Phase 2 Environmental Assessment of the Government Hill Wireless Station

Prepared by

EHS Alaska, Inc.

and

Shannon & Wilson, Inc.

December 11, 1997

Incorporated by reference as Appendix E to the Government Hill Wireless Station Historic Structure Report (HSR)

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PHASE 2 ENVIRONMENTAL SITE ASSESSMENT
GOVERNMENT HILL WIRELESS STATION
132/140 EAST MANOR AVENUE
ANCHORAGE, ALASKA

Prepared for the
U.S. Department of the Interior
General Services Administration
And
The United States Geological Survey

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INTRODUCTION

The Government Hill Wireless Station site and buildings located at 132/140 East Manor Avenue, in Anchorage, Alaska, were surveyed as part of a Phase 2 Environmental Site Assessment. The hazardous materials survey of the buildings was conducted by EHS-Alaska, Inc. The tank removal and subsurface soil investigation was conducted by Shannon & Wilson, Inc. The attached report contains the full details of the Phase 2 Environmental Site Assessment.

The floor structure has failed in portions of all three buildings and further rapid deterioration of the floor structure is anticipated due to the wet condition of the crawl spaces. The roofing at the chimneys of Buildings 1 and 2 was damaged by snow movement, and all three buildings are being damaged by water infiltration. Repair work to the structures will require disturbance of hazardous materials. A specific survey including destructive investigation for hazardous materials should be performed as part of the design work for any future repair work.

HAZARDOUS MATERIALS INSIDE THE BUILDINGS

Lead-containing paints were found on the interior and exterior of each building.

Fluorescent light ballasts in each building were found to contain polychlorinated biphenyls (PCBs). Other chemical hazards include the following mercury containing items: switches, thermostats and fluorescent light fixture tubes.

Asbestos-containing materials (ACM) were found in each building, typically including joint compound of the wall and ceiling finishes, flooring materials, cement asbestos board, roofing materials, and pipe insulation. The majority of the ACM was non-friable and not likely to release asbestos fibers unless disturbed. Friable ACM materials (considered to be more hazardous because they can be crushed and reduced to powder by hand pressure) were found in each building, but in smaller quantities.

The following non-friable asbestos-containing materials were found in Building #1: Red 12"x12" floor tile, cement asbestos board, wire insulation, sheet vinyl flooring, and roofing materials. The friable ACM found in Building 1 included pipe insulation in the crawl space of the west wing, furnace gaskets and furnace refractory insulation.

The following non-friable asbestos-containing materials were found in Building #2: Joint compound of gypsum wall board walls and ceilings, dark brown 9"x9" floor tile, cement asbestos

board, and roofing materials. The friable ACM found in Building 2 included pipe insulation in the crawl space, furnace gaskets, furnace refractory insulation and loose asbestos paper in the attic.

The following non-friable asbestos-containing materials were found in Building #3:, Joint compound of cellulose board walls and ceilings in north addition, joint compound of gypsum wall board walls and ceilings in south addition, cement asbestos board, and roofing materials. The friable ACM found in Building 3 included furnace and boiler gaskets, furnace and boiler refractory insulation, and pipe insulation in the basement and crawl space.

SUBSURFACE SITE INVESTIGATION AND TANK REMOVAL

Four soil borings were drilled in July and August 1997 at locations that were chosen to assess the potential impact on the property by the sources identified in the Phase 1 Environmental Site Assessment. Three borings were approximately 17 feet deep and one boring was extended to 39.5 feet, approximately 1 foot below the groundwater level. The three shallow borings did not contain concentrations of petroleum hydrocarbons or hazardous substances exceeding the applicable cleanup criteria. The deep boring contained concentrations of Diesel Range Organics (DRO) and methylene chloride above the applicable federal and state cleanup criteria in the soil and the groundwater at the groundwater level. The presence of contamination in the soil at the groundwater depth as well as in the groundwater raised the cleanup criteria for the site to Category A, (the most restrictive) according to Alaska Department of Environmental Conservation (ADEC) guidelines.

A dry well located at the north end of Building #1 (previously used as a garage) was investigated and contaminated soil was located at a depth of about 3 feet and likely to be deeper to an unknown depth. The concentrations of DRO and Residual Range Organics (RRO) were above the applicable cleanup criteria. The concentrations of polychlorinated biphenyls (PCBs) and lead in soil at the dry well were below the applicable cleanup criteria, but will greatly impact the cost of cleanup and disposal.

Two 500 gallon and one 300 gallon underground storage tanks (USTs) were removed in September 1997 from the site. Heating oil was removed from each of the tanks prior to tank removal. Samples from undisturbed soil surrounding each of the tanks were above the applicable cleanup criteria for DRO, and two samples from the soil around Tank 3 contained concentrations of benzene which were above the applicable cleanup criteria.

Refer to the attached Phase II Site Assessment report produced by Shannon & Wilson for more information on the tank removal and subsurface soil investigation. Due to the presence of documented contamination at the site, and most importantly in the groundwater, the Alaska Department of Environmental Conservation requires immediate notification of these results. At your request we will submit a copy of the Phase II report to the appropriate ADEC representative.

HAZARDOUS MATERIALS SURVEY REPORT
GOVERNMENT HILL WIRELESS STATION
132/140 EAST MANOR AVENUE
ANCHORAGE, ALASKA

PART 1, SURVEY INFORMATION

The Government Hill Wireless Station facilities located at 132/140 East Manor Avenue, in Anchorage, Alaska, was surveyed for the presence of asbestos-containing materials (ACM), lead-containing materials (LCM), and Chemical Hazards including Polychlorinated Biphenyls (PCBs). The inspection was conducted in September 1997 by Robert French of EHS-Alaska, Inc.

1.01 SITE COMPLEX DESCRIPTION

The Government Hill Wireless Station was originally constructed in 1917 by the Alaska Engineering Commission which is now the Alaska Railroad Corporation. The Wireless Station is listed on the Alaska Heritage Resources Survey and has been nominated for the National Register of Historic Places (NRHP). The Wireless Station served as the only communication link between Anchorage and the outside world until 1931. The Wireless Station was transferred to the Alaska Communication System in 1936, to the U.S. Army in 1952, and to the U.S. Air Force in 1962. Following the sale of the Alaska Communication System to RCA Alaska Communications, Inc. (RCA/Alascom) the site was leased to RCA from 1971 to 1976. The property was declared excess to the General Services Administration (GSA) in 1976 and GSA transferred the property to the United States Geological Survey (USGS) in 1976. The USGS occupied the buildings until 1985, and used it primarily as cold storage for drilling cores until 1994. The construction dates for the three buildings and their additions are in conflict from several different sources. The buildings are described separately below in Part 2.

1.02 STRUCTURAL CONCERNS

The crawl spaces of the buildings were typically shallow, unventilated and had dirt floors. Because the buildings have not been heated for the past decade or more, and because of additional stresses from storage of heavy drill cores of rock samples, portions of the floor structures are in advanced stages of decay caused by "dry-rot". The damage is limited, with areas in each building having failed. However, there is obvious evidence of further water damage presently occurring. There was water soaked subflooring in Building 2 with condensation and advanced visible fungal growth in the crawl spaces of all three buildings.

The lack of crawl space venting and water infiltration will require immediate attention to halt the on going deterioration. If deterioration is allowed to continue at it's present rate, more costly structural repairs may be required.

1.03 SURVEY OVERVIEW

The survey included comprehensive but limited bulk sampling of potentially hazardous materials. Because of the historic nature of the structures and the danger and difficulty of access, not all materials present in the building were sampled. Hazardous materials may exist which were not sampled. See part 1.05 below for more information on areas not surveyed.

The survey included sampling of materials suspected of containing asbestos, and sampling of painted materials to see if LCM was present. Nearly all surfaces in the buildings were coated with paint. The painted surfaces sampled included gypsum wall board, wood and metal surfaces.

1.04 ANALYSIS OVERVIEW

The suspected asbestos-containing materials were subjected to analysis using polarized light microscopy and dispersion staining (EPA method 600/M4-82-020). The asbestos content was reported as an estimated weight percentage. Asbestos samples were analyzed by RJ Lee Group, Inc. of San Leandro California, and Solar Environmental Services, Inc. of Anchorage, Alaska. Both laboratories are accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for bulk asbestos analysis. Only materials containing more than 1% total asbestos were classified as "asbestos-containing" based on Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA) criteria.

The suspected lead-containing materials were subjected to analysis using digestion and atomic absorption (EPA method 7420). The lead content was reported as a weight percentage. Lead samples were analyzed by RJ Lee Group, Inc., of Monroeville Pennsylvania, an American Industrial Hygiene Association (AIHA) accredited laboratory.

1.05 AREAS NOT ACCESSED BY THIS SURVEY

Portions of the crawl spaces were not accessed during this survey because of the danger posed by the rotting timbers, and extremely limited space. The materials in those areas were assumed to be similar to the remainder of the surveyed areas. Because the survey included only limited destructive testing, materials inside walls, and ceiling/roof structures were typically not accessed by this survey.

The buildings had similar aluminum roofing installed within the past decade to prevent further deterioration of the building structures. That aluminum roofing had asbestos-containing sealants applied at penetrations. In all three buildings, the metal roofing had been installed over the existing roofing. Representative samples of the roofing materials were taken, however, not all areas of the existing roofing were accessible for inspection.

PART 2 BUILDING SURVEYS

2.01 DESCRIPTION OF BUILDING 1, "TEE SHAPED" BUILDING

The "Tee Shaped" building was reported to have been constructed in 1943 by the Black-Smith & Richards Appraisal Report. The 1990 Department of the Army Finding and Determination of Eligibility report listed the 3 buildings as having been constructed in 1930, 1934 and 1949, with no indication of which building was constructed at which time. The 1983 nomination to the NRHP listed the structure as being built prior to 1964. The presence of exterior siding between the west wing and the long section of the "Tee" and the changed structure in the attic and crawl space of the west wing indicate that the building may have been constructed in three phases. The initial phase appears to be the central section of the west wing, with the long garage and office section to the east and 18'-6" addition to the west being added prior to 1950. The concrete stem walls and slab with a "dry-well" to the north of the "Tee building" may indicate the presence of a carport or similar structure that has since been removed.

The long section of the "Tee" had poured concrete walls that extend up 4 feet from the concrete slab floor. The south portion of this building was renovated approximately in the early 1960's (based on millwork used) and had a wooden floor raised approximately 8 inches above the concrete slab, lowered gypsum board ceiling, and furred and insulated walls. The wood flooring in the south office had been covered with an asbestos-containing "peel-n-stick" type flooring. The east portion of the structure did not have any apparent structural damage, except where the roof thimble of the building furnace had been damaged by sliding snow. The joint compound of the south room in the long section of the "Tee" contained asbestos. The garage room of the north wing, did not have joint compound applied to the gypsum board. The joint compound of the furnace room did not contain asbestos.

The western wing of the building served most recently as a kitchen and service area and had gypsum board walls and ceilings, with asbestos-containing sheet vinyl flooring. The top layers of flooring may have concealed additional layers of flooring, as broken bits of vinyl asbestos tile were noted in the crawl space. The central area of the west wing had a dirt floored crawl space that was shallower than the west portion of the west wing. Part of the floor structure in the central portion of the west wing had sunk approximately 6 inches. The joint compound of the west wing contained asbestos.

Building 1 had an electric water heater located in the kitchen with exposed bare piping to the sink. The original iron domestic water piping in the central crawl space had been removed and replaced with uninsulated copper piping. There was friable asbestos-containing pipe insulation debris in that crawl space that is assumed to be associated with the removed piping.

Building 1 had been heated by a furnace located near the intersection of the "Tee". Ducts were concealed between the two ceiling surfaces in the south room, exposed below the upper ceiling in the north room, and were located in the attic space of the west wing. The air returned to the furnace through a wall grill. The oil fired furnace had been converted to gas probably at the same time as the other buildings, approximately 1980.

2.02 ASBESTOS SURVEY RESULTS, BUILDING 1

Asbestos field survey data sheets and laboratory reports are included as Appendix A. The drawing in Appendix C shows locations where the asbestos samples were taken. Refer to the field survey data sheets for additional sample information. The following table summarizes the asbestos survey results for Building 1.

Sample No.	Description/Location	Results
GH 997-1	Gypsum, mud & tape/S office, SE corner. Composite sample reported as <1% Chrysotile. Joint compound contained 2% Chrysotile.	<1% Chrysotile (2% Chrysotile)
GH 997-2	Red brick pattern "self-stick", 12"x12" tile/S office at door	3 % Chrysotile
GH 997-3	Gypsum, mud & tape/Main S room, NE corner @ furnace room. Composite sample reported as <1% Chrysotile. Joint compound contained 2% Chrysotile.	<1% Chrysotile (2% Chrysotile)
GH 997-4	Cement fiber board/Furnace room, S wall	40% Chrysotile
GH 997-5	Gypsum, mud & tape/N room @ furnace room	None Detected
GH 997-6	Gypsum/N room, NW corner	None Detected
GH 997-7	Red brick pattern "self-stick" 12"x12" floor tile/S office @ W wall	4% Chrysotile
GH 997-8	Building paper/Exterior - under siding, SE corner	None Detected
GH 997-9	White, ropy gasket @ furnace/@ burner plate to furnace body	80% Chrysotile 5% Amosite
GH 997-10	White, waxy wire insul. /@ incand. light on fixture side	50% Chrysotile
GH 997-11	Rubbery wire insul. /@ incand. light on house side	None Detected
GH 997-12	Red woven wire insul. /@ fluor. light on fixture side	None Detected
GH 997-13	Gypsum, mud & tape/Behind door in toilet, W wing. Composite sample reported as <1% Chrysotile. Joint compound contained 2% Chrysotile.	<1% Chrysotile (2% Chrysotile)
GH 997-14	Light brown 1/4" chips SV /@ floor hatch in toilet, W wing	35% Chrysotile
GH 997-15	Brown cove base mastic/Behind door in toilet, W wing	None Detected
GH 997-16	Tar paper underlayment/Between T+G & lap boards	None Detected
GH 997-17	White cardbd. pipe insul./In crawl space under toilet	85% Chrysotile
GH 997-18	Tar paper underlayment/Under toilet @ dry rot	None Detected
GH 997-19	White cardbd. pipe insul. /In crawl space off of pipe	95% Chrysotile
GH 997-20	Gray, jute backed linoleum/Patch on wall of toilet	None Detected
GH 997-21	Cove base & creamy mastic/W wing kitchen	None Detected
GH 997-22	Light brown 1/4" chip-sheet vinyl/@ hole in floor between west & east rooms, west wing	35% Chrysotile
GH 997-23	Cove base & creamy brown mastic/Middle room in W wing	None Detected
GH 997-24	Insul. @ incand. light & mastic/Kitchen, W wing	None Detected
GH 997-25	Pink fiberglass ceiling insul. /NW corner, kitchen	None Detected

Sample No.	Description/Location	Results
GH 997-26	Blown in mixed insul. /NW corner, kitchen	None Detected
GH 997-27	Brown crepe paper ceiling insul. /S side above kitchen	None Detected
GH 997-28	Blown in mixed insul. /Middle above kitchen	None Detected
GH 997-29	Gable end tar paper/W end of attic	None Detected
GH 997-30	Roof tar paper/Above hatch in kitchen	None Detected
GH 997-31	Brown crepe paper duct insul. /Above hatch in kitchen	None Detected
GH 997-32	Red & white floor tile with black mastic/In crawl space below kitchen	5% Chrysotile
GH 997-33	Roof tar paper/N wing above hatch	None Detected
GH 997-34	Blown in multi colored ceiling insul. /N wing, S of hatch	None Detected
GH 997-35	Blown in multi colored ceiling insul. /N wing, N of hatch	None Detected
GH 997-36	Celotex board ceiling/Above ceiling to S wing	None Detected
GH 997-37	Celotex board ceiling/Above ceiling to S wing	None Detected
GH 997-38	Window caulking/Furnace room window	<1% Chrysotile
GH 997-39	Black & gray roof patch/@ 3" pipe above kitchen	10% Chrysotile
GH 997-40	Black & silver roofing/Under metal roofing Composite sample contained 1% Chrysotile, Silver layer contained 10% Chrysotile.	1% Chrysotile
GH 997-41	Black & gray roof patching/@ elec. drop to Bldg. 1	15% Chrysotile
GH 997-Q1	Quality control sample to GH 997-2, Red brick pattern "self-stick", 12"x12" tile/S office at door	10% Chrysotile
GH 997-Q2	Quality control sample to GH 997-8, Building paper/Exterior - under siding, SE corner	None Detected
GH 997-Q3	Quality control sample to GH 997-28, Blown in mixed insul. /Middle above kitchen	None Detected

The following materials were found to contain asbestos:

Material	Asbestos content
1. Red brick pattern "self-stick", 12"x12" floor tile	4 % Chrysotile
2. Joint compound of gypsum wall board walls and ceiling of south and west wing	3% Chrysotile
3. Cement asbestos board on walls and ceiling of furnace room	40 % Chrysotile
4. Gaskets in furnace	80% Chrysotile 5% Amosite
5. High temperature wire insulation at incandescent light fixtures	50 % Chrysotile
6. Light brown 1/4" chips sheet vinyl flooring in west wing	35 % Chrysotile
7. White cardbd. pipe insulation in crawl space	95 % Chrysotile
8. Red vinyl asbestos tile, found in crawl space, assumed partly removed and concealed under sheet vinyl flooring in west wing	5 % Chrysotile
9. Roof patching compound on metal roofing	15 % Chrysotile

The following materials were found to contain less than 1 percent asbestos:

1. Window caulking of older windows in north wing.

The following materials were assumed to contain asbestos:

1. Sealants on metal roofing.
2. Window caulking of west wing.
3. Concealed roofing materials.
4. Gaskets inside furnace, and concealed furnace refractory insulation.

2.03 LEAD SURVEY RESULTS, BUILDING 1

Lead field survey data sheets and laboratory reports are included as Appendix B. The drawing in Appendix C shows locations where lead samples were taken. Refer to the field survey data sheets for additional sample information. The following table summarizes the lead survey results for Building 1.

Sample No.	Description/Location	Results, % Lead
GH 997-L1	Green paint on gypsum/SE corner of S office	0.0603 %
GH 997-L2	Red paint, clear varnish on wood/@ floor, entry to S office	0.178 %
GH 997-L3	Gray & white paint on wood/S room @ rack supports	0.0718 %
GH 997-L4	White paint on gypsum/N room walls, NW corner	<0.013 % *
GH 997-L5	White paint on gypsum/S room ceiling, NW corner	0.00514 %
GH 997-L6	Green paint on wood trim/Behind door, W wing toilet	<0.012 % *
GH 997-L7	Green paint on gypsum/Behind door in toilet, W wing	<0.0055 % *
GH 997-L8	Exterior white paint on wood siding/SW corner of W wing	11.6 %
GH 997-L9	Ext. green trim paint on wood trim/NW corner of W wing	13.8 %
GH 997-L10	White paint on duct/Above furnace	7.48 %
GH 997-L11	White & silver paint on duct/@ branch to S wing	0.459 %
GH 997-L12	White & silver paint with silvery metal/@ joints of branch to S wing	27.7 %

* "<" indicates that the amount of lead present was less than the limit of detection for the analysis.

Interior finish materials typically contained detectable quantities of lead. The green paint in the west wing, and the white paint in the north wing contained less lead than the limit of detection for the analysis conducted.

The white and green exterior paints had high concentrations of lead.

Sample L12 appeared to contain solder from the joint of the ductwork, and therefore had a high concentration of lead.

Paints in Building 1 were typically in good condition, with peeling paint noted only in the west wing, and at the furnace chimney due to water leakage.

The following materials were assumed to contain lead, and were not sampled:

1. Solder joints of copper piping.
2. Lead flashing at roof penetrations.
3. Leaded joints of cast iron bell and spigot piping.

2.04 CHEMICAL HAZARDS SURVEY RESULTS, BUILDING 1

All types of fluorescent light fixtures were inspected at random for the presence of Poly chlorinated biphenyl (PCB) containing ballasts. None of the light ballasts in Building 1 had "NO PCBs" printed on their labels. Those ballasts are required by law to be assumed to contain PCBs unless they are tested (testing is more expensive than removal). Electrical switches and thermostats commonly contain mercury, as do fluorescent light tubes.

There was a total of 17, four tube fluorescent light fixtures and 1, two tube fluorescent light fixtures in Building 1.

2.05 DESCRIPTION OF BUILDING 2, NORTH BUILDING

The North Building was reported to have been constructed in 1943 by the Black-Smith & Richards Appraisal Report. The 1990 Department of the Army Finding and Determination of Eligibility report listed the 3 buildings as having been constructed in 1930, 1934 and 1949, with no indication of which building was constructed at which time. The 1983 nomination to the NRHP listed the structure as being built prior to 1964.

Building 2 was supported on wood timber pads with wood skirting that extended to the ground at the perimeter. The crawl space was partly ventilated by holes in the perimeter skirting, however the subflooring was saturated with water at the floor hatch in the furnace room. The center of the main room had been raised approximately 8 inches by differential movement. The remaining structure did not have any apparent structural damage, except where the roof thimble of the building furnace had been damaged by sliding snow.

Building 2 had asbestos-containing joint compound on the gypsum board walls and ceilings, with asbestos-containing vinyl tile flooring in the main room. The furnace room and former toilet had an older jute-backed linoleum flooring that did not contain asbestos. There was asbestos-containing pipe insulation on the cold water pipe in the crawl space. This pipe extended vertically out of the crawl space soil into the toilet room directly above. Building 2 did not have any hot water service.

Building 2 had been heated by a furnace located in the southwest furnace room. Uninsulated ducts were located in the attic space. The air returned to the furnace through a wall grill, with an additional air intake from the attic space. The oil fired furnace had been converted to gas

probably at the same time as the other buildings, approximately 1980. The attic was partly insulated with fiberglass and mineral wool insulation. Two sheets of friable asbestos-containing paper were noted in the attic space, and more may have been concealed under the insulation. The previous use of this paper was not apparent, but may have been used as a heat shield.

2.06 ASBESTOS SURVEY RESULTS, BUILDING 2

Asbestos field survey data sheets and laboratory reports are included as Appendix A. The drawing in Appendix C shows locations where the asbestos samples were taken. Refer to the field survey data sheets for additional sample information. The following table summarizes the asbestos survey results for Building 2.

Sample No.	Description/Location	Results
GH 997-42	Dark brown 9"x9" floor tile w/black mastic/NW corner	3% Chrysotile
GH 997-43	Gypsum, mud & tape/Center N. wall. Composite sample reported as <1% Chrysotile. Joint compound contained 3% Chrysotile.	<1% Chrysotile (3% Chrysotile)
GH 997-44	Dark brown 9"x9" floor/Center @ hump	3% Chrysotile
GH 997-45	Gypsum, mud & tape/Outside corner of furnace room. Composite sample reported as <1% Chrysotile. Joint compound contained 3% Chrysotile.	<1% Chrysotile (3% Chrysotile)
GH 997-46	Cement fiber board on wall/Furnace room wall	40% Chrysotile
GH 997-47	Window caulking/North window	1% Chrysotile
GH 997-48	Cement fiber board on floor/Under furnace	45% Chrysotile
GH 997-49	Rope gasket on RA side of furnace/Inside furnace	90% Chrysotile
GH 997-50	Gypsum, mud & tape/In toilet. Composite sample reported as <1% Chrysotile. Joint compound contained 3% Chrysotile.	<1% Chrysotile (3% Chrysotile)
GH 997-51	Soft gasket @ furnace clean-out/Room side of furnace	80% Chrysotile
GH 997-52	Grit surfaced tar paper floor underlay/@ floor hatch W side, very wet & soft above	None Detected
GH 997-53	Gray-reddish tar linoleum/@ floor hatch	None Detected
GH 997-54	Grit surfaced tar paper floor underlay/@ floor hatch, E side	None Detected
GH 997-55	Gray-reddish tar linoleum/N of furnace	None Detected
GH 997-56	Dark brown 9"x9" floor tile with light brown mastic/SE area	3% Chrysotile
GH 997-57	Gray wool ceiling insul. /S side of attic	None Detected
GH 997-58	Grit surfaced roofing with silver coating/south middle of attic, through knot hole. Composite sample reported as <1% Chrysotile, silver layer contained 10 % Chrysotile	<1% Chrysotile (10 % Chrysotile)
GH 997-59	Gray wool ceiling insul. /Middle of attic	None Detected
GH 997-60	Gray wool ceiling insul. /N side of attic	None Detected
GH 997-61	Tar paper @ siding/N side gable @ hatch	None Detected

Sample No.	Description/Location	Results
GH 997-62	White thin paper/Loose in attic	95% Chrysotile
GH 997-63	White thin paper/Loose in attic by hatch	95% Chrysotile
GH 997-Q4	Quality control sample to GH 997-55, Gray-reddish tar linoleum/N of furnace	None Detected

The following materials were found to contain asbestos:

Material	Asbestos content
1. Joint compound of gypsum wall board walls and ceiling	3% Chrysotile
2. Cement asbestos board on walls and floor of furnace room	45 % Chrysotile
3. Gaskets at furnace	90% Chrysotile
4. Window caulking	1% Chrysotile
5. Dark Brown 9"x9" floor tile	3% Chrysotile
6. Silver coating on roofing below aluminum roofing	10% Chrysotile
7. White thin paper, loose in attic, noted in 2 places, may be concealed elsewhere.	95% Chrysotile

The following materials were assumed to contain asbestos:

1. Sealants on metal roofing.
2. "Aircell" pipe insulation on piping extending out of dirt crawl space.
3. Concealed roofing materials.
4. Gaskets inside furnace, and concealed furnace refractory insulation.

2.07 LEAD SURVEY RESULTS, BUILDING 2

Lead field survey data sheets and laboratory reports are included as Appendix B. The drawing in Appendix C shows locations where lead samples were taken. Refer to the field survey data sheets for additional information on materials sampled, and detected quantities of lead. The following table summarizes the lead survey results for Building 2.

Sample No.	Description/Location	Results, % Lead
GH 997-L13	Greenish paint on gypsum/Center of N wall	0.0373 %
GH 997-L14	Greenish paint on wood window trim/NE window frame	0.206 %
GH 997-L15	Gray & blue floor paint on tar linoleum/Furnace room floor	0.670 %
GH 997-L16	White ceiling paint/@ paper joint tape center	0.0469 %

Interior finish materials typically contained detectable quantities of lead. The exterior paints were not sampled, but are assumed to contain a relatively high percentage of lead, similar to the exterior paint on the other two buildings.

Paints in Building 2 were typically in good condition, with peeling paint noted at holes in the ceiling of the main room, and in the furnace room where it was damaged by water leaks at the furnace flue.

The following materials were assumed to contain lead, and were not sampled:

1. Solder joints of copper piping.
2. Lead flashing at roof penetrations.
3. Leaded joints of cast iron bell and spigot piping.

2.08 CHEMICAL HAZARDS SURVEY RESULTS, BUILDING 2

All types of fluorescent light fixtures were inspected at random for the presence of Poly chlorinated biphenyl (PCB) containing ballasts. None of the light ballasts in Building 2 had "NO PCBs" printed on their labels. Electrical switches and thermostats commonly contain mercury, as do fluorescent light fixture tubes.

There was a total of 5, four tube fluorescent light fixtures and 2, two tube fluorescent light fixtures in Building 2.

2.09 DESCRIPTION OF BUILDING 3, WIRELESS BUILDING

The central portion of the Wireless Building was constructed in 1917. The building description in "Patterns of the Past, An Inventory of Anchorage's Historic Resources" incorrectly infers that the cupola was "re-centered", when in fact equal additions were constructed to the north and south of the original building. The 1983 nomination to the NRHP listed the south addition as being built prior to 1948, with the north addition being added in 1964. Those dates are partly confirmed by the aerial photographs from 1950 and 1964 and the presence of the original roofing and structure underneath the roofing for the north and south additions.

The original portion of the building had a concrete exterior foundation, apparently with central pier footings. The dirt floor of this crawl space was partly excavated to allow the installation of the perimeter heating piping. The flooring along the west wall has subsided at least 8 inches along the entire 28 foot length of the original building. The slumping of the west wall of the original structure is also evident at the eave line.

The north addition had a shallow foundation with an access hole from the exterior on the north side. The flooring structure had failed at the north east corner of the building due to dry-rot damage.

Building 3 had a mixture of finishes on walls and ceilings, consisting mainly of plywood and 1x3, 1x4, or 1x2 dimensional wood in the original portion, mixed with cellulose board, and small areas of gypsum wall board. The north addition had cellulose board walls and ceilings which had asbestos in the joint compound. The south addition had gypsum wall board walls and ceilings which had asbestos in the joint compound.

The flooring materials were covered with plywood or a hardboard in most areas of the main floor. The flooring materials were inspected at random, by prying up portions of the wood or hardboard covering. None of the flooring materials which were sampled in Building 3 contained asbestos, but areas of concealed flooring that were not sampled may exist. The original portion of the building had a jute backed linoleum flooring with a tar paper and horse hair underlayment. The north addition had a jute-backed linoleum flooring that was typically exposed. The south addition had a jute backed linoleum flooring with a gray paper underlayment that was concealed by both plywood and hardboard.

The south addition had a full height concrete basement divided into 3 rooms. An unusual 15 inch wide concrete wall in the south west corner of this basement extends through the first floor joist space to the wood flooring above, apparently as support for equipment that has since been removed. Although damp, the air circulation in the basement has prevented major deterioration of the wooden first floor structure of the south addition.

Building 3 had been heated by a furnace located in the southeast corner of the building. Uninsulated ducts were located in the rooms. The air returned to the furnace through a grill at the base of the furnace. The oil fired furnace had been converted to natural gas in approximately 1980. The basement housed an oil fired boiler which was installed in 1968. It is not known if this boiler replaced an earlier one, but the boiler was apparently abandoned when the furnace was installed in 1978.

There was asbestos-containing pipe insulation on the cold water pipe in the basement extending vertically out of the disconnected service entrance box. Building 3 had been served with hot water from an electric water heater.

The heating piping from the boiler was insulated in the basement area with an asbestos-containing "aircell" cardboard like insulation. Portions of the heating piping were uninsulated, and other portions had an asbestos-free cellular glass insulation that was adhered together with a white compound that was assumed to contain asbestos. This white compound was only noted at the center of the crawl space where it was inaccessible for sampling.

2.10 ASBESTOS SURVEY RESULTS, BUILDING 3

Asbestos field survey data sheets and laboratory reports are included as Appendix A. The drawing in Appendix C shows locations where the asbestos samples were taken. Refer to the field survey data sheets for additional sample information. The following table summarizes the asbestos survey results for Building 3.

Sample No.	Description/Location	Results
GH 997-64	Cellulose board on ceiling/NW room @ ceiling	None Detected
GH 997-65	Gray linoleum with jute backing-black mastic/NE room @ radiator holes	None Detected

Sample No.	Description/Location	Results
GH 997-66	Cellulose board on wall with joint compound/NE room, NE corner. Composite sample reported as <1% Chrysotile. Joint compound contained 2% Chrysotile.	<1% Chrysotile (2% Chrysotile)
GH 997-67	Gypsum board with joint compound/SE room. Composite sample reported as <1% Chrysotile. Joint compound contained 2% Chrysotile.	<1% Chrysotile (2% Chrysotile)
GH 997-68	Gray linoleum with jute backing-black mastic/NW room @ radiator holes	None Detected
GH 997-69	Heavier gray building paper/Former wall location, center W room	None Detected
GH 997-70	Shiny black building paper/Former wall location, center W room	None Detected
GH 997-71	Thin building paper/Beneath 1"x3" T & G flooring NW room @ radiator hole	None Detected
GH 997-72	Reddish jute backed linoleum with black tarpaper/Center West room at door to NW	None Detected
GH 997-73	Black tar paper & assumed horse hair underlayment/Center West room @ S column	None Detected
GH 997-74	Brown jute backed linoleum with white paper/Center west room @ S. column	None Detected
GH 997-75	Building paper with assumed horse hair/Exterior wall of Center west room	None Detected
GH 997-76	Reddish brown tarry linoleum/Former toilet, center west room	None Detected
GH 997-77	Shiny black building paper/Former toilet wall, center west room	None Detected
GH 997-78	Paper ply -1/4" (paper/wd/paper) patch @ former toilet wall, center west room	None Detected
GH 997-79	Hardboard floor/W side of S room, nailed down	None Detected
GH 997-80	Yellowish jute backed linoleum with gray underlay/W side of S room	None Detected
GH 997-81	Hardboard floor/S room by chimney, nailed down	None Detected
GH 997-82	Brown jute backed linoleum with gray underlay/S room by chimney	None Detected
GH 997-83	Gasket @ view hole/Rheem Model 4225-130EB, serial no. AD113 F3576 8124	None Detected
GH 997-84	Brown jute backed linoleum with gray underlay/@ door to toilet	None Detected
GH 997-85	Celotex board, no joint compound/E wall of W room	None Detected
GH 997-86	Celotex board, no joint compound/NW wall of S room	None Detected
GH 997-87	Gypsum board, no joint compound/NW wall of S room	None Detected

Sample No.	Description/Location	Results
GH 997-88	Tarpaper roofing with grit surface of original building /S side near cut through to S addition	25% Chrysotile
GH 997-89	Fiberglass with tarry vapor barrier/Attic of S addition	None Detected
GH 997-90	Fiberglass with tarry vapor barrier/Attic of original bldg.	None Detected
GH 997-91	Tarpaper roofing with grit surfacing of original bldg./N side near cut through to N addition	20% Chrysotile
GH 997-92	Fiberglass with tarry vapor barrier/Attic of N addition	None Detected
GH 997-93	Cloth & rubber wire insul. /Attic near hatch	None Detected
GH 997-94	Hardboard floor/Center NE room @ S door under plywood	None Detected
GH 997-95	Hardboard floor with black mastic/Center NE room @ S door-under #94	None Detected
GH 997-96	Black tar paper under hardboard/Center NE room @ N door	None Detected
GH 997-97	White window putty/NE windows, N. addition	None Detected
GH 997-98	White window putty/S window, W side original bldg.	None Detected
GH 997-99	Tar paper on exterior wall/Hole @ corner of old to S addition	None Detected
GH 997-100	Cellulose board @ exterior wall/Hole @ corner of old building to S addition	None Detected
GH 997-101	Cement fiberboard/By basement boiler	40% Chrysotile <1% Crocidolite
GH 997-102	"Aircell" pipe insul. /@ wood wall penet., center bsmt	90% Chrysotile
GH 997-103	"Mag" pipe insul. on fitting/@ capped tee, bsmt	40% Chrysotile 20% Crocidolite
GH 997-Q5	Quality control sample to GH 997-72, Reddish jute backed linoleum with black tarpaper/C. West room at door to NW	None Detected
GH 997-Q6	Quality control sample to GH 997-80, Yellowish jute backed linoleum with gray underlay/W side of S room	None Detected

The following materials were found to contain asbestos:

Material	Asbestos content
1. Joint compound of cellulose board in north addition	2% Chrysotile
2. Joint compound of gypsum wall board at south addition	2% Chrysotile
3. Grit surfaced roofing of original building	25% Chrysotile
4. Cement asbestos board on wall & ceiling adjacent to boiler in basement	40 % Chrysotile <1% Crocidolite
5. "Aircell" pipe insulation on runs of heating pipe and domestic water piping in basement	90% Chrysotile
6. "Mag" hard and chalky insulation on fittings of heating and domestic water piping in basement.	40% Chrysotile 20% Crocidolite

The following materials were assumed to contain asbestos.

1. Cement asbestos board lining of cabinet on east wall of south room.
2. Cement asbestos board lining of chimney stack through the roof.
3. Window caulking.
4. Sealants on metal roofing.
5. Concealed roofing materials.
6. Gaskets inside furnace and boiler, and concealed furnace and boiler refractory insulation.
7. Adhesive for cellular glass pipe insulation in crawl space.

2.11 LEAD SURVEY RESULTS, BUILDING 3

Lead field survey data sheets and laboratory reports are included as Appendix B. The drawing in Appendix C shows locations where lead samples were taken. Refer to the field survey data sheets for additional information on materials sampled, and detected quantities of lead. The following table summarizes the lead survey results for Building 3.

Sample No.	Description/Location	Results, % Lead
GH 997-L17	Off green paint on plywood/E central room, S wall	2.01 %
GH 997-L18	Off white ceiling paint on plywood/E central room, center	0.0714 %
GH 997-L19	Off green paint on cellulose board/NE room, E wall	1.36 %
GH 997-L20	Off green paint on wood/NE room, @ window trim	3.38 %
GH 997-L21	White paint on cellulose ceiling/Center of NW room	0.0999 %
GH 997-L22	Off green on wood/Center W room on base trim	0.523 %
GH 997-L23	Off green on wood/Former exterior trim 1'x2' T+G	0.651 %
GH 997-L24	Black & light green on wood/Center W room @ base trim	0.464 %
GH 997-L25	Off green & white on cellulose board/Center W room	0.495 %
GH 997-L26	Cream & brown paint on wood/3/4" vertical groove-former NW corner of center W room	0.287 %
GH 997-L27	White exterior paint on wood/Near S window, W side-original building	9.56 %
GH 997-L28	Green exterior trim paint on wood/Sill of N window, W side, original building	13.9 %
GH 997-L29	White & green flaky paint/Concrete N wall, bsmt	4.29 %
GH 997-L30	Gray paint on wood/Ceiling of W basement	3.68 %
GH 997-L31	White paint on wood/Center wall of basement	5.16 %

Interior finish materials typically contained detectable quantities of lead, with the highest concentrations found in the basement and the exterior paints.

The white and green exterior paints had high concentrations of lead.

Paints in Building 3 were typically in poor condition, with peeling paint noted throughout the building, apparently due to high moisture content in the building. The basement area in particular had peeling paint on all of the concrete walls.

The following materials were assumed to contain lead, and were not sampled:

1. Solder joints of copper piping.
2. Leaded joints of cast iron bell and spigot piping.
3. Lead flashing at roof penetrations.
4. Lead conduit for telephone and signal wiring.

2.12 CHEMICAL HAZARDS SURVEY RESULTS, BUILDING 3

All types of fluorescent light fixtures were inspected at random for the presence of Poly chlorinated biphenyl (PCB) containing ballasts. None of the light ballasts in Building 3 had "NO PCBs" printed on their labels. Electrical switches and thermostats commonly contain mercury, as do fluorescent light fixture tubes.

There was a total of 5, four tube fluorescent light fixtures and 12, two tube fluorescent light fixtures in Building 3.

PART 3, CONCLUSIONS AND RECOMMENDATIONS

3.01 ASBESTOS

Asbestos-containing materials are not required to be removed by any state or federal regulations. However their disturbance, handling and disposal is highly regulated. Owners and managers of buildings which have not been declared to be asbestos free are required to conduct a good faith survey for asbestos prior to any renovation or demolition. Owners and managers are further required to notify building occupants, maintenance and custodial workers of the presence of asbestos-containing materials so that they will not disturb the materials without proper training and protective equipment.

Because the buildings which comprise the Government Hill Wireless Station are not occupied, the requirements may be less stringent. However, access to areas of the buildings which contain damaged and friable asbestos should be restricted to those with proper training in recognizing asbestos and all visitors should avoid disturbance of any asbestos-containing materials.

State and federal laws regulate construction worker exposure to asbestos. The regulations also regulate the disposal of these materials. Worker exposure, controlled by rigidly established permissible exposure limits (PEL), is limited by requiring that engineering controls, personal protective equipment, and worker exposure monitoring be instituted any time asbestos is disturbed during building renovation work. The disposal of these materials is similarly restricted by regulations which license the disposal sites receiving them.

The Environmental Protection Agencies classifies two categories of ACM: friable and nonfriable. Friable materials are materials that can be crumbled to a powder by hand pressure. Nonfriable materials are materials such as floor tiles, roofing felts and coatings, gaskets and mastics that normally bind the asbestos fibers in some sort of matrix that prevents fiber release unless sanding, grinding, sawing or other similar types of abrading occurs.

Only non-friable ACM was found in the main ground floor areas of the buildings, but friable ACM was found in the basement of Building 3 and the crawl spaces of Buildings 1 and 2, as well as in the attic of Building 2.

The gypsum wall board of portions of each of the buildings had asbestos in the joint compound. The joint compound applied to the cellulose wall board of the north addition of Building 3 also contained asbestos. The wall board system as a whole contains less than 1 % asbestos when the wall board and joint compound was analyzed as a composite sample. OSHA requires the disturbance or removal of gypsum wall board or cellulose wall board with asbestos-containing joint compound to be conducted as Class II asbestos work.

The wall board with asbestos-containing joint compound can release asbestos fibers during dry demolition. The debris from the gypsum board can be disposed of under EPA criteria as ordinary construction waste, if allowed by the receiving landfill.

3.02 LEAD

Lead-containing materials are not required to be removed by any state or federal regulations and are thus similar to asbestos-containing materials. However their disturbance, handling and disposal is regulated. Owners and managers are required to notify building occupants, maintenance and custodial workers of the presence of lead-containing materials so that they will not disturb the materials without proper training and protective equipment.

Because the buildings which comprise the Government Hill Wireless Station are not occupied, the requirements may be less stringent. However, visitors should avoid disturbance of any lead-containing materials, and should wash any skin that has contacted lead-containing materials prior to eating or applying cosmetics.

State and federal laws regulate all construction work where employees may be exposed to lead. Even at low concentrations of lead, worker exposure to lead remains possible during demolition or disturbance of lead-containing materials. The contractor is required to monitor his/her workers to determine if they will be exposed to lead at or above the action level established in the regulation. Until this "initial determination" establishes that workers are not exposed above the permissible exposure limit, the contractor is required to provide workers with adequate personnel protection. Continued air and medical monitoring may be required if exposure is above the action level.

One hazard which lead paint potentially creates occurs when the lead becomes airborne and can then be inhaled. When the painted materials are cut, welded or otherwise disturbed the lead can

become airborne. An additional hazard is the ingestion of lead paint chips that are not airborne. Lead particles may be released when building demolition or renovation activities disturb contaminated materials; consequently, the regulations have established work practices, exposure monitoring, and worker training requirements.

Lead paint stripping operations may create additional hazards due to the toxicity of the stripping chemicals. The application of heat guns for stripping operations may create an even greater hazard by promoting airborne lead fumes. Lead paint stripping may be required locally at cutting and welding operations on existing miscellaneous steel components.

Renovation or demolition projects would produce wastes with lead-containing paints. In order to classify the lead wastes as hazardous or non-hazardous for disposal purposes, TCLP (Toxicity Characteristic Leaching Procedure) tests are required by the EPA. The TCLP test determines the leachability of lead from the paint while adhered to the substrate. Currently, the maximum allowable leachate of lead in order to be classified as a non-hazardous waste is 5 milligrams of lead per liter of leachate (mg/l). Anything above this 5 mg/l level is classified as hazardous waste and must be disposed of at an approved permitted TSD (Transportation, Storage, Disposal) facility. There are no permitted hazardous waste disposal sites in Alaska. TCLP tests will need to be performed on representative samples of any renovation project wastes to determine the lead waste disposal requirements.

3.03 CHEMICAL HAZARDS

Polychlorinated Biphenyl containing and mercury-containing materials were identified in fluorescent light ballasts in each of the buildings. Mercury containing materials were identified in fluorescent light fixture tubes, electrical thermostats and switches in each of the buildings.

These materials typically present a hazard only when they are disturbed and contact the skin. Disposal of these materials are regulated by the EPA because improper disposal will contaminate the environment. PCB and mercury containing materials are required to be properly handled and packaged for disposal, but may remain in place until they are no longer in service.

Mercury containing wastes from fluorescent light tubes and switches will typically fail the TCLP test. Currently, the maximum allowable leachate of mercury in order to be classified as a non-hazardous waste is 0.2 milligrams of mercury per liter of leachate (mg/l). Anything above this 0.2 mg/l level is classified as hazardous waste and must be disposed of at an approved permitted TSD (Transportation, Storage, Disposal) facility.

PART 4, REGULATIONS

4.01 ASBESTOS

The Federal Occupational Safety and Health Administration (OSHA) and the State of Alaska Department of Labor (AKDOL) have adopted regulations applying to workplace activities involving asbestos. 29 CFR 1926.1101 sets permissible exposure limits; establishes contamination controls, work practices, and medical surveillance; and requires worker certification and protective equipment. AKDOL requires asbestos workers to be certified in accordance with Title 18, Chapters 61.600-790 of the Alaska Administration Code.

The Environmental Protection Agency (EPA) regulations (40 CFR 61) under the National Emission Standards for Hazardous Air Pollutants (NESHAP) established procedures for handling ACM during asbestos removal and waste disposal. These regulations require an owner (or the owner's contractor) to notify the EPA of asbestos removal operations and to establish responsibility for the removal, transportation, and disposal of asbestos.

The disposal of asbestos waste is regulated by the EPA, the State of Alaska Department of Environmental Conservation, and the disposal site operator. Wastes being transported to the disposal site must be sealed in double walled containers (double bagged) prior to disposal and must be accompanied by disposal permits and waste manifests.

4.02 LEAD

OSHA and AKDOL have adopted regulations applying to workplace activities involving lead. 29 CFR 1926.62 sets permissible exposure limits; establishes contamination controls, work practices, and medical surveillance; and requires worker training and protective equipment.

The EPA regulations, (40 CFR 260-272) under the Resource Conservation and Recovery Act (RCRA) established regulations for the handling, storage and disposal of hazardous materials. TCLP tests are required to be conducted in accordance with method 1311 of, Appendix II.

The Department of Transportation (DOT) regulations, (49 CFR 171-180) established regulations for the transportation of hazardous materials. All hazardous wastes must be accompanied by disposal permits and waste manifests.

4.03 CHEMICAL HAZARDS

The EPA regulations, (40 CFR 761) under the Toxic Substance Control Act (TSCA) established regulations for the handling, storage and disposal of Polychlorinated Biphenyl containing materials. The EPA regulations, (40 CFR 261) under the Resource Conservation and Recovery Act (RCRA) established regulations for the handling, storage and disposal of mercury-containing materials.

The Department of Transportation (DOT) regulations, (49 CFR 171-180) established regulations for the transportation of hazardous materials, including PCBs and mercury-containing materials. All hazardous wastes must be accompanied by disposal permits and waste manifests.

APPENDIX A

Asbestos Field Data Sheets
and
Laboratory Reports

AK 10424 Asbestos

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Environmental Health Sciences-Alaska, Inc.
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(907) 694-1383 • (907) 694-1382 fax

CHAIN OF CUSTODY RECORD/FIELD SURVEY DATA

FIELD COLLECTION DATE: 9-19-97	JOB #: 3968-01-02	MATERIAL TYPE: (Circle) (ASBESTOS) LEAD	TOTAL QUANTITIES: 103
PROJECT NAME: Gov. Hill Telegraph ~~Bldg-2~~	BULK ANALYSIS REQUESTED: (Circle) (PLM) / PLM DUST / TEM BULK / LEAD TCLP / LEAD PPM		
FACILITY: Gov. Hill Wireless Sta.	DISPOSAL: Routine	TURNAROUND: 3 days	

SPECIAL INSTRUCTIONS:

Robert French COLLECTED BY (signature) Robert French PRINTED NAME 1564 88EMP-0008 CERT# AHERA# Fedex SHIPPING METHOD 950994 2024 COURIER (signature) 9:22 1p.m. DATE/TIME	San leandro RJ Lee Grp. SELECTED LABORATORY Darlene SAMPLES ACCEPTED BY 9/23/97 9:15 AM DATE/TIME ANALYST'S SIGNATURE 9-23-97 DATE	COMMENTS: OK if Results take more than 3 days due to quantity Please fax results in groups of ≈ 30

SAMPLE ID	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/XREF)	RESULTS
1. GH 997 - 1 MATL. CONDITION: GOOD FAIR POOR	Gyp, Mud + Tape DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	South office Bldg 1 SE Corner Ph 1054 2% Chrys. in Joint Comp.	< 1% - C composite
2. GH 997 2 MATL. CONDITION: GOOD FAIR POOR	Red Brick Pattern 'self-Stic' 12"x12" tile DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	South office Bldg 1 at Door Ph 1055	3% Chrysotile
3. GH 997-3 MATL. CONDITION: GOOD FAIR POOR	Gyp, Mud + Tape DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Main South Room Bldg 1 at Furnace Rm 2% Chrysotile in Joint Comp.	< 1% - C composite
4. GH 997- 4 MATL. CONDITION: GOOD FAIR POOR	Cement Fiber Board DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Furnace Rm Bldg 1 South wall	40% Chrysotile
5. GH 997 - 5 MATL. CONDITION: GOOD FAIR POOR	Gyp, Mud + Tape DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	North Rm Bldg 1 at Furnace Rm	None Detected
6. GH 997- 6 MATL. CONDITION: GOOD FAIR POOR	Gyp, ~~Mud + Tape~~ DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	North Rm Bldg 1 NW corner	None Detected
7. GH 997- 7 MATL. CONDITION: GOOD FAIR POOR	Red Brick Pattern Self Stick 12"x12" F. T. DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	South Office Bldg 1 at West Wall	4% Chrysotile
8. GH 997-8 MATL. CONDITION: GOOD FAIR POOR	Bldg Paper DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Exterior - under siding SE corner Bldg 1	None Detected

RETURN A SIGNED COPY OF THIS FORM WITH THE FINAL REPORT TO EHS-ALASKA

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FIELD SURVEY DATA (*continued*)

PROJECT NAME: Gov. Hill Telegraph EA 2 | FACILITY: Gov. Hill Wireless Sta.

JOB NUMBER: 3968-01-02 | DATE: 9-19-97 | COLLECTED BY: French

SAMPLE ID	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/XREF)	RESULTS
GH997 - 9 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	White ropy gasket at Furnace	At Burner plate to furnace Body Bldg 1 Ph 1123	80% Chrys. 5% Amosite
GH997 - 10 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	White waxy wire insulation	At Incand. Light Bldg 1 on Fixture side Ph 1131	50% Chrysotile
GH997 - 11 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Rubbery wire insul	At Incand. Light Bldg 1 on House side Ph 1131	None Detected
GH997 - 12 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Red woven wire insul	At Fluors. Light Bldg 1 @ Fixture side Ph 1136	None Detected
GH997 - 13 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Gyp, Mud + Tape	Behind door in Toilet, West Wing Bldg 1 2% Chrysotile in Joint Comp	<1% Chrys. Composite
GH997 - 14 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Lt brown - 1/4" chips SV	At Floor Hatch in Toilet, West Wing Bldg 1 Ph 1307 2% Chrys. in Mastic	35% Chrysotile
GH997 - 15 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Boourn Core Base Mastic	Behind door in Toilet, West Wing Bldg 1	None Detected
GH997 - 16 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Tar Paper underlayment	Btwn ~~Particle Bd~~ + ~~pnt~~ TT6 + lap bds TT6 lap Ph 1307 Bldg 1	None Detected
GH997 - 17 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	White Cardboard Insul	In crawl space Ph 1317 Bldg 1	85% Chrysotile
GH997 - 18 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Tar Paper underlayment	under toilet @ Dry Rot Ph 1319 Bldg 1	None Detected
GH997 - 19 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	White Cardboard Insul	in crawl space off of pipe Bldg 1	95% Chrysotile
GH997 - 20 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Gray, Jute backed linoleum	on Wall of toilet Ph 1328 Bldg 1	None Detected

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FIELD SURVEY DATA (*continued*)

PROJECT NAME: Gov Hill Telegraph EA2 | FACILITY: Gov Hill Wireless sta.
JOB NUMBER: 3968-01-02 | DATE: 9-19-97 | COLLECTED BY: French

SAMPLE ID	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/XREF)	RESULTS
GH997-21	Cove Base & Mastic ~~Brown~~ creamy	West Wing Kitchen Ph 1342 Bldg 1	None Detected
GH997-22	Lt Brown Chip - Sht. Vnl.	At hole in Floor between rooms Ph 1344 Bldg 1	35% Chrysotile
GH997-23	Cove Base + creamy brown mastic	Middle room in West Wing Bldg 1	None Detected
GH997-24	Drywl @ Incand. light + Mastic	Kitchen, west wing Bldg 1	None Detected
GH997-25	Pink Fbg Clg insul	NW corner, kitchen Bldg 1	None Detected
GH997-26	Blown in Mixed Drywl	NW corner, kitchen Bldg 1	None Detected
GH997-27	Brown crepe paper ceily insul	S side above kitchen Bldg 1	None Detected
GH997-28	Blown in Mixed Drywl	Middle above kitchen Bldg 1	None Detected
GH997-29	Gable end Tar Paper	West end of Attic Bldg 1	None Detected
GH997-30	Roof Tar Paper	above Hatch in Kitchen Bldg 1	None Detected
GH997-31	Brown crepe paper dust insul	above Hatch in kitchen Bldg 1	None Detected
GH997-32	Red & White Floor tile w/ Black Mastic	In crawl space below kitchen Bldg 1 N.D. in Mastic	5% Chrysotile

MATL. CONDITION: GOOD FAIR POOR
DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:

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FIELD SURVEY DATA (*continued*)

PROJECT NAME: Gov Hill Telegraph EA2 | FACILITY: Gov. Hill Wireless Sta.

JOB NUMBER: 3968-01-02 | DATE: 9-19-97 | COLLECTED BY: French

SAMPLE ID	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/XREF)	RESULTS
GH997 – 33 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Roof Tar Paper	North Wing above Hatch Bldg 1	None Detected
GH997 - 34 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Blown in Multi Colored ceiling Drsnl	North Wing South of Hatch Bldg 1	None Detected
GH997- 35 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Blown in Multi-Colored Ceiling Drsnl	North Wing North of Hatch Bldg 1	None Detected
GH997 - 36 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Celotex Board Ceiling	Above Clg to South wing Bldg 1	None Detected
GH997 - 37 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Celotex Board Ceilg	Above Ceilg to South wing Bldg 1	None Detected
GH997 - 38 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Window Caulking	Furnace Room Window Ph 1513 Bldg 1	<1% Chrysotile
GH997 - 39 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Black + gray roof patchg	@ 3" pipe from above Kitchen Bldg 1	10% Chrysotile
GH997 -40 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Black + Silver roofg -	Under Metal roofg Bldg 1	1% chrys. Composite 10% C in Silver layer
GH997 - 41 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Black + gray roof patchg	@ Elec Drop to Bldg 1	15% Chrysotile
GH997 - 42 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Dk Brown 9x9 Floortile w/ Black Mastic	NW corner of Bldg 2 N.D. in Mastic	3% Chrysotile
GH997 - 43 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Gyp Mud + Tape	Center N. wall Ph 1555 Bldg 2	<1% composite 3% C in Joint.
GH997- 44 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Dk Brown 9x9 Floor	Center @ Hump Ph 1554 Bldg 2	3% Chrysotile

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FIELD SURVEY DATA (*continued*)

PROJECT NAME: Gov Hill Telegraph EA2 | FACILITY: Gov Hill Wireless Sta

JOB NUMBER: 3968-01-02 | DATE: 9-19-97 | COLLECTED BY: French

SAMPLE ID	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/XREF)	RESULTS
GH997-45 MATL. CONDITION: GOOD FAIR POOR	Gyp Mud & Tape DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	outside Corner of Furnace Room Bldg 2	<1% Chry. Composite 3% in Joint Co.
GH997-46 MATL. CONDITION: GOOD FAIR POOR	Cement Fiber Bd on Wall DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Furnace Rm wall Ph 1603 Bldg 2	40% Chrysotile
GH997-47 MATL. CONDITION: GOOD FAIR POOR	Window Caulking DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	North windows Ph 1606 Bldg 2	1% Chrysotile
GH997-48 MATL. CONDITION: GOOD FAIR POOR	Cement Fiber Bd on Floor DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Under Furnace Ph 1605 Bldg 2	45% Chrysotile
GH997-49 MATL. CONDITION: GOOD FAIR POOR	Rope Gasket on RA Side of Furnace DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Dr side Furnace Ph 1608 Bldg 2	90% Chrysotile
GH997-50 MATL. CONDITION: GOOD FAIR POOR	Gyp Mud & Tape DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Dr Toilet Ph 1648 Bldg 2	<1% Chrys. composite 3% C. in Joint.
GH997-51 MATL. CONDITION: GOOD FAIR POOR	Soft Gasket at Furnace Clean-out DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Rm side of Furnace Ph 1650 Bldg 2	80% Chrysotile
GH997-52 MATL. CONDITION: GOOD FAIR POOR	Grit Surfaced tar paper Floor underlay DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	at Hatch west side Very Wet & Soft above Bldg 2	None Detected
GH997-53 MATL. CONDITION: GOOD FAIR POOR	Gray-reddish tar linoleum DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	~~No of Furnace~~ at Hatch Bldg 2	None Detected
GH997-54 MATL. CONDITION: GOOD FAIR POOR	Grit Surfaced tar paper Floor Underlay DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	At Hatch, East side Bldg 2	None Detected
GH997-55 MATL. CONDITION: GOOD FAIR POOR	Gray-reddish tar linoleum DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	N of Furnace, Bldg 2	None Detected
GH997-56 MATL. CONDITION: GOOD FAIR POOR	Dark Brown 9x9 Floor Tile w/ Lt brown mastic DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	SE area Bldg 2	3% Chrysotile

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FIELD SURVEY DATA (*continued*)

PROJECT NAME: Gov Hill Telegraph EA-2 | FACILITY: Gov. Hill Wireless Sta
JOB NUMBER: 3968-01-02 | DATE: 9-19-97 | COLLECTED BY: French

SAMPLE ID	SAMPLE DESCRIPTION, (COLOR. MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/XREF)	RESULTS
GH997-57 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Gray Wool Clg Insul	South side of Attic Bldg 2	None Detected
GH997-58 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Grit Surfaced roofing w/ silver coating	South middle of Attic Bldg 2 10% in Silver layer	<1% C composite
GH997-59 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Gray Wool Clg Insul	Middle of Attic Ph 10 Bldg 2	None Detected
GH997-60 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Gray Wool Clg Insul	North side of Attic Bldg 2	None Detected
GH997-61 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Tar Paper @ Siding	North side Gable at Hatch Bldg 2	None Detected
GH997-62 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	White Thin Paper	Loose in Attic Bldg 2	95% Chrysotile
GH997-63 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	White Thin Paper	Loose in Attic By Hatch Bldg 2	95% Chrysotile
GH997-64 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Cellulose Board on Clg	NW Room @ ceiling Bldg 3	None Detected
GH997-65 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Gray linoleum w/ tuck backing – black mastic	NE Room @ Radiat. Holes Ph 1514 Bldg 3 (Mastic not Found)	None Detected
GH997-66 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Cellulose Bd on wall w/ Joint comp.	NE Room, NE Corner Ph 1514 Bldg 3 2% C in Joint.	<1% Composite
GH997-67 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Gyp Bd w/ Joint Comp	SE Room Bldg 3	<1% Composite 2% C in Joint.
GH997-68 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Gray linoleum w/ tuck backing – black mastic	NW Room at Radiat. Holes. Ph 1536 Bldg 3	None Detected

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FIELD SURVEY DATA (*continued*)

PROJECT NAME: Gov. Hill Telegraph EA-2 | FACILITY: Gov Hill Wireless Sta.
JOB NUMBER: 3968-01-02 | DATE: 9-20-97 | COLLECTED BY: French

SAMPLE ID	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/XREF)	RESULTS
GH997-69 MATL. CONDITION: GOOD FAIR POOR	Heavier Gray Bldg Paper DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Former wall location, Center West Room Ph 1542 Bldg 3	None Detected
GH997-70 MATL. CONDITION: GOOD FAIR POOR	Black Bldg Paper DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Former wall location Center West Room Ph 1542 Bldg 3	None Detected
GH997-71 MATL. CONDITION: GOOD FAIR POOR	Thin Bldg Paper DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Beneath 1x3 Floor; NW Room @ Radiator Hole Bldg 3	None Detected
GH997-72 MATL. CONDITION: GOOD FAIR POOR	Reddish ~~Brown Tarry~~ Jute Backed linoleum w/Black tarpaper DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Center West Room at Door to NW Ph 1552 Bldg 3	None Detected
GH997-73 MATL. CONDITION: GOOD FAIR POOR	Black tar Paper + Horse hair? under layment DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Center West @ S. column Ph 155 Bldg 3	None Detected
GH997-74 MATL. CONDITION: GOOD FAIR POOR	Brown Jute Backed linoleum w/ white paper DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Center West room @ S. Column Bldg 3	None Detected
GH997-75 MATL. CONDITION: GOOD FAIR POOR	Bldg Paper w/ Horse Hair? DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Ext. Wall of West C. Room Ph 1610 Bldg 3	None Detected
GH997-76 MATL. CONDITION: GOOD FAIR POOR	Reddish Brown Tarry linoleum DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Former Toilet, Center West Room Ph 1618 9 Bldg 3	None Detected
GH997-77 MATL. CONDITION: GOOD FAIR POOR	Shiny Black Bldg Paper DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Former toilet Wall, Center West Rm Ph 1624 Bldg 3	None Detected
GH997-78 MATL. CONDITION: GOOD FAIR POOR	Paper Ply - 1/4" Paper/wd/paper! DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Patch at Former Toilet wall, Center West Rm Ph 1624 Bldg 3	None Detected
GH997-79 MATL. CONDITION: GOOD FAIR POOR	Hardboard Flooring DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	West Side of S. Room Ph 1654 Bldg 3	None Detected
GH997-80 MATL. CONDITION: GOOD FAIR POOR	Yellowish Jute Backed linoleum w/ Gray underlay DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	West Side of S. Room Ph 1654 Bldg 3	None Detected

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FIELD SURVEY DATA (*continued*)

PROJECT NAME: Gov. Hill Telegraph EA-2 FACILITY: Gov. Hill Wireless Sta

JOB NUMBER: 3968-01-02 DATE: 9-20-97 COLLECTED BY: French

SAMPLE ID	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/XREF)	RESULTS
GH997-81	Hardboard Flooring	South Room by Chimney	None Detected
MATL. CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Ph 1708 Bldg 3	
GH997-82	Brown, Jute Backed lined. w/ Gray underlay	South Room by Chimney	None Detected
MATL. CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Ph 1708 Bldg 3	
GH997-83	Gasket at view hole	Rheem Mod 4225-130 EB Ser AD113 F3576 8124	None Detected
MATL. CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Ph 1714 Bldg 3	
GH997-84	Brown, Jute Backed lined. w/ Gray underlay	At door to toilet	None Detected
MATL. CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Ph 1728 Bldg 3	
GH997-85	celotex bd, no joint comp	East Wall of ~~East~~ West Room	None Detected
MATL. CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Ph 1743 Bldg 3	
GH997-86	celotex bd, no joint comp	SE corn of West Rm	None Detected
MATL. CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Ph 1744 Bldg 3	
GH997-87	Gyp Bd - no joint comp	NW wall of South Room	None Detected
MATL. CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Bldg 3	
GH997-88	Tarpaper Roofing w/ grit surf.	S. Side near cut thru to S. addn. of orig Bldg	25% chrysotile
MATL. CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Bldg 3	
GH997-89	FBG w/ Tarry Vapor Barrier	Attic of S. Addn.	None Detected
MATL. CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Bldg 3	
GH997-90	FBG w/ Tarry Vapor Barrier	Attic of Orig Bldg	None Detected
MATL. CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Ph 1810 Bldg 3	
GH997-91	Tarpaper w/ grit surfacing	N. Side of orig bldg near cut thru	20% chrysotile
MATL. CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Bldg 3	
GH997-92	FBG w/ Tarry vapor barrier	Attic of N. Addn	None Detected
MATL. CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Bldg 3	

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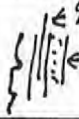
FIELD SURVEY DATA (*continued*)

PROJECT NAME: Gov Hill Telegraph EA-2 | FACILITY: Gov Hill Wireless Sta

JOB NUMBER: 3968-01-02 | DATE: 9-21 | COLLECTED BY: French

SAMPLE ID	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/XREF)	RESULTS
GH997-93 MATL. CONDITION: GOOD FAIR POOR	Cloth & rubber wire insul DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Attic near Hatch Bldg 3	None Detected
GH997-94 MATL. CONDITION: GOOD FAIR POOR	Hard board Floor DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Center NE room at S. door under ply Ph 1224 Bldg 3	None Detected
GH997-95 MATL. CONDITION: GOOD FAIR POOR	Hardboard Floor w/ black mastic DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Center NE room at south door - under #94 Ph 1224 Bldg 3	None Detected
GH997-96 MATL. CONDITION: GOOD FAIR POOR	Black Tar Paper under hardboard DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Center NE Room at North door Ph 1234 Bldg 3	None Detected
GH997-97 MATL. CONDITION: GOOD FAIR POOR	Window Putty, white DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	NE window N. addn Bldg 3	None Detected
GH997-98 MATL. CONDITION: GOOD FAIR POOR	Window Putty, white DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	S window, west side Orig. Bldg Bldg 3	None Detected
GH997-99 MATL. CONDITION: GOOD FAIR POOR	Tar Paper on Ext. Wall DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	 Hole at corner of old to S addn. Bldg 3	None Detected
GH997-100 MATL. CONDITION: GOOD FAIR POOR	Cellulose Board @ Ext. Wall DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Hole at corner of old to S. addn Bldg 3	None Detected
GH997-101 MATL. CONDITION: GOOD FAIR POOR	Cement Fiber Bd. DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	By Bsmt Boiler Ph 1325 Bldg 3	40% Chrys 1% Crocid.
GH997-102 MATL. CONDITION: GOOD FAIR POOR	Aircell Pipe Insul DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	At Wood wall penetration Ph 1328 Bldg 3	90% Chrysotile
GH997-103 MATL. CONDITION: GOOD FAIR POOR	"Mag" Pipe Insul on Fitting DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	At boosted up Tee Ph 1334 Bldg 3	40% Chrys. 20% Crocid.
MATL. CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:		

RJ Lee *Group*, Inc.

530 McCormick Street• San Leandro, CA 94577
(510) 567-0480 • FAX (510) 567-0488

September 26, 1997

Mr. Robert A. French
Environmental Health Sciences - Alaska, Inc.
10928 Eagle River Road, Suite 202
Eagle River, AK 99577-8052

RE: PLM Standard Asbestos Analysis Results for Samples as Shown on Test Report
RJLeeGroup, Inc. Job No.: AOC709250
Client P.O./Job Number: 3968-01-02
Client Job Name/Location: 3968-01-02

Dear Mr. French:

Enclosed are the results from the polarized light microscopy (PLM) asbestos analysis of the above referenced sample(s). Sample(s) were analyzed in accordance with guidelines set forth in the EPA Method for the Determination of Asbestos in Bulk Building Materials, U.S. EPA/600/R-93/116 (7/93 Edition).

Test Report lists each sample identification number, gross sample description, sample location, type(s) and concentration of asbestos, type(s) and concentration of nonasbestos fibers, major components and concentration of nonfibrous material (NFM), sample run date, analyst, sample homogeneity, and a layer breakdown if applicable. All concentrations are given in area percents (visual estimation).

RJ Lee Group, Inc. is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) (NVLAP Participant Number 1208-2) for bulk asbestos fiber analysis (PLM), and by the California Department of Health Services, Environmental Laboratory Accreditation Program (CALELAP) for bulk asbestos analysis. Neither the NVLAP Accreditation of this laboratory nor this report may be used to claim product endorsement by NVLAP or any agency of the United States government.

These results are submitted pursuant to RJ Lee Group's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the sample(s) covered by this report, RJ Lee Group will store the sample(s) for a period of ninety (90) days before discarding. A shipping and handling fee will be assessed for the return of any sample(s).

If you have any questions on this report or if RJ Lee Group, Inc. can be of further assistance, please do not hesitate to call.

Sincerely,

Scott Stotler
Geologist

SS/dd
Enclosure

Test Report-Environmental Health Sciences-AK

Polarized Light Analysis Results

Project AOC709250

Sample Number / Sample Appearance	Client Sample Number	Asbestos: Chrysotile	Amosite	Crocidolite	Anthophyllite	Tremolite	Actinolite	Nonasbestos: Cellulose	Mineral Wool	Fibrous Glass	Synthetic Fibers	Other Fibers	NonFibrous Material	Run Date / Analyst
1646736CPL	GH-997-1	<1 %	-	-	-	-	-	10 %	-	-	-	-	90 %	9/24/97
White gypsum wallboard, white mud, white tape						**NFM:** Qtz, Carb, Opaq, Gyp, Mica, Misc. Part.								SS
Layer Content: Mud: 2% Chrysotile; Other Layers: None Detected														Non Homogeneous
1646737CPL	GH-997-2	3 %	-	-	-	-	-	<1 %	-	-	-	-	97 %	9/24/97
Red tile, grey mastic						**NFM:** Qtz, Carb, Binder, Opaq, Misc. Part.								SS
Layer Content: Tile: 3% Chrysotile; Mastic: None Detected														Non Homogeneous
1646738CPL	GH-997-3	<1 %	-	-	-	-	-	7 %	-	-	-	-	93 %	9/24/97
White gypsum board, white mud, white tape						**NFM:** Qtz, Carb, Opaq, Gyp, Mica, Misc. Part.								SS
Layer Content: Mud: 2% Chrysotile; Other Layers: None Detected														Non Homogeneous
1646739CPL	GH-997-4	40 %	-	-	-	-	-	<1 %	-	-	-	-	60 %	9/24/97
Grey cement fiber board						**NFM:** Qtz, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646740CPL	GH-997-5	-	-	-	-	-	-	3 %	2 %	-	-	-	95 %	9/24/97
White gypsum board, white mud, tan tape						**NFM:** Qtz, Carb, Opaq, Gyp, Mica, Misc. Part.								SS
														Non Homogeneous
1646741CPL	GH-997-6	-	-	-	-	-	-	5 %	-	-	-	-	95 %	9/24/97
White gypsum board						**NFM:** Qtz, Carb, Opaq, Gyp, Misc. Part.								SS
														Homogeneous

Samples received on: Tuesday, September 23, 1997

RECEIVED OCT 6 1997

Authorized Signature _____

Scott Stotler, Geologist

Date Friday, September 26, 1997

RJ Lee Group, Inc.
Bay Area Lab

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Test Report-Environmental Health Sciences-AK

Polarized Light Analysis Results

Project AOC709250

Sample Number / Sample Appearance	Client Sample Number	Asbestos: Chrysotile	Amosite	Crocidolite	Anthophyllite	Tremolite	Actinolite	Nonasbestos: Cellulose	Mineral Wool	Fibrous Glass	Synthetic Fibers	Other Fibers	NonFibrous Material	Run Date / Analyst
1646742CPL	GH-997-7	4 %	-	-	-	-	-	<1 %	-	-	-	-	96 %	9/24/97
Red tile, clear mastic						NFM: Qtz, Carb, Binder, Opaq, Misc. Part.								SS
Layer Content:	Tile: 4% Chrysotile; Mastic: None Detected													Non Homogeneous
1646743CPL	GH-997-8	-	-	-	-	-	-	95 %	-	-	-	-	5 %	9/24/97
Brown paper						NFM: Qtz, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646744CPL	GH-997-9	80 %	5 %	-	-	-	-	10 %	-	-	-	-	5 %	9/24/97
White/grey gasket at furnace						NFM: Qtz, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646745CPL	GH-997-10	50 %	-	-	-	-	-	20 %	-	-	-	-	30 %	9/24/97
Tan wire insulation						NFM: Qtz, Carb, Binder, Opaq, Misc. Part.								SS
														Homogeneous
1646746CPL	GH-997-11	-	-	-	-	-	-	<1 %	-	-	-	-	99+ %	9/24/97
White wire insulation						NFM: Qtz, Carb, Binder, Opaq, Misc. Part.								SS
														Homogeneous
1646747CPL	GH-997-12	-	-	-	-	-	-	20 %	-	-	5 %	-	75 %	9/24/97
Red wire insulation						NFM: Qtz, Carb, Binder, Opaq, Misc. Part.								SS
														Homogeneous

Samples received on: Tuesday, September 23, 1997

Authorized Signature

Scott Stotler, Geologist

Date Friday, September 26, 1997

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Test Report-Environmental Health Sciences-AK

Polarized Light Analysis Results

Project AOC709250

Sample Number / Sample Appearance	Client Sample Number	Asbestos: Chrysotile	Amosite	Crocidolite	Anthophyllite	Tremolite	Actinolite	Cellulose	Nonasbestos: Mineral Wool	Fibrous Glass	Synthetic Fibers	Other Fibers	NonFibrous Material	Run Date / Analyst
1646748CPL	GH-997-13	<1 %	-	-	-	-	-	5 %	-	-	-	-	95 %	9/24/97
White gypsum board, white mud, tan tape						**NFM:** Qtz, Carb, Opaq, Gyp, Mica, Misc. Part.								SS
Layer Content: Mud: 2% Chrysotile; Other Layers: None Detected														Non Homogeneous
1646749CPL	GH-997-14	35 %	-	-	-	-	-	<1 %	-	-	-	-	65 %	9/24/97
Brown linoleum, brown mastic						**NFM:** Qtz, Carb, Binder, Opaq, Misc. Part.								SS
Layer Content: Linoleum: 35% Chrysotile; Mastic: 2% Chrysotile														Non Homogeneous
1646750CPL	GH-997-15	-	-	-	-	-	-	<1 %	-	-	-	-	99+ %	9/24/97
Brown cove base mastic						**NFM:** Qtz, Carb, Binder, Opaq, Mica, Misc. Part.								SS
														Homogeneous
1646751CPL	GH-997-16	-	-	-	-	-	-	30 %	-	-	-	-	70 %	9/24/97
Black tar paper underlayment						**NFM:** Qtz, Tar, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646752CPL	GH-997-17	85 %	-	-	-	-	-	2 %	-	-	-	-	13 %	9/24/97
White/tan insulation						**NFM:** Qtz, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646753CPL	GH-997-18	-	-	-	-	-	-	40 %	-	-	-	-	60 %	9/24/97
Black tar paper underlayment						**NFM:** Qtz, Tar, Carb, Opaq, Misc. Part.								SS
														Homogeneous

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Sample Number / Sample Appearance	Client Sample Number	Asbestos: Chrysotile	Amosite	Crocidolite	Anthophyllite	Tremolite	Actinolite	Cellulose	Nonasbestos: Mineral Wool	Fibrous Glass	Synthetic Fibers	Other Fibers	NonFibrous Material	Run Date / Analyst
1646754CPL White insulation	GH-997-19	95 %	-	-	-	-	-	<1 %	-	-	-	-	5 %	9/24/97 SS Homogeneous
						NFM: Qtz, Carb, Opaq, Misc. Part.								
1646755CPL Grey linoleum, brown mastic	GH-997-20	-	-	-	-	-	-	30 %	-	-	-	-	70 %	9/24/97 SS Non Homogeneous
						NFM: Qtz, Carb, Binder, Opaq, Misc. Part.								
1646756CPL Brown cove base mastic	GH-997-21	-	-	-	-	-	-	<1 %	-	-	-	-	99+ %	9/24/97 SS Non Homogeneous
						NFM: Qtz, Carb, Binder, Opaq, Misc. Part.								
1646757CPL Brown sheet vinyl, brown mastic	GH-997-22	35 %	-	-	-	-	-	<1 %	-	-	-	-	65 %	9/24/97 SS Non Homogeneous
						NFM: Qtz, Carb, Binder, Opaq, Misc. Part.								
Layer Content:	Sheet Vinyl: 35% Chrysotile; Mastic: <1% Chrysotile													
1646758CPL Brown cove base mastic	GH-997-23	-	-	-	-	-	-	<1 %	-	-	-	-	99+ %	9/24/97 SS Non Homogeneous
						NFM: Qtz, Carb, Binder, Opaq, Misc. Part.								
1646759CPL Yellow insulation, brown mastic	GH-997-24	-	-	-	-	-	-	<1 %	85 %	-	-	-	15 %	9/24/97 SS Non Homogeneous
						NFM: Qtz, Carb, Binder, Opaq, Misc. Part.								

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Sample Number / Sample Appearance	Client Sample Number	Asbestos: Chrysotile	Amosite	Crocidolite	Anthophyllite	Tremolite	Actinolite	Cellulose	Nonasbestos: Mineral Wool	Fibrous Glass	Synthetic Fibers	Other Fibers	NonFibrous Material	Run Date / Analyst
1646760CPL	GH-997-25	-	-	-	-	-	-	2 %	80 %	-	-	-	18 %	9/24/97
Pink fiberglass insulation														SS
						NFM: Qtz, Carb, Binder, Opaq, Misc. Part.								Homogeneous
1646761CPL	GH-997-26	-	-	-	-	-	-	95 %	-	-	-	-	5 %	9/24/97
Tan insulation														SS
						NFM: Qtz, Carb, Opaq, Misc. Part.								Homogeneous
1646762CPL	GH-997-27	-	-	-	-	-	-	80 %	-	-	-	-	20 %	9/24/97
Brown ceiling insulation														SS
						NFM: Qtz, Tar, Carb, Opaq, Misc. Part.								Homogeneous
1646763CPL	GH-997-28	-	-	-	-	-	-	98 %	-	-	-	-	2 %	9/24/97
Tan insulation														SS
						NFM: Qtz, Carb, Opaq, Misc. Part.								Homogeneous
1646764CPL	GH-997-29	-	-	-	-	-	-	50 %	-	-	-	-	50 %	9/24/97
Black tar paper														SS
						NFM: Qtz, Tar, Carb, Opaq, Misc. Part.								Homogeneous
1646765CPL	GH-997-30	-	-	-	-	-	-	50 %	-	-	-	-	50 %	9/24/97
Black roofing tar paper														SS
						NFM: Qtz, Tar, Carb, Opaq, Mica, Misc. Part.								Homogeneous

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Sample Number / Sample Appearance	Client Sample Number	Asbestos: Chrysotile	Amosite	Crocidolite	Anthophyllite	Tremolite	Actinolite	Cellulose	Nonasbestos: Mineral Wool	Fibrous Glass	Synthetic Fibers	Other Fibers	NonFibrous Material	Run Date / Analyst
1646766CPL	GH-997-31	-	-	-	-	-	-	90 %	-	-	-	-	10 %	9/24/97
Brown paper duct insulation						NFM: Qtz, Tar, Carb, Opaq, Misc. Part.								SS
-														Homogeneous
1646767CPL	GH-997-32	5 %	-	-	-	-	-	<1 %	-	-	-	-	95 %	9/24/97
Red/white floor tile, black mastic						NFM: Qtz, Tar, Carb, Binder, Opaq, Misc. Part.								SS
Layer Content:	Tile: 5% Chrysotile; Mastic: None Detected													Non Homogeneous
1646768CPL	GH-997-33	-	-	-	-	-	-	30 %	-	-	-	-	70 %	9/24/97
Black roof tar paper						NFM: Qtz, Tar, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646769CPL	GH-997-34	-	-	-	-	-	-	95 %	-	-	-	-	5 %	9/24/97
Tan ceiling insulation						NFM: Qtz, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646770CPL	GH-997-35	-	-	-	-	-	-	95 %	-	-	-	-	5 %	9/24/97
Tan ceiling insulation						NFM: Qtz, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646771CPL	GH-997-36	-	-	-	-	-	-	85 %	-	-	-	-	15 %	9/24/97
White celotex board ceiling						NFM: Qtz, Carb, Binder, Opaq, Misc. Part.								SS
														Homogeneous

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Sample Number / Sample Appearance	Client Sample Number	Asbestos: Chrysotile	Amosite	Crocidolite	Anthophyllite	Tremolite	Actinolite	Cellulose	Nonasbestos: Mineral Wool	Fibrous Glass	Synthetic Fibers	Other Fibers	NonFibrous Material	Run Date / Analyst
1646772CPL	GH-997-37	-	-	-	-	-	-	85 %	-	-	-	-	15 %	9/24/97
White celotex board ceiling						**NFM:** Qtz, Carb, Binder, Opaq, Misc. Part.								SS
-														Homogeneous
1646773CPL	GH-997-38	<1 %	-	-	-	-	-	<1 %	-	-	-	-	99+ %	9/24/97
Grey window caulking						**NFM:** Qtz, Carb, Binder, Opaq, Misc. Part.								SS
														Homogeneous
1646774CPL	GH-997-39	10 %	-	-	-	-	-	<1 %	-	-	-	-	90 %	9/24/97
Black/grey roof patching						**NFM:** Qtz, Tar, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646775CPL	GH-997-40	1 %	-	-	-	-	-	20 %	-	-	-	-	79 %	9/26/97
Black roofing, sliver paint						**NFM:** Qtz, Tar, Carb, Opaq, Misc. Part.								SS
Layer Content:	Silver Paint: 10% Chrysotile; Black Roofing: None Detected													Non Homogeneous
1646776CPL	GH-997-41	15 %	-	-	-	-	-	<1 %	-	-	-	-	85 %	9/26/97
Black/grey roof patching						**NFM:** Qtz, Tar, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646777CPL	GH-997-42	3 %	-	-	-	-	-	<1 %	-	-	-	-	97 %	9/26/97
Brown floor tile, black mastic						**NFM:** Qtz, Tar, Carb, Binder, Opaq, Misc. Part.								SS
Layer Content:	Tile: 3% Chrysotile; Mastic: None Detected													Non Homogeneous

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Sample Number / Sample Appearance	Client Sample Number	Asbestos: Chrysotile	Amosite	Crocidolite	Anthophyllite	Tremolite	Actinolite	Cellulose	Nonasbestos: Mineral Wool	Fibrous Glass	Synthetic Fibers	Other Fibers	NonFibrous Material	Run Date / Analyst
1646778CPL	GH-997-43	<1 %	-	-	-	-	-	5 %	-	-	-	-	95 %	9/26/97
White gypsum, white mud, white tape						NFM: Qtz, Carb, Opaq, Gyp, Mica, Misc. Part.								SS
Layer Content:	Mud: 3% Chrysotile; Other Layers: None Detected													Non Homogeneous
1646779CPL	GH-997-44	3 %	-	-	-	-	-	<1 %	-	-	-	-	97 %	9/26/97
Brown floor tile, black mastic						NFM: Qtz, Tar, Carb, Binder, Opaq, Misc. Part.								SS
Layer Content:	Tile: 3% Chrysotile; Mastic: None Detected													Non Homogeneous
1646780CPL	GH-997-45	<1 %	-	-	-	-	-	5 %	-	-	-	-	95 %	9/26/97
White gysum, white mud, white tape						NFM: Qtz, Carb, Opaq, Gyp, Mica, Misc. Part.								SS
Layer Content:	Mud: 3% Chrysotile; Other Layers: None Detected													Non Homogeneous
1646781CPL	GH-997-46	40 %	-	-	-	-	-	<1 %	-	-	-	-	60 %	9/26/97
Grey cement fiber board						NFM: Qtz, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646782CPL	GH-997-47	1 %	-	-	-	-	-	<1 %	-	-	-	-	99 %	9/26/97
Grey window caulking						NFM: Qtz, Carb, Binder, Opaq, Misc. Part.								SS
														Homogeneous
1646783CPL	GH-997-48	45 %	-	-	-	-	-	<1 %	-	-	-	-	55 %	9/26/97
Grey cement fiber board						NFM: Qtz, Carb, Opaq, Misc. Part.								SS
														Homogeneous

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1646784CPL	GH-997-49	90 %	-	-	-	-	-	8 %	-	-	-	-	2 %	9/26/97
White rope gasket						NFM: Qtz, Carb, Opaq, Misc. Part.								SS
-														Homogeneous
1646785CPL	GH-997-50	<1 %	-	-	-	-	-	5 %	-	-	-	-	95 %	9/26/97
White gypsum, white mud, white tape						NFM: Qtz, Carb, Opaq, Gyp, Mica, Misc. Part.								SS
Layer Content:	Mud: 3% Chrysotile; Other Layers: None Detected													Non Homogeneous
1646786CPL	GH-997-51	80 %	-	-	-	-	-	5 %	-	-	-	-	15 %	9/26/97
White furnace gasket						NFM: Qtz, Carb, Opaq, Gyp, Misc. Part.								SS
														Homogeneous
1646787CPL	GH-997-52	-	-	-	-	-	-	20 %	-	-	-	-	80 %	9/26/97
Black tar paper						NFM: Qtz, Tar, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646788CPL	GH-997-53	-	-	-	-	-	-	40 %	-	-	-	-	60 %	9/26/97
Grey linoleum (tar paper)						NFM: Qtz, Tar, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646789CPL	GH-997-54	-	-	-	-	-	-	20 %	-	-	-	-	80 %	9/26/97
Black tar paper						NFM: Qtz, Tar, Carb, Opaq, Misc. Part.								SS
														Homogeneous

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Sample Number / Sample Appearance	Client Sample Number	Asbestos: Chrysotile	Amosite	Crocidolite	Anthophyllite	Tremolite	Actinolite	Nonasbestos: Cellulose	Mineral Wool	Fibrous Glass	Synthetic Fibers	Other Fibers	NonFibrous Material	Run Date / Analyst
1646790CPL	GH-997-55	-	-	-	-	-	-	30 %	-	-	-	-	70 %	9/26/97
Grey linoleum, black mastic						**NFM:** Qtz, Tar, Carb, Opaq, Misc. Part.								SS
-														Non Homogeneous
1646791CPL	GH-997-56	3 %	-	-	-	-	-	<1 %	-	-	-	-	97 %	9/26/97
Brown floor tile, brown mastic						**NFM:** Qtz, Carb, Binder, Opaq, Misc. Part.								SS
Layer Content:	Tile: 3% Chrysotile; Mastic: None Detected													Non Homogeneous
1646792CPL	GH-997-57	-	-	-	-	-	-	<1 %	99 %	-	-	-	1 %	9/26/97
Grey wool clg insulation						**NFM:** Qtz, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646793CPL	GH-997-58	<1 %	-	-	-	-	-	20 %	-	-	-	-	80 %	9/26/97
Black roofing, silver coating						**NFM:** Qtz, Tar, Carb, Binder, Opaq, Misc. Part.								SS
Layer Content:	Silver Coating: 10% Chrysotile; Roofing: None Detected													Non Homogeneous
1646794CPL	GH-997-59	-	-	-	-	-	-	<1 %	99 %	-	-	-	1 %	9/26/97
Grey wool clg insulation						**NFM:** Qtz, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646795CPL	GH-997-60	-	-	-	-	-	-	<1 %	99 %	-	-	-	1 %	9/26/97
Grey wool clg insulation						**NFM:** Qtz, Carb, Opaq, Misc. Part.								SS
														Homogeneous

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1646796CPL	GH-997-61	-	-	-	-	-	-	30 %	-	-	-	-	70 %	9/26/97
Black tar paper siding, white coating						**NFM:** Qtz, Tar, Carb, Binder, Opaq, Misc. Part.								SS
-														Non Homogeneous
1646797CPL	GH-997-62	95 %	-	-	-	-	-	<1 %	<1 %	-	-	-	5 %	9/26/97
White paper						**NFM:** Qtz, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646798CPL	GH-997-63	95 %	-	-	-	-	-	<1 %	-	-	-	-	5 %	9/26/97
White paper						**NFM:** Qtz, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646799CPL	GH-997-64	-	-	-	-	-	-	99 %	-	-	-	-	1 %	9/26/97
White cellulose board						**NFM:** Qtz, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646800CPL	GH-997-65	-	-	-	-	-	-	30 %	-	-	-	-	70 %	9/26/97
Grey linoleum (mastic not submitted)						**NFM:** Qtz, Carb, Binder, Opaq, Misc. Part.								SS
														Homogeneous
1646801CPL	GH-997-66	<1 %	-	-	-	-	-	90 %	-	-	-	-	10 %	9/26/97
White joint compound, cellulose bd						**NFM:** Qtz, Carb, Opaq, Mica, Misc. Part.								SS
Layer Content:	Joint Compound: 2% Chrysotile; Other Layer: None Detected													Non Homogeneous

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1646802CPL	GH-997-67	<1 %	-	-	-	-	-	5 %	-	-	-	-	95 %	9/26/97
White gypsum wallboard, white joint compound						**NFM:** Qtz, Carb, Opaq, Gyp, Mica, Misc. Part.								SS
Layer Content: Joint Compound: 2% Chrysotile; Other Layer: None Detected														Non Homogeneous
1646803CPL	GH-997-68	-	-	-	-	-	-	30 %	-	-	-	-	70 %	9/26/97
Grey linoleum, black mastic						**NFM:** Qtz, Carb, Binder, Opaq, Misc. Part.								SS
														Non Homogeneous
1646804CPL	GH-997-69	-	-	-	-	-	-	99 %	-	-	-	-	1 %	9/26/97
Grey paper						**NFM:** Qtz, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646805CPL	GH-997-70	-	-	-	-	-	-	40 %	-	-	-	-	60 %	9/26/97
Black paper						**NFM:** Qtz, Tar, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646806CPL	GH-997-71	-	-	-	-	-	-	95 %	-	-	-	-	5 %	9/26/97
Brown paper						**NFM:** Qtz, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646807CPL	GH-997-72	-	-	-	-	-	-	40 %	-	-	-	-	60 %	9/26/97
Red linoleum, black tar paper						**NFM:** Qtz, Tar, Carb, Binder, Opaq, Misc. Part.								SS
														Non Homogeneous

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1646808CPL Black tar paper	GH-997-73	-	-	-	-	-	-	60 %	-	-	-	-	40 %	9/26/97 SS Homogeneous
						NFM: Qtz, Tar, Carb, Opaq, Misc. Part.								
1646809CPL Brown linoleum, white paper (mastic not submitted)	GH-997-74	-	-	-	-	-	-	40 %	-	-	-	-	60 %	9/26/97 SS Non Homogeneous
						NFM: Qtz, Carb, Binder, Opaq, Misc. Part.								
1646810CPL Black paper, horse hair	GH-997-75	-	-	-	-	-	-	60 %	-	-	-	-	40 %	9/26/97 SS Homogeneous
						NFM: Qtz, Tar, Carb, Opaq, Misc. Part.								
1646811CPL Red linoleum, black mastic	GH-997-76	-	-	-	-	-	-	30 %	-	-	-	-	70 %	9/26/97 SS Non Homogeneous
						NFM: Qtz, Tar, Carb, Opaq, Misc. Part.								
1646812CPL Black paper	GH-997-77	-	-	-	-	-	-	40 %	-	-	-	-	60 %	9/26/97 SS Homogeneous
						NFM: Qtz, Tar, Carb, Opaq, Misc. Part.								
1646813CPL Green paper, brown wood, brown paper	GH-997-78	-	-	-	-	-	-	99 %	-	-	-	-	1 %	9/26/97 SS Non Homogeneous
						NFM: Qtz, Carb, Opaq, Misc. Part.								

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1646808CPL	GH-997-73	-	-	-	-	-	-	60 %	-	-	-	-	40 %	9/26/97 SS
Black tar paper								NFM: Qtz, Tar, Carb, Opaq, Misc. Part.						Homogeneous
1646809CPL	GH-997-74	-	-	-	-	-	-	40 %	-	-	-	-	60 %	9/26/97 SS
Brown linoleum, white paper (mastic not submitted)								NFM: Qtz, Carb, Binder, Opaq, Misc. Part.						Non Homogeneous
1646810CPL	GH-997-75	-	-	-	-	-	-	60 %	-	-	-	-	40 %	9/26/97 SS
Black paper, horse hair								NFM: Qtz, Tar, Carb, Opaq, Misc. Part.						Homogeneous
1646811CPL	GH-997-76	-	-	-	-	-	-	30 %	-	-	-	-	70 %	9/26/97 SS
Red linoleum, black mastic								NFM: Qtz, Tar, Carb, Opaq, Misc. Part.						Non Homogeneous
1646812CPL	GH-997-77	-	-	-	-	-	-	40 %	-	-	-	-	60 %	9/26/97 SS
Black paper								NFM: Qtz, Tar, Carb, Opaq, Misc. Part.						Homogeneous
1646813CPL	GH-997-78	-	-	-	-	-	-	99 %	-	-	-	-	1 %	9/26/97 SS
Green paper, brown wood, brown paper								NFM: Qtz, Carb, Opaq, Misc. Part.						Non Homogeneous

Samples received on: Tuesday, September 23, 1997

Authorized Signature

Scott Stetler, Geologist

Date Friday, September 26, 1997

RJ Lee Group, Inc.
Bay Area Lab

530 McCormick Street
San Leandro, CA 94577

Phone (510) 567-0480
Fax (510) 567-0488

Test Report-Environmental Health Sciences-AK

Polarized Light Analysis Results

Project AOC709250

Sample Number / Sample Appearance	Client Sample Number	Asbestos: Chrysotile	Amosite	Crocidolite	Anthophyllite	Tremolite	Actinolite	Cellulose	Nonasbestos: Mineral Wool	Fibrous Glass	Synthetic Fibers	Other Fibers	NonFibrous Material	Run Date / Analyst
1646814CPL	GH-997-79	-	-	-	-	-	-	95 %	-	-	-	-	5 %	9/26/97
Brown flooring						NFM: Qtz, Carb, Binder, Opaq, Misc. Part.								SS
														Homogeneous
1646815CPL	GH-997-80	-	-	-	-	-	-	40 %	<1 %	-	-	-	60 %	9/26/97
Yellow linoleum, brown mastic, grey underlay-ment						NFM: Qtz, Carb, Binder, Opaq, Misc. Part.								SS
														Non Homogeneous
1646816CPL	GH-997-81	-	-	-	-	-	-	95 %	-	-	-	-	5 %	9/26/97
Brown hardwood flooring						NFM: Qtz, Carb, Binder, Opaq, Misc. Part.								SS
														Homogeneous
1646817CPL	GH-997-82	-	-	-	-	-	-	40 %	-	-	-	-	60 %	9/26/97
Brown linoleum, grey underlay-ment (mastic not submitted)						NFM: Qtz, Carb, Binder, Opaq, Misc. Part.								SS
														Non Homogeneous
1646818CPL	GH-997-83	-	-	-	-	-	-	<1 %	90 %	-	-	-	10 %	9/26/97
Brown gasket						NFM: Qtz, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646819CPL	GH-997-84	-	-	-	-	-	-	40 %	-	-	-	-	60 %	9/26/97
Brown linoleum, brown mastic, grey underlay-ment						NFM: Qtz, Carb, Binder, Opaq, Misc. Part.								SS
														Homogeneous

Samples received on: Tuesday, September 23, 1997

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Polarized Light Analysis Results

Project AOC709250

Sample Number / Sample Appearance	Client Sample Number	Asbestos: Chrysotile	Amosite	Crocidolite	Anthophyllite	Tremolite	Actinolite	Cellulose	Nonasbestos: Mineral Wool	Fibrous Glass	Synthetic Fibers	Other Fibers	NonFibrous Material	Run Date / Analyst
1646820CPL	GH-997-85	-	-	-	-	-	-	95 %	-	-	-	-	5 %	9/26/97
Green/brown celotex bd (no joint compound)						**NFM:** Qtz, Carb, Binder, Opaq, Misc. Part.								SS
														Homogeneous
1646821CPL	GH-997-86	-	-	-	-	-	-	95 %	-	-	-	-	5 %	9/26/97
Green/brown celotex bd (no joint compound)						**NFM:** Qtz, Carb, Binder, Opaq, Misc. Part.								SS
														Homogeneous
1646822CPL	GH-997-87	-	-	-	-	-	-	5 %	-	-	-	-	95 %	9/26/97
White gypsum bd (no joint compound						**NFM:** Qtz, Carb, Opaq, Gyp, Mica, Misc. Part.								SS
														Homogeneous
1646823CPL	GH-997-88	25 %	-	-	-	-	-	20 %	-	-	-	-	55 %	9/26/97
Black tar roofing, grit surfacing						**NFM:** Qtz, Tar, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646824CPL	GH-997-89	-	-	-	-	-	-	30 %	20 %	-	-	-	50 %	9/26/97
Yellow fiberglass, black vapor barrier						**NFM:** Qtz, Tar, Carb, Binder, Opaq, Misc. Part.								SS
														Non Homogeneous
1646825CPL	GH-997-90	-	-	-	-	-	-	10 %	70 %	-	-	-	20 %	9/26/97
Yellow fiberglass, black vapor barrier						**NFM:** Qtz, Tar, Carb, Binder, Opaq, Misc. Part.								SS
														Non Homogeneous

Samples received on: Tuesday, September 23, 1997

Authorized Signature _____

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Test Report-Environmental Health Sciences-AK

Polarized Light Analysis Results

Project AOC709250

Sample Number / Sample Appearance	Client Sample Number	Asbestos: Chrysotile	Amosite	Crocidolite	Anthophyllite	Tremolite	Actinolite	Cellulose	Nonasbestos: Mineral Wool	Fibrous Glass	Synthetic Fibers	Other Fibers	NonFibrous Material	Run Date / Analyst
1646826CPL	GH-997-91	20 %	-	-	-	-	-	20 %	-	-	-	-	60 %	9/26/97
Black tar paper, grit surfacing						NFM: Qtz, Tar, Carb, Opaq, Misc. Part.								SS
														Homogeneous
1646827CPL	GH-997-92	-	-	-	-	-	-	20 %	50 %	-	-	-	30 %	9/26/97
Yellow fiberglass, black vapor barrier						NFM: Qtz, Tar, Carb, Binder, Opaq, Misc. Part.								SS
														Non Homogeneous
1646828CPL	GH-997-93	-	-	-	-	-	-	5 %	<1 %	-	-	-	95 %	9/26/97
Black cloth, white insulation						NFM: Qtz, Tar, Carb, Binder, Opaq, Misc. Part.								SS
														Non Homogeneous
1646829CPL	GH-997-94	-	-	-	-	-	-	95 %	-	-	-	-	5 %	9/26/97
Brown hardwood floor						NFM: Qtz, Carb, Binder, Opaq, Misc. Part.								SS
														Homogeneous
1646830CPL	GH-997-95	-	-	-	-	-	-	94 %	-	-	-	-	6 %	9/26/97
Brown hardwood floor, black mastic						NFM: Qtz, Tar, Carb, Binder, Opaq, Misc. Part.								SS
														Non Homogeneous
1646831CPL	GH-997-96	-	-	-	-	-	-	60 %	-	-	-	-	40 %	9/26/97
Black tar paper						NFM: Qtz, Tar, Carb, Opaq, Misc. Part.								SS
														Homogeneous

Samples received on: Tuesday, September 23, 1997

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Test Report-Environmental Health Sciences-AK

Polarized Light Analysis Results

Project AOC709250

Sample Number / Sample Appearance	Client Sample Number	Asbestos: Chrysotile	Amosite	Crocidolite	Anthophyllite	Tremolite	Actinolite	Cellulose	Nonasbestos: Mineral Wool	Fibrous Glass	Synthetic Fibers	Other Fibers	NonFibrous Material	Run Date / Analyst
1646832CPL White window putty	GH-997-97	-	-	-	-	-	-	<1 %	-	-	-	-	99+ %	9/26/97 SS
						NFM: Qtz, Carb, Binder, Opaq, Misc. Part.								Homogeneous
1646833CPL White window putty	GH-997-98	-	-	-	-	-	-	<1 %	-	-	-	-	99+ %	9/26/97 SS
						NFM: Qtz, Carb, Binder, Opaq, Misc. Part.								Homogeneous
1646834CPL Black tar paper	GH-997-99	-	-	-	-	-	-	45 %	-	-	-	-	55 %	9/26/97 SS
						NFM: Qtz, Tar, Carb, Opaq, Misc. Part.								Homogeneous
1646835CPL Brown cellulose board	GH-997-100	-	-	-	-	-	-	99 %	-	-	-	-	1 %	9/26/97 SS
						NFM: Qtz, Carb, Opaq, Misc. Part.								Homogeneous
1646836CPL Grey cement fiberboard	GH-997-101	40 %	-	<1 %	-	-	-	<1 %	-	-	-	-	60 %	9/26/97 SS
						NFM: Qtz, Carb, Binder, Opaq, Misc. Part.								Homogeneous
1646837CPL White pipe insulation	GH-997-102	90 %	-	-	-	-	-	1 %	-	-	-	-	9 %	9/26/97 SS
						NFM: Qtz, Carb, Opaq, Misc. Part.								Homogeneous

Samples received on: Tuesday, September 23, 1997

Authorized Signature _____

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Date Friday, September 26, 1997

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Test Report-Environmental Health Sciences-AK

Polarized Light Analysis Results

Project AOC709250

Sample Number / Sample Appearance	Client Sample Number	Asbestos: Chrysotile	Amosite	Crocidolite	Anthophyllite	Tremolite	Actinolite	Cellulose	Nonasbestos: Mineral Wool	Fibrous Glass	Synthetic Fibers	Other Fibers	NonFibrous Material	Run Date / Analyst
1646838CPL	GH-997-103	40 %	-	20 %	-	-	-	-	-	-	-	-	40 %	9/26/97
White pipe insulation						**NFM:** Qtz, Carb, Opaq, Gyp, Misc. Part.								SS
														Homogeneous

Samples received on: Tuesday, September 23, 1997

Authorized Signature _____

Scott Stotler, Geologist

Date Friday, September 26, 1997

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Bay Area Lab

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Quality Control

EHS ALASKA INCORPORATED

Environmental Health Sciences-Alaska, Inc.
10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052
(907) 694-1383 • (907) 694-1382 fax

CHAIN OF CUSTODY RECORD/FIELD SURVEY DATA

Page 1 of 1

FIELD COLLECTION DATE: 9-19-97	JOB #: 3968-01-02	MATERIAL TYPE: (Circle) (ASBESTOS) LEAD	TOTAL QUANTITIES: 7
PROJECT NAME: Gov. Hill Telegraph EA2	BULK ANALYSIS REQUESTED: (Circle) (PLM) / PLM DUST / TEM BULK / LEAD TCLP / LEAD PPM		
FACILITY: Gov Hill Wireless Sta	DISPOSAL: Routine	TURNAROUND: 3 days	

SPECIAL INSTRUCTIONS: FAX W/COC

Robert French COLLECTED BY (signature)	Sclas Env. Serv. SELECTED LABORATORY	COMMENTS:
Robert French PRINTED NAME	TONY OBRIEN FAX SAMPLES ACCEPTED BY	prop #07
1564 88IHP-0028 CERT# AHERA#	9/24/97 8:00A DATE/TIME	
Courier SHIPPING METHOD	Tony Obrien ANALYSTS SIGNATURE	
Chad E Yates COURIER (signature)	9/24/97 9:02A DATE	B17-0241
9-23-97 6:30 pm DATE/TIME		

SAMPLE ID	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/XREF)	RESULTS % Asbestos
1. 1146 GH997-Q1 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Red Brick Pattern 'Self-stic' 12"x12" tile	Bldg 1 South Office Split from Sample 2	5-10 % Chrysotile
2. 1147 GH997-Q2 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Bldg Paper	Exterior - under Bldg 1 Siding SE corner Split from Sample 8	None Detected
3. 1148 GH997-Q3 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Brown in Mixed Debris	Above ceiling of kitchen Split from Sample 28 Bldg 1	None Detected
4. 1149 GH997-Q4 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Brown / Black / Redish Tar Linoleum	N of Furnace Split from Sample 55 Bldg 2	None Detected
5. 1150 GH997-Q5 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Redish Jute Backed linoleum w/ black tarpaper underlay	Center West Room @ Door to NW Split from Sample 72 Bldg 3	None Detected
6. 1151 GH997-Q6 MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Yellowish Jute backed linoleum w/ gray underlay	West Side of S. Room Split from Sample 10 Bldg 3	None Detected
7. ~~GH997-Q7~~ MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:			
8. MATL. CONDITION: GOOD FAIR POOR DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:			

RETURN A SIGNED COPY OF THIS FORM WITH THE FINAL REPORT TO EHS-ALASKA

EHS-9/95

SOLAR ENVIRONMENTAL SERVICES, INC.

1131 E. 76TH Ave., Ste. 102, Anchorage, Ak 99518
Phone (907) 349-7705/ Fax (907) 349-7944

NVLAP
Accredited Laboratory
U.S. Dept. of Commerce-NIST

CERTIFICATE OF ANALYSIS

CLIENT: Environmental Health Sciences-Ak
ATTN: Tom Swearingen, PhD
10298 Eagler River Road, Ste. 202
Eagle River, Ak 99577

PAGE: 1 of 2

CLIENT ORDER#: 191005
PROJECT NAME: Govt. Hill Telegraph EA2
PROJECT NO: 3968-01-02
REPORT NO: B97-0241
REPORT DATE: Sept. 25, 1997
COLLECTED BY: Robert French-Client
DATE SAMPLED: Sept. 19, 1997
DATE RECEIVED: Sept. 24, 1997
DATE ANALYZED: Sept. 24, 1997
ANALYZED BY: Tony Odsigue-SES

BULK ASBESTOS ANALYSIS REPORT

POLARIZED LIGHT MICROSCOPY (PLM) EPA METHOD 600R93116

LAB.#	CLIENT#	LOCATION/ DESCRIPTION/ (COLOR)	%ASBESTOS PRESENT	%OTHER FIBROUS MATERIALS	%NONFIBROUS MATERIALS
97531BO1146	GH997-Q1	Red-brick Pattern 12"x12" Bldg. 1 South Office (Red)	5-10%Chrysotile	1-3% Fibrous Glass	82-91%
97531BO1147	GH997-Q2	Bldg. Paper Exterior-under Bldg. siding SE Corner (Lt. brown)	None Detected	90-92% Cellulose 3-5% Synthetic	3-7%
97531BO1148	GH997-Q3	Brown in mixed Insulation Above Ceiling of kitchen , bldg 1 (Lt. Cream)	None Detected	90-95% Cellulose	5-10%
97531BO1149	GH997-Q4	Linoleum layer Brown/Black Reddish Tar Linoleum N. of Furnace Linoleum(Red/Black)	None Detected	55-60%Cellulose	40-45%

REVIEWED AND APPROVED BY: Gracita O. Torrijos, Chemist-I.H.

Date: 9/25/97

FORM# SES 1008 REVISED 5/22/96

SOLAR ENVIRONMENTAL SERVICES, INC.

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CERTIFICATE OF ANALYSIS

CLIENT:	Environmental Health Sciences-Ak	**CLIENT ORDER#:**	191005
ATTN:	Tom Swearingen, PhD	**PROJECT NAME:**	Govt. Hill Telegraph EA2
	10298 Eagler River Road, Ste. 202	**PROJECT NO:**	3968-01-02
	Eagle River, Ak 99577	**REPORT NO:**	B97-0241
		REPORT DATE:	Sept. 25, 1997
		COLLECTED BY:	Robert French-Client
		DATE SAMPLED:	Sept. 19, 1997
PAGE:	2 of 2	**DATE RECEIVED:**	Sept. 24, 1997
		DATE ANALYZED:	Sept. 24, 1997
		ANALYZED BY:	Tony Odsigue-SES

BULK ASBESTOS ANALYSIS REPORT

POLARIZED LIGHT MICROSCOPY (PLM) EPA METHOD 600R93116

LAB.#	CLIENT#	LOCATION/ DESCRIPTION/ (COLOR)	%ASBESTOS PRESENT	%OTHER FIBROUS MATERIALS	%NONFIBROUS MATERIALS
		Mastic layer Brown/Black Reddish Tar-bldg. 2 Linoleum N. of Furnace (Red/Black)	None Detected	3-5% Cellulose	95-97%
97531BO1150	GH997-Q5	Reddish linoleum with black tar paper Center W. Rm door to NW Bldg 3 (Red/Brown)	None Detected	35-40% Cellulose	60-65%
97531BO1151	GH997-Q6	Yellowish Linoleum with gray underlay West side of S. Rm Bldg. 3 (Brown/Yellow/Gray)	None Detected	65-70% Cellulose	30-35%
97531BO1147QC	GH997-02QC	QUALITY CONTROL	None Detected	90-92% Cellulose 3-5% Synthetic	3-7%

REVIEWED AND APPROVED BY: _____ Date: 9/25/97

Gracita O. Torrijos, Chemist-I.H.

APPENDIX B

Lead Field Data Sheets
and
Laboratory Reports

ACC 709079

lead

EHS ALASKA INCORPORATED
Environmental Health Sciences-Alaska, Inc.
10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052
(907) 694-1383 • (907) 694-1382 fax

CHAIN OF CUSTODY RECORD/FIELD SURVEY DATA

FIELD COLLECTION DATE: 9-19-97	JOB #: 3968-01-02	MATERIAL TYPE: (Circle) ASBESTOS (LEAD)	TOTAL QUANTITIES: 31
PROJECT NAME: Gov. Hill Telegraph EA2	BULK ANALYSIS REQUESTED: (Circle) PLM / PLM DUST / TEM BULK / LEAD TCLP (LEAD PPM)		
FACILITY: Gov. Hill Wireless Sta	DISPOSAL: Routine	TURNAROUND: 3 days	

SPECIAL INSTRUCTIONS:

Robert French COLLECTED BY (signature)	R.J. Lee Group Monroeville SELECTED LABORATORY	COMMENTS:
Robert French PRINTED NAME	[illegible] SAMPLES ACCEPTED BY	
1664 - 88-IMP-0028 CERT# AHERA#	9/23/97 9:30 DATE/TIME	
1223EV SHIPPING METHOD	ANALYST'S SIGNATURE	
FRUCFC4414 COURIER (signature)	DATE	
DATE/TIME 9/22		

SAMPLE ID	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/XREF)	RESULTS
1. GH997 - L1 MATL. CONDITION: GOOD FAIR POOR	Green Paint on Gyp DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	SE corner of South office Bldg 1	0.0603 % lead
2. GH997- L2 MATL. CONDITION: GOOD FAIR POOR	Red paint, clear varnish on wood DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	at Floor entry to South office, Bldg 1	0.178 % lead
3. GH997- L3 MATL. CONDITION: GOOD FAIR POOR	Gray & white paint on wood DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	South Room - at Rack supports Bldg 1	0.0718 % lead
4. GH997 - L4 MATL. CONDITION: GOOD FAIR POOR	White Paint on Gyp DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	North Room walls NW corner Bldg 1	< 0.013 % lead
5. GH997- L5 MATL. CONDITION: GOOD FAIR POOR	White Paint on Gyp DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	South Room ceiling, NW corner Bldg 1	0.00514 % lead
6. GH997- L6 MATL. CONDITION: GOOD FAIR POOR	Green Paint on Wood DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Behind door in Toilet, West Wing Bldg 1	< 0.012 % lead
7. GH997- L7 MATL. CONDITION: GOOD FAIR POOR	Green Paint on Gyp DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Behind door in Toilet, West Wing Bldg 1	< 0.0055 % lead
8. GH997- L8 MATL. CONDITION: GOOD FAIR POOR	Exterior White Paint on Wood DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	SW corner of West wing Bldg 1	11.6 % lead

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Lead

EHS ALASKA INCORPORATED

Environmental Health Sciences-Alaska, Inc.
10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052
(907) 694-1383 • (907) 694-1382 fax

FIELD SURVEY DATA (*continued*)

PROJECT NAME: Gov Hill Telegraph EA2 FACILITY: Gov. Hill Wireless Sta

JOB NUMBER: 3968-01-02 DATE: 9-19-97 COLLECTED BY: French

SAMPLE ID	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/XREF)	RESULTS
GH997-L9 MATL. CONDITION: GOOD FAIR POOR	Exterior Green trim paint on Wood DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	NW corner of West wing / Bldg 1	13.8 % lead
GH997-L10 MATL. CONDITION: GOOD FAIR POOR	White Paint on Duct DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Stove Furnace Bldg 1	7.48 % lead
GH997-L11 MATL. CONDITION: GOOD FAIR POOR	white + Silver paint on Duct DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	at branch to South wing 145 Bldg 1	0.6459 % lead
GH997-L12 MATL. CONDITION: GOOD FAIR POOR	white + silver paint w/ silvery metal DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	at joints of Branch to south wing Bldg 1	27.7 % lead
GH997-L13 MATL. CONDITION: GOOD FAIR POOR	Greenish paint on Gyp DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Center of N. Wall Bldg 2	0.0373 % lead
GH997-L14 MATL. CONDITION: GOOD FAIR POOR	Greenish Paint on Wood Window trim DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	NE window Frame Bldg 2	0.206 % lead
GH997-L15 MATL. CONDITION: GOOD FAIR POOR	Gray + Blue Floor Paint on tar linoleum DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Furnace Rm Floor Bldg 2	0.670 % lead
GH997-L16 MATL. CONDITION: GOOD FAIR POOR	White ceiling Paint DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	At Paper Joint Dupe Center Bldg 2	0.0469 % lead
GH997-L17 MATL. CONDITION: GOOD FAIR POOR	off green paint on ply DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	EH central Rm, S wall Bldg 3	2.01 % lead
GH997-L18 MATL. CONDITION: GOOD FAIR POOR	off white dg paint on ply DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	EH central Rm, Center Bldg 3	0.0714 % lead
GH997-L19 MATL. CONDITION: GOOD FAIR POOR	off green paint on ~~Ply~~ Celotex bd DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	NE Room, East Wall Bldg 3	1.36 % lead
GH997-L20 MATL. CONDITION: GOOD FAIR POOR	off green paint on wood DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	NE Rm, at window trim Bldg 3	3.38 % lead

Lead

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FIELD SURVEY DATA (*continued*)

PROJECT NAME: Gov Hill Telegraph EA-2 FACILITY: Gov Hill Wireless Stn

JOB NUMBER: 3968-01-02 DATE: 9-20-97 COLLECTED BY: French

SAMPLE ID	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/XREF)	RESULTS
GH997-L21 MATL. CONDITION: GOOD FAIR POOR	White paint on ~~cellulose~~ Poly. DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	center of NW room Bldg 3	0.0999% lead
GH997-L22 MATL. CONDITION: GOOD FAIR POOR	off green on wood DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Center West Room on ~~Door~~ Trim Base Bldg 3	0.523% lead
GH997-L23 MATL. CONDITION: GOOD FAIR POOR	off green on wood DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	-Former ext trim? 1x2 T+G Bldg 3	0.651% lead
GH997-L24 MATL. CONDITION: GOOD FAIR POOR	Black + Lt green on wood DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Center west Room at base trim Bldg 3	0.464% lead
GH997-L25 MATL. CONDITION: GOOD FAIR POOR	off green + white on cellulose Bd DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Center West Room Bldg 3	0.495% lead
GH997-L26 MATL. CONDITION: GOOD FAIR POOR	Cream + Brown Paint on Wood DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	3/4" vert. groove - former NW corner of Center west Rm Bldg 3	0.287% lead
GH997-L27 MATL. CONDITION: GOOD FAIR POOR	White exterior Paint on Wood DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Near South window west side - orig. Bldg 3	9.56% lead
GH997-L28 MATL. CONDITION: GOOD FAIR POOR	Green Ext. Trim Paint. on Wood DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Sill of N. window, west side, orig. bldg. Bldg 3	13.9% lead
GH997-L29 MATL. CONDITION: GOOD FAIR POOR	White + green Flaky Paint DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Conc. N. Wall Bsmt Bldg 3	4.29% lead
GH997-L30 MATL. CONDITION: GOOD FAIR POOR	Gray Paint on Wood DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	Ceiling of West Bsmt Bldg 3	3.68% lead
GH997-L31 MATL. CONDITION: GOOD FAIR POOR	White paint on Wood DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	center wall of Bsmt Bldg 3	5.16% lead
MATL. CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:		

RJ Lee *Group* , Inc.

350 Hochberg Road Monroeville, PA 15146
Phone (412) 325-1776 Fax (412) 733-1799

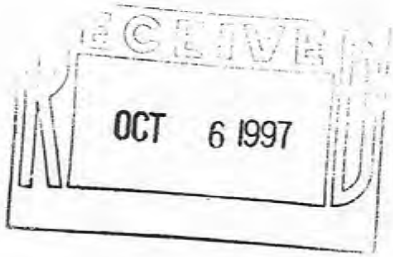
LABORATORY REPORT

Environmental Health Sciences - Alaska, Inc.
10928 Eagle River Road, Suite 202
Eagle River, AK. 99577-8052
Attention: Robert French
(907) 694-1383 FAX (907) 694-1382

Analysis: Lead in Paint - FLAA
Method: EPA SW846-7420

RJ Lee Group Job No.: ACC709079
Samples Received: 23-Sep-97
Report Date: 26-Sep-97
Client Project: 3968-01-02
Gov. Hill Telegraph EAZ
Southall-Fairbanks

Sample Identification		Lead	
Client	RJ Lee Group	Weight Percent	Parts per Million
GH997-L1	0209137	0.0603	603
GH997-L2	0209138	0.178	1,780
GH997-L3	0209139	0.0718	718
GH997-L4	0209140	< 0.013	< 130
GH997-L5	0209141	0.00514	51.4
GH997-L6	0209142	< 0.012	< 120
GH997-L7	0209143	< 0.0055	< 55
GH997-L8	0209144	11.6	116,000
GH997-L9	0209145	13.8	138,000
GH997-L10	0209146	7.48	74,800
GH997-L11	0209147	0.459	4,590
GH997-L12	0209148	27.7	277,000
GH997-L13	0209149	0.0373	373
GH997-L14	0209150	0.206	2,060
GH997-L15	0209151	0.670	6,700
GH997-L16	0209152	0.0469	469
GH997-L17	0209153	2.01	20,100
GH997-L18	0209154	0.0714	714
GH997-L19	0209155	1.36	13,600



Authorized Signature Brandon J. Miller

Date 9-26-97

AIHA ELLAP #8204
CA ELAP #1970
PA DEP #02-396

RJ Lee *Group* , Inc.

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LABORATORY REPORT

Environmental Health Sciences - Alaska, Inc.
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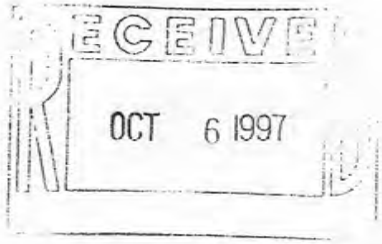
Samples Received: 23-Sep-97
Report Date: 26-Sep-97
Client Project: 3968-01-02
Gov. Hill Telegraph EAZ
Southall-Fairbanks

Sample Identification		Lead	
Client	RJ Lee Group	Weight Percent	Parts per Million
GH997-L20	0209156	3.38	33,800
GH997-L21	0209157	0.0999	999
GH997-L22	0209158	0.523	5,230
GH997-L23	0209159	0.651	6,510
GH997-L24	0209160	0.464	4,640
GH997-L25	0209161	0.495	4,950
GH997-L26	0209162	0.287	2,870
GH997-L27	0209163	9.56	95,600
GH997-L28	0209164	13.9	139,000
GH997-L29	0209165	4.29	42,900
GH997-L30	0209166	3.68	36,800
GH997-L31	0209167	5.16	51,600



These results are submitted pursuant to RJ Lee Group's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, RJ Lee Group will store the samples for a period of ninety (90) days before discarding. A shipping and handling fee will be assessed for the return of any samples.

Alan M. Levine, Manager ☐ Kimberly S. DiNatale, Scientist ☐ William E. Alexander, Assistant Chemist ☐
Brandon J. Miller, Assistant Scientist ☑ **Please direct inquiries to Barbara A. Smith in Client Services.**

Authorized Signature Brandon J. Miller
Date 9-26-97

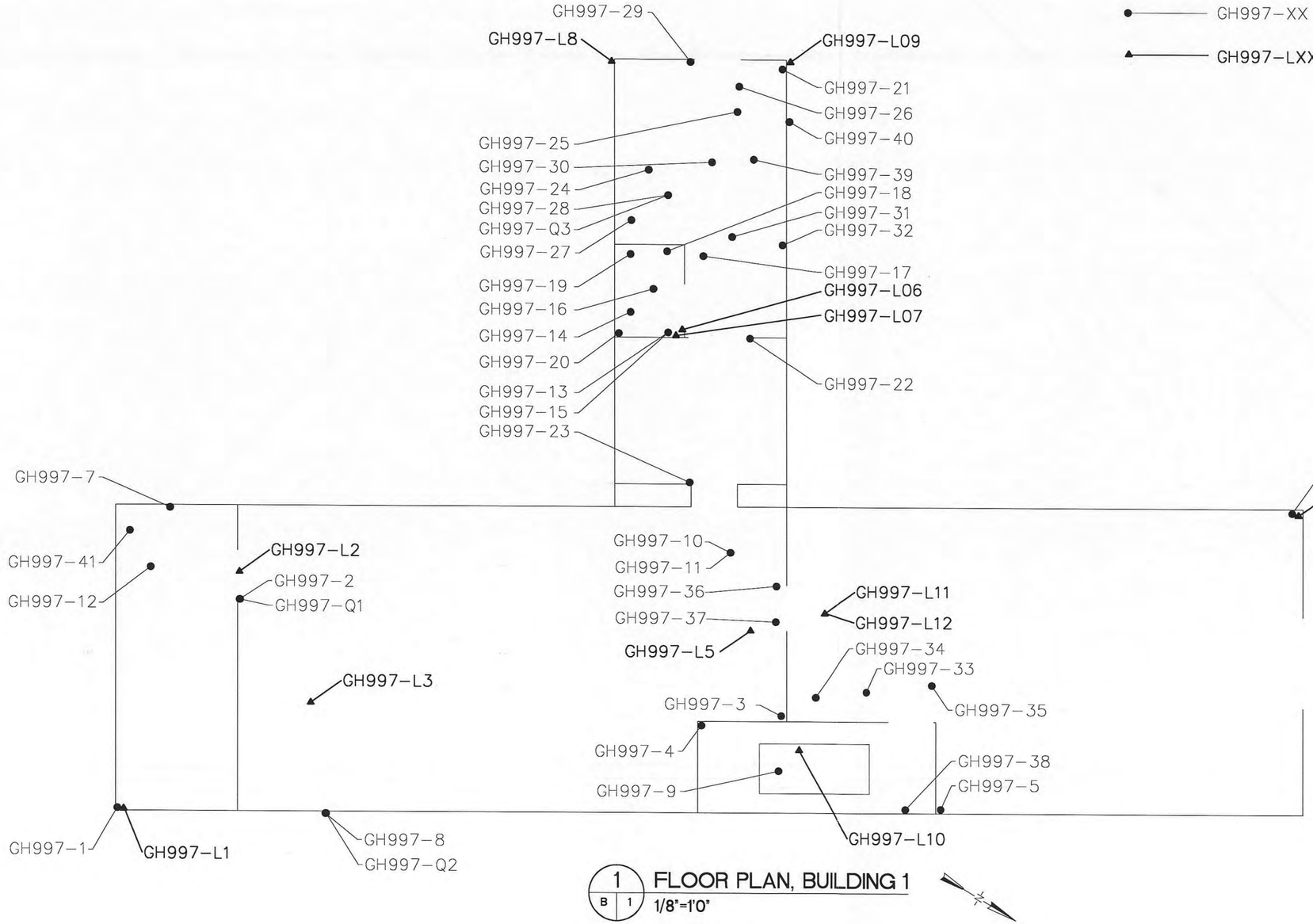
AIHA ELLAP #8204
CA ELAP #1970
PA DEP #02-396

APPENDIX C

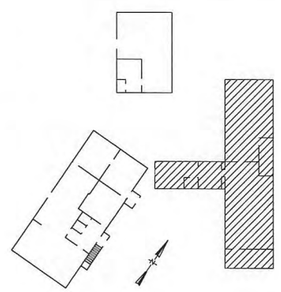
Floor Plans
with
Sample Locations

LEGEND

- GH997-XX — ASBESTOS SAMPLE LOCATIONS
- GH997-LXX — LEAD SAMPLE LOCATIONS



1 / B 1 **FLOOR PLAN, BUILDING 1**
1/8"=1'0"



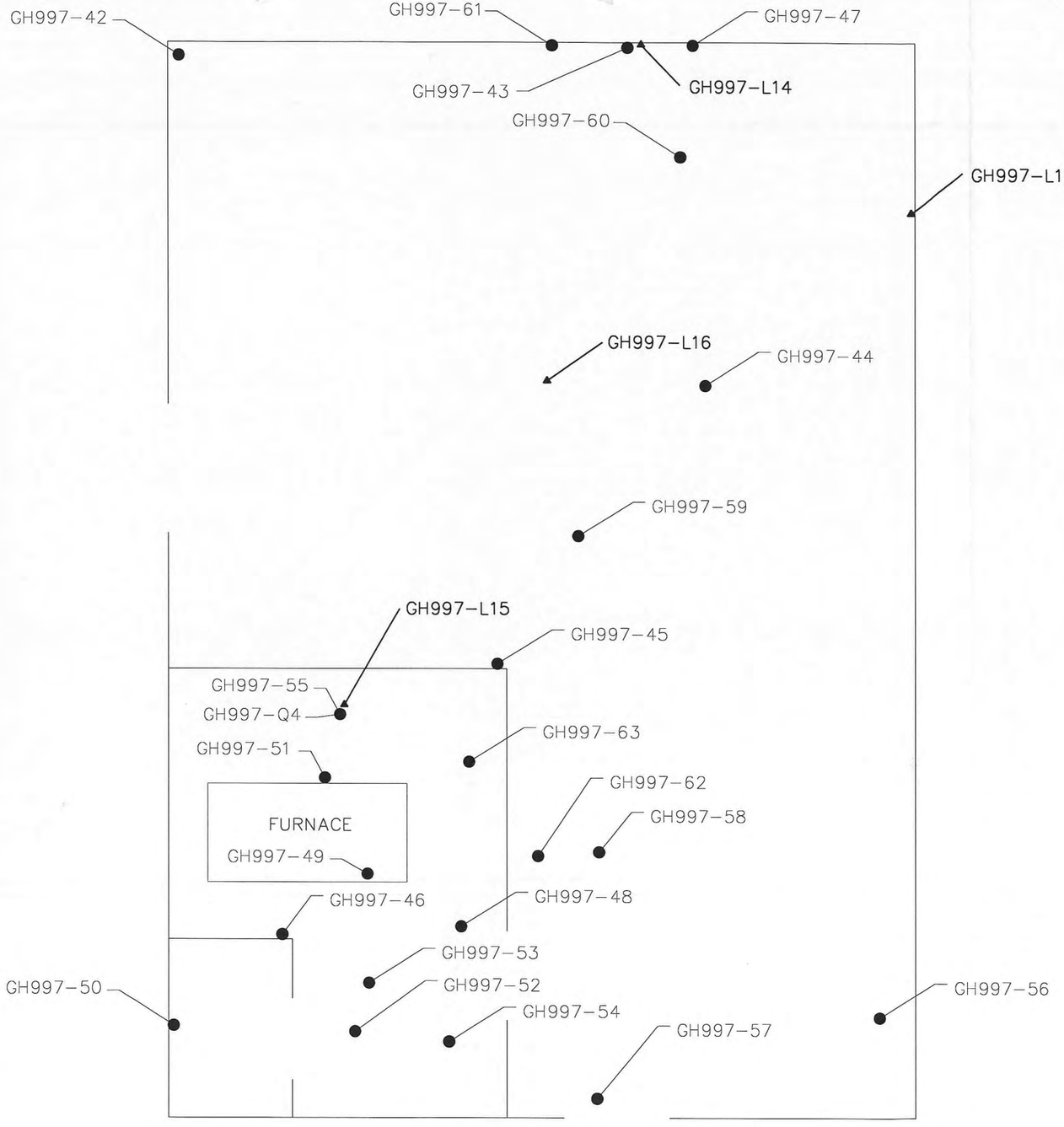
KEY PLAN

EHS ALASKA INCORPORATED
ENGINEERING, HEALTH AND SAFETY CONSULTANTS
10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052

GOV. HILL WIRELESS STATION
"TEE SHAPED", BLDG. NO.1
ANCHORAGE, ALASKA
HAZARDS SURVEY

PROJECT NO.	3968-01-02
DESIGNED:	RAF
DRAWN:	WGB
CHECKED:	TBS
SCALE:	1/8"=1' 0"
DWG. TITLE:	SURVEY
JOB No.	3968-01-02
DATE:	12/11/97

B-1



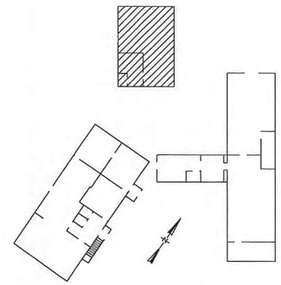
1 / B2 | 1 FLOOR PLAN, BUILDING 2

1/4"=1' 0"

LEGEND

GH997-XX ASBESTOS SAMPLE LOCATIONS

GH997-LXX LEAD SAMPLE LOCATIONS



KEY PLAN

EHS ALASKA INCORPORATED
ENGINEERING, HEALTH AND SAFETY CONSULTANTS
10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052

GOV. HILL WIRELESS STATION
BUILDING NO. 2
ANCHORAGE, ALASKA
HAZARDS SURVEY

PROJECT NO. 3968-01-02

DESIGNED: RAF

DRAWN: WGB

CHECKED: TBS

SCALE: 1/4"=1' 0"

DWG. TITLE: SURVEY

JOB No. 3968-01-02

DATE: 12/11/97

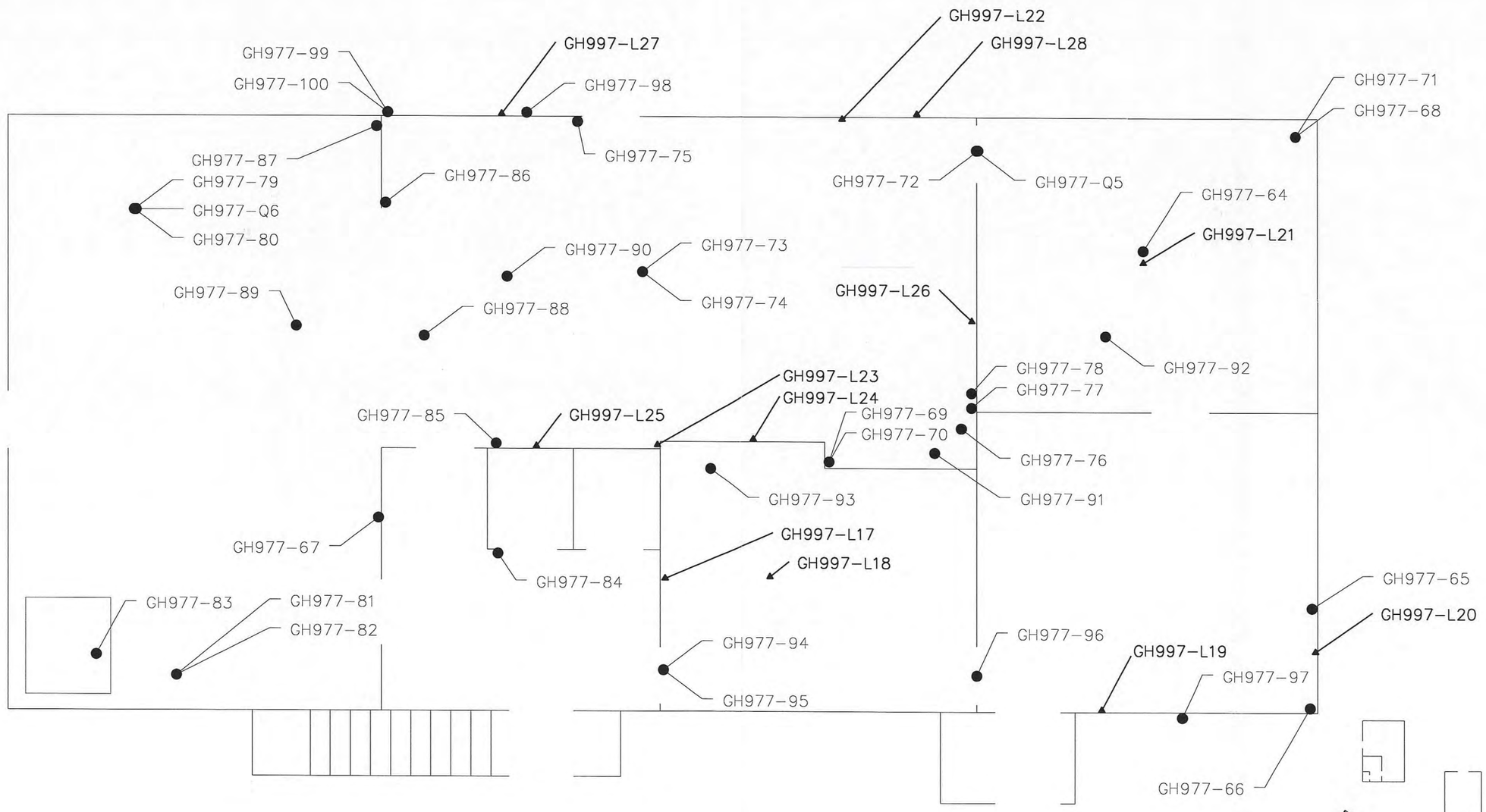
B-2

of 4

LEGEND

GH997-XX ASBESTOS SAMPLE LOCATIONS

GH997-LXX LEAD SAMPLE LOCATIONS



1 / 3A | 1 FLOOR PLAN, BUILDING 3

3/16"=1'0"

EHS ALASKA INCORPORATED
ENGINEERING, HEALTH AND SAFETY CONSULTANTS
10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052

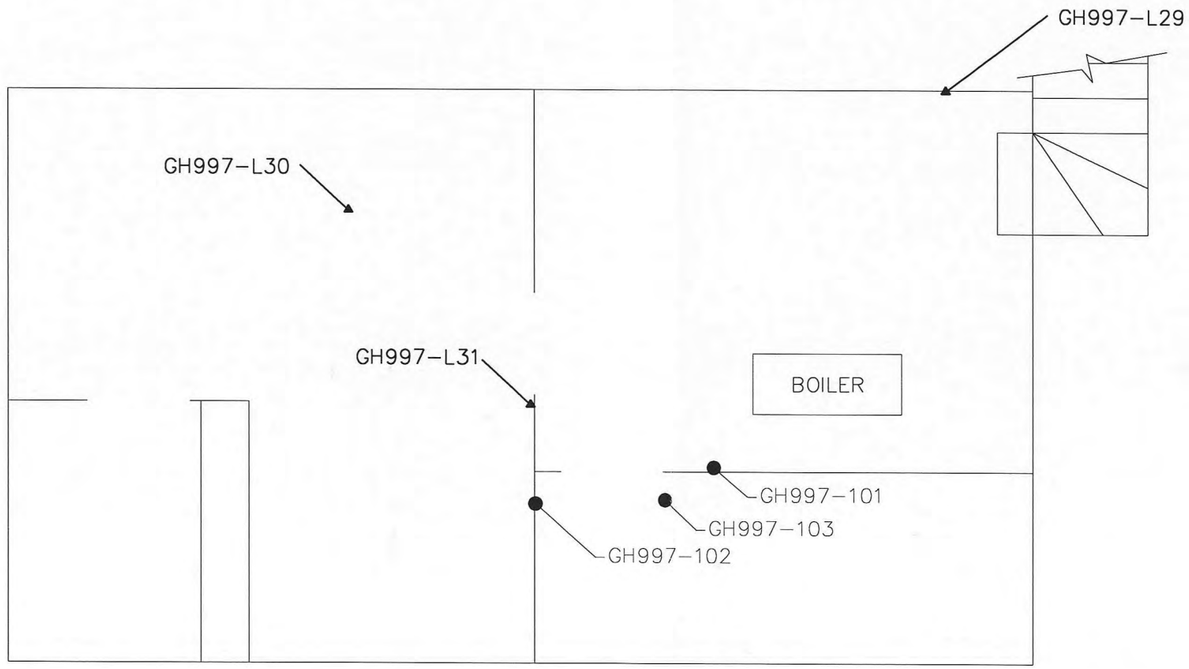
GOV. HILL WIRELESS STATION
BUILDING NO. 3
ANCHORAGE, ALASKA
HAZARDS SURVEY

PROJECT NO.	3968-01-02
DESIGNED:	RAF
DRAWN:	WGB
CHECKED:	TBS
SCALE:	3/16"=1' 0"
DWG. TITLE:	SURVEY
JOB No.	3968-01-02
DATE:	12/11/97

B-3A

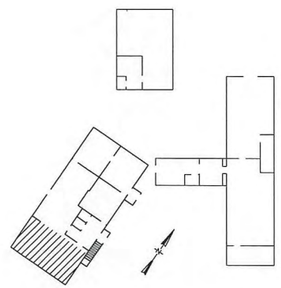
LEGEND

- GH997-XX — ASBESTOS SAMPLE LOCATIONS
- GH997-LXX — LEAD SAMPLE LOCATIONS



1 / B-3B 1 — BASEMENT FLOOR PLAN, BUILDING 3
1/4"=1'0"

N



KEY PLAN

EHS ALASKA INCORPORATED
ENGINEERING, HEALTH AND SAFETY CONSULTANTS
10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052

GOV. HILL WIRELESS STATION
BUILDING NO. 3
ANCHORAGE, ALASKA
HAZARDS SURVEY

PROJECT NO.	3968-01-02
DESIGNED:	RAF
DRAWN:	WGB
CHECKED:	TBS
SCALE:	1/4"=1' 0"
DWG. TITLE:	SURVEY
JOB No.	3968-01-02
DATE:	12/11/97

B-3B

of 4

APPENDIX D

Photographs of
Potentially Hazardous
Materials

Plate 1 Looking south in north room of Building 1. Gypsum wall board walls and ceiling without joint compound. Note ducts exposed with lead seal at seams, and concealed ducts in south room. South room has gypsum wall board walls and ceiling with asbestos-containing joint compound, and fluorescent light fixtures with PCB Ballasts.

Plate 2 Note debris and fungal growth in crawl space of west wing of Building 1.

Plate 3 White asbestos-containing pipe insulation debris under central crawl space of west wing of Building 1. Note copper pipe replaced insulated steel pipe.

Plate 4 Asbestos-containing gray fibrous patching on aluminum roofing of Building 1.

Plate 5 Cement asbestos board behind and below furnace in Building 2. Note rust stains on flooring and wet stains due to water leakage around furnace chimney.

Plate 6 Asbestos-containing gasket in return air plenum of furnace in Building 2.

Plate 7 White asbestos-containing pipe insulation in crawl space of Building 2. Note wet floor beams, leaves blown into crawl space through wood skirting, and fungal growth.

Plate 8 Asbestos-containing white paper in attic of Building 2.

Plate 9 South room of Building 3. Note furnace with attached gas line and abandoned oil piping and filter. Note fluorescent lights with PCB-containing ballasts and shelved cabinet with cement asbestos board lining.

Plate 10 Peeling paint in bathroom of Building 3.

Plate 11 Exterior wall, west central room of Building 3. Note floor dropped 4 inches, exposing horse hair and tar paper between layers of wood. Note dry rot.

Plate 12 Crawl space from access hatch at stairs to basement, Building 3. Note moisture drops and fungal growth on wood structure.

Plate 13 Damaged white asbestos-containing pipe insulation in basement of Building 3.

Plate 14 Asbestos-containing grit surfaced roofing of original section of Building 3. Note lead flashing on plumbing vent pipe and "new" rafters laid on "old" roofing.