analytical Method: EPA 600/R-93/116
NIST / NVLAP Lab Code No. 200294-0
California ELAP Certificate No. 2297

Micron Ref. No.
11303015

Sample Summary Results

Customer Project: 2614.2/ Lockheed Beaumont-Site2 Microscopist: Maria L. Kowalski

January 31, 2003

Frank Najafi
City Environmental Services, Inc.
P.O. Box 641818
Los Angeles, CA 90064

Date Collected: January 17, 2003
Date Received: January 17, 2003
Date Analyzed: January 23, 2003
No. Samples: 25

Cust ID No. / Micron ID No.	Sample Description / Color	Asbestos Detected	Analytical Results	Q.C.
1-1 / 98347	Concrete Wall Grout/Mortar gray & white	No	100% Mineral Filler	
1-2 / 98348	Concrete Wall Grout/Mortar gray & white	No	100% Mineral Filler	
1-3 / 98349	Concrete Wall Grout/Mortar gray & white	No	100% Mineral Filler	
2-1 / 98350	Concrete Wall Grout/Mortar grey	No	100% Mineral Filler	
2-2 / 98351	Concrete Wall Grout/Mortar gray & white	No	100% Mineral Filler	
2-3 / 98352	Concrete Wall Grout/Mortar grey	No	100% Mineral Filler	

Sample Summary Results

Date: January 31, 2003

Microscopist: Maria L. Kowalski

Micron Ref. No.: 11303015

Cust ID No. / Micron ID No.	Sample Description / Color	Asbestos Detected	Analytical Results	Q.C.
3-1 98353	Asphalt Debris black & white	No	100% Mineral Filler	
3-2 98354	Asphalt Debris black & white	No	100% Mineral Filler	X
3-3 98355	Asphalt Debris black & white	No	100% Mineral Filler	
4-1 98356	Transite Pipe grey	Yes	10% chrysotile 2% Crocidolite 88% Mineral Filler	
5-1 98357	Water Proofing Tar Felt black	Yes	7% chrysotile 5% Cellulose 10% Mineral Filler 78% Organic Binders	
4-2 98358	Transite Pipe Debris grey	Yes	10% chrysotile 2% Crocidolite 88% Mineral Filler	
3-4 98359	Asphalt Composite black & white	No	100% Mineral Filler	
3-5 98360	Asphalt Composite black & white	No	100% Mineral Filler	X

Sample Summary Results

Date: January 31, 2003

Microscopist: Maria L. Kowalski

Micron Ref. No.: 11303015

Cust ID No. / Micron ID No.	Sample Description / Color	Asbestos Detected	Analytical Results	Q.C.
3-6 98361	Asphalt Composite black & white	No	100% Mineral Filler	
7-1 98362	Floor Tile grey	Yes	<1% chrysotile 99% Mineral Filler	
7-1 98362	Floor Tile-Mastic black	Yes	2% chrysotile 98% Organic Binders	
6-1 98363	Drywall white	No	100% Mineral Filler	
6-2 98364	Drywall white	No	100% Mineral Filler	
6-3 98365	Drywall white	No	100% Mineral Filler	
8-1 98366	Wall Plaster beige	No	100% Mineral Filler	
8-2 98367	Wall Plaster white	No	100% Mineral Filler	

Sample Summary Results

Date: January 31, 2003

Microscopist: Maria L. Kowalski

Micron Ref. No.: 11303015

Cust ID No. / Micron ID No.	Sample Description / Color	Asbestos Detected	Analytical Results	Q.C.
8-3 98368	Wall Plaster white	No	100% Mineral Filler	
9-1 98369	Transite Siding Debris grey	No	10% Cellulose 90% Mineral Filler	
10-1 98370	Gaskets black	No	100% Organic Binders	
11-1 98371	Insulation white	No	10% Cellulose 50% Mineral Filler 40% Vermiculite	X

Microscopist: _____

The limit of detection for this analytical method is less than one percent asbestos (visual area estimates).

BULK MATERIAL SAMPLING F[illegible]M AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site 2	PROJECT NO.	2614 - 2	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

113C3015

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
37	1	1	1	Grout/Mortar for concrete Block walls	Interior/ exterior walls	None	8x8x10		NF	GC				8x8x10
	1	1	2	↓	↓	↓	↓		↓	↓				
↓	1	1	3	↓	↓	↓	↓		↓	↓				
33	1	2	1	↓	↓	↓	20x20x8		↓	↓				20x20x8
↓	1	2	2	↓	↓	↓	↓		↓	↓				
↓	1	2	3	↓	↓	↓	↓		↓	↓				
↓		3	1	Asphalt debris with Rock/gravel surface on	on Road	↓	200#		↓	↓				
↓		3	2	Road/ground to the south of Waypoint 33	↓	↓	↓		↓	↓				
↓		3	3	↓	↓	↓	↓		↓	↓				

GN: Homogenous Group Number
N: Sample No.
R: Analytical Result
NF: Friable/Non-Friable
R: Damage Rating
: Contact Potential
: Vibration Influence
: Erosion Potential

GC: Good Condition (None, or minimal damage)
D: Damaged
SD: Significant Damage

L: Low
M: Moderate
H: High

Deliver Report & Bill To:
Frank Najafi
CITY Env Services, Inc.
1450 S. Burlington Avenue
Suite B
Los Angeles, CA 90006
Phone: (213) 632-0410
Fax: (213) 632-0414

Lab Name: Micron Environmental labs
Analysis Requested: (PLM) TEM AAS
Turn Around Time: 5 DAY
Analyze to First Positive? (YES) NO

Project Reference: Lockheed Beaumont Site No. 2
Project Number: 2614 - 2

elinquished By: [signature] **Date:** 1/17/03

Received By: [signature] **Date:** 1-17-03

BULK MATERIAL SAMPLING FORM AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site 2	PROJECT NO.	2614 - 2	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

11/26/15

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
B-1	1	4	1	4" OD Transite pipe	In the Test Bay #1	Debris & other pipes encased in concrete	100 LF		NF	D				
						above & to the North								
TB-2	1	5	1	Black waterproofing tar/felt	on concrete footing	1	10 ft							
		4	2	Transite pipe Debris	North of TB2 on ground	Misc. debris scattered on ground								Also on concrete cylinder 200' East of Main Bunker
						in large open area East of TB2	200 ft							scattered over ~~500~~ 50K ft area
		3	4	Asphalt composite Debris & Ind duct	TB2 & Main Bunker	loose pieces scattered as well as								
		3	5			Ind duct ground surface								
		3	6											
Main Bunker		7	1	9x9 Vinyl floor tile & Black mastic	Inside the Main Bunker	N/A	1000 ft		NF	D				

HGN:	Homogenous Group Number	GC:	Good Condition (None, or minimal damage)	**Deliver Report & Bill To:**	**Lab Name: Micron** Environmental labs
SN:	Sample No.	D:	Damaged	Frank Najafi	**Analysis Requested:** (PLM) TEM AAS
AR:	Analytical Result	SD:	Significant Damage	CITY Env Services, Inc.	**Turn Around Time:** 5 DAY
F/NF:	Friable/Non-Friable			1450 S. Burlington Avenue	**Analyze to First Positive?** (YES) NO
DR:	Damage Rating	L:	Low	Suite B	
CP:	Contact Potential	M:	Moderate	Los Angeles, CA 90006	**Project Reference:** Lockheed Beaumont Site No. 2
VI:	Vibration Influence	H:	High	Phone: (213) 632-0410	**Project Number:** 2614 - 2
EP:	Erosion Potential			Fax: (213) 632-0414	

Relinquished By: [signature] **Date:** 1/17/03 **Received By:** BARRIOS **Date:** 1-17-03

BULK MATERIAL SAMPLING F[illegible]M AND CHAIN OF CUSTODY

PROJECT NAME:	Lockheed Beaumont Site 2	PROJECT NO.	2614 - 2	DATE:		SAMPLED BY:	Frank Najafi CAC 93-1185

11/30/15

Bldg. No.	Floor	HGN	SN	Material Description	Sample Location	Other Locations	Total Quantity	AR	F/NF	DR	CP	VI	EP	Recommended Action
Main Bldg	1	6	1	Drywall (No Joint compound)	Restroom		100ft		NF	D				
			2											
			3											
Main Bldg		8	1	composite Plaster walls	Restroom		100ft		NF	D				
			2	↓										
			3											
TB-3		9	1	Transite siding Debris	on ground	scattered Debris								
1	1	10	1	Black gasket	Pipe leading to water tanks									
4	1	11	1	white insulation	Forced air heating furnace				F	D				

HGN: Homogenous Group Number
SN: Sample No.
AR: Analytical Result
F/NF: Friable/Non-Friable
DR: Damage Rating
CP: Contact Potential
VI: Vibration Influence
EP: Erosion Potential

GC: Good Condition (None, or minimal damage)
D: Damaged
SD: Significant Damage

L: Low
M: Moderate
H: High

Deliver Report & Bill To:
Frank Najafi
CITY Env Services, Inc.
1450 S. Burlington Avenue
Suite B
Los Angeles, CA 90006
Phone: (213) 632-0410
Fax: (213) 632-0414

Lab Name: Micron Environmental labs
Analysis Requested: (PLM) TEM AAS
Turn Around Time: 5 DAY
Analyze to First Positive? (YES) NO

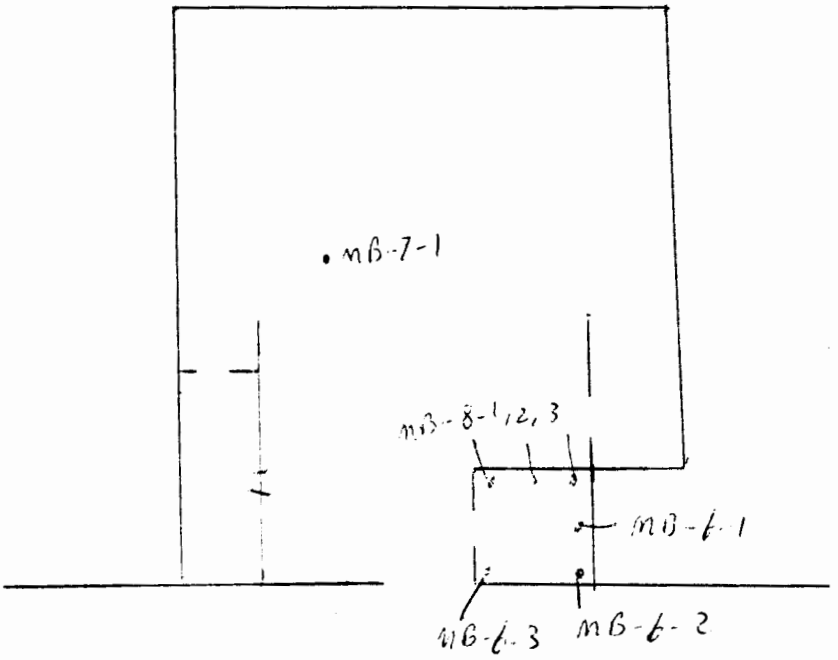
Project Reference: Lockheed Beaumont Site No. 2
Project Number: 2614 - 2

Relinquished By: [signature] **Date:**

Received By: [signature] **Date:** 11-17-15

Lockheed Beaumont Site 2

1/15/03

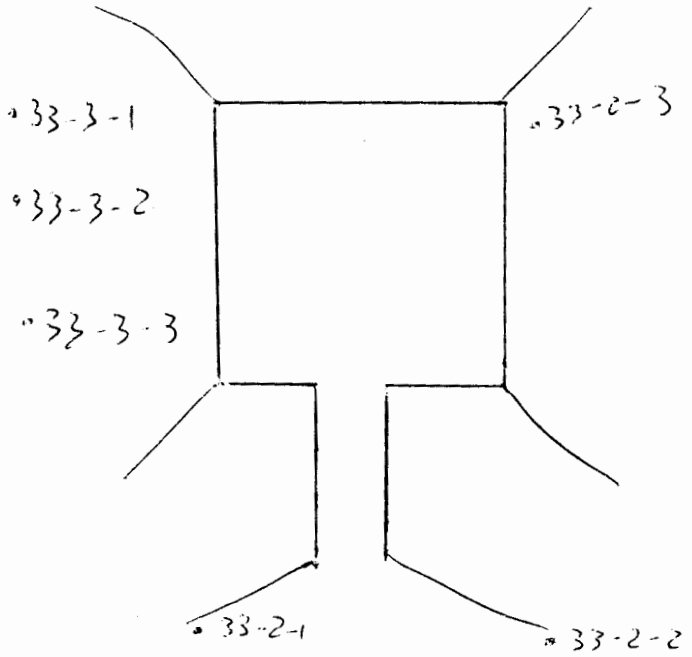


Main Berker

Asbestos Bulk Sample locations

Lockheed Sediment Site 2

1/15/03

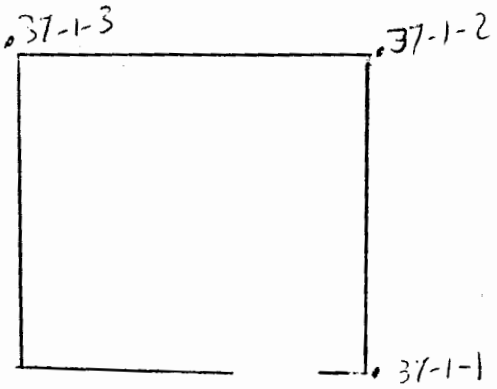


Bldg. 33

Asbestos Soil Sample Locations

Lockheed Seamount Site 2

1/15/03

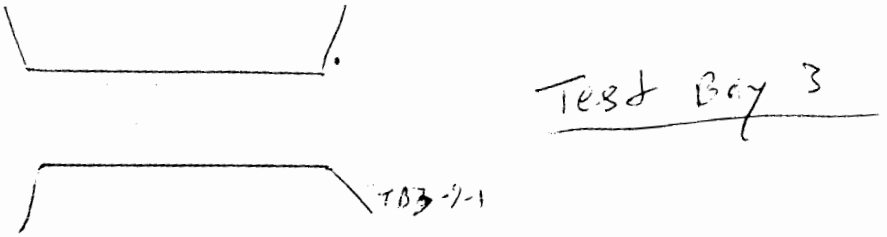


Bldg. 37

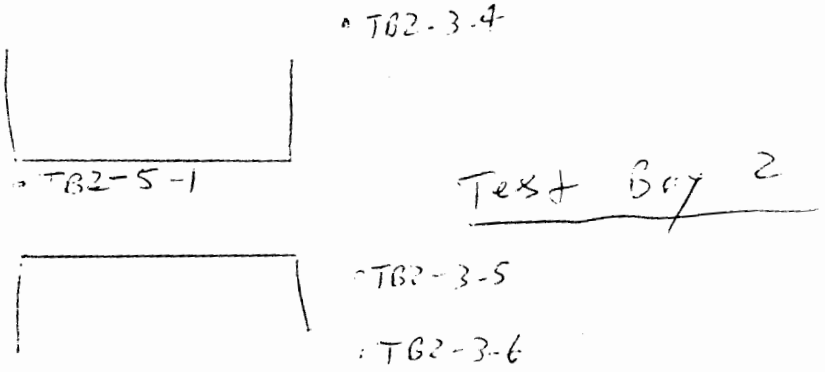
Asbestos Bulk Sample locations

Lockheed Seamount Site 2

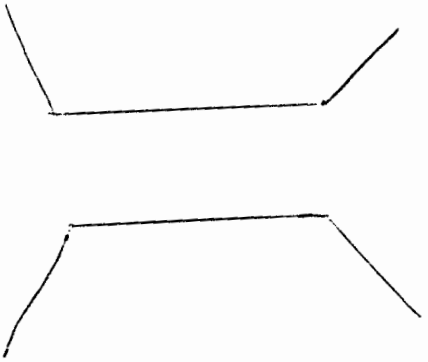
1/15/03



Test Bay 3



Test Bay 2



Test Bay 1

Asbestos Bulk sample locations

Site 2, Bldg 37, Lead Paint on Door Frame

Site 2, Bldg 37, Lead Paint on Interior Walls

APPENDIX B

LEAD-BASED PAINT SURVEY FOR BEAUMONT SITE 2

CITY
Environmental
Services, Inc.

Hazardous Material Inspections & Abatement Management
1450 S. Burlington Avenue, Suite B
Los Angeles, CA 90006
Phone (213) 632-0410
Fax (213) 632-0414

January 23, 2003, ***REVISED January 30, 2003***

Ms. Theresa Congdon
Tetra Tech, Inc.
348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408

Re: **Lead Paint Identification Survey Report**
Lockheed Martin Beaumont Site # 2
Beaumont, California

Dear Ms. Congdon:

As requested, the Lockheed Martin Beaumont Site #2 was surveyed by CITY Environmental Services, Inc. (CITY) on January 15, 2003, for lead-paint. Mr. Frank Najafi, a California State DHS Certified Lead Inspector, conducted the survey.

This survey was performed in order to determine the presence, if any, of lead-paint on surfaces/components at the site that might be disturbed during the planned demolition project at the above referenced site.

Cal/OSHA Title 8 CCR 1532.1 and Federal OSHA 29 CFR 1926.62 Lead in Construction Standards consider any amount of lead in paint to be a concern during renovation and demolition activities.

Lead testing was performed by paint chip sampling. Thirteen paint chip samples were collected from the exterior and interior surfaces of the buildings. The samples were submitted to Micron Environmental Laboratories, Inc. (Micron) for analysis by Atomic Absorption Spectrometry (AAS) in accordance with EPA Method SW 846-3050-7420.

Paint chip samples were collected from the following locations:

Site 37;
Site 33;
Test Bays 1, 2, and 3;
Main Bunker;
Site 60 (bollards), and
Water tanks/appurtenances.

Summary of Paint Chip Sample Analysis Results for Lead Content

Sample Date	Sample Number	Description	Sample location / Condition	Analytical Results ppm	Approx. Quantity
1/15/03	37-P-1	Gray/White Paint	Bldg. 37 Interior concrete block walls/Peeling/damaged	38,551.3	320 square feet
1/15/03	37-P-2	Gray/White Paint	Bldg 37 Wood door frame / Peeling/damaged	15,566.5	One door only
1/15/03	33-P-3	Gray Paint	Bldg. 33: On steel door / Intact	31,507.2	One door only
1/15/03	TB1-P-4	Thick white paint	Coating on concrete walls of test bay1/Intact some surface damage	349.7	500 SF
1/15/03	TB2-P-5	Thick white paint	Coating on concrete walls of test bay2/Intact some surface damage	156.1	1,000 SF
1/15/03	MB-P-6	White/yellow/orange thick paint	Exterior walls of main Bunker/Intact	217.9	300 SF
1/15/03	MB-P-7	Silver/gray paint	Exterior walls of main Bunker/Intact	88.1	500 SF
1/15/03	MB-P-8	Silver/gray paint	Interior walls of main Bunker/Intact	603.7	3,900 SF
1/15/03	MB-P-9	Green ceramic tile	In restroom of main Bunker	646.9	50 SF
1/15/03	TB3-P-10	White/Gray paint	Test bay 3 - Concrete walls/ Significant deterioration	178.2	1,500 SF
1/15/03	60-P-11	Yellow paint	On concrete bollards/ Sig deteriorated	177,468.6	12 each 4'
1/15/03	1-P-12	Gray paint & Orange primer	On water tank #1and pipes/appurtenances	277,489.2	1.500 SF - Also on 12 bollards
1/15/03	2-P-13	Gray paint & Orange primer	On water tank #2 and pipes/appurtenances	205,892.5	1,500 SF

PPM-Parts per million, SF-Square Foot, TB-Test Bays, MB-Main Bunker,

The lab has confirmed that all paint samples collected at this site contain lead. The lead content of the paint sample ranged from 88.1 ppm to 277,489 ppm. With the exception of the water tanks, the condition of all other lead paint at this site was considered to be poor (peeling, chipping, damaged, etc.).

Prior to renovation/remodeling, or demolition activities, all loose and flaking lead paint at this site must be properly removed, containerized, and disposed by a qualified contractor in

accordance with applicable regulations and under proper engineer controls/containments. The surfaces must then be stabilized prior to any further disturbance.

Due to the condition of the painted components/surfaces at this site, there is a potential for surface contamination (soils and grounds) at the base of walls at all buildings. This issue must be addresses when remediation/demolition activities area planned at the facility or if the facility will be reoccupied.

Copies of the lead paint sample analysis report and chain of custody have been attached for your review and record keeping.

A summary of OSHA regulatory requirements for handling and disposal of lead containing paint has been attached for your review.

For questions regarding the above information please feel free to contact the undersigned.

Regards,
CITY ENVIRONMENTAL SERVICES, INC.

F. Frank Najafi
California DHS Certified LBP Inspector/Assessor, No. 89
California Registered Environmental Assessor, No. 05542

Attachments: lead paint sample chain of custody, lab analysis report, and OSHA lead regulation summary.

CHAIN OF CUSTODY FOR LABORATORY SAMPLE ANALYSIS

Date: 1/16/03	**Project Location:** ~~Side 2~~ Site 2		**Project Name:**	**Page:** 1	**Of:** 1
Project Number: 3614-2	**Laboratory Name:** Main		**Analysis Requested:** TTLC 4AS for lead	**Results Needed By:**	5 DAY

Laboratory to fax a copy of the results to 213-632-0414 and a copy to the attention of: _____ **@ fax no.** _____

SAMPLE #	DATE	MATERIAL DESCRIPTION	MATERIAL LOCATION(S)	QUANTITY & UNITS OF MEASURE
B7-P-1	1/15/03	Gray/white Paint	Peeling/Damaged interior concrete walls	walls 8x8x10
B7-P-2		Green/white Paint	Peels/Damaged on wood door frame	one door only
B3-P-3		Gray Paint	Intact on steel Door	six Doors 4x2.5'
B1-P-4		thick white paint/coating	on concrete walls of Test Bay 1 - Interior surfaces	one surface area 500 SF
B2-P-5		"	" " " 2 "	" " " 1000 SF
MB-P-6		white/yellow/orange thick Paint	Intact exterior walls of main Bunker	300 SF
MB-P-7		Silver/Gray Paint	Intact exterior walls of main Bunker	500 SF
MB-P-8		" " "	" Interior " " "	3900 SF
MB-P-9		Green ceramic tile	in restroom of main Bunker	50 SF Damaged
B3-P-10		white/Gray paint	Sig Deteriorated on Concrete walls	1500 SF
C-P-11		Yellow paint on Concrete	Bollards sig deteriorated	12 each 4'

Relinquished By:	Received By:	**Laboratory Services Requested By:**
Signature:	Signature:	Frank Najafi
Date:	Date:	CITY Environmental Services, Inc.
Time:	Time:	PO BOX 641818
		Los Angeles, CA 90064
Relinquished By:	Received By:	**Phone: (213) 632-0410**
Signature:	Signature:	**Fax: (213) 632-0414**
Date:	Date:	
Time:	Time:	

CHAIN OF CUSTODY FOR LABORATORY SAMPLE ANALYSIS

Date: 1/16/03	**Project Location:** Lockheed Facility Site 2	**Project Name:**	**Page:** 1 **Of:** 1
Project Number: 2619-2	**Laboratory Name:** Alpha	**Analysis Requested:** TTLC AAS for metals	**Results Needed By:** 5 Day

Laboratory to fax a copy of the results to 213-632-0414 and a copy to the attention of: _____ **@ fax no.** _____

SAMPLE #	DATE	MATERIAL DESCRIPTION	MATERIAL LOCATION(S)	QUANTITY & UNITS OF MEASURE
1 - F-12	1/15/03	Grey paint & orange primer	on water tanks #1	Also on 12 Bollards
2 - F-13	↓	↓	↓ #2	

Relinquished By: Frank Najafi Signature: Date: 1/17/03 Time:	Received By: Signature: Date: Time:	**Laboratory Services Requested By:** Frank Najafi CITY Environmental Services, Inc. PO BOX 641818 Los Angeles, CA 90064 **Phone: (213) 632-0410** **Fax: (213) 632-0414**
Relinquished By: Signature: Date: Time:	Received By: Signature: Date: Time:	

CHAIN OF CUSTODY FOR LABOR DRY SAMPLE ANALYSIS

Date: 1/16/03	Project Location: ~~Side 2~~ Site 2	Lockheed Beaumont	Project Name:	Page: 1	Of: 1
Project Number: 26142	Laboratory Name:	Micron	Analysis Requested:	TTLC AA5 for lead	Results Needed By: 5 DAY

Laboratory to fax a copy of the results to 213-632-0414 and a copy to the attention of: _____ @ fax no. _____

11303014

SAMPLE ID	SAMPLE DATE	MATERIAL DESCRIPTION	LOCATION/LOCATIONS	QUANTITY/UNITS OF MEASURE
1-P-1	1/15/03	Gray/white Paint	Peeling/Damaged interior concrete block	walls 8x8x10
1-P-2		Green/white Paint	Peeling/Damaged on wood door frame	one door only
1-P-3		Gray Paint	Intact on steel Door	one Door 4x2.5'
1-P-4		thick white Paint/coating	on concrete walls of Test Boy 1 - Intact	some surface damage 500#
2-P-5		" "	" " " 2 "	" " 1000#
1-P-6		white/yellow/orange thick Paint	Intact exterior walls of main Bunker	300#
3-P-7		silver/gray paint	Intact exterior walls of main Bunker	500#
3-P-8		" " "	" Interior " " " "	3900#
3-P-9		Green ceramic tile	in restroom of main Bunker	50# Damaged.
3-P-10		white/gry paint	sig Deterioration on Concrete walls	1500#
1-P-11	↓	yellow paint on concrete	Bollards sig deteriorated	12 each 4'

Relinquished By:	Received By: Jill Barnok	**Laboratory Services Requested By:**
Signature:	Signature: JBarnok	Frank Najafi
Date:	Date: 1-17-03	CITY Environmental Services, Inc.
Time:	Time: 9:30 a	PO BOX 641818
		Los Angeles, CA 90064
Relinquished By:	Received By:	**Phone: (213) 632-0410**
Signature:	Signature:	**Fax: (213) 632-0414**
Date:	Date:	
Time:	Time:	

CHAIN OF CUSTODY FOR LABORATORY SAMPLE ANALYSIS

Date: 1/16/03	Project Location: Lockheed Beaumont Site 2	Project Name:		Page: 1 Of: 1	
Project Number: 2619-2	Laboratory Name: Micron	Analysis Requested: TTLC AAS for lead		Results Needed By: 5 Day	

Laboratory to fax a copy of the results to 213-632-0414 and a copy to the attention of: ____________ @ fax no. ____________

11303014

Sample ID	Date	Material Description	Sample Location(s)	Quantity & Unit of Measure
P-12	1/15/03	Gray paint & orange primer	on water tanks #1	Also on 12 Buildings
P-13	↓	↓	↓ #2	

Relinquished By:	Received By:	Laboratory Services Requested By:
Relinquished By: [signature] Signature: Date: 1/17/03 Time:	Received By: Jill Barrios Signature: JBarrios Date: 1-17-03 Time: 9:30 A	**Laboratory Services Requested By:** Frank Najafi CITY Environmental Services, Inc. PO BOX 641818 Los Angeles, CA 90064 **Phone: (213) 632-0410** **Fax: (213) 632-0414**
Relinquished By: Signature: Date: Time:	Received By: Signature: Date: Time:	

Micron Environmental Labs.

292 E. Foothill Blvd. Suite B
Arcadia, CA 91006

Analytical Method: EPA SW846-3050-7420
AIHA (ELPAT) ID No.: 103012
CA ELAP Certificate NO. 2297

Micron Ref. No. 11303014
Date: 1/24/03

Lead (Pb) TTLC Summary Results

Project: Lockheed Beaumont Site 2

Analyst: Fabio Rodriguez

Company: CITY Environmental Services, Inc.
Address: PO BOX 641818
City, State, Zip: Los Angeles, CA 90064

Date Collected: 1/16/03
Date Received: 1/17/03
Date Analyzed: 1/24/03
No. of samples: 13

Sample ID	Weight g	Volume ml	Dilution Factor	Concentration mg/l	Results mg/kg (ppm)
37-p1	0.1843	50	10	14.21	**38551.3**
37-p2	0.1121	50	1	34.90	**15566.5**
33-p3	0.1798	50	10	11.33	**31507.2**
BTI-p4	0.1387	50	1	0.97	**349.7**
TB-p5	0.1409	50	1	0.44	**156.1**
MB-p6	0.1331	50	1	0.58	**217.9**
MB-p7	0.1135	50	1	0.20	**88.1**
MB-p8	0.1640	50	1	1.98	**603.7**
MB-p9	0.1028	50	1	1.33	**646.9**
TB-p10	0.1936	50	1	0.69	**178.2**
GO-p11	0.1114	50	20	19.77	**177468.6**
1-p12	0.1155	50	20	32.05	**277489.2**
2-p13	0.1731	50	20	35.64	**205892.5**

mg/kg-milligrams per kilogram

ppm-parts per million

Analyst

Micron Environmental Labs.

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mg/kg-milligrams per kilogram

ppm-parts per million

Analyst

CHAIN OF CUSTODY FOR LABORATORY SAMPLE ANALYSIS

Date: 1/16, 03	Project Location: ~~Site 2~~ Site 2	Lockheed Beaumont	Project Name:	Page: 1	Of: 1
Project Number: 26142	Laboratory Name:	Micro	Analysis Requested:	TTLC AAS for lead	Results Needed By: 5 DAY

Laboratory to fax a copy of the results to 213-632-0414 and a copy to the attention of: _____ @ fax no. _____

11203004

SAMPLE	DATE	MATERIAL DESCRIPTION	MATERIAL LOCATION(S)	QUANTITY & UNITS OF MEASURE
7-P-1	1/15/03	Gray/white Paint	Peeling/Damaged interior concrete Block walls	walls 8x8x10
7-P-2		Green/white Paint	Peeling/Damaged on wood door frame	one door only
3-P-3		Gray Paint	Intact on steel Door	one Door 4x2.5'
1-P-4		thick white Paint/coating	on concrete walls of Test Boy/ - Intact	one surface damage 500ft
2-P-5		" "	" " " 2 "	" " + 1000ft
3-P-6		white/yellow/orange thick Paint	Intact exterior walls of main Bunker	300ft
3-P-7		silver/Gray paint	Intact exterior walls of main Bunker	500ft
3-P-8		" " "	" Interior " " " "	3900ft
3-P-9		Green ceramic tile	in restroom of main Bunker	50ft Damaged
3-P-10		white/Gray Paint	Sig Deteriorated on Concrete walls	1500ft
-P-11	↓	yellow paint on concrete	Bollards sig deteriorated	12 each 4'

linquished By: gnature: te: ne:	Received By: Jill Barnick Signature: JBarnick Date: 1-17-03 Time: 9:30 AM	**Laboratory Services Requested By:** Frank Najafi CITY Environmental Services, Inc. PO BOX 641818 Los Angeles, CA 90064 **Phone: (213) 632-0410** **Fax: (213) 632-0414**
inquished By: nature: e: ie:	Received By: Signature: Date: Time:	

LABORATORY SAMPLE ANALYSIS

te: 1/16 3	Project Location:	Lockheed Beaumont Site 2	Project Name:	Page: 1	Of: 1
oject mber: 2619-2	Laboratory Name:	Micro	Analysis Requested:	TTLC AAS for lead	Results Needed By: 5 Day

oratory to fax a copy of the results to 213-632-0414 and a copy to the attention of: _____ @ fax no. _____

11303014

MPLE	DATE	MATERIAL DESCRIPTION	MATERIAL LOCATION(S)	QUANTITY & UNITS OF MEASURE
P-12	1/15/03	Grey Paint & orange primer	on water tanks #1	Also on 12 B wall
P-13	↓	↓	↓ #2	

nquished By:	Received By: Jill Barnes	**Laboratory Services Requested By:**
ature:	Signature: JBarnes	Frank Najafi
: 1/17/03	Date: 1-17-03	CITY Environmental Services, Inc.
:	Time: 9:20 A	PO BOX 641818
		Los Angeles, CA 90064
quished By:	Received By:	**Phone: (213) 632-0410**
ture:	Signature:	**Fax: (213) 632-0414**
	Date:	
	Time:	

APPENDIX C

SAFETY AND TOXICS ASSESSMENT MATRIX FOR BEAUMONT SITE 1

APPENDIX C

SAFETY AND TOXICS ASSESSMENT MATRIX FOR BEAUMONT SITE 1

COMPLETE MATRIX

LOCKHEED MARTIN
BEAUMONT SITE 1
SAFETY AND TOXICS ASSESSMENT

Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
1	A	Northeastern section of site	Unknown	One mile south of front gate, structure located on edge of hilltop west of the road	89	In-ground 50' by 50' by 4' deep concrete pit with metal structure. 2 - 5' by 5' counter weights. 30' by 30' gravel pad nearby. Some metal debris.	D
2	A	Aerojet Ballistics Test Area (eastern)	Eastern Aerojet range	Gun Placement Area	29	10' x 15' rebar reinforced, concrete pad with multiple mounting bolts	D
3	A	Nuevo and Potrero Creek wash	Tank	4000' north of Potrero Road heading northward in eastern side of canyon wall	36	A singe wall steel 5' x 15' empty storage tank. Tank probably slid off eastern bank during a major storm/erosion event.	D
4	A	Above Nuevo and Potrero Creek wash, east side	Unknown	~1 mile north of Potrero Road, above wash on eastern side	27	Three 8' x 10' concrete pads, 4" thick, rebar reinforced. Two pads have exposed rebar, protruding upward	D
5	A	Nuevo and Potrero Creek wash	N/A	~1-1/4 mile north of Potrero Road in wash	34	One old rocket motor casing. Markings are faded and unreadable.	D
6	A	Northeastern section of site	Former gate house	In road south of front gate	22	Concrete pad with crash posts and protruding bolts	D
7	A	Northeastern section of site	Former parking and entrance?	Concrete pad to east of gate house and road	23	Concrete pad with protruding bolts	D
8	A	Northeastern section of site	N/A	Downslope from revetments on right side of dirt road	24	Empty, rusted 25-gallon drum	D
9	A	Northeastern section of site	N/A	Downslope from revetments on right side of dirt road	25	Rusted tire rim	D
10	A	Northeastern section of site	N/A	Base of earthen berm on south side	90	5-gallon empty cylinder	D
11	A	Northeastern section of site	N/A	Southwest side of hilltop and earthen berm	91	Metal and concrete debris	D

LOCKHEED MARTIN
BEAUMONT SITE 1
SAFETY AND TOXICS ASSESSMENT

Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
12	A	Aerojet Ballistics Test Area (eastern)	Eastern Aerojet range	Concrete (Targets) Backstop and Instrumentation Bldg	28	No evidence observed of former structures. However, within 500' foot radius scattered metal debris observed	D
13	A	Nuevo and Potrero Creek wash	N/A	1250' north of Potrero Road heading northward in wash	30	Empty 55-gallon drum and crumbled metal siding 50' north of drum	D
14	A	Nuevo and Potrero Creek wash	N/A	4000' north of Potrero Road heading northward in wash	32	~5' tall, 9" diameter metal stove pipe in wash. Crushed metal debris ~10' away.	D
15	A	Nuevo and Potrero Creek wash	N/A	4500' north of Potrero Road in wash		One car tire observed 100' south of tank location, under trees in wash. One car tire observed 200' south of tank in wash on east side.	D
16	A	Nuevo and Potrero Creek wash	N/A	~1-1/4 mile north of Potrero Road in wash. 50' away from rocket motor casing		24" diameter by 6' long corrugate metal pipe	D
17	A	Nuevo and Potrero Creek wash	Unknown	~1-1/2 mile north of Potrero Road in wash	35	Large concrete building/structural debris. Probably eroded from eastern side. Large corrugated metal livestock watering tank.	D
18	A	Nuevo and Potrero Creek wash	Former well	~1-1/2 mile north of Potrero Road in wash		8" former well casing appears to be driven into wash. Associated severed 20' length of well casing and protective monument nearby	D
19	A	Northeastern section of site	Revetments for avanti motor storage	West of road		Concrete pads in good condition. No debris or protruding bolts	N/A
20	A	Aerojet Ballistics Test Area (eastern)	Impact/target area	One mile north of Gun Placement Area		No evidence was observed of the impact area or the backstop	N/A
21	A	Aerojet Ballistics Test Area (eastern)	Soil conservation service berm	1-1/4 north of Gun Placement Area		Berm present. No concerns noted	N/A
22	A	Aerojet Ballistics Test Area (eastern)	Intermittent lake	1-1/4 north of Gun Placement Area		Topographic Depression. Evidence of former dry land farming. No concerns noted.	N/A

LOCKHEED MARTIN
BEAUMONT SITE 1
SAFETY AND TOXICS ASSESSMENT

Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
23	A	Aerojet Ballistics Test Area (eastern)	Two storage revetments	East of Intermittent Lake		U-shaped revetments no concrete pads. No concerns noted.	N/A
24	B	Propellant Mixing Area	Mix station control bunker	315A		Toxic mold was found on the acoustic ceiling tiles in the tool room.	T
25	B	Propellant Mixing Area	Unknown	Northwest of 315A		14' x 40' concrete pad and associated 5' x 5' x 5.5' deep dry well vault. Residual mastic from 9" x 9" floor tiles observed on concrete pad	D
26	B	Northwest of Propellant Mixing Area	Electric substation	Electric substation		Unused former main electrical switch gear location. Switch gear removed, cabinet remains. Adjacent enclosure contain current site electrical service entrance and transformers.	D
27	B	Remedial System Extraction/Injection Wells	Remedial system	Various		Covers of extraction/injection wells were observed to be open and unsecured	R
28	B	Propellant Mixing Area	Remedial system	315		Air stripper	R
29	B	Propellant Mixing Area	Remedial system	315		Air stripper	R
30	B	Propellant Mixing Area	Remedial system	315		Air stripper	R
31	B	Propellant Mixing Area	Remedial system	315		Air stripper	R
32	B	Propellant Mixing Area	Remedial system	315		Air stripper	R
33	B	750' south of intersection of Highland Springs Road and Potrero Road	unknown	Adjacent and west of Highland Springs Road (dirt)	61	Open 8' by 6' by 2' deep concrete block vault and sawed off telephone pole	D
34	B	Propellant Mixing Area	Fuel slurry station	317	N/A	5' x 25' x 100' concrete T-shaped foundation	D
35	B	Propellant Mixing Area	Electrical enclosure	West of 315A		Electrical enclosure	D
36	B	Propellant Mixing Area	Vault	West of 315A		Air conditioner vault at southeast corner of electrical enclosure	D
37	B	Propellant Mixing Area	Vault	West of 315A		Open vault southwest of electrical enclosure	D
38	B	Propellant Mixing Area	Unknown	Concrete pad south of 315A across road	93	10' x 10' concrete pad with electrical conduit/piping protruding from adjacent ground	D

LOCKHEED MARTIN
BEAUMONT SITE 1
SAFETY AND TOXICS ASSESSMENT

Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
39	B	North of Propellant Mixing Area	Water Tank	2500' North of Building 315 on hill slope south of Potrero Road		Former metal water tank and distribution piping. All that remains is pieces of sheet metal from tank, tank ladder, and piping and valves from the distribution system.	D
40	B	North of Propellant Mixing Area	Unknown	1000' NE of 319, south of wash	none	64' x 40' concrete pad with protruding bolts, partial block wall, and concrete debris	D
41	B	North of Propellant Mixing Area	Unknown	1000' NE of 319, south of wash	none	7.5' x 5.5' x 3.5' deep raised concrete vault	D
42	B	North of Propellant Mixing Area	Unknown	North of Potrero road, east of intersection with fuel slurry station access road	37	6' diameter circular concrete structure with metal barrel at center. Blackened barrel interior suggestive of burning.	D
43	B	Northwest of Propellant Mixing Area	Unknown	Concrete pad 100' east of substation	103	60' x 20' concrete pad with protruding bolts and some broken concrete	D
44	B	northwest of Propellant Mixing Area	unknown	250' south of Potrero road west of intersection with fuel slurry station access road north of wash	104	Scattered building debris, wood, presumed ACM in 9" floor tile, rubberized material, 1 tire	T
45	B	Remedial System Extraction Wells	Remedial system	EW1 and EW2 power panels		Electrical panels did not have proper warning signage	R
46	B	Propellant Mixing Area	Remedial system	315		Air stripper is on concrete pad of former mix station.	R
47	B	Propellant Mixing Area	Remedial system	315		Air stripper	R
48	B	750' south of intersection of Highland Springs Road and Potrero Road	N/A	15' west of vault and in wash	61	Fenced debris and tire	D
49	B	Adjacent and west of Highland Springs Road (dirt)	N/A	Adjacent and west of Highland Springs Road (dirt)	62	One tire	D
50	B	1500' north of 315A	N/A	Along eastern side of hill	92	Debris from livestock water supply (rusted 6"-diameter irrigation pipe and 5 gallon bucket)	D
51	B	1500' north of 315A	N/A	In topographic depression		Former livestock watering hole	D

LOCKHEED MARTIN
BEAUMONT SITE 1
SAFETY AND TOXICS ASSESSMENT

Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
52	B	Propellant Mixing Area	N/A	317	N/A	55-gallon drum of non-hazardous trash sitting on concrete pad	D
53	B	Propellant Mixing Area	N/A	West of 317	N/A	Empty, rusted 55-gallon drum	D
54	B	Propellant Mixing Area	N/A	Vicinity 317	N/A	Metal debris and one car tire	D
55	B	Propellant Mixing Area	Unknown	40' north of 317, west side of road	97	10' by 10' concrete pad partially buried by sand, possible former well/tank location	D
56	B	Propellant Mixing Area	Former AST	west of 315A		Concrete AST cradle	D
57	B	Propellant Mixing Area	Unknown	Northwest of 315A		14' x 40' concrete pad and associated 5' x 5' x 5.5' deep dry well vault. Residual mastic from 9" x 9" floor tiles observed on concrete pad (presumed ACM)	T
58	B	Propellant Mixing Area	Unknown	50' northwest of 315A		Partially buried, empty, rusted 55-gallon drum	D
59	B	Propellant Mixing Area	N/A	East of 315		Mobile trailer	D
60	B	Propellant Mixing Area	n/a	Protruding 4' tall pole south of 315A and road	94	4' tall pole, 15' away from concrete pad	D
61	B	Propellant Mixing Area	Chemical storage Quonset	319		Metal debris near 82' x 42' concrete pad	D
62	B	Propellant Mixing Area	N/A	1000' east of 319 at base of hill		Barbed wire fencing debris in a pile	D
63	B	North of Propellant Mixing Area	N/A	Wash north of Propulsion Mix Station Area, east of road		Metal debris and tires (two car tires)	D
64	B	North of Propellant Mixing Area	N/A	Wash north of Propulsion Mix Station Area, west of road	99	Concrete and metal debris in wash	D
65	B	North of Propellant Mixing Area	N/A	Tree line north of Potrero Road	100, 10	Scattered metal and concrete debris under trees	D
66	B	Northwest of Propellant Mixing Area	N/A	In culvert paralleling either side of Potrero road		Minor amounts of scattered concrete and metal debris and 2 tires	D

LOCKHEED MARTIN
BEAUMONT SITE 1
SAFETY AND TOXICS ASSESSMENT

Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
67	B	northwest of Propellant Mixing Area	unknown	250' south of Potrero road west of intersection with fuel slurry station access road north of wash	104	Scattered building debris, wood, possible ACBM 9" floor tile, rubberized material, 1 tire	D
68	B	Northwest of Propellant Mixing Area	N/A	Behind mound, 500' north of Potrero road	105/106	Minor amounts of car parts and other metal debris	D
69	B	Propellant Mixing Area/ Motor Wash Area	N/A	800' south of 317 , west of road	95	20' by 20' concrete pad with 4 to 6 steel mounting plates embedded in the concrete	N/A
70	B	Propellant Mixing Area	Mix station control bunker	315A		Flammable/chemical storage	N/A
71	B	Propellant Mixing Area	Cast and cure station	316		No evidence of former structure except a little concrete debris observed in general vicinity of former location	N/A
72	C	Burn Pit Area	Magazine (equipment storage)	Southeast of Burn Pit Area	39	Six concrete pads, 4.3' x 10' and 2.2' x 10' pads. Large pieces of concrete debris with protruding metal stakes and rebar.	D
73	C	Burn Pit Area	Catalytic oxidation system	North of burn pit		Inactive	R
74	C	Burn Pit Area	Small beryllium motor horizontal test stand	Southeast of Burn Pit Area	40	Metal test stand on concrete foundation	D
75	C	Burn Pit Area	Burn Pit Area	Burn Pit Area		Former Burn Pit location	R
76	C	Burn Pit Area	Burn pit protective bunker	Burn Pit Protective Bunker	41	Former bunker no longer present. Small quantity of metal debris and charred wood at location and eastward	D
77	C	Burn Pit Area	N/A	Wash near southern site boundary	44	Metal debris in wash on northeast side of wash	D
78	C	Burn Pit Area	Burn Pit Area	Burn Pit Area		Stephens' kangaroo rat fence surrounding Burn Pit Area.	R
79	C	Burn Pit Area	Temporary waste storage area	East of Small Beryllium Motor Horizontal Test Stand on east side of Highland Spring Road	42	One concrete 10' x 20' pad. Partially covered by sand. No protruding rebar. No concerns noted.	N/A

LOCKHEED MARTIN
BEAUMONT SITE 1
SAFETY AND TOXICS ASSESSMENT

Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
80	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area	Control trailers	South side on road, against hillside		Telephone pole. Downed communication line crosses road. Example of site-wide issue.	D
81	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area	Storage buildings	South side on road, against hillside	46	Three 10' x 10' concrete pads. Very small, 2" tall, bolts.	D
82	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area	Control trailers	South side on road, against hillside	47	Four concrete pads (three 10' x 20' and one 20' x 20'). Minor amounts of wooden and concrete debris and protruding bolts.	D
83	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area	Gun mounts	North side of road, behind and north of small berm	48	20' wide concrete pad with 1' deep pit with metal collar for gun mount. Protruding metal stake nearby.	D
84	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area	Ballistics tunnel	North side of road, behind and north of small berm	49	20' x 20' concrete pad and two 3' tall, 40' long block walls. Metal rebar protruding from wall.	D
85	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area	Ballistics tunnel	Debris at west end of former ballistics tunnel		Yellow foam, brown electric insulators with protruding wire, and pieces of tire	D
86	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area	Ballistics tunnel	Southwest of berm adjacent to ballistics tunnel	50	3' x 3' concrete debris block under tree, south of berm	D
87	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area/	Machine gun metal tripod on concrete pad	At base of terraced slope	51	Metal tripod on 5' x 5' concrete pad. Small amount of protruding rebar and wooden debris 200' NW of tripod.	D
88	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area/	N/A	In wash 50' southeast of bend in road		Metal debris	D

LOCKHEED MARTIN
BEAUMONT SITE 1
SAFETY AND TOXICS ASSESSMENT

Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
89	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area/	Small Test Area for Incendiary Bombs.	Box canyon south of Ballistics Test Range.	53,54	Fifteen to twenty drum lids and rings. Vehicular debris throughout canyon - drive shaft, engine block, brake drum, truck door	D
90	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area/	N/A	In wash, west side of road	55, 56	Four drums	D
91	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area/	N/A	north of wash	57	10' x 5' sheet metal	D
92	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area/	Class A explosives storage area	Southwest of Ballistics tunnel, south side of road, behind a berm		Flat area, former location of three pads. No concerns observed.	N/A
93	E	Area North of Radioactive Waste Disposal Site	Unknown	150-250' east of OW2	64	Old wooden structures, fencing, one tire, empty 12-gauge shells	D
94	E	Area North of Radioactive Waste Disposal Site	N/A	South of pond, near road	66	15' length of 4" metal pipe	D
95	E	Area North of Radioactive Waste Disposal Site	N/A	Pond	65	Possible duck pond area. No concerns noted	N/A
96	E	Radioactive Waste Disposal Site	Canyon 1 (possible disposal site)	See MAP		Extensive earthmoving conducted in and along canyon walls. No concerns noted during site visit of 12/02	N/A
97	E	Radioactive Waste Disposal Site	Canyon 2 (Possible Disposal site)	See MAP		Extensive earthmoving conducted in and along canyon walls. No concerns noted during site visit of 12/02	N/A
98	E	Radioactive Waste Disposal Site	Canyon 3 (possible disposal site)	See MAP		Extensive earthmoving conducted in and along canyon walls. No concerns noted during site visit of 12/02	N/A
99	E	Radioactive Waste Disposal Site	Canyon 4 (possible disposal site)	See MAP		Extensive earthmoving conducted in and along canyon walls. No concerns noted during site visit of 12/02	N/A
100	F	LPC Test Services Area	Structural test bay 308 (large motor test bay)	308		Unused structure	D

LOCKHEED MARTIN
BEAUMONT SITE 1
SAFETY AND TOXICS ASSESSMENT

Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
101	F	LPC Test Services Area	Structural test bay 308 (large motor test bay)	308		Metal ladders, test stand mount, test attachment points and rails, and protruding bolts pose fall hazard and general safety hazard.	D
102	F	LPC Test Services Area	N/A	Above and behind 308		Metal debris and piping, fallen utility wires and telephone poles pose general safety hazard.	D
103	F	LPC Test Services Area	N/A	Southeast from 308 to 305		Approximately 1000' of transite electrical conduit partially buried and on surface	T
104	F	LPC Test Services Area	Structural Test Bay 310 (small motor horizontal test bay)	310		The test support wall and pad remain. The wall has protruding bolts. A square concrete structure is on hillside above.	D
105	F	LPC Test Services Area	Structural Test Bay 310 (small motor horizontal test bay)	310		Square concrete structure and protruding bolts pose fall hazard and general safety hazard.	D
106	F	LPC Test Services Area	25 MeV betatron radiographic unit	303		Vacant two story concrete, brick, and block building with highbay. Some building material debris.	D
107	F	LPC Test Services Area	25 MeV betatron radiographic unit	303		Vacant two story concrete, brick, and block building with highbay. Some building material debris.	D
108	F	LPC Test Services Area	25 MeV betatron radiographic unit	303		Vacant two story concrete, brick, and block building with highbay. Some building material debris.	D
109	F	LPC Test Services Area	25 MeV betatron radiographic unit	303		Vacant two story concrete, brick, and block building with highbay. Some building material debris.	D
110	F	LPC Test Services Area	Test maintenance and storage	306		CBM building with partial walls of attached building. Unstable wooden roof. Cracks observed in support walls.	D
111	F	LPC Test Services Area	Test personnel bunker	304		Bunker with earthen revetment. Bunker has electrical fixtures/service panels, fluorescent lighting , and 9" x 9" vinyl floor tiles.	D

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Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
112	F	LPC Test Services Area	Test personnel bunker	304		Bunker with earthen revetment. Bunker has electrical fixtures/service panels, fluorescent lighting , and 9" x 9" vinyl floor tiles. Six 4-light 4-foot long fluorescent light fixtures	D
113	F	LPC Test Services Area	Test personnel bunker	Hilltop west of 304		Aboveground Storage Tank. Former use/contents unknown.	D
114	F	LPC Test Services Area	Test instrumentation bunker	305		Multi-room earth and cement bunker. 4' x 6' interior sump partially filled with liquid. Building debris within bunker.	D
115	F	LPC Test Services Area	Test instrumentation bunker	305		Toxic mold found in drywall and ceiling tiles of facility,	T
116	F	LPC Test Services Area	Test instrumentation bunker	305		Multi-room earth and cement bunker. 4' x 6' interior sump partially filled with liquid. Building debris within bunker.	T
117	F	LPC Test Services Area	Test instrumentation bunker	305		Multi-room earth and cement bunker. 4' x 6' interior sump partially filled with liquid. Building debris within bunker.	D
118	F	LPC Test Services Area	Test instrumentation bunker	Shed roofed building attached to 305		Fire damaged, no roof, metal support struts only. Poses structural hazard.	D
119	F	LPC Test Services Area	Small motor test assembly (312)	312		Inactive small room block wall building with rollup garage door and one entrance door. Multiple unlabeled 55-gallon drums with unknown liquid contents. Toxic mold found in drywall on ceiling of facility,	T
120	F	LPC Test Services Area	Small motor test assembly (312)	312		Inactive small room block wall building with rollup garage door and one entrance door. Multiple unlabeled 55-gallon drums with unknown liquid contents. ACM within building.	T
121	F	LPC Test Services Area	Small motor test assembly (312)	312		Inactive small room block wall building with rollup garage door and one entrance door. Multiple unlabeled 55-gallon drums with unknown liquid contents. LBP within building.	T

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Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
122	F	LPC Test Services Area	Small motor test assembly (312)	312		Inactive small room block wall building with rollup garage door and one entrance door. Multiple unlabeled 55-gallon drums with unknown liquid contents.	T
123	F	LPC Test Services Area	Adjacent Structure to 308	308A		10' x 10' CBM building	D
124	F	LPC Test Services Area	Adjacent Structure to 308	308A		10' x 10' CBM bldg. LBP within building.	T
125	F	LPC Test Services Area	Adjacent Structure to 308	308A		10' x 10' CBM bldg. During site inspection, roofing was considered to be presumed ACM. Roofing was sampled and results were negative for ACM.	N/A
126	F	LPC Test Services Area	Structural Test Bay 309 (small motor vertical test bay)	309		10' x 10' CBM building, concrete pads, and steel mounts.	D
127	F	LPC Test Services Area	Structural Test Bay 309 (small motor vertical test bay)	309		10' x 10' CBM building, concrete pads, and steel mounts. LBP within building.	T
128	F	LPC Test Services Area	Structural Test Bay 309 (small motor vertical test bay)	309		10' x 10' CBM building, concrete pads, and steel mounts. During site inspection, roofing was considered to be presumed ACM. Roofing was sampled and results were negative for ACM.	N/A
129	F	LPC Test Services Area	Structural Test Bay 309 (small motor vertical test bay)	309		10' x 10' CBM building, concrete pads, and steel mounts. Protruding conduit located north of building.	D
130	F	LPC Test Services Area	Structural Test Bay 309 (small motor vertical test bay)	309		Concrete in previously sealed manhole has subsided. Concrete used to previously fill manhole/vault inside building has subsided.	D
131	F	LPC Test Services Area	Structural Test Bay 309 (small motor vertical test bay)	309		Elevated steel rocket test stand mounted on concrete pad	D
132	F	LPC Test Services Area	Unknown	50' downslope of 309 along edge of access road		Two raised concrete supports pose slip, trip, and fall hazard or driving hazard	D

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Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
133	F	LPC Test Services Area	Temporary Storage associated with 307	307		10' x 10' CBM building at top of hill with seven concrete pads in revetments around toe of slope. ACM within building.	T
134	F	LPC Test Services Area	Electrical Enclosure at base of hill west of 307	307		Inactive electrical enclosure	D
135	F	LPC Test Services Area	Electrical Enclosure at base of hill west of 307	307		Inactive electrical enclosure	T
136	F	LPC Test Services Area	Bunker	325		Bunker made of large metal pipe with concrete front and earthen revetment.	D
137	F	LPC Test Services Area	Storage Magazine	311		Concrete bunker with earthen revetment	D
138	F	LPC Test Services Area	25 MeV betatron radiographic unit	303		High level of animal droppings on floors of facility interior.	T
139	F	LPC Test Services Area	Former production well W-2	500' south of road south of 303	67	Former production well W-2, piping and electrical conduit from former well system. Well is not sealed and is open conduit.	D
140	F	LPC Test Services Area	Test maintenance and storage	306		CBM building with partial walls of attached building. Unstable wooden roof. Cracks observed in support walls. LBP within building.	T
141	F	LPC Test Services Area	Test maintenance and storage	306		CBM building with partial walls of attached building. Unstable wooden roof. Cracks observed in support walls. During site inspection, the building interior was considered to be presumed ACM. The building interior was sampled and results were negative for ACM.	N/A
142	F	LPC Test Services Area	Test personnel bunker	304		Bunker with earthen revetment. Bunker has electrical fixtures/service panels, fluorescent lighting , and 9" x 9" vinyl floor tiles. ACM within building.	T
143	F	LPC Test Services Area	Test personnel bunker	304		Bunker with earthen revetment. Bunker has electrical fixtures/service panels, fluorescent lighting , and 9" x 9" vinyl floor tiles.	T

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Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
144	F	LPC Test Services Area	Environmental Chambers (Conditioning Chambers)	320		Five 20' x 10' concrete pads with earthen berms between and associated 2' deep vaults.	D
145	F	LPC Test Services Area	Test instrumentation bunker	305		Multi-room earth and cement bunker. 4' x 6' interior sump partially filled with liquid. Building debris within bunker. ACM within bunker.	T
146	F	LPC Test Services Area	Test instrumentation bunker	305		Multi-room earth and cement bunker. 4' x 6' interior sump partially filled with liquid. Building debris within bunker.	T
147	F	LPC Test Services Area	Test instrumentation bunker	305		Multi-room earth and cement bunker. 4' x 6' interior sump partially filled with liquid. Building debris within bunker. High level of animal dropping on interior floors.	T
148	F	LPC Test Services Area	Test instrumentation bunker	Air handling unit above 305		Expansion joints and insulation of air handling unit may contain asbestos. ACM within joints and insulation.	T
149	F	LPC Test Services Area	Electrical enclosure	100' above 305		Electrical enclosure and associated electrical vaults	D
150	F	LPC Test Services Area	Electrical enclosure	100' above 305		Electrical enclosure and associated electrical vaults. Possible PCB contamination.	T
151	F	LPC Test Services Area	E.B.E.S test facilities (313)	313		Concrete pad, CBM wall, and vault. Three concrete pads located west of main facility structure. Concrete block wall located down slope east of main facility structure. Electrical conduit and piping protruding from ground around structures.	D
152	F	LPC Test Services Area	E.B.E.S test facilities (313)	General Vicinity of 313		Exposed and partially buried piping and conduit in the topographic lows around the structure. Metal debris also found in these areas.	D

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Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
153	F	Motor Washout Area near Potrero Creek	Large solid motors washout area	Adjacent to Potrero Creek south of Facility 320 location on south side of road	68	Earthen mound and debris scatter with depression in ground south of mound observed. Former production well and equipment is still present but has been vandalized rendering it inoperable. Piping and conduit protruding from ground.	D
154	F	Motor Washout Area near Potrero Creek	Large solid motors washout area	Potrero creek adjacent to motor washout area	69	Material matching description cited in Radian report as propellant residue is on north slope of Potrero creek 50' west of motor washout area.	T
155	F	Motor Wash out Area south of 315	Electrical enclosure	North of motor washout area, 500' south of intersection of 2 dirt roads, and 1000' south of 315	60	Electrical enclosure	D
156	F	LPC Test Services Area	Structural Test Bay 310 (small motor horizontal test bay)	Vicinity of drive leading to 310		Corrugated metal sheet and metal debris north of Potrero and west of drive leading to 310. Minor amounts of metal debris in wash on south side of Potrero, west of the drive leading to bldg 310	D
157	F	LPC Test Services Area	Temporary Storage associated with 307	307		Some building debris inside structure.	D
158	F	LPC Test Services Area	Bone-Yard (Steel Framework/Heavy Equipment Storage)	North of T-4 and 307		Metal, concrete, plastic, and wood construction debris scattered about the site.	D
159	F	LPC Test Services Area	Bunker	325		Bunker made of large metal pipe with concrete front and earthen revetment. LBP within bunker.	T
160	F	LPC Test Services Area	Bunker	325		Bunker made of large metal pipe with concrete front with earthen revetment. 4" exhaust stack connected at rear of facility through earthen revetment to surface.	D
161	F	LPC Test Services Area	Storage Magazine	311		Concrete bunker with earthen revetment. LBP within bunker.	T

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Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
162	F	LPC Test Services Area	Storage Magazine	311		Concrete bunker with earthen revetment. ACM within bunker.	T
163	F	LPC Test Services Area	Storage Magazine	311		Concrete bunker with earthen revetment Metal debris and former facility doors on floor of facility.	D
164	F	LPC Test Services Area	Storage Magazine	south of 311		5-gallon empty rusted drum	D
165	F	LPC Test Services Area	25 MeV betatron radiographic unit	303		Vacant two story concrete, brick, and block building with highbay. Some building material debris. ACM within building.	T
166	F	LPC Test Services Area	25 MeV betatron radiographic unit	303		Vacant two story concrete, brick, and block building with highbay. Some building material debris. LBP within building.	T
167	F	LPC Test Services Area	25 MeV betatron radiographic unit	303		Five HID bulbs in highbay warehouse	T
168	F	LPC Test Services Area	25 MeV betatron radiographic unit	303		Vacant two story concrete, brick, and block building with highbay. Some building material debris.	T
169	F	LPC Test Services Area	25 MeV betatron radiographic unit	303		Vacant two story concrete, brick, and block building with highbay. Some building material debris.	D
170	F	LPC Test Services Area	25 MeV betatron radiographic unit	Ditches around 303		Metal and concrete debris	D
171	F	LPC Test Services Area	25 MeV betatron radiographic unit	40' north of 303		black canvas web bags in canyon upslope from Building 303	D
172	F	LPC Test Services Area	25 MeV betatron radiographic unit	Hillside above 303		Vacant two story concrete, brick, and block building with highbay. Some building material debris.	D
173	F	LPC Test Services Area	Former production well W-2	500' south of road south of 303		Concrete and metal debris near W-2	D
174	F	LPC Test Services Area	Test maintenance and storage	306		CBM building with partial walls of attached building. Unstable wooden roof. Cracks observed in support walls.	D
175	F	LPC Test Services Area	Facilities storage	314		Two 20' x 40' concrete pads from former warehouse buildings. Metal and building material debris in vicinity of former building location	D

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Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
176	F	LPC Test Services Area	Test personnel bunker	304		Bunker with earthen revetment. Bunker has electrical fixtures/service panels, fluorescent lighting , and 9" x 9" vinyl floor tiles. Metal debris, former facility doors	D
177	F	LPC Test Services Area	Environmental Chambers (Conditioning Chambers)	320		Five 20' x 10' concrete pads with earthen berms between and associated 2' deep vaults. Empty 5-gallon paint bucket	D
178	F	LPC Test Services Area	Test instrumentation bunker	Air handling unit above 305		Metal air handling unit	D
179	F	LPC Test Services Area	N/A	General vicinity of 305, 306, 309, 313, 314		Concrete, metal, and building debris in general vicinity	D
180	F	LPC Test Services Area	Beryllium waste storage	Southwest of Structural Test Bay 310		Storage bunker has been removed. Only concrete and metal debris remain	D
181	F	LPC Test Services Area	Igniter magazine area	Southwest of Structural Test Bay 310		Storage bunker has been removed only concrete and metal debris remain	D
182	F	LPC Test Services Area	Small motor test assembly (312)	312		Inactive small room block wall building with rollup garage door and one entrance door. Multiple unlabeled 55-gallon drums with unknown liquid contents. Debris and equipment scattered about facility interior.	D
183	F	Motor Wash out Area south of 315	N/A	Adjacent to electrical enclosure		Buried lengths of galvanized pipe north of enclosure and protruding rebar 30' south of enclosure	D
184	F	West of LPC Test Services Area	Remedial System - Monitoring well	1/2 mile west of 310, where road intersects wash. Near MW 16		MW-16 in wash, needs repair	R

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Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
185	F	LPC Test Services Area	Temperature conditioning chambers (test motors conditioning oven complex)	307		10' x 10' CBM building at top of hill with seven concrete pads in revetments around toe of slope.	N/A
186	F	LPC Test Services Area	25 MeV betatron radiographic unit	250' south of betatron Bldg		20' x 60' concrete pad with asphalt driveway and surrounding dirt revetment	N/A
187	F	LPC Test Services Area	Environmental Chambers (Conditioning Chambers)	Between 320 and 309, north of road	107	Two 15' x 15' asphalt pads	N/A
188	F	LPC Test Services Area	Temporary segment storage	T-3 and unnamed storage revetment, located northwest of 307 complex		Only concrete pads remain	N/A
189	F	LPC Test Services Area	Temporary segment storage	T-4, located northeast of 307 complex		Only concrete pads remain	N/A
190	F	LPC Test Services Area	unknown	Between buildings 306 and 308, south of Potrero Road		Possible concrete loading platform 10' x 10' x 4' tall off of Potrero road. Asphalt pad on bottom	N/A
191	F	PCB Spill Area	Transformer containing PCB material spill	Approximately 50 ft. west of building 303		No staining observed.	N/A
192	G	West of LPC Test Services Area	N/A	1/2 mile west of 310, where road intersects wash. Near MW 16	76	Sixteen to twenty tires in wash on west side of road	D
193	G	West of LPC Test Services Area	N/A	1/4 mile west of wash and MW16 along fire road	77	No trespassing sign. Fence debris, barb wire and discarding gate post in vicinity	D
194	G	Helicopter Weapons Test Area	Hanger	Building 302		60' x 60' concrete pad near/at former hanger location. A few 2" protruding screws. A cleanout in the SE corner of the pad.	D

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Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
195	G	Helicopter Weapons Test Area	Landing Pad	East of Building 302		Remnants of concrete tie downs and a concrete pad with steel cable were observed in this area.	D
196	G	Helicopter Weapons Test Area	n/a	Debris in wash 100' northeast of landing pad		20' long, 8" wide metal pipe partially crushed, steel cable, and 20-gallon empty drum on north side of wash.	D
197	G	Helicopter Weapons Test Area	N/A	300' south of mounted gun platforms, near/in wash	71, 72	8' long 6" wide metal pipe, partially buried in wash. Crushed metal sheet also observed.	D
198	G	Helicopter Weapons Test Area	N/A	Near concrete platform		Metal and wood debris to west of platform. One car tire to east of platform	D
199	G	Helicopter Weapons Test Area	Towers for mobile target	Southwest of Hanger and Gun Platforms	83	Northern most former tower location. Two concrete pads present with some protruding bolts.	D
200	G	Helicopter Weapons Test Area	Towers for mobile target	Southwest of Hanger and Gun Platforms	84	Southern most former tower location. Three concrete pads with some protruding bolts.	D
201	G	Helicopter Weapons Test Area	N/A	In pathway between two towers	85	10' x 4" metal plate	D
202	G	Helicopter Weapons Test Area	N/A	In wash east of 2 towers	86	Large block of concrete debris	D
203	G	Helicopter Weapons Test Area	N/A	In wash south of Potrero Road	87	Scattered metal, concrete debris and tire	D
204	G	Helicopter Weapons Test Area	N/A	In drainage south of Potrero Road, north of wash	88	Scatted metal and concrete debris	D
205	G	Helicopter Weapons Test Area	Stationary Ground Mounted Gun Platforms	South of Building 302		Near/at area of former gun mount there was a 60' x 60' concrete pad with adjacent 20' x 20' pad to the southeast. The pad was in good condition with no protruding bolts.	N/A
206	G	Helicopter Weapons Test Area	N/A	300' southwest of mounted gun platforms		Large graded area. 10' lower than helicopter weapons area. Possibly used for earth moving practice by Operating Engineers Union. No concerns observed.	N/A
207	G	Helicopter Weapons Test Area	Observation station	1500' west of gun mount	82	Observation station consists of a 10' x 25' wide pad with 3' tall lip. No protruding rebar or bolts observed	N/A

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208	H	Permitted Sanitary Landfill Area	Sanitary landfill	West of road	78	Former sanitary landfill. Two empty partially exposed drums (55 and 30 gallon), day lighting at surface.	D
209	H	Permitted Sanitary Landfill Area	Sanitary landfill	West of road		Some metal debris has been exposed due to erosion. Tire observed 10' away	D
210	I	Western Aerojet Range	Airstrip	Western portion of site, north of road in broad flat area	81	Area that may have been used as an airstrip is broad flat area with no vegetation. No evidence of airstrip observed. No surface debris observed except two vehicular brake rims at GPS location.	D
211	I	Western Aerojet Range	N/A	South of road, north of sanitary landfill	79	Tire observed on south side of road	D
212	I	Western Aerojet Range	N/A	South of road, north of sanitary landfill, south of reported location of airstrip	80	Fence debris and barbed wire	D
213	I	Western Aerojet Range	Incendiary bomb test area	Southeast of Airstrip		No evidence of incendiary bomb test area observed	N/A
214	I	Western Aerojet Range	Observation station	1500' NW of incendiary bomb test area		No evidence of observation station observed	N/A
215		Facility Wide	Electrical and communication lines	Various		Multiple inactive utility lines. Some lines down in areas. Some active line have slipped off of insulators	D

APPENDIX C

SAFETY AND TOXICS ASSESSMENT MATRIX FOR BEAUMONT SITE 1

SAFETY ITEMS MATRIX

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SAFETY ITEMS

Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
1	A	Northeastern section of site	Unknown	One mile south of front gate, structure located on edge of hilltop west of the road	89	In-ground 50' by 50' by 4' deep concrete pit with metal structure. 2 - 5' by 5' counter weights. 30' by 30' gravel pad nearby. Some metal debris.	D
2	A	Aerojet Ballistics Test Area (eastern)	Eastern Aerojet range	Gun Placement Area	29	10' x 15' rebar reinforced, concrete pad with multiple mounting bolts	D
3	A	Nuevo and Potrero Creek wash	Tank	4000' north of Potrero Road heading northward in eastern side of canyon wall	36	A singe wall steel 5' x 15' empty storage tank. Tank probably slid off eastern bank during a major storm/erosion event.	D
4	A	Above Nuevo and Potrero Creek wash, east side	Unknown	~1 mile north of Potrero Road, above wash on eastern side	27	Three 8' x 10' concrete pads, 4" thick, rebar reinforced. Two pads have exposed rebar, protruding upward	D
5	A	Nuevo and Potrero Creek wash	N/A	~1-1/4 mile north of Potrero Road in wash	34	One old rocket motor casing. Markings are faded and unreadable.	D
6	A	Northeastern section of site	Former gate house	In road south of front gate	22	Concrete pad with crash posts and protruding bolts	D
7	A	Northeastern section of site	Former parking and entrance?	Concrete pad to east of gate house and road	23	Concrete pad with protruding bolts	D
8	A	Northeastern section of site	N/A	Downslope from revetments on right side of dirt road	24	Empty, rusted 25-gallon drum	D
9	A	Northeastern section of site	N/A	Downslope from revetments on right side of dirt road	25	Rusted tire rim	D
10	A	Northeastern section of site	N/A	Base of earthen berm on south side	90	5-gallon empty cylinder	D
11	A	Northeastern section of site	N/A	Southwest side of hilltop and earthen berm	91	Metal and concrete debris	D

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Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
12	A	Aerojet Ballistics Test Area (eastern)	Eastern Aerojet range	Concrete (Targets) Backstop and Instrumentation Bldg	28	No evidence observed of former structures. However, within 500' foot radius scattered metal debris observed	D
13	A	Nuevo and Potrero Creek wash	N/A	1250' north of Potrero Road heading northward in wash	30	Empty 55-gallon drum and crumbled metal siding 50' north of drum	D
14	A	Nuevo and Potrero Creek wash	N/A	4000' north of Potrero Road heading northward in wash	32	~5' tall, 9" diameter metal stove pipe in wash. Crushed metal debris ~10' away.	D
15	A	Nuevo and Potrero Creek wash	N/A	4500' north of Potrero Road in wash		One car tire observed 100' south of tank location, under trees in wash. One car tire observed 200' south of tank in wash on east side.	D
16	A	Nuevo and Potrero Creek wash	N/A	~1-1/4 mile north of Potrero Road in wash. 50' away from rocket motor casing		24" diameter by 6' long corrugate metal pipe	D
17	A	Nuevo and Potrero Creek wash	Unknown	~1-1/2 mile north of Potrero Road in wash	35	Large concrete building/structural debris. Probably eroded from eastern side. Large corrugated metal livestock watering tank.	D
18	A	Nuevo and Potrero Creek wash	Former well	~1-1/2 mile north of Potrero Road in wash		8" former well casing appears to be driven into wash. Associated severed 20' length of well casing and protective monument nearby	D
25	B	Propellant Mixing Area	Unknown	Northwest of 315A		14' x 40' concrete pad and associated 5' x 5' x 5.5' deep dry well vault. Residual mastic from 9" x 9" floor tiles observed on concrete pad	D
26	B	Northwest of Propellant Mixing Area	Electric substation	Electric substation		Unused former main electrical switch gear location. Switch gear removed, cabinet remains. Adjacent enclosure contain current site electrical service entrance and transformers.	D

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Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
27	B	Remedial System Extraction/Injection Wells	Remedial system	Various		Covers of extraction/injection wells were observed to be open and unsecured	R
28	B	Propellant Mixing Area	Remedial system	315		Air stripper	R
29	B	Propellant Mixing Area	Remedial system	315		Air stripper	R
30	B	Propellant Mixing Area	Remedial system	315		Air stripper	R
31	B	Propellant Mixing Area	Remedial system	315		Air stripper	R
32	B	Propellant Mixing Area	Remedial system	315		Air stripper	R
33	B	750' south of intersection of Highland Springs Road and Potrero Road	unknown	Adjacent and west of Highland Springs Road (dirt)	61	Open 8' by 6' by 2' deep concrete block vault and sawed off telephone pole	D
34	B	Propellant Mixing Area	Fuel slurry station	317	N/A	5' x 25' x 100' concrete T-shaped foundation	D
35	B	Propellant Mixing Area	Electrical enclosure	West of 315A		Electrical enclosure	D
36	B	Propellant Mixing Area	Vault	West of 315A		Air conditioner vault at southeast corner of electrical enclosure	D
37	B	Propellant Mixing Area	Vault	West of 315A		Open vault southwest of electrical enclosure	D
38	B	Propellant Mixing Area	Unknown	Concrete pad south of 315A across road	93	10' x 10' concrete pad with electrical conduit/piping protruding from adjacent ground	D
39	B	North of Propellant Mixing Area	Water Tank	2500' North of Building 315 on hill slope south of Potrero Road		Former metal water tank and distribution piping. All that remains is pieces of sheet metal from tank, tank ladder, and piping and valves from the distribution system.	D
40	B	North of Propellant Mixing Area	Unknown	1000' NE of 319, south of wash	none	64' x 40' concrete pad with protruding bolts, partial block wall, and concrete debris	D
41	B	North of Propellant Mixing Area	Unknown	1000' NE of 319, south of wash	none	7.5' x 5.5' x 3.5' deep raised concrete vault	D
42	B	North of Propellant Mixing Area	Unknown	North of Potrero road, east of intersection with fuel slurry station access road	37	6' diameter circular concrete structure with metal barrel at center. Blackened barrel interior suggestive of burning.	D
43	B	Northwest of Propellant Mixing Area	Unknown	Concrete pad 100' east of substation	103	60' x 20' concrete pad with protruding bolts and some broken concrete	D

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Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
45	B	Remedial System Extraction Wells	Remedial system	EW1 and EW2 power panels		Electrical panels did not have proper warning signage	R
46	B	Propellant Mixing Area	Remedial system	315		Air stripper is on concrete pad of former mix station.	R
47	B	Propellant Mixing Area	Remedial system	315		Air stripper	R
48	B	750' south of intersection of Highland Springs Road and Potrero Road	N/A	15' west of vault and in wash	61	Fenced debris and tire	D
49	B	Adjacent and west of Highland Springs Road (dirt)	N/A	Adjacent and west of Highland Springs Road (dirt)	62	One tire	D
50	B	1500' north of 315A	N/A	Along eastern side of hill	92	Debris from livestock water supply (rusted 6"-diameter irrigation pipe and 5 gallon bucket)	D
51	B	1500' north of 315A	N/A	In topographic depression		Former livestock watering hole	D
52	B	Propellant Mixing Area	N/A	317	N/A	55-gallon drum of non-hazardous trash sitting on concrete pad	D
53	B	Propellant Mixing Area	N/A	West of 317	N/A	Empty, rusted 55-gallon drum	D
54	B	Propellant Mixing Area	N/A	Vicinity 317	N/A	Metal debris and one car tire	D
55	B	Propellant Mixing Area	Unknown	40' north of 317, west side of road	97	10' by 10' concrete pad partially buried by sand, possible former well/tank location	D
56	B	Propellant Mixing Area	Former AST	west of 315A		Concrete AST cradle	D
58	B	Propellant Mixing Area	Unknown	50' northwest of 315A		Partially buried, empty, rusted 55-gallon drum	D
59	B	Propellant Mixing Area	N/A	East of 315		Mobile trailer	D
60	B	Propellant Mixing Area	n/a	Protruding 4' tall pole south of 315A and road	94	4' tall pole, 15' away from concrete pad	D
61	B	Propellant Mixing Area	Chemical storage Quonset	319		Metal debris near 82' x 42' concrete pad	D
62	B	Propellant Mixing Area	N/A	1000' east of 319 at base of hill		Barbed wire fencing debris in a pile	D

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63	B	North of Propellant Mixing Area	N/A	Wash north of Propulsion Mix Station Area, east of road		Metal debris and tires (two car tires)	D
64	B	North of Propellant Mixing Area	N/A	Wash north of Propulsion Mix Station Area, west of road	99	Concrete and metal debris in wash	D
65	B	North of Propellant Mixing Area	N/A	Tree line north of Potrero Road	100, 10	Scattered metal and concrete debris under trees	D
66	B	Northwest of Propellant Mixing Area	N/A	In culvert paralleling either side of Potrero road		Minor amounts of scattered concrete and metal debris and 2 tires	D
67	B	northwest of Propellant Mixing Area	unknown	250' south of Potrero road west of intersection with fuel slurry station access road north of wash	104	Scattered building debris, wood, possible ACBM 9" floor tile, rubberized material, 1 tire	D
68	B	Northwest of Propellant Mixing Area	N/A	Behind mound, 500' north of Potrero road	105/106	Minor amounts of car parts and other metal debris	D
72	C	Burn Pit Area	Magazine (equipment storage)	Southeast of Burn Pit Area	39	Six concrete pads, 4.3' x 10' and 2.2' x 10' pads. Large pieces of concrete debris with protruding metal stakes and rebar.	D
73	C	Burn Pit Area	Catalytic oxidation system	North of burn pit		Inactive	R
74	C	Burn Pit Area	Small beryllium motor horizontal test stand	Southeast of Burn Pit Area	40	Metal test stand on concrete foundation	D
75	C	Burn Pit Area	Burn Pit Area	Burn Pit Area		Former Burn Pit location	R
76	C	Burn Pit Area	Burn pit protective bunker	Burn Pit Protective Bunker	41	Former bunker no longer present. Small quantity of metal debris and charred wood at location and eastward	D
77	C	Burn Pit Area	N/A	Wash near southern site boundary	44	Metal debris in wash on northeast side of wash	D

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78	C	Burn Pit Area	Burn Pit Area	Burn Pit Area		Stephens' kangaroo rat fence surrounding Burn Pit Area.	R
80	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area	Control trailers	South side on road, against hillside		Telephone pole. Downed communication line crosses road. Example of site-wide issue.	D
81	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area	Storage buildings	South side on road, against hillside	46	Three 10' x 10' concrete pads. Very small, 2" tall, bolts.	D
82	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area	Control trailers	South side on road, against hillside	47	Four concrete pads (three 10' x 20' and one 20' x 20'). Minor amounts of wooden and concrete debris and protruding bolts.	D
83	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area	Gun mounts	North side of road, behind and north of small berm	48	20' wide concrete pad with 1' deep pit with metal collar for gun mount. Protruding metal stake nearby.	D
84	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area	Ballistics tunnel	North side of road, behind and north of small berm	49	20' x 20' concrete pad and two 3' tall, 40' long block walls. Metal rebar protruding from wall.	D
85	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area	Ballistics tunnel	Debris at west end of former ballistics tunnel		Yellow foam, brown electric insulators with protruding wire, and pieces of tire	D
86	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area	Ballistics tunnel	Southwest of berm adjacent to ballistics tunnel	50	3' x 3' concrete debris block under tree, south of berm	D
87	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area/	Machine gun metal tripod on concrete pad	At base of terraced slope	51	Metal tripod on 5' x 5' concrete pad. Small amount of protruding rebar and wooden debris 200' NW of tripod.	D

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Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
88	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area/	N/A	In wash 50' southeast of bend in road		Metal debris	D
89	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area/	Small Test Area for Incendiary Bombs.	Box canyon south of Ballistics Test Range.	53,54	Fifteen to twenty drum lids and rings. Vehicular debris throughout canyon - drive shaft, engine block, brake drum, truck door	D
90	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area/	N/A	In wash, west side of road	55, 56	Four drums	D
91	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area/	N/A	north of wash	57	10' x 5' sheet metal	D
93	E	Area North of Radioactive Waste Disposal Site	Unknown	150-250' east of OW2	64	Old wooden structures, fencing, one tire, empty 12-gauge shells	D
94	E	Area North of Radioactive Waste Disposal Site	N/A	South of pond, near road	66	15' length of 4" metal pipe	D
100	F	LPC Test Services Area	Structural test bay 308 (large motor test bay)	308		Unused structure	D
101	F	LPC Test Services Area	Structural test bay 308 (large motor test bay)	308		Metal ladders, test stand mount, test attachment points and rails, and protruding bolts pose fall hazard and general safety hazard.	D
102	F	LPC Test Services Area	N/A	Above and behind 308		Metal debris and piping, fallen utility wires and telephone poles pose general safety hazard.	D
104	F	LPC Test Services Area	Structural Test Bay 310 (small motor horizontal test bay)	310		The test support wall and pad remain. The wall has protruding bolts. A square concrete structure is on hillside above.	D
105	F	LPC Test Services Area	Structural Test Bay 310 (small motor horizontal test bay)	310		Square concrete structure and protruding bolts pose fall hazard and general safety hazard.	D

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Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
106	F	LPC Test Services Area	25 MeV betatron radiographic unit	303		Vacant two story concrete, brick, and block building with highbay. Some building material debris.	D
107	F	LPC Test Services Area	25 MeV betatron radiographic unit	303		Vacant two story concrete, brick, and block building with highbay. Some building material debris.	D
108	F	LPC Test Services Area	25 MeV betatron radiographic unit	303		Vacant two story concrete, brick, and block building with highbay. Some building material debris.	D
109	F	LPC Test Services Area	25 MeV betatron radiographic unit	303		Vacant two story concrete, brick, and block building with highbay. Some building material debris.	D
110	F	LPC Test Services Area	Test maintenance and storage	306		CBM building with partial walls of attached building. Unstable wooden roof. Cracks observed in support walls.	D
111	F	LPC Test Services Area	Test personnel bunker	304		Bunker with earthen revetment. Bunker has electrical fixtures/service panels, fluorescent lighting , and 9" x 9" vinyl floor tiles.	D
112	F	LPC Test Services Area	Test personnel bunker	304		Bunker with earthen revetment. Bunker has electrical fixtures/service panels, fluorescent lighting , and 9" x 9" vinyl floor tiles. Six 4-light 4-foot long fluorescent light fixtures	D
113	F	LPC Test Services Area	Test personnel bunker	Hilltop west of 304		Aboveground Storage Tank. Former use/contents unknown.	D
114	F	LPC Test Services Area	Test instrumentation bunker	305		Multi-room earth and cement bunker. 4' x 6' interior sump partially filled with liquid. Building debris within bunker.	D
117	F	LPC Test Services Area	Test instrumentation bunker	305		Multi-room earth and cement bunker. 4' x 6' interior sump partially filled with liquid. Building debris within bunker.	D
118	F	LPC Test Services Area	Test instrumentation bunker	Shed roofed building attached to 305		Fire damaged, no roof, metal support struts only. Poses structural hazard.	D

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Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
123	F	LPC Test Services Area	Adjacent Structure to 308	308A		10' x 10' CBM building	D
126	F	LPC Test Services Area	Structural Test Bay 309 (small motor vertical test bay)	309		10' x 10' CBM building, concrete pads, and steel mounts.	D
129	F	LPC Test Services Area	Structural Test Bay 309 (small motor vertical test bay)	309		10' x 10' CBM building, concrete pads, and steel mounts. Protruding conduit located north of building.	D
130	F	LPC Test Services Area	Structural Test Bay 309 (small motor vertical test bay)	309		Concrete in previously sealed manhole has subsided. Concrete used to previously fill manhole/vault inside building has subsided.	D
131	F	LPC Test Services Area	Structural Test Bay 309 (small motor vertical test bay)	309		Elevated steel rocket test stand mounted on concrete pad	D
132	F	LPC Test Services Area	Unknown	50' downslope of 309 along edge of access road		Two raised concrete supports pose slip, trip, and fall hazard or driving hazard	D
134	F	LPC Test Services Area	Electrical Enclosure at base of hill west of 307	307		Inactive electrical enclosure	D
136	F	LPC Test Services Area	Bunker	325		Bunker made of large metal pipe with concrete front and earthen revetment.	D
137	F	LPC Test Services Area	Storage Magazine	311		Concrete bunker with earthen revetment	D
139	F	LPC Test Services Area	Former production well W-2	500' south of road south of 303	67	Former production well W-2, piping and electrical conduit from former well system. Well is not sealed and is open conduit.	D
144	F	LPC Test Services Area	Environmental Chambers (Conditioning Chambers)	320		Five 20' x 10' concrete pads with earthen berms between and associated 2' deep vaults.	D
149	F	LPC Test Services Area	Electrical enclosure	100' above 305		Electrical enclosure and associated electrical vaults	D

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Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
151	F	LPC Test Services Area	E.B.E.S test facilities (313)	313		Concrete pad, CBM wall, and vault. Three concrete pads located west of main facility structure. Concrete block wall located down slope east of main facility structure. Electrical conduit and piping protruding from ground around structures.	D
152	F	LPC Test Services Area	E.B.E.S test facilities (313)	General Vicinity of 313		Exposed and partially buried piping and conduit in the topographic lows around the structure. Metal debris also found in these areas.	D
153	F	Motor Washout Area near Potrero Creek	Large solid motors washout area	Adjacent to Potrero Creek south of Facility 320 location on south side of road	68	Earthen mound and debris scatter with depression in ground south of mound observed. Former production well and equipment is still present but has been vandalized rendering it inoperable. Piping and conduit protruding from ground.	D
155	F	Motor Wash out Area south of 315	Electrical enclosure	North of motor washout area, 500' south of intersection of 2 dirt roads, and 1000' south of 315	60	Electrical enclosure	D
156	F	LPC Test Services Area	Structural Test Bay 310 (small motor horizontal test bay)	Vicinity of drive leading to 310		Corrugated metal sheet and metal debris north of Potrero and west of drive leading to 310. Minor amounts of metal debris in wash on south side of Potrero, west of the drive leading to bldg 310	D
157	F	LPC Test Services Area	Temporary Storage associated with 307	307		Some building debris inside structure.	D
158	F	LPC Test Services Area	Bone-Yard (Steel Framework/Heavy Equipment Storage)	North of T-4 and 307		Metal, concrete, plastic, and wood construction debris scattered about the site.	D

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Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
160	F	LPC Test Services Area	Bunker	325		Bunker made of large metal pipe with concrete front with earthen revetment. 4" exhaust stack connected at rear of facility through earthen revetment to surface.	D
163	F	LPC Test Services Area	Storage Magazine	311		Concrete bunker with earthen revetment Metal debris and former facility doors on floor of facility.	D
164	F	LPC Test Services Area	Storage Magazine	south of 311		5-gallon empty rusted drum	D
169	F	LPC Test Services Area	25 MeV betatron radiographic unit	303		Vacant two story concrete, brick, and block building with highbay. Some building material debris.	D
170	F	LPC Test Services Area	25 MeV betatron radiographic unit	Ditches around 303		Metal and concrete debris	D
171	F	LPC Test Services Area	25 MeV betatron radiographic unit	40' north of 303		black canvas web bags in canyon upslope from Building 303	D
172	F	LPC Test Services Area	25 MeV betatron radiographic unit	Hillside above 303		Vacant two story concrete, brick, and block building with highbay. Some building material debris.	D
173	F	LPC Test Services Area	Former production well W-2	500' south of road south of 303		Concrete and metal debris near W-2	D
174	F	LPC Test Services Area	Test maintenance and storage	306		CBM building with partial walls of attached building. Unstable wooden roof. Cracks observed in support walls.	D
175	F	LPC Test Services Area	Facilities storage	314		Two 20' x 40' concrete pads from former warehouse buildings. Metal and building material debris in vicinity of former building location	D
176	F	LPC Test Services Area	Test personnel bunker	304		Bunker with earthen revetment. Bunker has electrical fixtures/service panels, fluorescent lighting , and 9" x 9" vinyl floor tiles. Metal debris, former facility doors	D
177	F	LPC Test Services Area	Environmental Chambers (Conditioning Chambers)	320		Five 20' x 10' concrete pads with earthen berms between and associated 2' deep vaults. Empty 5-gallon paint bucket	D

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Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
178	F	LPC Test Services Area	Test instrumentation bunker	Air handling unit above 305		Metal air handling unit	D
179	F	LPC Test Services Area	N/A	General vicinity of 305, 306, 309, 313, 314		Concrete, metal, and building debris in general vicinity	D
180	F	LPC Test Services Area	Beryllium waste storage	Southwest of Structural Test Bay 310		Storage bunker has been removed. Only concrete and metal debris remain	D
181	F	LPC Test Services Area	Igniter magazine area	Southwest of Structural Test Bay 310		Storage bunker has been removed only concrete and metal debris remain	D
182	F	LPC Test Services Area	Small motor test assembly (312)	312		Inactive small room block wall building with rollup garage door and one entrance door. Multiple unlabeled 55-gallon drums with unknown liquid contents. Debris and equipment scattered about facility interior.	D
183	F	Motor Wash out Area south of 315	N/A	Adjacent to electrical enclosure		Buried lengths of galvanized pipe north of enclosure and protruding rebar 30' south of enclosure	D
184	F	West of LPC Test Services Area	Remedial System - Monitoring well	1/2 mile west of 310, where road intersects wash. Near MW 16		MW-16 in wash, needs repair	R
192	G	West of LPC Test Services Area	N/A	1/2 mile west of 310, where road intersects wash. Near MW 16	76	Sixteen to twenty tires in wash on west side of road	D
193	G	West of LPC Test Services Area	N/A	1/4 mile west of wash and MW16 along fire road	77	No trespassing sign. Fence debris, barb wire and discarding gate post in vicinity	D
194	G	Helicopter Weapons Test Area	Hanger	Building 302		60' x 60' concrete pad near/at former hanger location. A few 2" protruding screws. A cleanout in the SE corner of the pad.	D

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Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
195	G	Helicopter Weapons Test Area	Landing Pad	East of Building 302		Remnants of concrete tie downs and a concrete pad with steel cable were observed in this area.	D
196	G	Helicopter Weapons Test Area	n/a	Debris in wash 100' northeast of landing pad		20' long, 8" wide metal pipe partially crushed, steel cable, and 20-gallon empty drum on north side of wash.	D
197	G	Helicopter Weapons Test Area	N/A	300' south of mounted gun platforms, near/in wash	71, 72	8' long 6" wide metal pipe, partially buried in wash. Crushed metal sheet also observed.	D
198	G	Helicopter Weapons Test Area	N/A	Near concrete platform		Metal and wood debris to west of platform. One car tire to east of platform	D
199	G	Helicopter Weapons Test Area	Towers for mobile target	Southwest of Hanger and Gun Platforms	83	Northern most former tower location. Two concrete pads present with some protruding bolts.	D
200	G	Helicopter Weapons Test Area	Towers for mobile target	Southwest of Hanger and Gun Platforms	84	Southern most former tower location. Three concrete pads with some protruding bolts.	D
201	G	Helicopter Weapons Test Area	N/A	In pathway between two towers	85	10' x 4" metal plate	D
202	G	Helicopter Weapons Test Area	N/A	In wash east of 2 towers	86	Large block of concrete debris	D
203	G	Helicopter Weapons Test Area	N/A	In wash south of Potrero Road	87	Scattered metal, concrete debris and tire	D
204	G	Helicopter Weapons Test Area	N/A	In drainage south of Potrero Road, north of wash	88	Scatted metal and concrete debris	D
208	H	Permitted Sanitary Landfill Area	Sanitary landfill	West of road	78	Former sanitary landfill. Two empty partially exposed drums (55 and 30 gallon), day lighting at surface.	D
209	H	Permitted Sanitary Landfill Area	Sanitary landfill	West of road		Some metal debris has been exposed due to erosion. Tire observed 10' away	D
210	I	Western Aerojet Range	Airstrip	Western portion of site, north of road in broad flat area	81	Area that may have been used as an airstrip is broad flat area with no vegetation. No evidence of airstrip observed. No surface debris observed except two vehicular brake rims at GPS location.	D

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Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
211	I	Western Aerojet Range	N/A	South of road, north of sanitary landfill	79	Tire observed on south side of road	D
212	I	Western Aerojet Range	N/A	South of road, north of sanitary landfill, south of reported location of airstrip	80	Fence debris and barbed wire	D
215		Facility Wide	Electrical and communication lines	Various		Multiple inactive utility lines. Some lines down in areas. Some active line have slipped off of insulators	D

APPENDIX C

SAFETY AND TOXICS ASSESSMENT MATRIX FOR BEAUMONT SITE 1

TOXICS ITEMS MATRIX

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Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
24	B	Propellant Mixing Area	Mix station control bunker	315A		Toxic mold was found on the acoustic ceiling tiles in the tool room.	T
44	B	northwest of Propellant Mixing Area	unknown	250' south of Potrero road west of intersection with fuel slurry station access road north of wash	104	Scattered building debris, wood, presumed ACM in 9" floor tile, rubberized material, 1 tire	T
57	B	Propellant Mixing Area	Unknown	Northwest of 315A		14' x 40' concrete pad and associated 5' x 5' x 5.5' deep dry well vault. Residual mastic from 9" x 9" floor tiles observed on concrete pad (presumed ACM)	T
103	F	LPC Test Services Area	N/A	Southeast from 308 to 305		Approximately 1000' of transite electrical conduit partially buried and on surface	T
115	F	LPC Test Services Area	Test instrumentation bunker	305		Toxic mold found in drywall and ceiling tiles of facility,	T
116	F	LPC Test Services Area	Test instrumentation bunker	305		Multi-room earth and cement bunker. 4' x 6' interior sump partially filled with liquid. Building debris within bunker.	T
119	F	LPC Test Services Area	Small motor test assembly (312)	312		Inactive small room block wall building with rollup garage door and one entrance door. Multiple unlabeled 55-gallon drums with unknown liquid contents. Toxic mold found in drywall on ceiling of facility,	T
120	F	LPC Test Services Area	Small motor test assembly (312)	312		Inactive small room block wall building with rollup garage door and one entrance door. Multiple unlabeled 55-gallon drums with unknown liquid contents. ACM within building.	T
121	F	LPC Test Services Area	Small motor test assembly (312)	312		Inactive small room block wall building with rollup garage door and one entrance door. Multiple unlabeled 55-gallon drums with unknown liquid contents. LBP within building.	T

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Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
122	F	LPC Test Services Area	Small motor test assembly (312)	312		Inactive small room block wall building with rollup garage door and one entrance door. Multiple unlabeled 55-gallon drums with unknown liquid contents.	T
124	F	LPC Test Services Area	Adjacent Structure to 308	308A		10' x 10' CBM bldg. LBP within building.	T
127	F	LPC Test Services Area	Structural Test Bay 309 (small motor vertical test bay)	309		10' x 10' CBM building, concrete pads, and steel mounts. LBP within building.	T
133	F	LPC Test Services Area	Temporary Storage associated with 307	307		10' x 10' CBM building at top of hill with seven concrete pads in revetments around toe of slope. ACM within building.	T
135	F	LPC Test Services Area	Electrical Enclosure at base of hill west of 307	307		Inactive electrical enclosure (possible PCB contamination)	T
138	F	LPC Test Services Area	25 MeV betatron radiographic unit	303		High level of animal droppings on floors of facility interior.	T
140	F	LPC Test Services Area	Test maintenance and storage	306		CBM building with partial walls of attached building. Unstable wooden roof. Cracks observed in support walls. LBP within building.	T
142	F	LPC Test Services Area	Test personnel bunker	304		Bunker with earthen revetment. Bunker has electrical fixtures/service panels, fluorescent lighting , and 9" x 9" vinyl floor tiles. ACM within bunker.	T
143	F	LPC Test Services Area	Test personnel bunker	304		Bunker with earthen revetment. Bunker has electrical fixtures/service panels, fluorescent lighting , and 9" x 9" vinyl floor tiles. LBP within bunker.	T
145	F	LPC Test Services Area	Test instrumentation bunker	305		Multi-room earth and cement bunker. 4' x 6' interior sump partially filled with liquid. Building debris within bunker. ACM within bunker.	T

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Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
146	F	LPC Test Services Area	Test instrumentation bunker	305		Multi-room earth and cement bunker. 4' x 6' interior sump partially filled with liquid. Building debris within bunker. LBP within bunker.	T
147	F	LPC Test Services Area	Test instrumentation bunker	305		Multi-room earth and cement bunker. 4' x 6' interior sump partially filled with liquid. Building debris within bunker. High level of animal dropping on interior floors.	T
148	F	LPC Test Services Area	Test instrumentation bunker	Air handling unit above 305		Expansion joints and insulation of air handling unit may contain asbestos. ACM within joints and insulation.	T
150	F	LPC Test Services Area	Electrical enclosure	100' above 305		Electrical enclosure and associated electrical vaults. Possible PCB contamination.	T
154	F	Motor Washout Area near Potrero Creek	Large solid motors washout area	Potrero creek adjacent to motor washout area	69	Material matching description cited in Radian report as propellant residue is on north slope of Potrero creek 50' west of motor washout area.	T
159	F	LPC Test Services Area	Bunker	325		Bunker made of large metal pipe with concrete front and earthen revetment. LBP within bunker.	T
161	F	LPC Test Services Area	Storage Magazine	311		Concrete bunker with earthen revetment. LBP within bunker.	T
162	F	LPC Test Services Area	Storage Magazine	311		Concrete bunker with earthen revetment. ACM within bunker.	T
165	F	LPC Test Services Area	25 MeV betatron radiographic unit	303		Vacant two story concrete, brick, and block building with highbay. Some building material debris. ACM within building.	T
166	F	LPC Test Services Area	25 MeV betatron radiographic unit	303		Vacant two story concrete, brick, and block building with highbay. Some building material debris. LBP within building.	T
167	F	LPC Test Services Area	25 MeV betatron radiographic unit	303		Five HID bulbs in highbay warehouse	T
168	F	LPC Test Services Area	25 MeV betatron radiographic unit	303		Vacant two story concrete, brick, and block building with highbay. Some building material debris.	T

APPENDIX C

SAFETY AND TOXICS ASSESSMENT MATRIX FOR BEAUMONT SITE 1

ADDITIONAL ITEMS MATRIX

LOCKHEED MARTIN
BEAUMONT SITE 1
SAFETY AND TOXICS ASSESSMENT
ADDITIONAL ITEMS

Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
19	A	Northeastern section of site	Revetments for avanti motor storage	West of road		Concrete pads in good condition. No debris or protruding bolts	N/A
20	A	Aerojet Ballistics Test Area (eastern)	Impact/target area	One mile north of Gun Placement Area		No evidence was observed of the impact area or the backstop	N/A
21	A	Aerojet Ballistics Test Area (eastern)	Soil conservation service berm	1-1/4 north of Gun Placement Area		Berm present. No concerns noted	N/A
22	A	Aerojet Ballistics Test Area (eastern)	Intermittent lake	1-1/4 north of Gun Placement Area		Topographic Depression. Evidence of former dry land farming. No concerns noted.	N/A
23	A	Aerojet Ballistics Test Area (eastern)	Two storage revetments	East of Intermittent Lake		U-shaped revetments no concrete pads. No concerns noted.	N/A
69	B	Propellant Mixing Area/ Motor Wash Area	N/A	800' south of 317 , west of road	95	20' by 20' concrete pad with 4 to 6 steel mounting plates embedded in the concrete	N/A
70	B	Propellant Mixing Area	Mix station control bunker	315A		Flammable/chemical storage	N/A
71	B	Propellant Mixing Area	Cast and cure station	316		No evidence of former structure except a little concrete debris observed in general vicinity of former location	N/A
79	C	Burn Pit Area	Temporary waste storage area	East of Small Beryllium Motor Horizontal Test Stand on east side of Highland Spring Road	42	One concrete 10' x 20' pad. Partially covered by sand. No protruding rebar. No concerns noted.	N/A
92	D	LPC Ballistics Test Range area/ Rocket-Assisted Projectile area/	Class A explosives storage area	Southwest of Ballistics tunnel, south side of road, behind a berm		Flat area, former location of three pads. No concerns observed.	N/A
95	E	Area North of Radioactive Waste Disposal Site	N/A	Pond	65	Possible duck pond area. No concerns noted	N/A
96	E	Radioactive Waste Disposal Site	Canyon 1 (possible disposal site)	See MAP		Extensive earthmoving conducted in and along canyon walls. No concerns noted during site visit of 12/02	N/A

LOCKHEED MARTIN
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SAFETY AND TOXICS ASSESSMENT
ADDITIONAL ITEMS

Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
97	E	Radioactive Waste Disposal Site	Canyon 2 (Possible Disposal site)	See MAP		Extensive earthmoving conducted in and along canyon walls. No concerns noted during site visit of 12/02	N/A
98	E	Radioactive Waste Disposal Site	Canyon 3 (possible disposal site)	See MAP		Extensive earthmoving conducted in and along canyon walls. No concerns noted during site visit of 12/02	N/A
99	E	Radioactive Waste Disposal Site	Canyon 4 (possible disposal site)	See MAP		Extensive earthmoving conducted in and along canyon walls. No concerns noted during site visit of 12/02	N/A
125	F	LPC Test Services Area	Adjacent Structure to 308	308A		10' x 10' CBM bldg. During site inspection, roofing was considered to be presumed ACM. Roofing was sampled and results were negative for ACM.	N/A
128	F	LPC Test Services Area	Structural Test Bay 309 (small motor vertical test bay)	309		10' x 10' CBM building, concrete pads, and steel mounts. During site inspection, roofing was considered to be presumed ACM. Roofing was sampled and results were negative for ACM.	N/A
141	F	LPC Test Services Area	Test maintenance and storage	306		CBM building with partial walls of attached building. Unstable wooden roof. Cracks observed in support walls. During site inspection, the building interior was considered to be presumed ACM. The building interior was sampled and results were negative for ACM.	N/A
185	F	LPC Test Services Area	Temperature conditioning chambers (test motors conditioning oven complex)	307		10' x 10' CBM building at top of hill with seven concrete pads in revetments around toe of slope.	N/A
186	F	LPC Test Services Area	25 MeV betatron radiographic unit	250' south of betatron Bldg		20' x 60' concrete pad with asphalt driveway and surrounding dirt revetment	N/A

LOCKHEED MARTIN
BEAUMONT SITE 1
SAFETY AND TOXICS ASSESSMENT
ADDITIONAL ITEMS

Item #	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D), Remedial (R), or Toxic (T) Concern
187	F	LPC Test Services Area	Environmental Chambers (Conditioning Chambers)	Between 320 and 309, north of road	107	Two 15' x 15' asphalt pads	N/A
188	F	LPC Test Services Area	Temporary segment storage	T-3 and unnamed storage revetment, located northwest of 307 complex		Only concrete pads remain	N/A
189	F	LPC Test Services Area	Temporary segment storage	T-4, located northeast of 307 complex		Only concrete pads remain	N/A
190	F	LPC Test Services Area	unknown	Between buildings 306 and 308, south of Potrero Road		Possible concrete loading platform 10' x 10' x 4' tall off of Potrero road. Asphalt pad on bottom	N/A
191	F	PCB Spill Area	Transformer containing PCB material spill	Approximately 50 ft. west of building 303		No staining observed.	N/A
205	G	Helicopter Weapons Test Area	Stationary Ground Mounted Gun Platforms	South of Building 302		Near/at area of former gun mount there was a 60' x 60' concrete pad with adjacent 20' x 20' pad to the southeast. The pad was in good condition with no protruding bolts.	N/A
206	G	Helicopter Weapons Test Area	N/A	300' southwest of mounted gun platforms		Large graded area. 10' lower than helicopter weapons area. Possibly used for earth moving practice by Operating Engineers Union. No concerns observed.	N/A
207	G	Helicopter Weapons Test Area	Observation station	1500' west of gun mount	82	Observation station consists of a 10' x 25' wide pad with 3' tall lip. No protruding rebar or bolts observed	N/A
213	I	Western Aerojet Range	Incendiary bomb test area	Southeast of Airstrip		No evidence of incendiary bomb test area observed	N/A
214	I	Western Aerojet Range	Observation station	1500' NW of incendiary bomb test area		No evidence of observation station observed	N/A

APPENDIX C

SAFETY AND TOXICS ASSESSMENT MATRIX FOR BEAUMONT SITE 2

APPENDIX C

SAFETY AND TOXICS ASSESSMENT MATRIX FOR BEAUMONT SITE 2

COMPLETE MATRIX

LOCKHEED MARTIN
BEAUMONT SITE 2
SAFETY AND TOXICS ASSESSMENT

Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
1	J	Water Tanks	Water Tank	Eastern most 125,000 gallon water tank		Open hatch at top of tank. Manhole opening at ground level is missing cover. Open valve poses hand trapping hazard.	D
2	J	Building 250 Area	N/A	At tree line south of parking area north of Building 250 location on west side of main access road	54	Debris-forced air furnace. During site inspection, the interior fire chamber was considered to be presumed ACM. The chamber was sampled and results were negative for ACM.	N/A
3	J	Building 250 Area	northern storm drainage headwall	North of Building 250 location on west side of main access road	55	Concrete storm drainage headwall >6' deep. Drain pipe runs under Building 250 area to head wall on south side of building area	D
4	J	Building 250 Area	water supply system	Adjacent to east side of Building 250 location on west side of main access road	59	Water main manifold valve system in vault, 24" diameter water pipes. Vault is roughly 6' long by 3' wide by 6' deep. This is part of system that connects with water supply tanks on the hill.	D
5	J	Building 250 Area	Building 250 storm drain southern headwall	Adjacent to east side of Building 250 location on west side of main access road	60	Storm drain headwall is a concrete wall 25' long and over 10' deep with two 6' drain pipes. One pipe runs north to other head wall. Second pipe runs north to Building 250 parking lot storm drain vault	D
6	J	Building 250 Area	possible transformer pad	at northeast corner of parking area north of Building 250 location on west side of main access road	53	5' by 5' concrete pad with protruding bolts, debris, electrical wiring adjacent to sawed off utility pole. Possible transformer location. Possible PCB contamination.	T
7	J	Building 250 Area	possible transformer pad	Adjacent to east side of Building 250 location on west side of main access road		A concrete pad roughly 25' by 10' may have been the location of a reported PCB-containing transformer leak. No concrete or soil staining observed.	T
8	J	North of Building 250 area	N/A	west of main access road	51	Junked car-burned old Toyota Celica. No soil staining observed.	D

LOCKHEED MARTIN
BEAUMONT SITE 2
SAFETY AND TOXICS ASSESSMENT

Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
9	J	Building 250 Area	N/A	North of Building 250 location on west side of main access road		Sawed off utility poles and conduits in general area and on west side of main access road.	D
10	J	Water Tanks	Water Pump House	On hilltop adjacent to water tanks		15'x25' corrugated metal bldg with unstable metal siding and roof. Roof partially collapsed. Some protruding cross beams piping and conduit. Two 3'x10'x3' concrete equipment slabs probably for former diesel or electric motor pumps. No staining observed on concrete. Floor sinks and drains present in slab. No ACBM or LBP noted. Four 12" water manifold pipes, 4 3" manifold pipes, and two fire shut off valves daylighting out of ground to 3' depth adjacent to building exterior.	D
11	J	Water Tanks	Pumping Facility Bldg.	Concrete Vault just east of pump house	2	3'x4'x5' deep concrete vault with 12" water line	D
12	J	Water Tanks	Water Tank	Western most 250,000 gallon water tank		Unsecured hatch at top of tank. Manhole bolts need to be welded shut at side of tank.	D
13	J	Building 250 Area	unknown structure	Adjacent to west side of Building 250 location on west side of main access road		Two 4" metal pipes protruding from the ground surrounded by crash protection bollards. Unknown structure.	D
14	J	Water Tanks	Water Tank	Western most 250,000 gallon water tank		Western tank (250,000 gallon tank) has metal access ladder leading to tank top	D
15	J	Water Tanks	N/A	South of dirt road leading to water tanks	1	Metal siding from pump house building	D
16	J	Water Tanks	N/A	South slope below water tanks		discarded metal electrical panel	D
17	J	Water Tanks	N/A	Near Pumping Facility Bldg.		Evidence of trespassers camping (couch, broken furniture, trash and fire ring).	D

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BEAUMONT SITE 2
SAFETY AND TOXICS ASSESSMENT

Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
18	J	Water Tanks	N/A	South side of access road east of tanks.	3	metal debris	D
19	J	Northern Y arm	N/A	east side of main access road at north end	45	5-gallon empty rusted can. No sign of soil staining.	D
20	J	Canyon North of Water Tanks and pump house	Old water tank and windmill, possibly associated with water well,W2-2	south of dirt road	47	Crushed metal support structure and water tank. Jagged metal edges. Possible location of former water supply well, W2-2.	D
21	J	Canyon North of Water Tanks and pump house	N/A	either side of dirt road	48	Scattered metal debris on either side of road.	D
22	J	North of Building 250 area	N/A	east side of main access road	52	Empty automobile gas tank. No soil staining observed	D
23	J	Building 250 Area	possible transformer pad	at northeast corner of parking area north of Building 250 location on west side of main access road	53	5' by 5' concrete pad with protruding bolts, debris, electrical wiring adjacent to sawed off utility pole. Possible transformer location.	D
24	J	Building 250 Area	N/A	North of Building 250 location on west side of main access road near tree	58	Rusted, empty 55-gallon drum with heavy gunshot damage. No sign of soil staining.	D
25	J	Building 250 Area	N/A	North of Building 250 location on west side of main access road		Piping and metal debris in general area.	D
26	J	Building 250 Area	N/A	Adjacent to west side of Building 250 location at north end on west side of main access road	61	2 empty, rusted 55-gallon drums with heavy gunshot damage behind (west) of bldg 250 on asphalt. Rusty automotive brake drum on hillside 20' west of drums. No soil staining observed	D
27	J	Building 250 Area	N/A	Adjacent to west side of Building 250 location on west side of main access road		A 10' x 10' concrete pad located adjacent to the southwest corner of Building 250 and next to fire suppression system vaults and valves. No protruding bolts . Some metal and construction debris.	D

LOCKHEED MARTIN
BEAUMONT SITE 2
SAFETY AND TOXICS ASSESSMENT

Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
28	J	Building 250 Area	N/A	Adjacent to west side of Building 250 location on west side of main access road		A 10' x 20' concrete pad with asphalt apron and 4' wide walk way leading to Building 250 located adjacent to the southwest corner of Building 250 No protruding bolts . Some metal and construction debris.	D
29	J	Northern Y arm	utility pole	west side of main access road	46	Power lines dangling down from utility pole. Lines and poles are all intact north of this location. Pole may have been left standing due to large (2' diameter) predatory bird nest in pole. Electrical panel boards are located on a stand at the base of this pole.	D
30	J	Building 250 Area	Water production well W2-5	North of Building 250 location on west side of main access road	57	Water Well W2-5. Aboveground water lines from well area run north to water valves and distribution piping under tree. Well monument is missing cap and is not sealed.	D
31	J	Building 250 Area	Final Assembly Building for SRAM Rocket Motors	Bldg 250		The primary concrete pad for bldg 250 is roughly 125' by 250'. It is surrounded by asphalt pavement and associated building concrete pads. Some protruding bolts, downed utility wire, conduit, piping, and concrete and metal debris were observed in this area.	D
32	J	Building 250 Area	fire suppression system	Adjacent to west side of Building 250 location on west side of main access road	62	Two shallow concrete vaults (~1' deep) for fire suppression system. Bollards and two 4" cast iron fire valves protruding from ground.	D
33	J	Building 250 Area	N/A	Adjacent to west side of Building 250 location on west side of main access road	63	Rusted, closed 55-gallon drum with heavy gunshot damage, filled with what appears to be solid well-grout. No soil staining observed.	D
34	J	Northern Y arm	SCG line	perpendicular to main access road, north of the site	44	Southern California Gas Pipeline runs through the site	N/A

LOCKHEED MARTIN
BEAUMONT SITE 2
SAFETY AND TOXICS ASSESSMENT

Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
35	J	Canyon North of Water Tanks and pump house	N/A	North of dirt road	49	6" vitreous clay pipe near fence post	N/A
36	J	Building 250 Area	parking lot	parking area north of Building 250 location on west side of main access road	53	Bldg 250 parking area composed of 60'x225' concrete pad with yellow parking delineations	N/A
37	J	Building 250 Area	unknown	North of Building 250 location on west side of main access road	56	Large concrete pad (25'x10') and small landing adjacent to production water well W2-5. 3 concrete equipment mounts, possibly water pump house.	N/A
38	K	West Arm of Y Canyon	Bunker	Within bunker	19	9"- floor tile, mastic, plaster walls/ceilings, ceramic tile. Interior ceiling and wall paint. Note: Structure has had a fire started within it as walls and ceiling of bunker show dark soot staining. Asbestos within bunker.	T
39	K	West Arm of Y Canyon	Bunker	Within bunker	19	9"- floor tile, mastic, plaster walls/ceilings, ceramic tile. Interior ceiling and wall paint. Note: Structure has had a fire started within it as walls and ceiling of bunker show dark soot staining. LBP within bunker.	T
40	K	Western Y arm	N/A	east of main access road, in wash	67	Some of the concrete demolition debris used to line the channel has a few isolated areas of asphalt roofing material protruding. Asbestos within debris.	T
41	K	West Arm of Y Canyon	com line and sawed off utility poles	along western slope at various location		Utility poles were removed along the west slope of the canyon by sawing off at 1' to 3' level. Utility lines, communications cable, tension cables, mounting posts and brackets and other hardware was left scattered about the area.	D

LOCKHEED MARTIN
BEAUMONT SITE 2
SAFETY AND TOXICS ASSESSMENT

Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
42	K	Y-stem	com line and sawed off utility poles	along western slope at various locations	35	Utility poles were removed along the west side of main access road by sawing off at 1' to 3' level. Utility lines, communications cable, tension cables, mounting posts and brackets and other hardware was left scattered about the area.	D
43	K	West Arm of Y Canyon	Bunker	Above bunker.	19	OHV riders observed on top of bunker. Bunker is roughly 13' tall.	D
44	K	West Arm of Y Canyon	Bunker	Within bunker	19	Utility trenches around perimeter of room -2' by 1' deep; concrete utility vault 3' by 3' by 4' deep; concrete lined vault at room center 2' by 4' by 1' deep. No fluids observed in trench.	D
45	K	West Arm of Y Canyon	Center Test Bay	west side of dirt road	23	Rebar and conduit protruding out of ground at SE corner of test bay	D
46	K	West Arm of Y Canyon	unknown	middle of canyon	30	125' wide by 200' long by 30' tall earthen pyramid. There is a large fissure in pyramid about 8' wide running from its top to the ground surface. The mound was being used for jumps by unauthorized OHV users.	D
47	K	Y intersection of canyon	Bunker	Y intersection of canyon	33	12' by 12' Concrete Masonry Block Bunker. Roof and dirt covering over bunker are gone. Depth is 8', partially filled in with dirt.	D
48	K	Y-stem	T-Revetment Conditioning Chambers	Instrumentation Bldg	37	Control bldg. is 10'x10'x10' concrete masonry block. There is a trench for electrical conduit inside bldg and some protruding electrical conduit inside and outside. Building has an unstable wooden roof.	D

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BEAUMONT SITE 2
SAFETY AND TOXICS ASSESSMENT

Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
49	K	Y-stem	T-Revetment Conditioning Chambers	T- shaped revetment	43	T shaped revetment has smaller revetments along its spine with 10 concrete pads. 1' tall pipe hangers/cradles on top of revetment, discarded water pipes and electrical conduit on ends of smaller revetments between each of 10 concrete pads, some stick up 3-4'. Downed utility lines in area. Revetments are being used by unauthorized OHV users as jumps.	D
50	K	West Arm of Y Canyon	Southernmost Test Bay	west side of dirt road, instrumentation vault	27	Concrete vault (3' diameter by 6' deep) open-poses fall hazard.	D
51	K	West Arm of Y Canyon	unknown	South of bunker (see GPS point)	21	Debris adjacent to concrete pad at GPS point 21 includes: transite pipe, utility pole, discarded sign	T
52	K	West Arm of Y Canyon	Northernmost Test Bay	west side of dirt road	22	Scattered transite pipe on hillside near test bay	T
53	K	West Arm of Y Canyon	Center Test Bay	west side of dirt road	23	A 6" diameter transite pipe protrudes from one of the walls. Other possible transite piping from test bay wall	T
54	K	West Arm of Y	unknown	NE side of dirt road at end of canyon	6	8" thick concrete pads with tie downs - 2 in ground, 2 protruding upward	D
55	K	West Arm of Y Canyon	possible support/instrumentation bldg for centrifuge	northwestern extreme of valley, on west side of road behind a revetment	7	Concrete block wall in slope has protruding nuts. Downed utility line and metal debris on long concrete slab poses trip hazard.	D
56	K	West Arm of Y Canyon	N/A	on slope on west side of canyon, (see GPS point)	17	Isolated metal debris on slope. No evidence of previous structure.	D
57	K	West Arm of Y Canyon	Northernmost Test Bay	west side of dirt road	22	Poles for lighting, downed utility lines, I-beam above test bay, upslope. Electrical conduit box at head of test bay. Miscellaneous small amts of metal and concrete debris around test bay.	D
58	K	West Arm of Y Canyon	instrument vaults	west side of dirt road on ridge between center and south test bays	26	Three 5" thick reinforced concrete cylindrical vaults with solid bottom. Vault is 4' wide by 5' deep. 6" transite pipe protrudes into vault. Exposed rebar.	D

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BEAUMONT SITE 2
SAFETY AND TOXICS ASSESSMENT

Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
59	K	West Arm of Y Canyon	Southernmost Test Bay	west side of dirt road	28	Sawed-off utility pole up slope. Miscellaneous small amounts of metal and concrete debris and electrical cabinet removed from vault in front of test bay. Flat transite pipe.	D
60	K	Y Stem	unknown	east side of main access road south of T-revetment conditioning chambers		Old Kitchen sink and multiple 4'x4'x1' thick reinforced concrete pads with protruding rebar in this area and southward.	D
61	K	Western Y arm	N/A	east of main access road, in wash	67	Reinforced concrete from building demolition was used as rip rap to line a 500' long area of the channel. Some of this concrete has protruding rebar which poses impalement hazard.	D
62	K	southern Y-stem area	N/A	Near wash east of former homestead site		Fence posts and barbed wire from former homestead site parallel the wash.	D
63	K	West Arm of Y Canyon	Centrifuge	end of canyon on west side in small box canyon behind revetment	8	6'X6'X3' tall concrete block with metal fixtures from centrifuge. 10'x4'x3' deep trench.	D
64	K	West Arm of Y Canyon	unknown	East of asphalt road, at foot of canyon.	11	4-3" thick 10'x10' rebar reinforced concrete pads stacked on top of each other-no protruding bolts. 4'x4'x2' high concrete pad with protruding bolts and steel mount.	D
65	K	West Arm of Y Canyon	unknown	see GPS point	13	2 concrete pads: 3' by 3' and 10' by 20' with associated 2' by 2' concrete vault. Some electrical conduit and metal debris nearby.	D
66	K	West Arm of Y Canyon	N/A	Along road cut in hillside west of bunker.	14	3' x 3' x 3' concrete vault with opening for 6 pipes-protruding bolts	D
67	K	West Arm of Y Canyon	Bunker	Above (over) bunker revetment	19	Open 2' manhole/vent shaft	D
68	K	West Arm of Y Canyon	Bunker	Within bunker	19	Metal straps from former fixture or false ceiling hang down from ceiling	D

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BEAUMONT SITE 2
SAFETY AND TOXICS ASSESSMENT

Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
69	K	West Arm of Y Canyon	Northernmost Test Bay	west side of dirt road, northernmost test bay, instrumentation vault	22	4' diameter by 7' deep reinforced concrete vault with access ladder and electrical cabinet on south side revetment of test bay.	D
70	K	West Arm of Y Canyon	Northernmost Test Bay	west side of dirt road	22	Test bay consists of 2 parallel reinforced concrete walls approximately 12' high built into hillside and 4' by 4' by 4' concrete block test stand at head of test bay. Both have protruding bolts and pose fall hazard.	D
71	K	West Arm of Y Canyon	Center Test Bay	west side of dirt road	23	4' diameter by 7' deep reinforced concrete vault with access ladder.	D
72	K	West Arm of Y Canyon	Center Test Bay	west side of dirt road	23	A dirt mound and electrical conduit box are at the location of the former test stand. The wall has protruding bolts and poses a fall hazard.	D
73	K	West Arm of Y Canyon	Center Test Bay	west side of dirt road	23	Partially buried electrical boxes and supports in earthen depression behind test bay	D
74	K	West Arm of Y Canyon	Southernmost Test Bay	west side of dirt road	29	Test bay is partially buried in hillside. Consists of 2 parallel reinforced concrete walls and back wall approximately 12' high. The walls have protruding bolts and pose a fall hazard.	D
75	K	Y-stem	Misc. Facility	west of main access road	34	Foundation from control building consists of a large 15' by 34' concrete pad and smaller 19' by 5' concrete pad with some protruding bolts and 1' tall rebar on east side of berm. Sawed-off utility pole and some downed cable adjacent to pad. Protruding pipes stick out of berm 1' high. Pipe saddles 1' tall behind berm.	D
76	K	Y-stem	T-Revetment Conditioning Chambers	Instrumentation Bldg	37	LBP on walls.	T
77	K	West Arm of Y Canyon	N/A	Metal debris 15' NE of end of the asphalt road		metal debris	D

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BEAUMONT SITE 2
SAFETY AND TOXICS ASSESSMENT

Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
78	K	West Arm of Y Canyon	N/A	West of dirt road at foot of canyon. See GPS point	12	Metal debris at extreme end of valley at foot of slope.	D
79	K	West Arm of Y Canyon	N/A	North of bunker along west side of road (see GPS point)	15	Debris pile: 2' diameter corrugated metal pipes; metal and concrete debris. No apparent structure.	D
80	K	West Arm of Y Canyon	N/A		16	Downed electrical line (no live) at edge of asphalt road, 10' down slope south.	D
81	K	West Arm of Y Canyon	N/A	East side of road in small box canyon	18	Truck bed liner on side of canyon	D
82	K	West Arm of Y Canyon	N/A	Across from bunker in wash.	20	Reinforced concrete storm pipe in wash, sign post and cable in close proximity.	D
83	K	West Arm of Y Canyon	Center Test Bay	west side of dirt road	23	Poles for lighting, downed utility lines upslope. Miscellaneous small amts of metal and concrete debris around and within test bay.	D
84	K	West Arm of Y Canyon	unknown	middle of canyon	30	metal debris along NE corner of pyramid blast wall	D
85	K	Y-stem	Misc. Facility	west of berm at gps 34	34	Cable and sawed off utility pole up canyon to west.	D
86	K	Western Y arm	former monitoring well	west side of main access road in wash south of building 250 area	64	Monitoring well with 4" PVC casing within 8" steel protective casing. Former location eroded into wash. Upper well protective casing and inner casing broken off and on bank of wash, well casing can be seen in bottom of wash.	D
87	K	Western Y arm	N/A	west side of main access road south of building 250 area	65	Downed electrical lines, conduit and sawed off utility pole on the west side of the road across the wash at the base of the hill slope	D
88	K	Western Y arm	N/A	east of main access road south of Building 250	66	Rusted, crushed 55-gallon drum. 50' southeast of pad at base of hill.	D
89	K	Y Stem	N/A	200' north of way point 69 on west slope of wash		Car Tire in wash	D

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Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
90	K	West Arm of Y Canyon	Bunker	Above bunker.	19	Guy wires and conduit from former utility lines run upslope from bunker. Sawed off utility poles and protruding conduits all ~3' high.	D
91	K	Y-stem	Misc. Facility	south of main access road	36	30' by 40' concrete pad surrounded by asphalt and other smaller concrete pads. Protruding bolts and some metal debris and downed utility line present slip, trip fall hazard.	D
92	K	Western Y arm	unknown/ possible parking area	east of main access road south of Building 250		An asphalt pad 100'x60' in dimensions located east of road and south of Building 250. An irregular shaped concrete pad is located at the south end of the asphalt area. Air photos show it formerly had a metal gate across it. Possibly a parking area for activities in the south and east canyons. Metal debris and former stop sign and gate components in adjacent wash	D
93	K	Y Stem	former production/ observation well	east of wash (see GPS point)	68	Open 8" steel casing well with a 2' x 2' concrete well monument. No identification markings	D
94	K	West Arm of Y Canyon	unknown	South of bunker (see GPS point)	21	Concrete pad partially buried- 10'x15'	N/A
95	K	West Arm of Y Canyon	Northernmost Test Bay	west side of dirt road, driveway of northernmost test bay	22	90' by 50' concrete pad in front of test bay some asphalt - no protruding bolts, minimal debris.	N/A
96	L	Y Stem	N/A	east side of main access road	42	Protruding rebar and pipe near road.	D
97	L	southern Y-stem area	N/A	see GPS point	75	Concrete debris with protruding rebar lengths 3-4' near OHV track. No sign of former bldg.	D

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Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
90	K	West Arm of Y Canyon	Bunker	Above bunker.	19	Guy wires and conduit from former utility lines run upslope from bunker. Sawed off utility poles and protruding conduits all ~3' high.	D
91	K	Y-stem	Misc. Facility	south of main access road	36	30' by 40' concrete pad surrounded by asphalt and other smaller concrete pads. Protruding bolts and some metal debris and downed utility line present slip, trip fall hazard.	D
92	K	Western Y arm	unknown/ possible parking area	east of main access road south of Building 250		An asphalt pad 100'x60' in dimensions located east of road and south of Building 250. An irregular shaped concrete pad is located at the south end of the asphalt area. Air photos show it formerly had a metal gate across it. Possibly a parking area for activities in the south and east canyons. Metal debris and former stop sign and gate components in adjacent wash	D
93	K	Y Stem	former production/ observation well	east of wash (see GPS point)	68	Open 8" steel casing well with a 2' x 2' concrete well monument. No identification markings	D
94	K	West Arm of Y Canyon	unknown	South of bunker (see GPS point)	21	Concrete pad partially buried- 10'x15'	N/A
95	K	West Arm of Y Canyon	Northernmost Test Bay	west side of dirt road, driveway of northernmost test bay	22	90' by 50' concrete pad in front of test bay some asphalt - no protruding bolts, minimal debris.	N/A
96	L	Y Stem	N/A	east side of main access road	42	Protruding rebar and pipe near road.	D
97	L	southern Y-stem area	N/A	see GPS point	75	Concrete debris with protruding rebar lengths 3-4' near OHV track. No sign of former bldg.	D

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Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
98	L	Y Stem	Topographic low with concrete headwall	east side of main access road south of T-revetment conditioning chambers	38	concrete head wall at end of topographic drainage with piping leading into wash. Downed barbed wire fencing and posts along wash to east.	D
99	L	Y Stem	N/A	In wash, across from T revetment and southward	71	Plastic kiddies pool in bottom of wash was reportedly used for collection of groundwater when sampling well W2-3. This location marks the northern edge of an area of scattered concrete slabs on the western slope of the wash. The slabs were either dumped or eroded into the wash.	D
100	L	southern Y-stem area	N/A	see GPS point	74	Rusted, empty 55-gallon drum	D
101	L	Y Stem	former well	east side of main access road	41	Crushed metal standpipe from water well. A nearby pipe appears to drain into wash. Possibly from former homestead.	D
102	L	Y Stem	former production/ observation well	east of wash (see GPS point)	69	Open 8" steel well casing with no visible well monument.	D
103	L	Y Stem	former production well W2-3	east of wash (see GPS point)	70	24" steel cased production well, W2-3. Well has cover, but not secured with lock.	D
104	L	southern Y-stem area	former monitoring well	At west edge of garbage disposal site adjacent to edge of wash (see GPS point)	73	A monitoring well with 4" PVC casing and 8" steel protective casing was found in this location broken off and on its side. Scattered adjacent concrete debris may have been well monument pad. No evidence of remainder of well casing and actual downpipe location	D
105	L	Y Stem	unknown	east of wash		10'x10' concrete pad just north of former production well location (gps pt 69). No protruding nails or bolts.	N/A
106	M	Garbage Disposal Site	Garbage Disposal Site	400' east of main access road at bottom end of active site area	72	The former garbage disposal site has a few large pieces of metal debris day lighting to surface, north of dirt road and base of hill. Some scattered soda cans, glass, and scrap metal day lighting in dirt road and south of dirt road. No evidence of burning observed in limited objects observed. Unknown if additional buried material.	D

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Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
107		southern boundary	drum	southern boundary on west side of dirt road		Intact 55-gallon drum, partially buried. Appears to be filled. Contents unknown.	T
108		south of homestead area	N/A	see GPS point	78	Rusted, empty 30-gallon drum with heavy gunshot damage in pasture area south of former homestead site. No soil staining observed.	D
109		homestead area	N/A	debris in wash	79	Large quantity of debris in wash in and around former homestead site. Most of debris NW of marked GPS location. Debris consists of: 4" metal water pipes, Fire brick, 24" corrugated metal pipe, wooden fence posts, barbed wire. Kitchen plates, cups, misc. kitchen trash, mattress box springs and coils, and windmill weather vane possibly from former homestead well.	D
110		various throughout site	biological traps	various	4, 50	Reptile and amphibious biological trapping fence. Fence made of 2'-tall silt fencing supported by wooden stakes trap in center.	D
111		North side of wash leading to homestead	biological traps	see GPS point	76	Reptile and amphibious biological trapping fence. Fence made of 2'-tall silt fencing supported by wooden stakes trap in center.	D
112		southern Y-stem area	former well	see GPS point	77	A monitoring well with 4" PVC casing and 8" steel protective casing and 2' x 2' concrete monument base was found in this location broken off and on its side. No evidence of remainder of well casing and actual downpipe location.	D
113		homestead area	N/A	south side of homestead wash	80	Several concrete slabs and large water tank and other large metal debris were found up canyon where homestead site was located at northwestern extent of homestead activities/debris.	D

APPENDIX C

SAFETY AND TOXICS ASSESSMENT MATRIX FOR BEAUMONT SITE 2

SAFETY ITEMS MATRIX

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Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
1	J	Water Tanks	Water Tank	Eastern most 125,000 gallon water tank		Open hatch at top of tank. Manhole opening at ground level is missing cover. Open valve poses hand trapping hazard.	D
3	J	Building 250 Area	northern storm drainage headwall	North of Building 250 location on west side of main access road	55	Concrete storm drainage headwall >6' deep. Drain pipe runs under Building 250 area to head wall on south side of building area	D
4	J	Building 250 Area	water supply system	Adjacent to east side of Building 250 location on west side of main access road	59	Water main manifold valve system in vault, 24" diameter water pipes. Vault is roughly 6' long by 3' wide by 6' deep. This is part of system that connects with water supply tanks on the hill.	D
5	J	Building 250 Area	Building 250 storm drain southern headwall	Adjacent to east side of Building 250 location on west side of main access road	60	Storm drain headwall is a concrete wall 25' long and over 10' deep with two 6' drain pipes. One pipe runs north to other head wall. Second pipe runs north to Building 250 parking lot storm drain vault	D
8	J	North of Building 250 area	N/A	west of main access road	51	Junked car-burned old Toyota Celica. No soil staining observed.	D
9	J	Building 250 Area	N/A	North of Building 250 location on west side of main access road		Sawed off utility poles and conduits in general area and on west side of main access road.	D
10	J	Water Tanks	Water Pump House	On hilltop adjacent to water tanks		15'x25' corrugated metal bldg with unstable metal siding and roof. Roof partially collapsed. Some protruding cross beams piping and conduit. Two 3'x10'x3' concrete equipment slabs probably for former diesel or electric motor pumps. No staining observed on concrete. Floor sinks and drains present in slab. No ACBM or LBP noted. Four 12" water manifold pipes, 4 3" manifold pipes, and two fire shut off valves daylighting out of ground to 3' depth adjacent to building exterior.	D
11	J	Water Tanks	Pumping Facility Bldg.	Concrete Vault just east of pump house	2	3'x4'x5' deep concrete vault with 12" water line	D

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Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
12	J	Water Tanks	Water Tank	Western most 250,000 gallon water tank		Unsecured hatch at top of tank. Manhole bolts need to be welded shut at side of tank.	D
13	J	Building 250 Area	unknown structure	Adjacent to west side of Building 250 location on west side of main access road		Two 4" metal pipes protruding from the ground surrounded by crash protection bollards. Unknown structure.	D
14	J	Water Tanks	Water Tank	Western most 250,000 gallon water tank		Western tank (250,000 gallon tank) has metal access ladder leading to tank top	D
15	J	Water Tanks	N/A	South of dirt road leading to water tanks	1	Metal siding from pump house building	D
16	J	Water Tanks	N/A	South slope below water tanks		discarded metal electrical panel	D
17	J	Water Tanks	N/A	Near Pumping Facility Bldg.		Evidence of trespassers camping (couch, broken furniture, trash and fire ring).	D
18	J	Water Tanks	N/A	South side of access road east of tanks.	3	metal debris	D
19	J	Northern Y arm	N/A	east side of main access road at north end	45	5-gallon empty rusted can. No sign of soil staining.	D
20	J	Canyon North of Water Tanks and pump house	Old water tank and windmill, possibly associated with water well,W2-2	south of dirt road	47	Crushed metal support structure and water tank. Jagged metal edges. Possible location of former water supply well, W2-2.	D
21	J	Canyon North of Water Tanks and pump house	N/A	either side of dirt road	48	Scattered metal debris on either side of road.	D
22	J	North of Building 250 area	N/A	east side of main access road	52	Empty automobile gas tank. No soil staining observed	D
23	J	Building 250 Area	possible transformer pad	at northeast corner of parking area north of Building 250 location on west side of main access road	53	5' by 5' concrete pad with protruding bolts, debris, electrical wiring adjacent to sawed off utility pole. Possible transformer location.	D

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Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
24	J	Building 250 Area	N/A	North of Building 250 location on west side of main access road near tree	58	Rusted, empty 55-gallon drum with heavy gunshot damage. No sign of soil staining.	D
25	J	Building 250 Area	N/A	North of Building 250 location on west side of main access road		Piping and metal debris in general area.	D
26	J	Building 250 Area	N/A	Adjacent to west side of Building 250 location at north end on west side of main access road	61	2 empty, rusted 55-gallon drums with heavy gunshot damage behind (west) of bldg 250 on asphalt. Rusty automotive brake drum on hillside 20' west of drums. No soil staining observed	D
27	J	Building 250 Area	N/A	Adjacent to west side of Building 250 location on west side of main access road		A 10' x 10' concrete pad located adjacent to the southwest corner of Building 250 and next to fire suppression system vaults and valves. No protruding bolts . Some metal and construction debris.	D
28	J	Building 250 Area	N/A	Adjacent to west side of Building 250 location on west side of main access road		A 10' x 20' concrete pad with asphalt apron and 4' wide walk way leading to Building 250 located adjacent to the southwest corner of Building 250 No protruding bolts . Some metal and construction debris.	D
29	J	Northern Y arm	utility pole	west side of main access road	46	Power lines dangling down from utility pole. Lines and poles are all intact north of this location. Pole may have been left standing due to large (2' diameter) predatory bird nest in pole. Electrical panel boards are located on a stand at the base of this pole.	D
30	J	Building 250 Area	Water production well W2-5	North of Building 250 location on west side of main access road	57	Water Well W2-5. Aboveground water lines from well area run north to water valves and distribution piping under tree. Well monument is missing cap and is not sealed.	D

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Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
31	J	Building 250 Area	Final Assembly Building for SRAM Rocket Motors	Bldg 250		The primary concrete pad for bldg 250 is roughly 125' by 250'. It is surrounded by asphalt pavement and associated building concrete pads. Some protruding bolts, downed utility wire, conduit, piping, and concrete and metal debris were observed in this area.	D
32	J	Building 250 Area	fire suppression system	Adjacent to west side of Building 250 location on west side of main access road	62	Two shallow concrete vaults (~1' deep) for fire suppression system. Bollards and two 4" cast iron fire valves protruding from ground.	D
33	J	Building 250 Area	N/A	Adjacent to west side of Building 250 location on west side of main access road	63	Rusted, closed 55-gallon drum with heavy gunshot damage, filled with what appears to be solid well-grout. No soil staining observed.	D
41	K	West Arm of Y Canyon	com line and sawed off utility poles	along western slope at various location		Utility poles were removed along the west slope of the canyon by sawing off at 1' to 3' level. Utility lines, communications cable, tension cables, mounting posts and brackets and other hardware was left scattered about the area.	D
42	K	Y-stem	com line and sawed off utility poles	along western slope at various locations	35	Utility poles were removed along the west side of main access road by sawing off at 1' to 3' level. Utility lines, communications cable, tension cables, mounting posts and brackets and other hardware was left scattered about the area.	D
43	K	West Arm of Y Canyon	Bunker	Above bunker.	19	OHV riders observed on top of bunker. Bunker is roughly 13' tall.	D
44	K	West Arm of Y Canyon	Bunker	Within bunker	19	Utility trenches around perimeter of room -2' by 1' deep; concrete utility vault 3' by 3' by 4' deep; concrete lined vault at room center 2' by 4' by 1' deep. No fluids observed in trench.	D
45	K	West Arm of Y Canyon	Center Test Bay	west side of dirt road	23	Rebar and conduit protruding out of ground at SE corner of test bay	D

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Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
46	K	West Arm of Y Canyon	unknown	middle of canyon	30	125' wide by 200' long by 30' tall earthen pyramid. There is a large fissure in pyramid about 8' wide running from its top to the ground surface. The mound was being used for jumps by unauthorized OHV users.	D
47	K	Y intersection of canyon	Bunker	Y intersection of canyon	33	12' by 12' Concrete Masonry Block Bunker. Roof and dirt covering over bunker are gone. Depth is 8', partially filled in with dirt.	D
48	K	Y-stem	T-Revetment Conditioning Chambers	Instrumentation Bldg	37	Control bldg. is 10'x10'x10' concrete masonry block. There is a trench for electrical conduit inside bldg and some protruding electrical conduit inside and outside. Building has an unstable wooden roof.	D
49	K	Y-stem	T-Revetment Conditioning Chambers	T- shaped revetment	43	T shaped revetment has smaller revetments along its spine with 10 concrete pads. 1' tall pipe hangers/cradles on top of revetment, discarded water pipes and electrical conduit on ends of smaller revetments between each of 10 concrete pads, some stick up 3-4'. Downed utility lines in area. Revetments are being used by unauthorized OHV users as jumps.	D
50	K	West Arm of Y Canyon	Southernmost Test Bay	west side of dirt road, instrumentation vault	27	Concrete vault (3' diameter by 6' deep) open-poses fall hazard.	D
54	K	West Arm of Y	unknown	NE side of dirt road at end of canyon	6	8" thick concrete pads with tie downs - 2 in ground, 2 protruding upward	D
55	K	West Arm of Y Canyon	possible support/instrumentation bldg for centrifuge	northwestern extreme of valley, on west side of road behind a revetment	7	Concrete block wall in slope has protruding nuts. Downed utility line and metal debris on long concrete slab poses trip hazard.	D
56	K	West Arm of Y Canyon	N/A	on slope on west side of canyon, (see GPS point)	17	Isolated metal debris on slope. No evidence of previous structure.	D

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Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
57	K	West Arm of Y Canyon	Northernmost Test Bay	west side of dirt road	22	Poles for lighting, downed utility lines, I-beam above test bay, upslope. Electrical conduit box at head of test bay. Miscellaneous small amts of metal and concrete debris around test bay.	D
58	K	West Arm of Y Canyon	instrument vaults	west side of dirt road on ridge between center and south test bays	26	Three 5" thick reinforced concrete cylindrical vaults with solid bottom. Vault is 4' wide by 5' deep. 6" transite pipe protrudes into vault. Exposed rebar.	D
59	K	West Arm of Y Canyon	Southernmost Test Bay	west side of dirt road	28	Sawed-off utility pole up slope. Miscellaneous small amounts of metal and concrete debris and electrical cabinet removed from vault in front of test bay. Flat transite pipe.	D
60	K	Y Stem	unknown	east side of main access road south of T-revetment conditioning chambers		Old Kitchen sink and multiple 4'x4'x1' thick reinforced concrete pads with protruding rebar in this area and southward.	D
61	K	Western Y arm	N/A	east of main access road, in wash	67	Reinforced concrete from building demolition was used as rip rap to line a 500' long area of the channel. Some of this concrete has protruding rebar which poses impalement hazard.	D
62	K	southern Y-stem area	N/A	Near wash east of former homestead site		Fence posts and barbed wire from former homestead site parallel the wash.	D
63	K	West Arm of Y Canyon	Centrifuge	end of canyon on west side in small box canyon behind revetment	8	6'X6'X3' tall concrete block with metal fixtures from centrifuge. 10'x4'x3' deep trench.	D
64	K	West Arm of Y Canyon	unknown	East of asphalt road, at foot of canyon.	11	4-3" thick 10'x10' rebar reinforced concrete pads stacked on top of each other-no protruding bolts. 4'x4'x2' high concrete pad with protruding bolts and steel mount.	D
65	K	West Arm of Y Canyon	unknown	see GPS point	13	2 concrete pads: 3' by 3' and 10' by 20' with associated 2' by 2' concrete vault. Some electrical conduit and metal debris nearby.	D

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Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
66	K	West Arm of Y Canyon	N/A	Along road cut in hillside west of bunker.	14	3' x 3' x 3' concrete vault with opening for 6 pipes-protruding bolts	D
67	K	West Arm of Y Canyon	Bunker	Above (over) bunker revetment	19	Open 2' manhole/vent shaft	D
68	K	West Arm of Y Canyon	Bunker	Within bunker	19	Metal straps from former fixture or false ceiling hang down from ceiling	D
69	K	West Arm of Y Canyon	Northernmost Test Bay	west side of dirt road, northernmost test bay, instrumentation vault	22	4' diameter by 7' deep reinforced concrete vault with access ladder and electrical cabinet on south side revetment of test bay.	D
70	K	West Arm of Y Canyon	Northernmost Test Bay	west side of dirt road	22	Test bay consists of 2 parallel reinforced concrete walls approximately 12' high built into hillside and 4' by 4' by 4' concrete block test stand at head of test bay. Both have protruding bolts and pose fall hazard.	D
71	K	West Arm of Y Canyon	Center Test Bay	west side of dirt road	23	4' diameter by 7' deep reinforced concrete vault with access ladder.	D
72	K	West Arm of Y Canyon	Center Test Bay	west side of dirt road	23	A dirt mound and electrical conduit box are at the location of the former test stand. The wall has protruding bolts and poses a fall hazard.	D
73	K	West Arm of Y Canyon	Center Test Bay	west side of dirt road	23	Partially buried electrical boxes and supports in earthen depression behind test bay	D
74	K	West Arm of Y Canyon	Southernmost Test Bay	west side of dirt road	29	Test bay is partially buried in hillside. Consists of 2 parallel reinforced concrete walls and back wall approximately 12' high. The walls have protruding bolts and pose a fall hazard.	D
75	K	Y-stem	Misc. Facility	west of main access road	34	Foundation from control building consists of a large 15' by 34' concrete pad and smaller 19' by 5' concrete pad with some protruding bolts and 1' tall rebar on east side of berm. Sawed-off utility pole and some downed cable adjacent to pad. Protruding pipes stick out of berm 1' high. Pipe saddles 1' tall behind berm.	D

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Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
77	K	West Arm of Y Canyon	N/A	Metal debris 15' NE of end of the asphalt road		metal debris	D
78	K	West Arm of Y Canyon	N/A	West of dirt road at foot of canyon. See GPS point	12	Metal debris at extreme end of valley at foot of slope.	D
79	K	West Arm of Y Canyon	N/A	North of bunker along west side of road (see GPS point)	15	Debris pile: 2' diameter corrugated metal pipes; metal and concrete debris. No apparent structure.	D
80	K	West Arm of Y Canyon	N/A		16	Downed electrical line (no live) at edge of asphalt road, 10' down slope south.	D
81	K	West Arm of Y Canyon	N/A	East side of road in small box canyon	18	Truck bed liner on side of canyon	D
82	K	West Arm of Y Canyon	N/A	Across from bunker in wash.	20	Reinforced concrete storm pipe in wash, sign post and cable in close proximity.	D
83	K	West Arm of Y Canyon	Center Test Bay	west side of dirt road	23	Poles for lighting, downed utility lines upslope. Miscellaneous small amts of metal and concrete debris around and within test bay.	D
84	K	West Arm of Y Canyon	unknown	middle of canyon	30	metal debris along NE corner of pyramid blast wall	D
85	K	Y-stem	Misc. Facility	west of berm at gps 34	34	Cable and sawed off utility pole up canyon to west.	D
86	K	Western Y arm	former monitoring well	west side of main access road in wash south of building 250 area	64	Monitoring well with 4" PVC casing within 8" steel protective casing. Former location eroded into wash. Upper well protective casing and inner casing broken off and on bank of wash, well casing can be seen in bottom of wash.	D
87	K	Western Y arm	N/A	west side of main access road south of building 250 area	65	Downed electrical lines, conduit and sawed off utility pole on the west side of the road across the wash at the base of the hill slope	D
88	K	Western Y arm	N/A	east of main access road south of Building 250	66	Rusted, crushed 55-gallon drum. 50' southeast of pad at base of hill.	D

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89	K	Y Stem	N/A	200' north of way point 69 on west slope of wash		Car Tire in wash	D
90	K	West Arm of Y Canyon	Bunker	Above bunker.	19	Guy wires and conduit from former utility lines run upslope from bunker. Sawed off utility poles and protruding conduits all ~3' high.	D
91	K	Y-stem	Misc. Facility	south of main access road	36	30' by 40' concrete pad surrounded by asphalt and other smaller concrete pads. Protruding bolts and some metal debris and downed utility line present slip, trip fall hazard.	D
92	K	Western Y arm	unknown/ possible parking area	east of main access road south of Building 250		An asphalt pad 100'x60' in dimensions located east of road and south of Building 250. An irregular shaped concrete pad is located at the south end of the asphalt area. Air photos show it formerly had a metal gate across it. Possibly a parking area for activities in the south and east canyons. Metal debris and former stop sign and gate components in adjacent wash	D
93	K	Y Stem	former production/ observation well	east of wash (see GPS point)	68	Open 8" steel casing well with a 2' x 2' concrete well monument. No identification markings	D
96	L	Y Stem	N/A	east side of main access road	42	Protruding rebar and pipe near road.	D
97	L	southern Y-stem area	N/A	see GPS point	75	Concrete debris with protruding rebar lengths 3-4' near OHV track. No sign of former bldg.	D
98	L	Y Stem	Topographic low with concrete headwall	east side of main access road south of T-revetment conditioning chambers	38	concrete head wall at end of topographic drainage with piping leading into wash. Downed barbed wire fencing and posts along wash to east.	D

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Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
99	L	Y Stem	N/A	In wash, across from T revetment and southward	71	Plastic kiddies pool in bottom of wash was reportedly used for collection of groundwater when sampling well W2-3. This location marks the northern edge of an area of scattered concrete slabs on the western slope of the wash. The slabs were either dumped or eroded into the wash.	D
100	L	southern Y-stem area	N/A	see GPS point	74	Rusted, empty 55-gallon drum	D
101	L	Y Stem	former well	east side of main access road	41	Crushed metal standpipe from water well. A nearby pipe appears to drain into wash. Possibly from former homestead.	D
102	L	Y Stem	former production/ observation well	east of wash (see GPS point)	69	Open 8" steel well casing with no visible well monument.	D
103	L	Y Stem	former production well W2-3	east of wash (see GPS point)	70	24" steel cased production well, W2-3. Well has cover, but not secured with lock.	D
104	L	southern Y-stem area	former monitoring well	At west edge of garbage disposal site adjacent to edge of wash (see GPS point)	73	A monitoring well with 4" PVC casing and 8" steel protective casing was found in this location broken off and on its side. Scattered adjacent concrete debris may have been well monument pad. No evidence of remainder of well casing and actual downpipe location	D
106	M	Garbage Disposal Site	Garbage Disposal Site	400' east of main access road at bottom end of active site area	72	The former garbage disposal site has a few large pieces of metal debris day lighting to surface, north of dirt road and base of hill. Some scattered soda cans, glass, and scrap metal day lighting in dirt road and south of dirt road. No evidence of burning observed in limited objects observed. Unknown if additional buried material.	D
108		south of homestead area	N/A	see GPS point	78	Rusted, empty 30-gallon drum with heavy gunshot damage in pasture area south of former homestead site. No soil staining observed.	D

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Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
109		homestead area	N/A	debris in wash	79	Large quantity of debris in wash in and around former homestead site. Most of debris NW of marked GPS location. Debris consists of: 4" metal water pipes, Fire brick, 24" corrugated metal pipe, wooden fence posts, barbed wire. Kitchen plates, cups, misc. kitchen trash, mattress box springs and coils, and windmill weather vane possibly from former homestead well.	D
110		various throughout site	biological traps	various	4, 50	Reptile and amphibious biological trapping fence. Fence made of 2'-tall silt fencing supported by wooden stakes trap in center.	D
111		North side of wash leading to homestead	biological traps	see GPS point	76	Reptile and amphibious biological trapping fence. Fence made of 2'-tall silt fencing supported by wooden stakes trap in center.	D
112		southern Y-stem area	former well	see GPS point	77	A monitoring well with 4" PVC casing and 8" steel protective casing and 2' x 2' concrete monument base was found in this location broken off and on its side. No evidence of remainder of well casing and actual downpipe location.	D
113		homestead area	N/A	south side of homestead wash	80	Several concrete slabs and large water tank and other large metal debris were found up canyon where homestead site was located at northwestern extent of homestead activities/debris.	D

APPENDIX C

SAFETY AND TOXICS ASSESSMENT MATRIX FOR BEAUMONT SITE 2

TOXICS ITEMS MATRIX

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Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
6	J	Building 250 Area	possible transformer pad	at northeast corner of parking area north of Building 250 location on west side of main access road	53	5' by 5' concrete pad with protruding bolts, debris, electrical wiring adjacent to sawed off utility pole. Possible transformer location. Possible PCB contamination.	T
7	J	Building 250 Area	possible transformer pad	Adjacent to east side of Building 250 location on west side of main access road		A concrete pad roughly 25' by 10' may have been the location of a reported PCB-containing transformer leak. No concrete or soil staining observed.	T
38	K	West Arm of Y Canyon	Bunker	Within bunker	19	9"- floor tile, mastic, plaster walls/ceilings, ceramic tile. Interior ceiling and wall paint. Note: Structure has had a fire started within it as walls and ceiling of bunker show dark soot staining. Asbestos within bunker.	T
39	K	West Arm of Y Canyon	Bunker	Within bunker	19	9"- floor tile, mastic, plaster walls/ceilings, ceramic tile. Interior ceiling and wall paint. Note: Structure has had a fire started within it as walls and ceiling of bunker show dark soot staining. LBP within bunker.	T
40	K	Western Y arm	N/A	east of main access road, in wash	67	Some of the concrete demolition debris used to line the channel has a few isolated areas of asphalt roofing material protruding. Asbestos within debris.	T
51	K	West Arm of Y Canyon	unknown	South of bunker (see GPS point)	21	Debris adjacent to concrete pad at GPS point 21 includes: transite pipe, utility pole, discarded sign	T
52	K	West Arm of Y Canyon	Northernmost Test Bay	west side of dirt road	22	Scattered transite pipe on hillside near test bay	T
53	K	West Arm of Y Canyon	Center Test Bay	west side of dirt road	23	A 6" diameter transite pipe protrudes from one of the walls. Other possible transite piping from test bay wall	T
76	K	Y-stem	T-Revetment Conditioning Chambers	Instrumentation Bldg	37	LBP on walls.	T
107		southern boundary	drum	southern boundary on west side of dirt road		Intact 55-gallon drum, partially buried. Appears to be filled. Contents unknown.	T

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ADDITIONAL ITEMS MATRIX

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ADDITIONAL ITEMS

Item No.	Area	Area Description	Historical Operation	Location	GPS pt	Item Description	Debris/Structure (D) or Toxic (T) Concern
2	J	Building 250 Area	N/A	At tree line south of parking area north of Building 250 location on west side of main access road	54	Debris-forced air furnace. During site inspection, the interior fire chamber was considered to be presumed ACM. The chamber was sampled and results were negative for ACM.	N/A
34	J	Northern Y arm	SCG line	perpendicular to main access road, north of the site	44	Southern California Gas Pipeline runs through the site	N/A
35	J	Canyon North of Water Tanks and pump house	N/A	North of dirt road	49	6" vitreous clay pipe near fence post	N/A
36	J	Building 250 Area	parking lot	parking area north of Building 250 location on west side of main access road	53	Bldg 250 parking area composed of 60'x225' concrete pad with yellow parking delineations	N/A
37	J	Building 250 Area	unknown	North of Building 250 location on west side of main access road	56	Large concrete pad (25'x10') and small landing adjacent to production water well W2-5. 3 concrete equipment mounts, possibly water pump house.	N/A
94	K	West Arm of Y Canyon	unknown	South of bunker (see GPS point)	21	Concrete pad partially buried- 10'x15'	N/A
95	K	West Arm of Y Canyon	Northernmost Test Bay	west side of dirt road, driveway of northernmost test bay	22	90' by 50' concrete pad in front of test bay some asphalt - no protruding bolts, minimal debris.	N/A
105	L	Y Stem	unknown	east of wash		10'x10' concrete pad just north of former production well location (gps pt 69). No protruding nails or bolts.	N/A