Industrial Hygiene Site Assistance Visit

Elko Armory

1375 13th Street

Elko, NV 89801

25 June 2014

10510 Superfortress Avenue, Suite C, Mather, CA 95655 (916) 854-1494

Industrial Hygiene Southwest's mission is to ensure all military personnel and military leadership is provided the specialized technical expertise, consultation and assistance to ensure all military operations and processes are conducted in a healthy manner

10510 Superfortress Avenue, Suite C, Mather, CA 95655 (916) 854-1494

DEPARTMENT OF THE ARMY AND AIRFORCE
NATIONAL GUARD BUREAU
INDUSTRIAL HYGIENE SOUTHWEST
10510 Superfortress Ave, Ste. C
Mather, CA 95655

ARNG-CSG-P

06 AUG 2014

MEMORANDUM THRU Non-Responsive OHN, 685 E. Plumb Lane, Reno, NV 95826

FOR Commander, Elko Armory 1375 13th Street, Elko, NV 89801

SUBJECT: Executive Summary for Industrial Hygiene Site Assistance Visit (IHSAV) for Elko Armory 1375 13th Street, Elko, NV on 25 JUN 2014.

1. **References**. See survey report.

2. **General.**

a. At the request of the NGB Industrial Hygiene, Southwest (IHSW) Region, an Industrial Hygiene Site Assistance Visit and cursory review of safety related items and programs were conducted at the Elko Armory 1375 13th Street, Elko, NV on 25 JUN 2014.

b. The findings and recommendations in this Executive Summary are controlling and supersede all recommendations in the Industrial Hygienist report (reference Attachment II). However, IHSW concurs with the observations and findings within the attached Industrial Hygiene report.

c. Risk Assessment Codes (RAC) provided in this report have been derived from two sources: Deriving Risk Assessment Codes (RAC's) for Health Hazards (Ref: DOD Instruction 6055.1) and AR 385-10, The Army Safety Program.

d. Use of trademark names in the attached report, or this Executive Summary, does not imply Army National Guard endorsement of any product.

3. **Findings.** See survey report.

4. **Commendable.**

a. The facility was generally clean and orderly and personnel were helpful during this IHSAV.

5. **Observations / Recommendations.**

NOTE: This section provides conclusions and recommendations for the findings and observations made within the attached contractors report. The paragraphs are numbered to correspond to the sections where they were first noted. (i.e., paragraph 2.1a represents the 2.1a located within the report.

a. Ensure a Safety Data Sheet (SDS) is on file for the batteries found in the POL shed. Remove the unused batteries from the site and properly recycled them. (para. 4.6) **(RAC 4)**

b. Either repair the kitchen ventilation hood or post operating instructions indicating how to initiate

the ventilation hook operation. (para. 4.7) **(RAC 4)**

c. Repair or replace the non-functioning emergency lighting, institute an emergency lighting weekly operational verification procedure and ensure the verification is noted and kept as a log or on file. (para. 4.11) **(RAC 3)**

d. Locate the asbestos survey or contract with licensed firm to provide an asbestos survey. If ACM is identified, provide awareness training. (Exec. Summary) **(RAC 4)**

6. Violation Correction Log.

a. IHSW has provided a Violation Correction Log derived from the observations from this visit. IHSW recommends the following:

(1) Commander(s) assign an Action OIC/NCOIC, Suspense Date for completion, and Estimated Cost(s) to ensure item completion and corrective status is briefed during quarterly (or monthly) Safety Meetings/Councils until resolved.

(2) Corrective measures should be implemented and accomplished at the lowest levels possible. Hazards and Corrective Measures that cannot be corrected at the facility level, and require assistance from higher headquarters or from the state level, should be elevated to the Quarterly State/BN Safety Council Meeting for resolution.

(3) Recommend a representative from the facility attend all quarterly/monthly meetings to ensure the appropriate emphasis and corrective actions are followed for hazard resolution and abatement of the observations made during this visit.

(4) Retain entries of the items corrected, or closed, for future reference. This may be accomplished by posting completed items within the Corrected Hazard Sheet portion of the Excel Violation Correction Log Workbook we've provided.

(5) The preferred method to document and track identified hazards for resolution is for their entry into the Reserve Component Automation System – Safety and Occupational Health **(RCAS-SOH)** Program.

b. IHSW recommends further program refinement through written documentation for standardized guidance to the personnel performing the processes. Conducting Hazard Assessments consistent with 29 Code of Federal Regulations (CFR) 1910.132, General Requirements for Personal Protective Equipment and AR 40-5, Preventive Medicine, would provide this continued program refinement.

7. Hazard Assessment/Job Safety Analysis (JSA).

a. Documenting the Hazard Assessments provides a method to obtain initial and periodic review from the Industrial Hygiene, Occupational Health and Safety Professions located at the JFHQ/HQ/state level.

b. The Hazard Assessments should be used as written training materials for the new, transfer and unit personnel working under the auspice of the facility.

c. IHSW recommends facility supervisory staff and facility personnel conduct initial Hazard Assessments outlined in AR 40-5, Army Preventive Medicine (Section V) and 29 CFR 1910.132 and submit for review and obtain approval from the state Industrial Hygiene, Occupational Health and Safety Professions.

d. We have provided an appendix with Hazard Assessments (HA) examples of some of this facilities operations. Additional operations can utilize this format to design HA not observed during this IHSAV.

e. An integral and important factor of the Hazard Assessment/JSA process is for the review and guidance from qualified Safety, Occupational Health and Industrial Hygiene professions located at the higher headquarters level or state level. For this reason, the Hazard Assessments (to include all pertinent and supporting documents) should be completed by the facility personnel and forward to the Nevada Army National Guard Industrial Hygiene, Occupational Health and Safety Office for final review and approval (signature).

f. Job Safety Analysis (JSA's)/Hazard Assessments.

NOTE: The Hazard Assessments can be used for monthly meetings to brief/train, and document large group training events and activities.

8. IHSW recommends the **Senior Unit Commander of this Facility and any Co-Tenant Organizations or Units, review and provide assistance with implementation of these recommendations.** This will educate the chain of command and allow the unit or co-tenant organizations to take any necessary precautions or actions required by them and their personnel.

9. To assist you with execution of your responsibilities in correcting the observations noted, we encourage you to consult with the State Safety Manager, Occupational Health Manager and Industrial Hygiene professions located and/or authorized within the State Safety and Occupational Health Office.

10. For additional information please contact the NGB-IHSW office at (916) 854-1491 or via email at Non-Responsive

Non-Responsive

NGB, IHSW, CIV
Industrial Hygiene

Industrial Hygiene Southwest

Violation Inventory Log

LOG OF SCHEDULE OF CORRECTIVE ACTION - COMPLIANCE WITH SAFETY AND HEALTH STANDARDS

Elko Armory-Elko, NV

CONTROL NUMBER CLOSED ☐	HAZARD DESCRIPTION	SITE	RAC	HAZARD COUNTERMEASURE	SUSPENSE DATE	ACTION OIC/NCOIC	Estimated Cost(s)	DATE CORRECTED	REFERENCES
NVEA-062514-4.6	Six batteries were identified in the POL shed	Armory, Elko, NV	4	1. Ensure an SDS is on file and HazCom training is conducted related to the batteries until they are removed from the site. 2. Remove the unused batteries from the site and properly recycle them.					Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
NVEA-062514-4.7	The kitchen ventilation hood either did not operate when the switch was thrown or some other action needed to be taken	Kitchen	4	Either repair the kitchen ventilation hood or post operating instructions indicating how to initiate the ventilation hood.					NFPA 96
NVEA-062514-4.11	Three emergency lighting units were not functional and there was no log indicating the emergency lighting has been tested	Armory, Elko, NV	3	Repair or replace the non-functioning emergency lighting, institute an emergency lighting weekly operational verification procedure and ensure the verification is noted and kept as a log or on file.					NFPA 101, Para 7.9.3.1.1

ARMORY

CLEANUP & FOLLOW-UP HOUSEKEEPING RECOMMENDATIONS

Materials Needed:

1. Cloth Mop head (s) & Mop head holder(s) with handle.
2. Mop bucket (s) with wringer.
3. Clean cotton rags and sponges.
4. Disposable gloves
5. Large barrel (55 gal.) to store wastewater in after changing out of dirty scrub water. Waste water containers.
6. Disposable overshoes or rubber boots. Personnel conducting cleaning operations should not take clothes, boots, etc., home for laundering.
7. HEPA vacuum
8. Six (6) mill plastic bags to dispose of waste.
9. Detergent with surfactant, e.g., Spic-N-Span, Mr. Clean, etc.

Disposal of Waste Water and Cleaning Materials:

1. *NOTE*: Consult with Local Army National Guard Environmental Office prior to taking any collection, disposal or wiping activities commence. Each state and territory may have additional regulatory guidance on collection, storage and disposal of wastewater.

2. Mop heads should be disposed of after initial cleanup, unless otherwise advised by Environmental office personnel. Note: thorough cleaning of mop heads may be sufficient enough to reuse on future Armory cleanups but check with local Environmental Office.

3. Disposable gloves should be treated as hazardous waste.

4. Soiled cotton rags should be treated as hazardous waste.

5. Wash water contaminated with Lead can be collected and allowed to slowly evaporate leaving Lead deposits/sludge that may be collected in plastic containers, placed in metal drums, and stored for future delivery to an authorized hazardous waste disposal site.

INDUSTRIAL HYGIENE SITE ASSISTANCE VISIT (IHSAV)

593RD MEDIUM TRUCK COMPANY (MTC) ARMORY
1375 13TH STREET
ELKO, NEVADA 89801

25 June 2014

Prepared for:

National Guard Bureau
Industrial Hygiene Southwest
10510 Superfortress Avenue, Suite C
Mather, California 95655

Prepared by:

R & R Environmental, Inc.
47 West 9000 South, Suite #2
Sandy, Utah 84070

***R & R* Job Number: RR-140432-1**

Reviewed by:

Non-Responsive

R & R Environmental, Inc.
Vice President

Prepared by:

Non-Responsive

Environmental Engineer/Scientist

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INDUSTRIAL HYGIENE SITE ASSISTANCE VISIT (IHSAV)

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<u>Appendices:</u>

EXECUTIVE SUMMARY

During the period of 25 June 2014, Non-Responsive CSP, Industrial Hygienist, Environmental Engineer, and Environmental Scientist of R&R Environmental, Inc., conducted an Industrial Hygiene Site Assistance Visit (IHSAV) at the B Company 593rd Medium Truck Company (MTC) Armory, located at 1375 13th Street, Elko, Nevada 89801. The primary point of contact for information gathered during this survey was the Readiness NCO and Building Manager Non-Responsive 775-778-3003 email: Non-Responsive

The objectives of this IH Site Assistance Visit were to:

- Review hazardous material storage and use procedures;
- Review the Respiratory Protection Program and respirator use/storage;
- Collect area and breathing zone air samples;
- Collect metal surface wipe samples;
- Measure the volumetric flow of local exhaust ventilation systems;
- Monitor sound level measurements;
- Measure illumination levels;
- Collect indoor air quality data;
- Evaluate any existing safety hazards;
- Review safety policies/programs, training, and record keeping; and
- Conduct Hazard Based Assessments (HA's) and provide supporting monitoring analysis for recommendations.

Significant findings for this IH Assistance Visit can be found in the Industrial Hygiene Southwest – Violation Inventory Log located in Appendix L of this report.

The report that follows this Executive Summary should be read in its entirety because it includes important information not included in this summary, such as task descriptions, workspace locations, regulatory requirements, and additional recommendations.

Commendable: Non-Responsive Readiness NCO and Building Manager went above and beyond expectations to assist R&R Environmental, Inc. by supplying information to review and escorting the hygienist. The entire facility was extremely well organized, neat, and well kept. Additionally, it was apparent Non-Responsive was extremely knowledgeable in his role and responsibility and willing to assist.

1.0 Introduction

During the period of 25 June 2014, Non-Responsive CSP, Industrial Hygienist, Environmental Engineer, and Environmental Scientist with R & R Environmental, Inc. (R&R) conducted an Industrial Hygiene Site Assistance Visit (IHSAV) at the 593rd Medium Truck Company (MTC) Armory, located at 1375 13th Street, Elko, Nevada 89801. The Readiness NCO and Building Manager of the facility is Non-Responsive phone: 775-778-3003, email: Non-Responsive also served as the primary point of contact for information gathered during this survey.

1.1 Objective

The primary goal and focus for the fiscal year 2014 IHSAVs is to be a Hazard Based Evaluation and allow for recommendations as it relates to the processes and activities located at the facility.

The overall purpose of the IHSAV is to identify, measure, and provide recommended methods to control the existence and extent of potentially hazardous operations or conditions at the Army National Guard Facility. The IHSAV is designed to establish baseline and Hazard Assessments (HA's) of workplace and process conditions or update/validate previous baseline/HA so a worker's history of exposures, or potential exposures is provided for each civilian and military employee.

1.2 Scope of Work

To achieve the above objectives at this facility, the survey included the following work:

- Collect lead wipe samples;
- Evaluate the condition of painted surfaces and collect paint chip samples for lead analysis where painted surfaces are peeling;
- Inspect the interior rooms of the facility for water damage and the presence of fungal growth;
- Review the asbestos survey and assessment files and determine if documentation of asbestos awareness training is current;
- Evaluate the configuration of hazardous material storage and use procedures;

2.0 Process Description

The Elko Armory operates in one building. However, there is an POL shed and an OMS building located to the south of the armory building. The OMS building and POL shed are no longer used according to Non-Responsive and have been abandoned since 2005. The armory building is approximately 10,500 square feet in area, was estimated to be built in the 1965 and underwent a remodel in 2005. The OMS is approximately 1,500 square feet in area and the POL shed is approximately 150 square feet in area. The only portion of the building that was not remodeled in 2005 is the drill hall floor and the floor is original construction. The building is constructed of concrete masonry units (CMU) with a brick and mortar veneer exterior. The roof is a standard commercial roofing system. The facility consists of a drill floor, kitchen area, multiple administration offices, and classrooms. A concrete approach apron is north of the building connecting an asphalt parking area to the street. Parking for the employees is located north of the building with an unused motor pool area to the south. Access to the facility is via 13th Street to the north.

The only unit assigned to the facility is the 593rd Medium Truck Company (MTC) (UIC: Non-Responsive The total number of full time personnel assigned to the facility is one and that soldier is AGR. The work schedule of the facility is Monday through Friday from 0800 - 1700. On drill weekends which is usually one weekend per month, the remaining members of the unit consisting of mostly M-day soldiers will attend drill at the facility. The facility is used for non-National Guard activities and civilian activities. The building is occasionally rented for parties and banquets. The east classroom wing of the building is completely dedicated to the local college for their use as classrooms. As part of the agreement for the use of the building, the local college by contract has assumed the responsibility for all janitorial cleaning for the armory.

3.0 METHODS

This section indicates methodologies intended to be used upon initial investigation of the facility. Any deviations from the methodologies indicated in this section are indicated in the corresponding sections of Section 4 of this report.

3.1 Lead Wipe Sampling

Lead residue (dust) wipe samples were collected on horizontal surfaces specifically such as work surfaces and floors throughout the facility to determine housekeeping standards. A total of five lead wipe samples were collected at the facility. Ghost Wipe™ brand wipes were used to obtain the samples using a one square foot template. The wipes used conform to American Standards for Testing Materials (ASTM) E1792, Standard Specification for Wipe Sampling Materials for Lead in Surface Dust. The collected wipe samples were placed in clean and labeled plastic containers. Samples were submitted to ALS Laboratory Group in Salt Lake City, Utah for analysis, using NIOSH Method 7300 modified for Ghost Wipes™. See Appendix I for sample locations and Appendix J for laboratory results. Photographs of the sampling points are located in Appendix C.

The Mather, California office of IHSW has developed a Standard Operating Procedure (SOP) for lead, which is a combination of the Occupational Safety and Health Administration (OSHA), U.S. Department of Housing and Urban Development (HUD), and Army regulations. This SOP sets forth a criterion of 40 micrograms per square foot ($\mu g/ft^2$) for converted indoor firing ranges, break rooms, floor surfaces, or any area that might be used for non-military functions. Additionally, a 200 $\mu g/ft^2$ criterion has been established for tool rooms, maintenance bays, furnace rooms, boiler rooms, storage closets, and other areas where general public access is not expected. Areas of the facility which are not specifically listed are expected to be, "maintained as free as practicable of accumulations of lead," as specified by OSHA 29 CFR 1910.1025 (h)(1).

3.2 Painted Surface Evaluation

The interior of the building was visually inspected by the on-site Industrial Hygienist for peeling paint on the walls, ceilings, and floors. Bulk samples are obtained from paint that is peeling away from the substrate.

3.3 Moisture Intrusion and Limited Visual Fungal Growth Evaluation

Microbial growth (e.g., mold or fungus) on building materials may occur when excess moisture is present. Porous building materials such as gypsum board, insulation in walls and ceilings, and carpeting retain moisture and become microbial growth sites if moisture sources are not controlled or mitigated. Potential sources of moisture include rainwater intrusion, groundwater intrusion, condensation on cold surfaces, and water leaks from building systems (e.g., plumbing leaks, HVAC system leaks, overflowing drains, etc.). Inadequate ventilation of clothes dryers and shower stalls may also result in excess moisture conditions. Microbial growth may be clearly visible (e.g., ceramic tile mortar in shower stalls) or may be concealed with no visible evidence of its existence (e.g., inside wall cavities).

During the site reconnaissance a limited visual water intrusion screening survey for readily observable conditions conducive to water intrusion at the property was conducted. The screening consisted of limited interview, document review, and physical observations.

It should be noted that this was a non-intrusive investigation and it is possible that water damaged materials and fungal growth may be present in other areas of the building. This includes, but is not limited to, wallboard, wall cavities, pipe/duct insulation above ceilings and in chases, and wall insulation. In addition, if water damaged building material including sheetrock ceilings and walls are not replaced a favorable environment for microbial growth will be created.

3.4 Asbestos Management

Facility personnel were asked if an asbestos survey and assessment had been conducted and whether there was a written Operations and Maintenance Program for the facility. The Industrial Hygienist also attempted to review any asbestos awareness training records, if they were available.

3.5 Heating, Ventilation, and Air-Conditioning Systems and Indoor Air Quality

An evaluation of the heating, ventilation and air-conditioning (HVAC) systems that serve the facility was completed. This evaluation consisted of a visual inspection of the system to note any obvious issues and a review of the facility maintenance plan, if one was available.

3.6 Hazard Communication and Hazardous Materials Storage

A review of the facility's chemical inventory and Safety Data Sheet (SDS) file was accomplished, if available. Accessible chemical storage areas such as flammable storage cabinets and containers were also inspected.

3.7 Ventilation Survey

Duct velocity measurements were performed on the facility ventilation devices using a TSI VelociCalc Meter Model 9555-P (SN 9555P1013022) connected to a Model 964 Probe (SN P07180039). A copy of the annual calibration certificates for these instruments is located in Appendix H. For round ducts, 12 velocity measurements are made across the duct opening. Six measurements were made along the diameter at a 90° angle to the first set of measurements. For square or rectangular ducts, 16 velocity measurements are made in a grid pattern. The flow velocities were indicated in lineal feet by the meter and flow rates were calculated by multiplying the average face velocity by the cross-sectional area of the opening. General air flow movement of each building was obtained using a smoke tube. Copies of the general air flow direction can be found in Appendix F.

3.8 Personal Noise Dosimetry and Sound-Level Measurements

3M Edge 5 dosimeters are typically used to collect personal noise exposure levels of facility personnel conducting work that may expose them to greater than the OSHA PEL for noise. If high noise level operations are not occurring during the site visit and noise data is not collected it is noted in Section 4.8 of this report. Dosimeters are calibrated prior to and following each noise measurement using a 3M QC-10 calibrator (SN QIH110257), which was factory calibrated. Each dosimeter is configured with a 3 dBA exchange rate and dose criterion level of 85 dBA in accordance with the Industrial Hygiene Southwest (IHSW) Statement of Work (SOW). The dosimeter and attached microphones are placed at approximately shoulder level of each person being tested and activated to a monitoring status. Once monitoring is completed, the dosimeters are post calibrated using the QC-10 Calibrator and the logged data was recorded on a DD2214 with associated testing data. Calibration certificates can be found in Appendix H.

A Casella CEL-254 (SN 2/06426134) dosimeter is typically used to collect noise exposure levels of specific areas and functions occurring at the facility. The dosimeter is calibrated prior to and following each noise measurement using a Casella CEL-110/2 calibrator (SN 074445). Each dosimeter is configured with a 3 dBA exchange rate and dose criterion level of 85 dBA in accordance with the IHSW SOW. The dosimeter and attached microphone is placed at approximately ear level for each activity being tested and then collected at a distance of approximately ten feet from the activity. Once monitoring is completed, the dosimeter is post calibrated using the CEL-110/2 Calibrator, and the logged data was recorded on a DD2214 with associated testing data. Calibration certificates can be found in Appendix H.

The Army DA PAM 40-501, Hearing Conservation requirements noise criterion of 85 dBA with and exchange rate of 3 dBA is used to compare the noise monitoring results. Additionally, the OSHA Permissible Exposure Limit (PEL) of 90 dBA and the OSHA action level of 85 dBA is used to compare the results.

3.9 Illumination Level Monitoring

Illumination measurements are typically obtained in most areas of the facility using a Testo Light Meter, model Testo 540 (SN 39041581/307). Measurements are obtained at typical work locations, such as the tops of desks and near workstations. To provide information on the overall lighting conditions in the remainder of the facility, measurements are obtained from the surfaces of typical work locations and at waist level from selected locations. See the drawing in Appendix E for complete survey information. A copy of the annual calibration certificate for this instrument is located in Appendix H.

3.10 Safety Training and Recordkeeping

An inspection of safety training programs and documentation was performed to determine if the facility's site specific training programs and annual documentation were current.

3.11 General Safety Walk-Through

A limited Fire Life Safety walk-through evaluation of the facility was performed to:

- Document the presence of fire alarms,

- Determine if fire extinguishers are properly mounted and current on their monthly and annual inspections,
- Determine if eyewash stations are available, and
- Document fire or safety hazards in the facility

3.12 Equipment Used

The following equipment was available for this survey.

Type	Model Number	Serial Number	Calibration Date
TSI VelociCalc	9555-P	9555P1013022	9/04/2013
TSI Velocity Probe	964	P07180039	9/04/2013
TSI Air Quality Probe	982	P07190021	9/04/2013
Testo Illumination Meter	Testo 540	39041581/307	3/09/2014
Casella Sound-Level Meter	CEL-254	2/06426134	11/12/2013
Casella Acoustic Calibrator	CEL-110/2	074445	11/12/2013
3M Dosimeter	Edge 5	ESK100116	12/02/2013
3M Dosimeter	Edge 5	ESK100117	12/02/2013
3M Dosimeter	Edge 5	ESK100118	12/02/2013
3M Dosimeter	Edge 5	ESK100119	12/02/2013
3M Dosimeter	Edge 5	ESK080082	9/03/2013
3M dBA Calibrator	QC-10	QIH110257	11/11/2013

Please see Appendix H for a complete inventory of calibration certificates that may have been used during this IHSAV.

3.13 Quality Assurance

R & R Environmental, Inc. employs, at a minimum, the following methods to help assure quality of field investigations and reports:

- Use of appropriately educated and experienced personnel;
- Documentation of pertinent field and sampling information;
- Continuing education of technical personnel through attendance at training sessions and conferences, and literature review;
- Peer and supervisory review of sampling strategy, field methods, calculations, and reports;
- Strict adherence to method requirements, in particular to NIOSH and OSHA, standard methods, including strict chain-of-custody protocol;
- Use of accredited laboratories, or, in cases where specific accreditation is not available, choice of laboratories of good reputation, having strong QA/QC programs; and
- Calibration of instruments, including field calibration via manufacturers' recommended procedures and routine (typically annual) off-site calibration of equipment via certified third parties.

4.0 Observations and Recommendations

4.1 Lead Wipe Sampling

Five surface locations were sampled for lead as indicated by the table below. The analytical results for lead wipe sampling indicated none of the samples were greater than the 40 µg/ft^2 criterion or the 200 µg/ft^2 criterion specified by the IHSW SOP and the ARNG. Since the armory is used occasionally for civilian events, the drill hall floor criterion is 40 µg/ft^2. See Appendix I and below for a data table and drawing showing the sample locations and Appendix J for the laboratory reports. Photographs taken of the sampling points are presented in Appendix C.

Sample Number	Sample Location	Sample Results (µg/ft^2)	ARNG standard (µg/ft^2)
W1	Drill Hall Floor	<1.3	40
W2	Entryway Floor	2.8	40
W3	Kitchen Floor	2.3	40
W4	National Guard Offices Floor	1.4	40
W5	Front of Janitor's Closet Floor	<1.3	40

µg/ft^2 = micrograms per square foot
< = Less than laboratory detection limit
Bold = Greater than ARNG Standard

Recommendation

None

4.2 Painted Surface Evaluation

One location was identified to have peeling paint and sampled. One bulk paint chip sample was obtained from the exterior white paint with green paint underneath, located in the south inside corner of the L shape of the building. See Appendix I and below for a data table and drawing showing the sample locations and Appendix J for the laboratory reports. Photographs taken of the sampling points are presented in Appendix C.

The laboratory report indicated the sample contained 0.31% lead which is equal to 3,100 ppm lead which is also equal to 3,100 mg/kg lead. While the sample did have a small amount of lead detected the level detected is below the Housing and Urban Development (HUD) Lead-based Paint (LBP) standard. For reference, the HUD LBP standard is 5,000 mg/kg. HUD is not the governing authority for government maintenance facilities. However, the HUD standard is typically used to determine if lead in paint can be a hazard.

Recommendation

None

4.3 Moisture Intrusion and Limited Visual Fungal Growth Evaluation

No areas of moisture intrusion were noted by the Industrial Hygienist, nor were any moisture intrusion issues reported to exist at the property. It should be noted that water stained areas with no visible mold impact does not mean that mold growth is not present in these areas.

Recommendation

None

4.4 Asbestos Management

An asbestos survey was not located during the site visit. Non-Responsive 775-778-3003, indicated the building was constructed in 1965 and underwent a remodel in 2005 with the exception of the drill hall floor. Non-Responsive indicated he did not have an asbestos survey. Non-Responsive also indicated he believed the building was free of asbestos-containing materials (ACM) with the exception of the tile on the drill hall floor which is why the drill hall floor was not remodeled eight years ago with the rest of the building. The drill hall floor was noted to be in good condition during the IHSAV and no broken or delaminating tiles were noted. Non-Responsive additionally indicated he had previously been instructed to not disturb or abraid the drill hall floor due to the tiles being asbestos containing.

Recommendation

None

A POL flammable storage shed is located south of the building. There is a fire extinguisher located next to the POL room. The chemicals have been removed from the POL shed since the OMS is no longer in use. However, six batteries were identified in the POL shed. According to Non-Responsive the batteries in the POL shed remained from the former use of the OMS and have no current reason to be there.

Recommendation

1. Ensure an SDS is on file and HazCom training is conducted related to the batteries until they are removed from the site.
2. Remove the unused batteries from the site and properly recycle them.

4.7 Ventilation Survey

The facility is presently strictly administrative and does not service any vehicles due to the OMS not being in operation. There is a kitchen area and a ventilation hood was located in the kitchen area. The vent either did not operate when the switch was thrown or some other action needed to be taken. Therefore, ventilation measurements were not obtained from the kitchen hood.

Part of the buildings air flow directions generally followed the direction of the exterior prevailing wind direction.

Recommendation

Either repair the kitchen ventilation hood or post operating instructions indicating how to initiate the ventilation hood.

4.8 Personal Noise Dosimetry and Sound-Level Measurements

None of the full time personnel conducted operations that required hearing protection according to Non-Responsive phone 775-778-3003. Therefore, no sound level testing or noise dosimetry was performed.

Recommendation

None

4.9 Illumination Level Monitoring

Illumination levels measured throughout the facility can be found in Appendix E. The numbers represent the measured illumination levels in foot-candles (ftc). In general, the measurements were taken at task surface level, such as on desks or work benches. Measurements not taken on a desk or a bench were taken at waist level. Supplemental lighting is used for specific work in darker areas, such as under the hoods of vehicles.

The illumination measurements were compared with recommendations made by the Industrial Engineering Society (IES)/American National Standards Institute (ANSI) RP7-1991 and 41 CFR 101-20-107, Energy Conservation Rule, Federal Property Management Regulations. In general, 50 ftc is the minimum lighting requirement for the performance of tasks where reading is required, 30 ftc is required for work areas where reading is not required, 10 ftc is required for non-work areas, such as aisles and corridors, and 5 ftc is required for walking surfaces such as mechanical spaces.

Based on the above criteria the general lighting in all areas measured is adequate for the tasks performed.

Recommendation

None

4.10 Safety Training and Documentation

The following safety policies, procedures and training were identified at the facility:

- The Army Safety Program, AR 385-10
- System Safety Management Guide, DA Pam 385-16
- Small Unit Safety Officer/NCO Guide, DA Pam 385-1
- Emergency Evacuation Plan
- Army National Guard Safety Program, NGR 385-10

Recommendation

None

4.11 General Safety Walk-Through

1. Housekeeping throughout the facility was good.

2. There were fire alarms present in this facility.

3. Fire extinguishers are strategically located throughout the facility. The monthly inspections were current for each fire extinguisher identified and fire extinguisher markings were also present. The annual inspections were current.

4. Fire evacuations routes were posted in the rooms of the facility.

5. Eyewash/deluge shower stations are not located at the facility.

6. Electrical panels are closed and labeled and observed junction boxes were sealed.

7. Electrical outlets were labeled with voltage limits.

8. Emergency lighting is installed in the facility. Three of the emergency lighting units were not functional and there was no weekly inspection checklist maintained at the facility.

Recommendation

Repair or replace the non-functioning emergency lighting, institute an emergency lighting weekly operational verification procedure and ensure the verification is noted and kept as a log or on file.

4.12 Battery Storage and Charging

Battery storage and charging does not occur at the facility according to Non-Responsive phone 775-778-3003. However, six batteries were being stored in the POL shed during the IHSAV. These batteries are addressed in Section 4.6 of this report.

Recommendation

None

4.13 Brake Relining/Changing Operations

Brake relining/changing operations do not occur at the facility according to Non-Responsive Non-Responsive phone 775-778-3003.

Recommendation

None

4.14 Flammable Storage Cabinets

There are no flammable storage cabinets located at the facility.

Recommendation

None

4.15 Petroleum, Oil, Lubrication Area

The petroleum, oil, and lubrication (POL) area is a shed located south of the building. However, it is presently unused and only contains the six batteries identified during the IHSAV.

Recommendation

None

4.16 Hazardous Waste Accumulation

Hazardous waste accumulation does not occur at the facility since no maintenance occurs at the facility according to Non-Responsive hone 775-778-3003.

Recommendation

None

4.17 Oily Rags

Oily rags are not collected at the facility since there is no maintenance being conducted at the facility.

Recommendation

None

4.18 Personal Breathing Zone Air Sampling

No maintenance activities were performed involving chemicals that warranted personal air sampling.

Recommendation

None

4.19 Small Arms Cleaning

No small arms cleaning are performed at this facility as indicated by Non-Responsive

Recommendation

None

4.20 Fuel Storage and Refueling

Fuel storage and refueling does not occur at this facility and are performed on the economy as indicated by Non-Responsive

Recommendation

None

5.0 Recurring Observations

A previous IHSW IHSAV was not available for review. Therefore, there were no recurring observations to report.

6.0 Project Limitations

This Project was performed using, as a minimum, practices consistent with standards acceptable within the industry at this time, and a level of diligence typically exercised by industrial hygiene and environmental consultants performing similar services.

The procedures used in this investigation attempt to establish a balance between the competing goals of limiting investigative and reporting costs and time, and reducing the uncertainty about unknown conditions. Therefore, because the findings of this report were derived from the scope, costs, time, and other limitations, the conclusions should not be construed as a guarantee that all environmental or occupational hazards have been identified and fully evaluated. Where sample collection and testing have been performed, R&R Environmental's professional opinions are based in part on the interpretation of data from discrete sampling locations that may not represent conditions at non-sampled locations. R&R Environmental, Inc. assumes no responsibility for omissions or errors resulting from inaccurate information or data provided by sources outside of R&R Environmental, Inc., or from omissions or errors in public records.

Furthermore, it is emphasized that the final decision on how much risk to accept always remains with the client since R&R Environmental, Inc. is not in a position to fully understand all of the client's needs. Clients with a greater aversion to risk may want to take additional actions while others, with less aversion to risk, may want to take no further action.

Appendix A

References

American Conference of Governmental Industrial Hygienists (ACGIH), Industrial Ventilation, A Manual of Recommended Practice

American Conference of Governmental Industrial Hygienists (ACGIH), Threshold Limit Values for Chemical Substances and Physical Agents and Biological Indices

American National Standards Institute (ANSI)/Illuminating Engineering Society (IES), Industrial Lighting.

American National Standards Institute, Z358. 1-1998. Emergency Eyewash and Shower Equipment

AR 40-5, Preventative Medicine

AR 40-10, Appendix B – Health Hazard Assessment Program in Support of Army Material Acquisition Decision Process

AR 385-10, The Army Safety Program

Corps of Engineers Guide Specification, CEGS-1585 1, Overhead vehicle tailpipe (and welding fume) Exhaust Systems

DA PAM 40-ERG, Ergonomics

DA PAM 40-501, Hearing Conservation.

National Safety Council, Fundamentals of Industrial Hygiene

NOR 385-10, Army National Guard Safety and Occupational Health Program

TB MED 503, The Army Industrial Hygiene Program

TG022, US Army Environmental Hygiene Agency (USAEHA), Industrial Hygiene Evaluation Guide

TG 141, US Army for Health Promotion and Preventive Medicine (USACHPPM) Industrial Hygiene Air Sampling Guide, Nov. 1997

Title 29, Code of Federal Regulations (CFR), 2011, revision Part 1910, Occupational Safety and Health Standards

Appendix B

Assessment Criteria

A. Ventilation Standards

Ventilation rates were compared to recommendations made in 29 CFR 1910, ACGIH Industrial Ventilation Manual, and Corps of Engineers specifications. See Appendix A for reference information. The rates were also compared to the ARNG-CSG-P Memorandum, dated November 2013 (ARNG Maintenance Shop Local Exhaust Ventilation Measurements)

B. Illumination Standards

Illumination measurements were compared with recommendations made by the Industrial Engineering Society (IES)/American National Standards Institute (ANSI) RP7-1991 Standard and MIL-STD¬1472E.

C. Noise

Noise measurements were taken and compared with OSHA Standard 29 CFR 1910.95 and Department of the Army Pamphlet 40-501.

D. Air Sampling

Personal air sampling was conducted in compliance with applicable NIOSH Analytical Methods. Sampling results were compared to relevant Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLV), or National Institute of Occupational Safety and Health (NIOSH) Recommended Exposure Limits (REL).

Occupational Safety and Health Administration (OSHA)

OSHA has established Permissible Exposure Limits (PELs) for workplace toxic and hazardous substances listed in 29 CFR 1910.1000 Table Z-1. Most OSHA PELs are based on 8-hour time weighted averages (TWAs); when sampling periods differ from 8 hours, the result must first be converted to an 8-hour TWA before comparing it to the OSHA PEL. Some OSHA PELs are based on Short Term Exposures Limits (STEL) of 15 minutes of worst case exposure or Ceiling Limits of worst case peak exposures (sampled as a 15 minute exposure if direct-reading methods are not available).

OSHA regulations are legally enforceable. Employers are required to maintain employee exposures below PELs. The best practice is to eliminate hazards and use safer substitutes. Alternatively, engineering and/or administrative (work practice) controls may reduce exposures to acceptable levels. Personal protective equipment should be the solution of last resort, implemented after all other efforts to eliminate the hazard have been exhausted or deemed infeasible. OSHA 29 CFR 1910.134 covers the use of respiratory protection in the work place.

American Conference of Governmental Industrial Hygienists (ACGIH)

Unlike the OSHA PELs, the ACGIH TLVs are not consensus standards; however, TLVs represent a scientific opinion based on a review of existing peer-reviewed scientific literature by committees of experts in public health and related sciences.

Occupational Exposure Limit

In accordance with the Department of the Army (DA) Pamphlet 40-503, Industrial Hygiene Program (DA PAM 40-503), "The DA mandates the use of ACGIH TLVs when they are more stringent than OSHA regulations or when there is no PEL." The DA defines the resulting exposure limit as the Occupational Exposure Limit (OEL).

PHOTO LOG
593RD MEDIUM TRUCK COMPANY (MTC) ARMORY
ELKO, NEVADA
25 JUNE 2014

Photo 1: 593rd Medium Truck Company (MTC) Armory.

Photo 2: Typical College Used Classroom.

PHOTO LOG
593RD MEDIUM TRUCK COMPANY (MTC) ARMORY
ELKO, NEVADA
25 JUNE 2014

Photo 3: Drill Hall.

Photo 4: POL Shed.

PHOTO LOG
593RD MEDIUM TRUCK COMPANY (MTC) ARMORY
ELKO, NEVADA
25 JUNE 2014

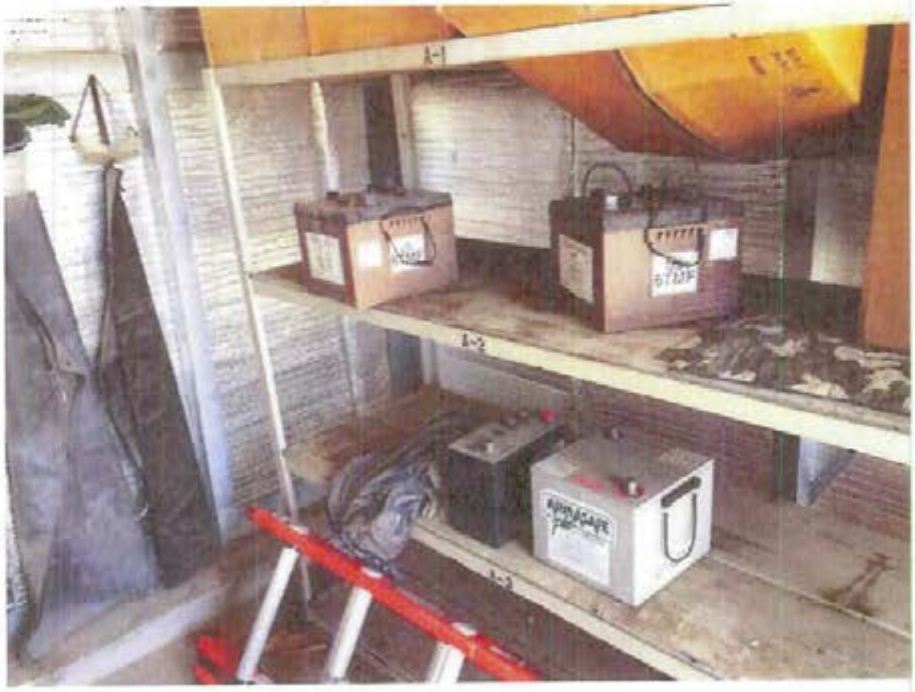


Photo 5: Batteries Remaining in the POL Shed.

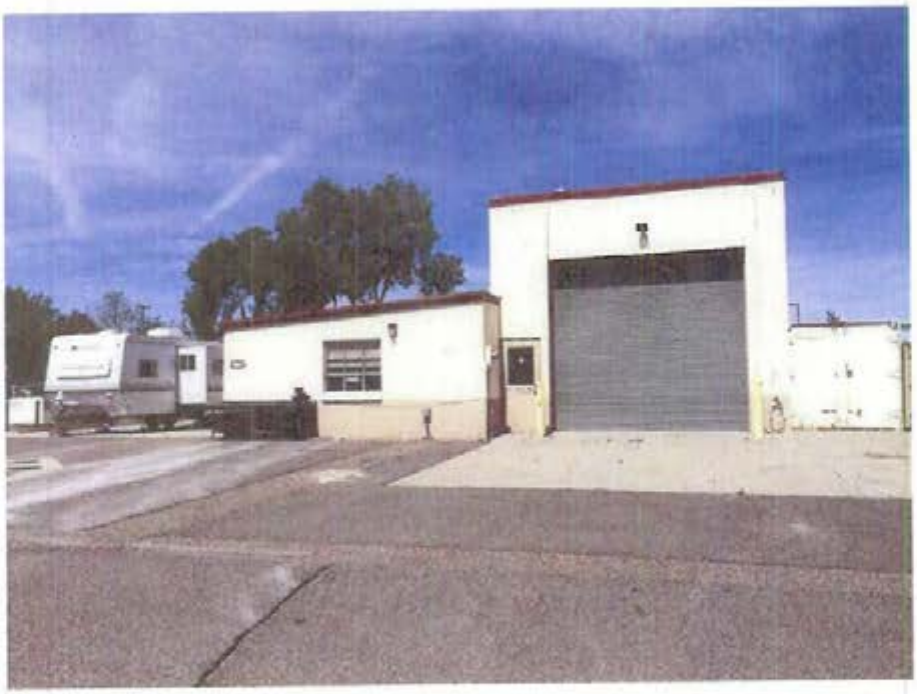


Photo 6: No longer used OMS.

PHOTO LOG
593RD MEDIUM TRUCK COMPANY (MTC) ARMORY
ELKO, NEVADA
25 JUNE 2014

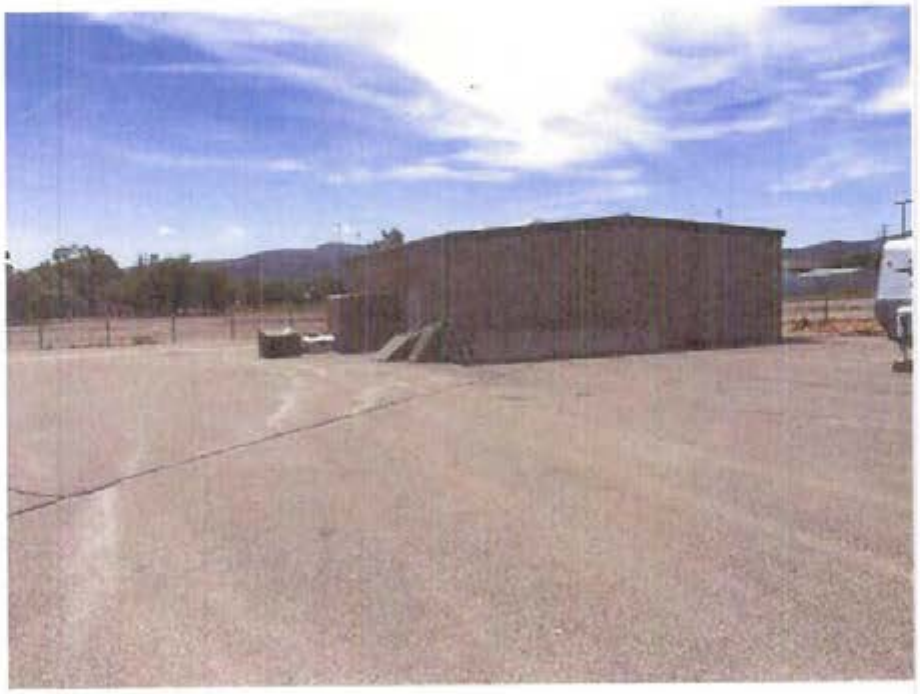


Photo 7: No Longer Used Storage Shed.

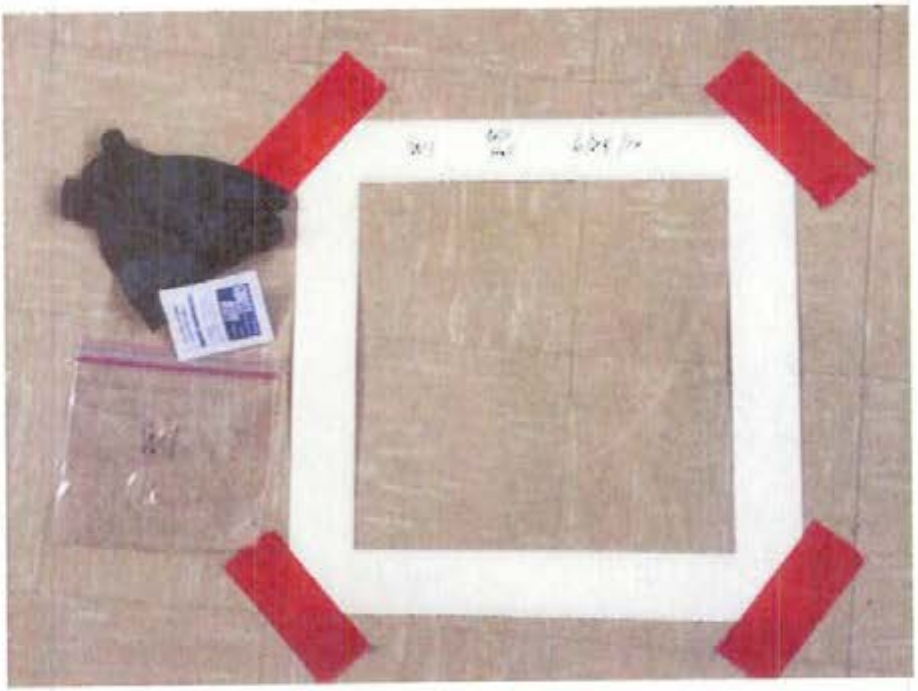


Photo 8: Lead Wipe Sample W1.

PHOTO LOG
593RD MEDIUM TRUCK COMPANY (MTC) ARMORY
ELKO, NEVADA
25 JUNE 2014

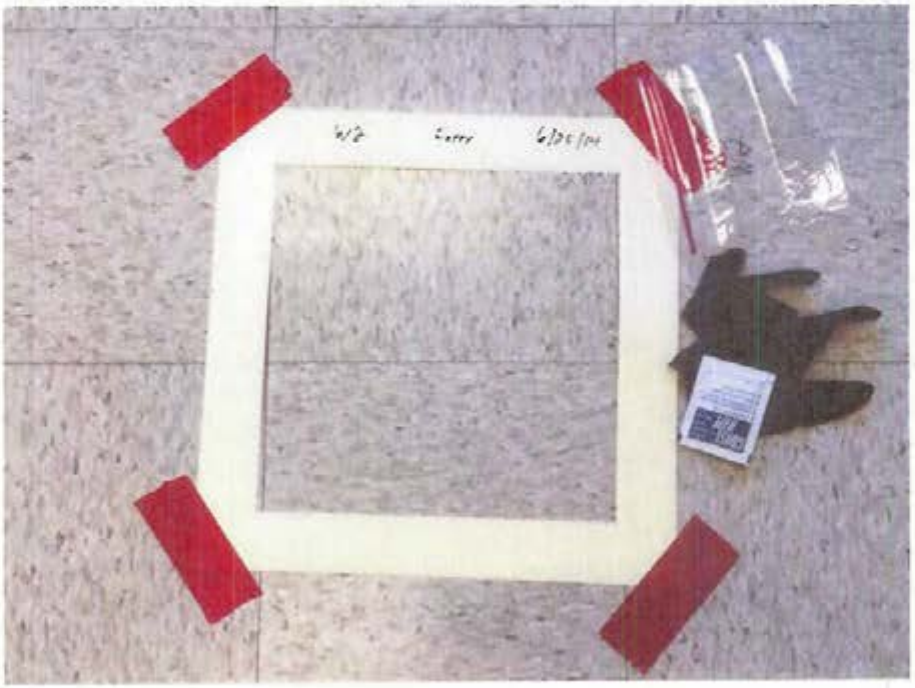


Photo 9: Lead Wipe Sample W2.

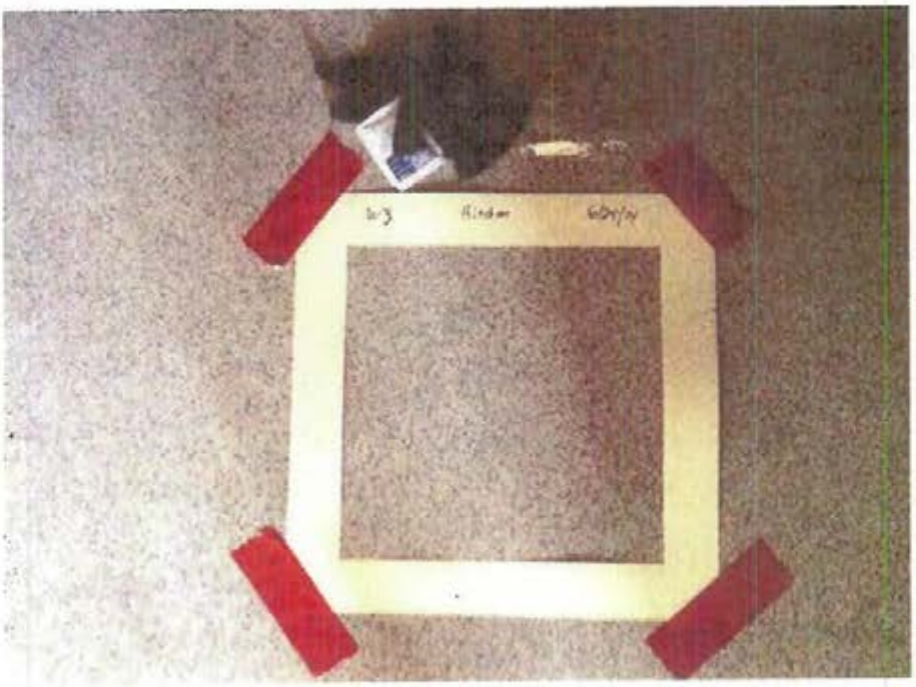


Photo 10: Lead Wipe Sample W3.

PHOTO LOG
593RD MEDIUM TRUCK COMPANY (MTC) ARMORY
ELKO, NEVADA
25 JUNE 2014

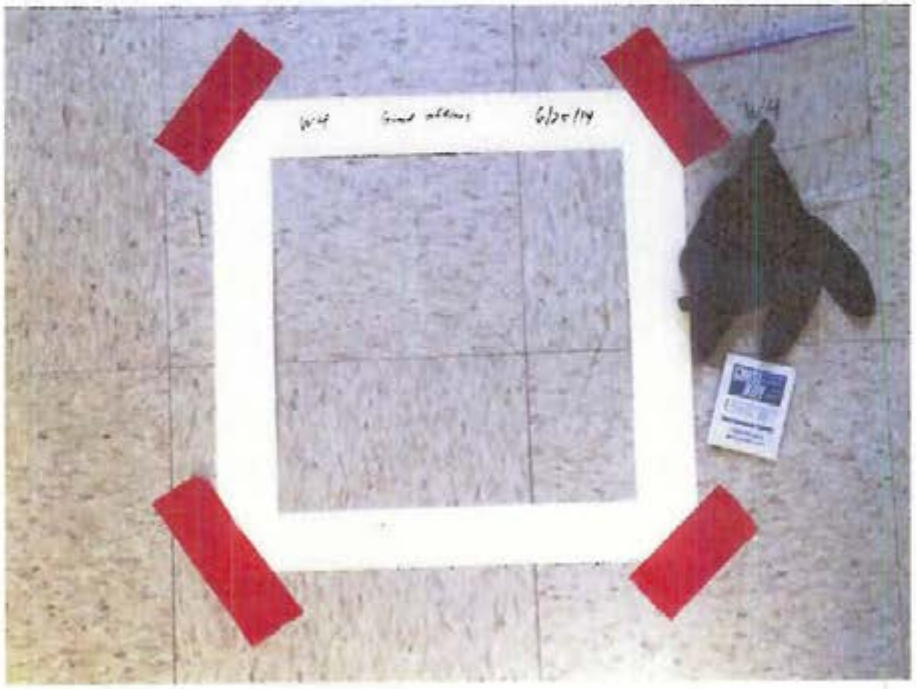


Photo 11: Lead Wipe Sample W4

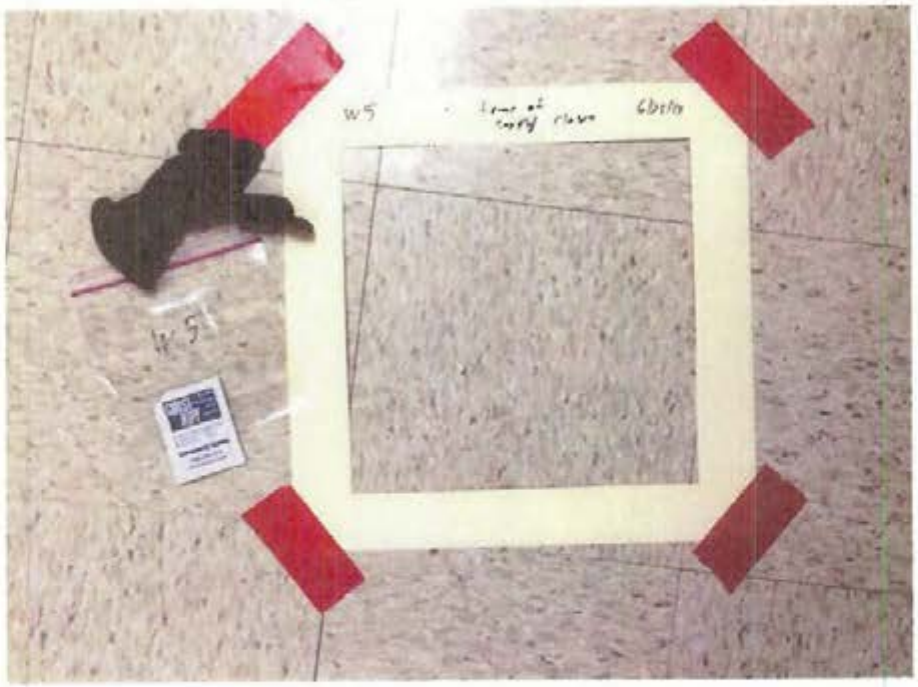


Photo 12: Lead Wipe Sample W5.

PHOTO LOG
593RD MEDIUM TRUCK COMPANY (MTC) ARMORY
ELKO, NEVADA
25 JUNE 2014

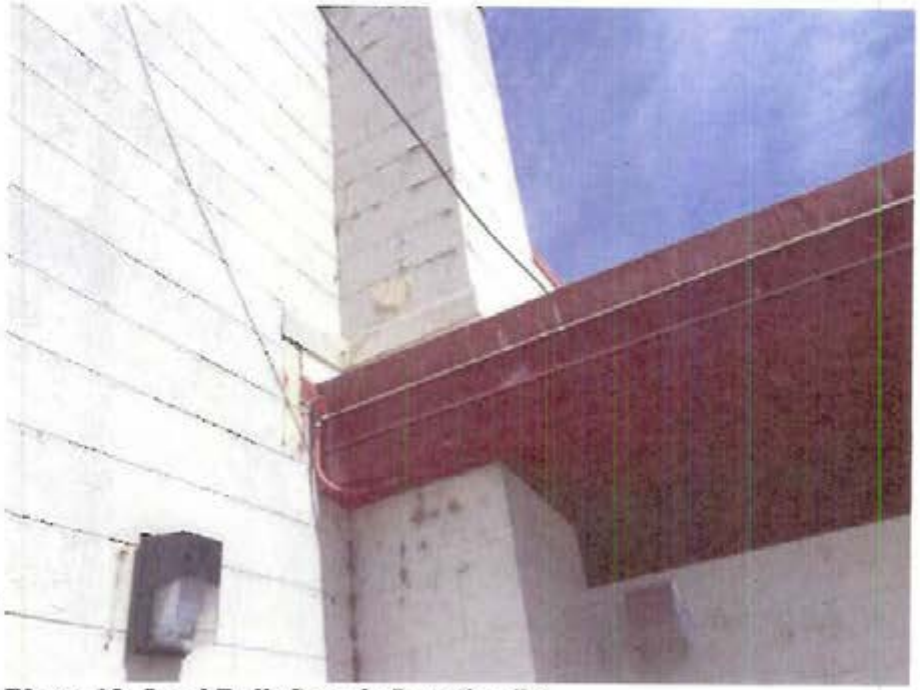
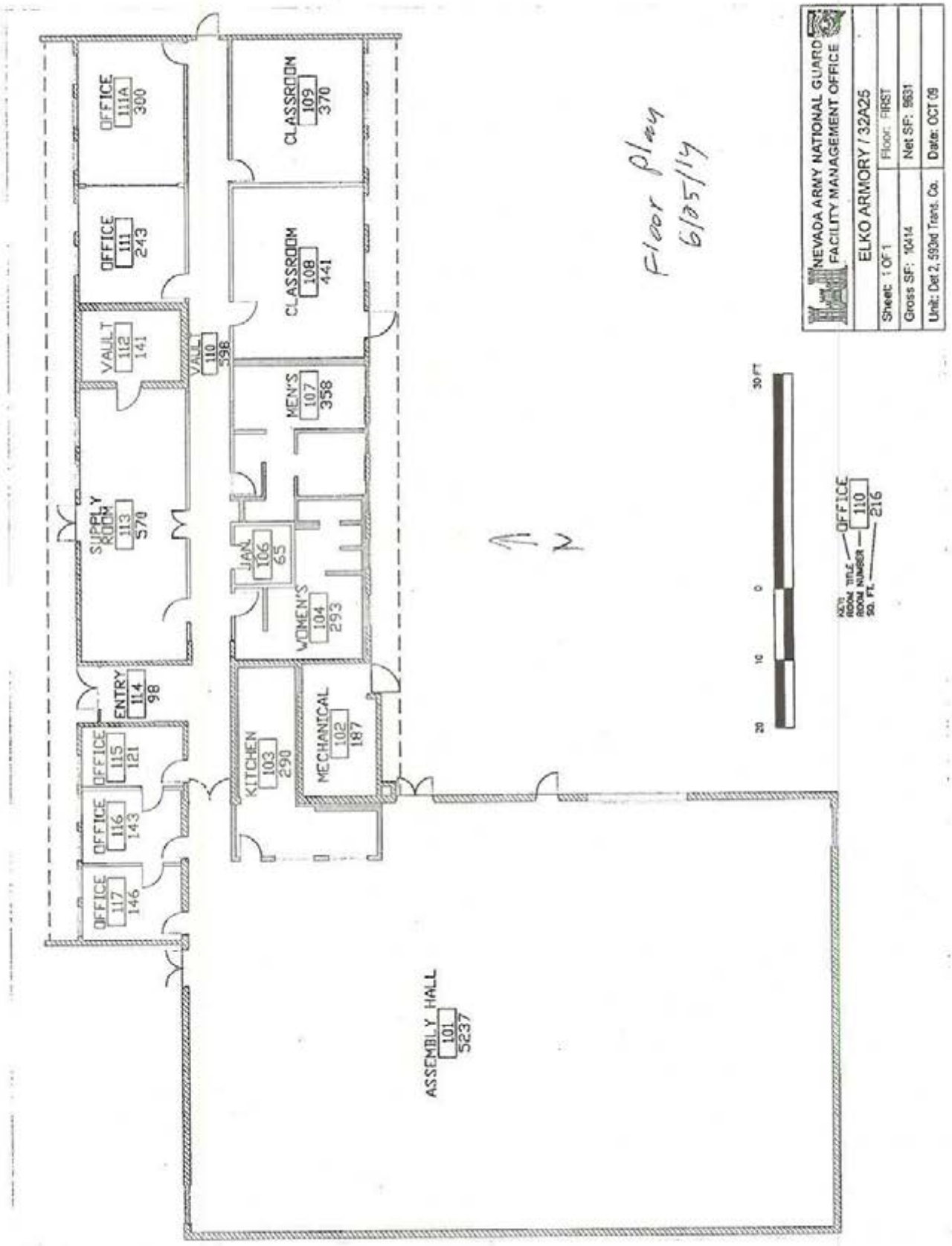
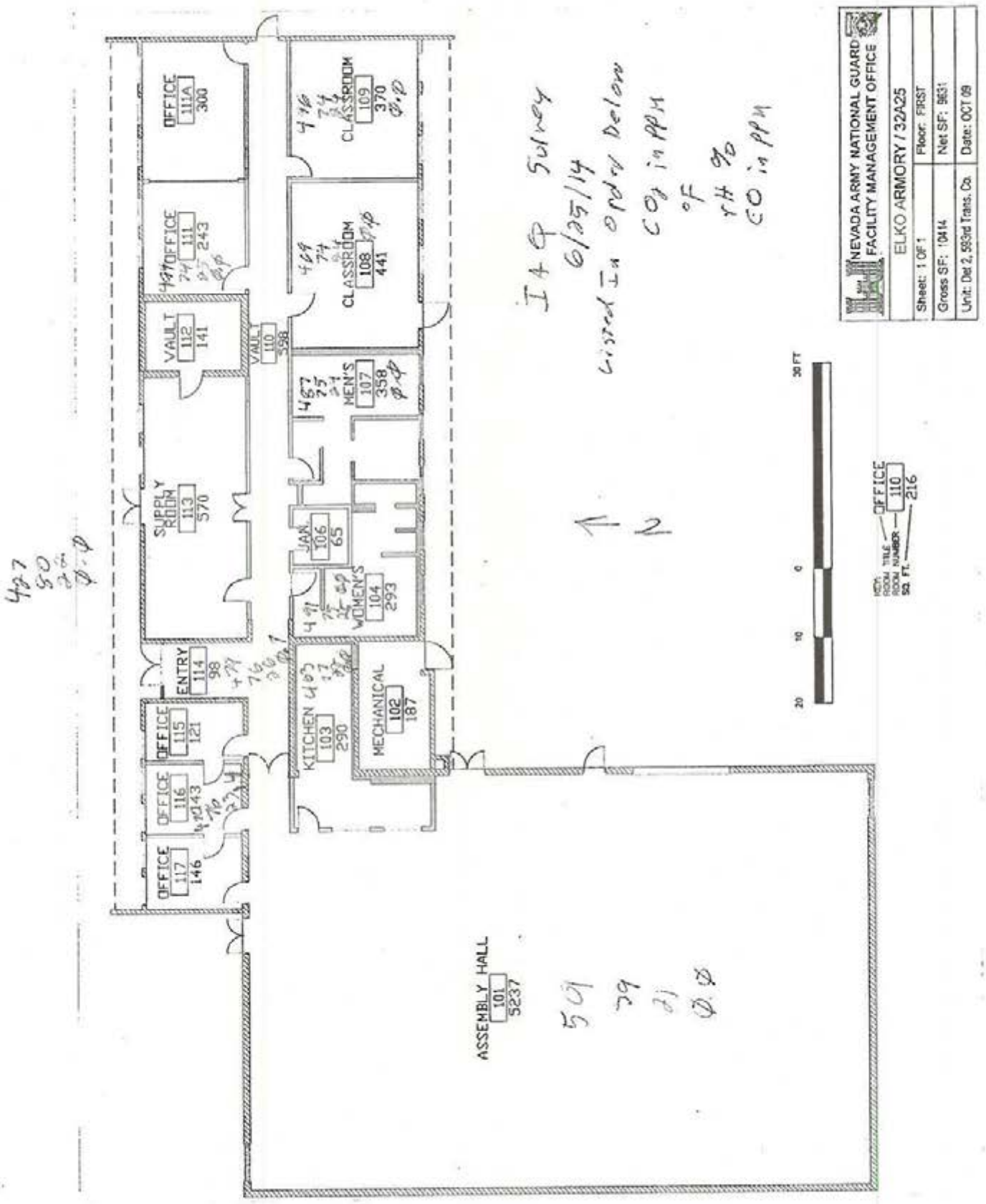
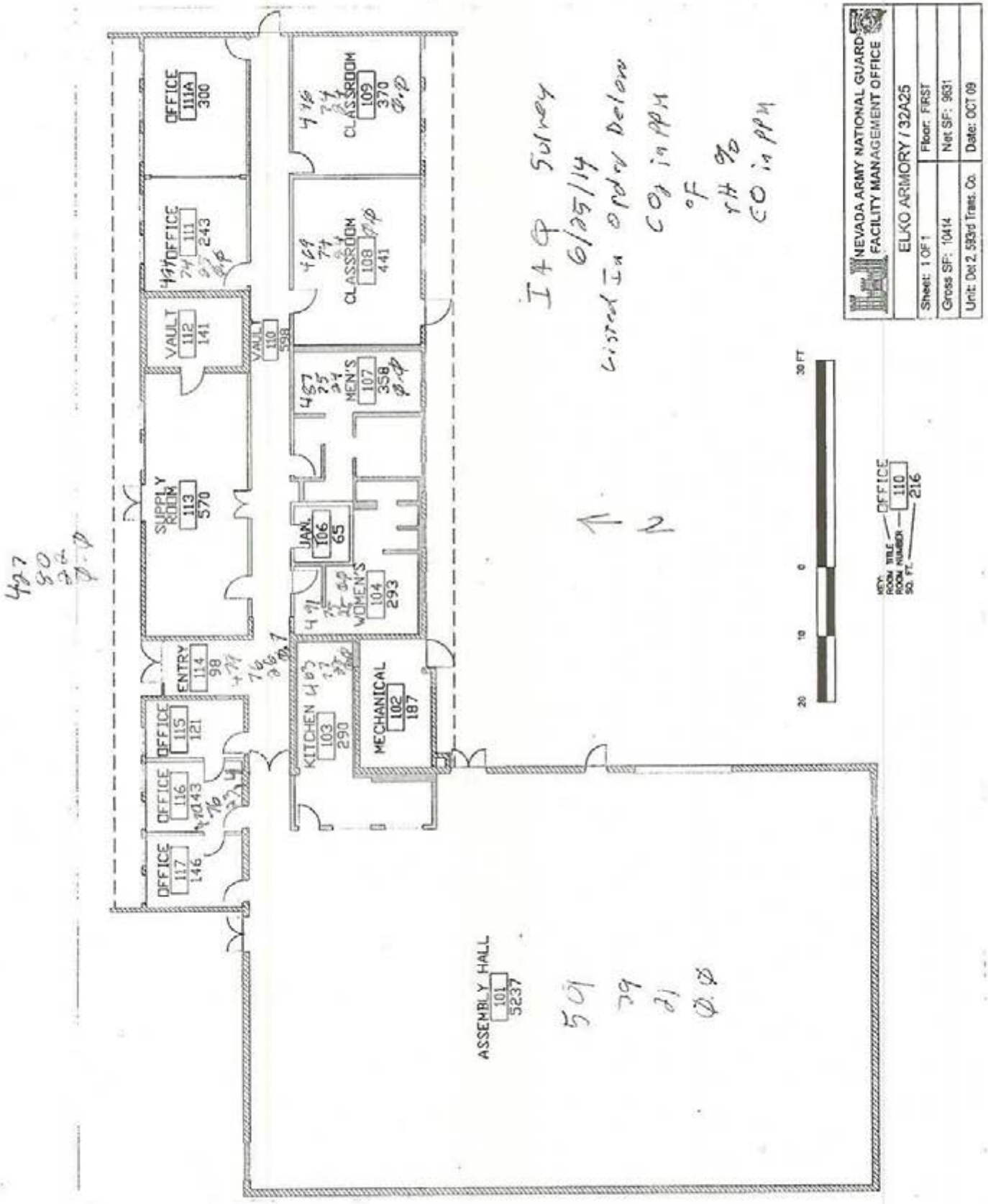
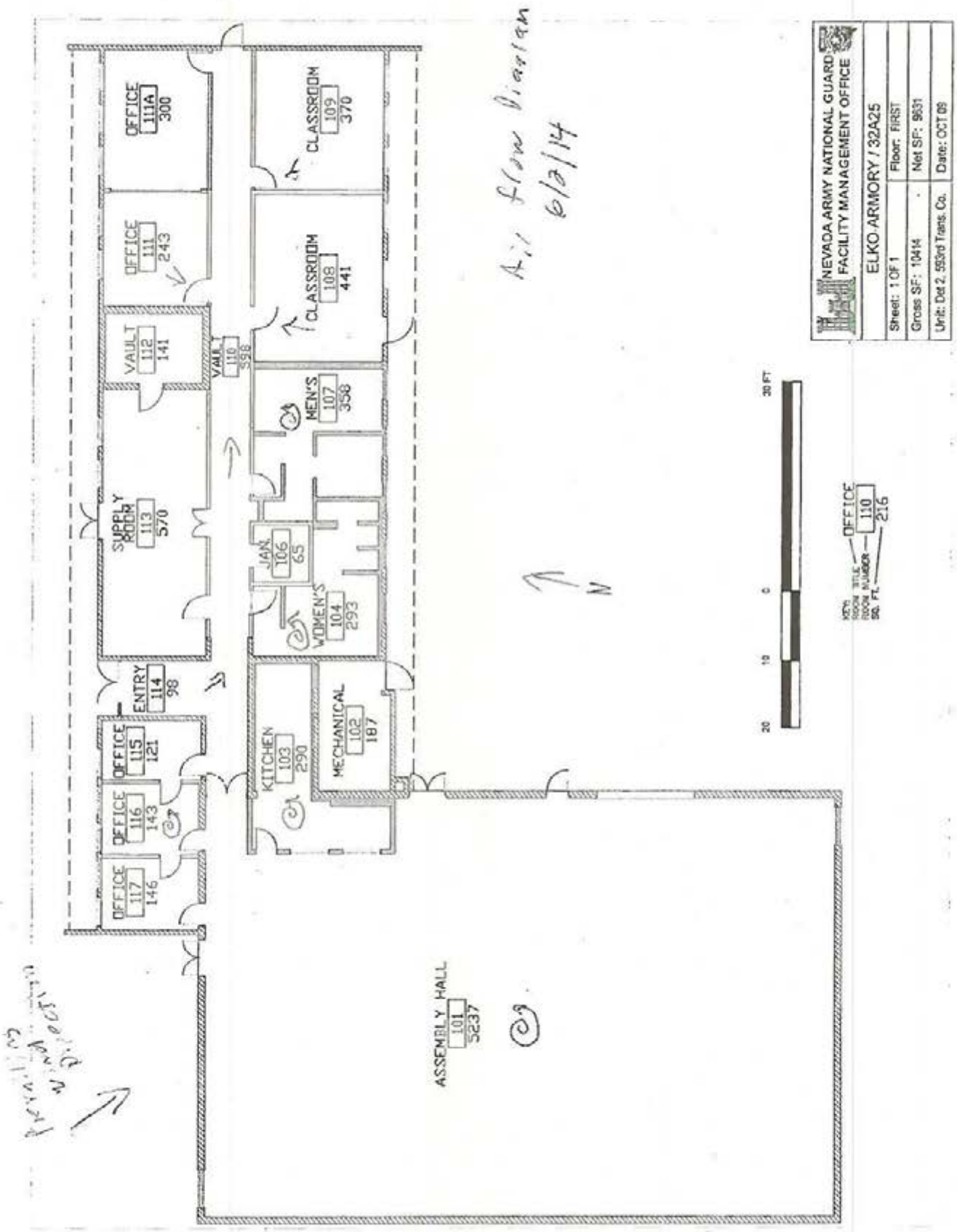


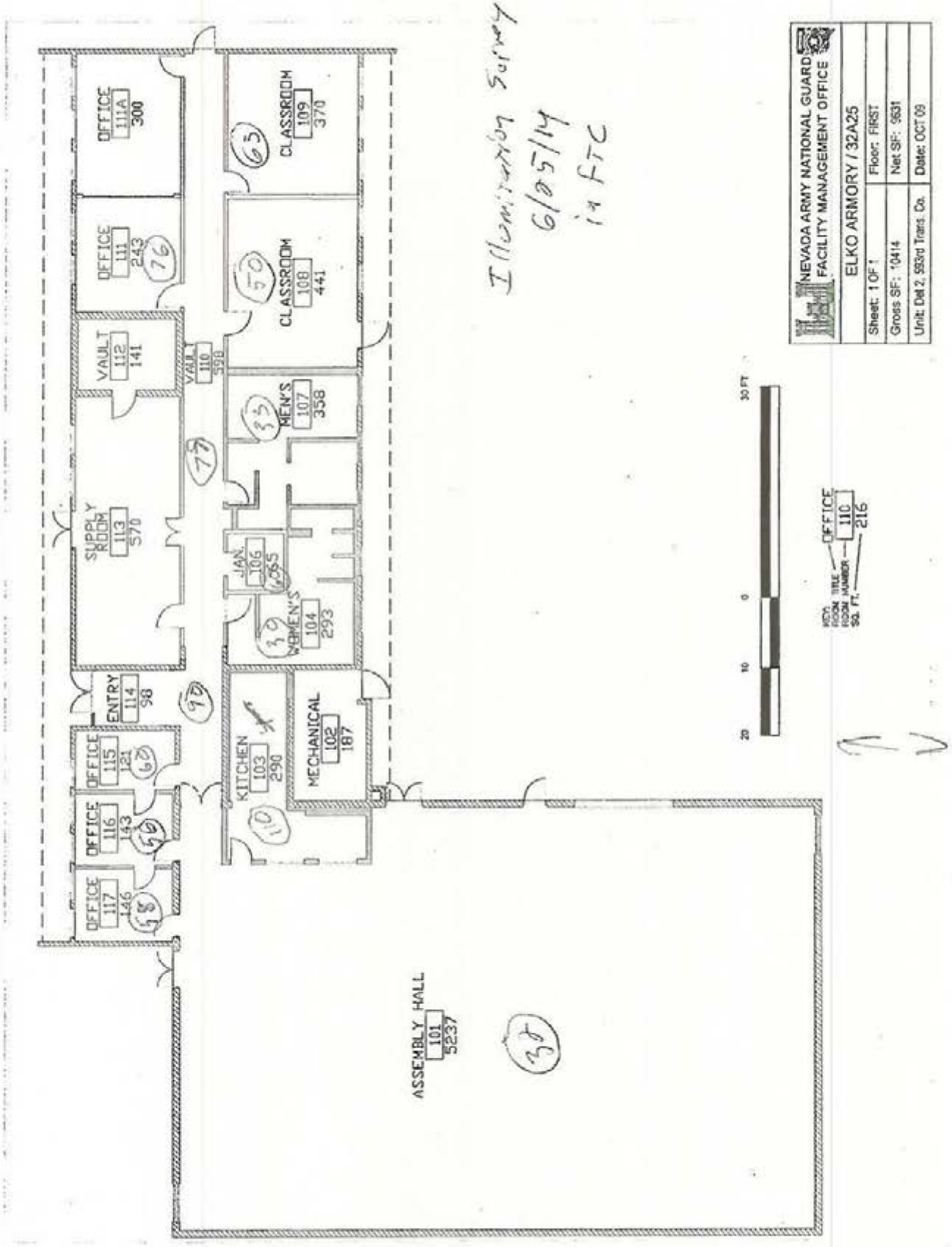
Photo 13: Lead Bulk Sample Location B1.

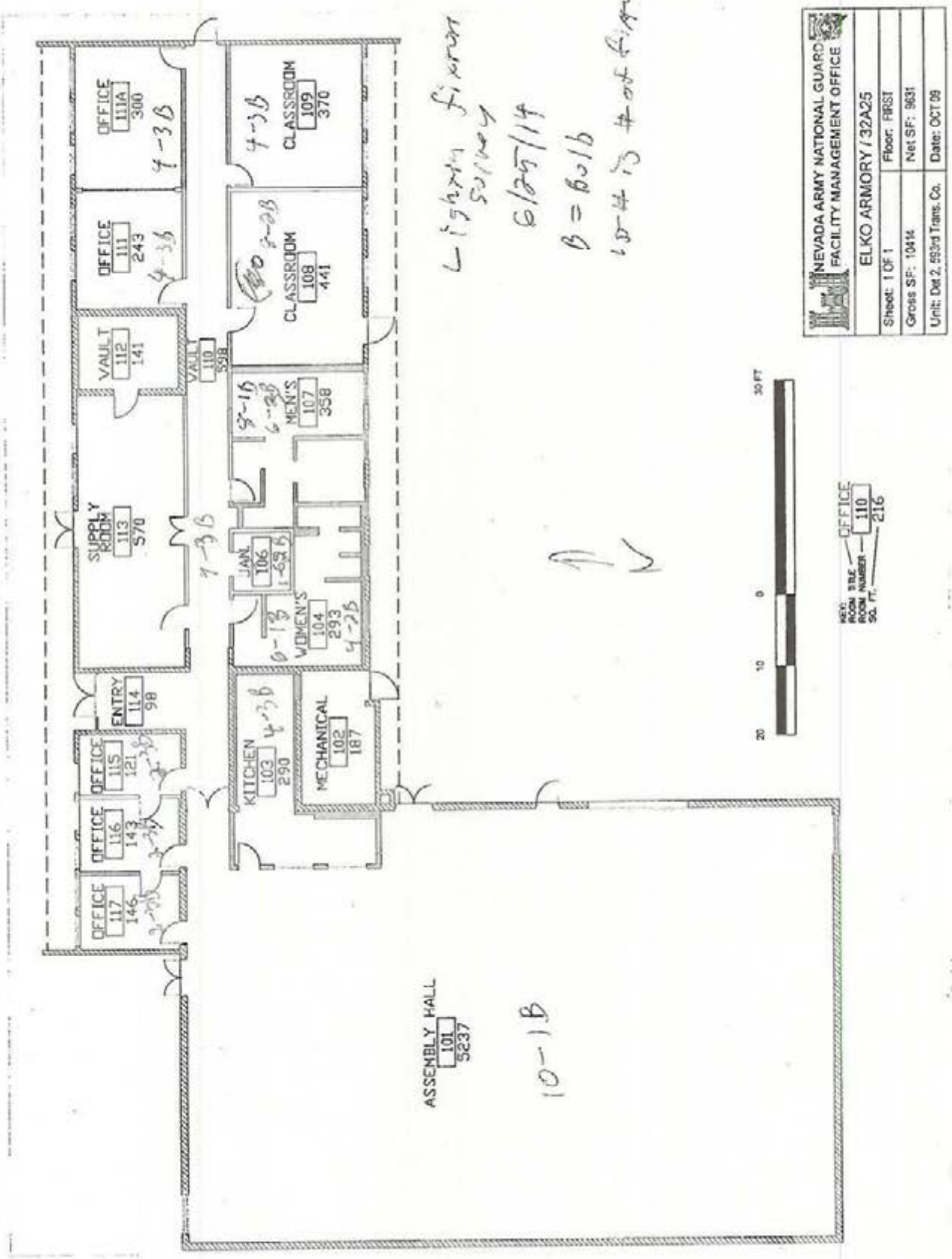


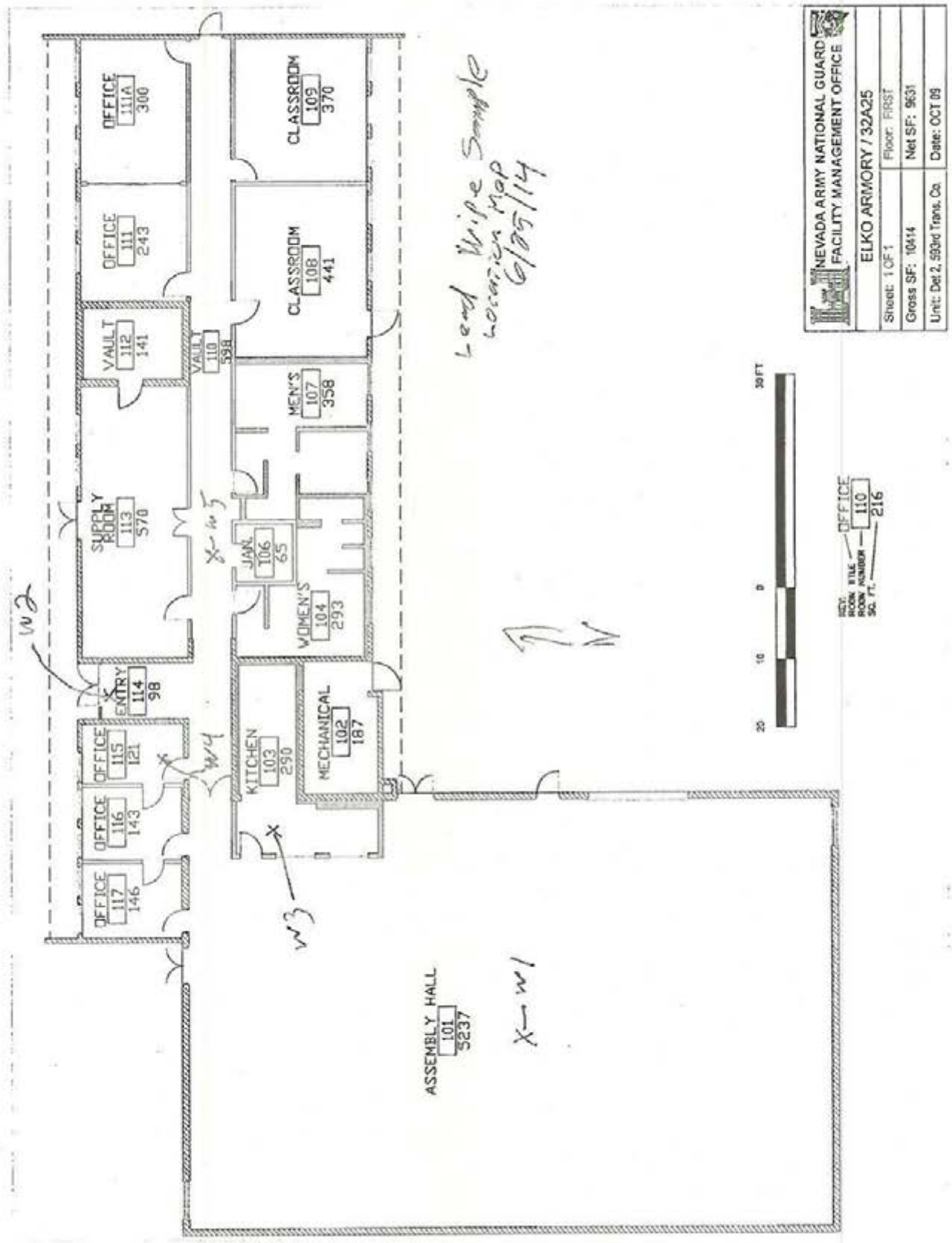


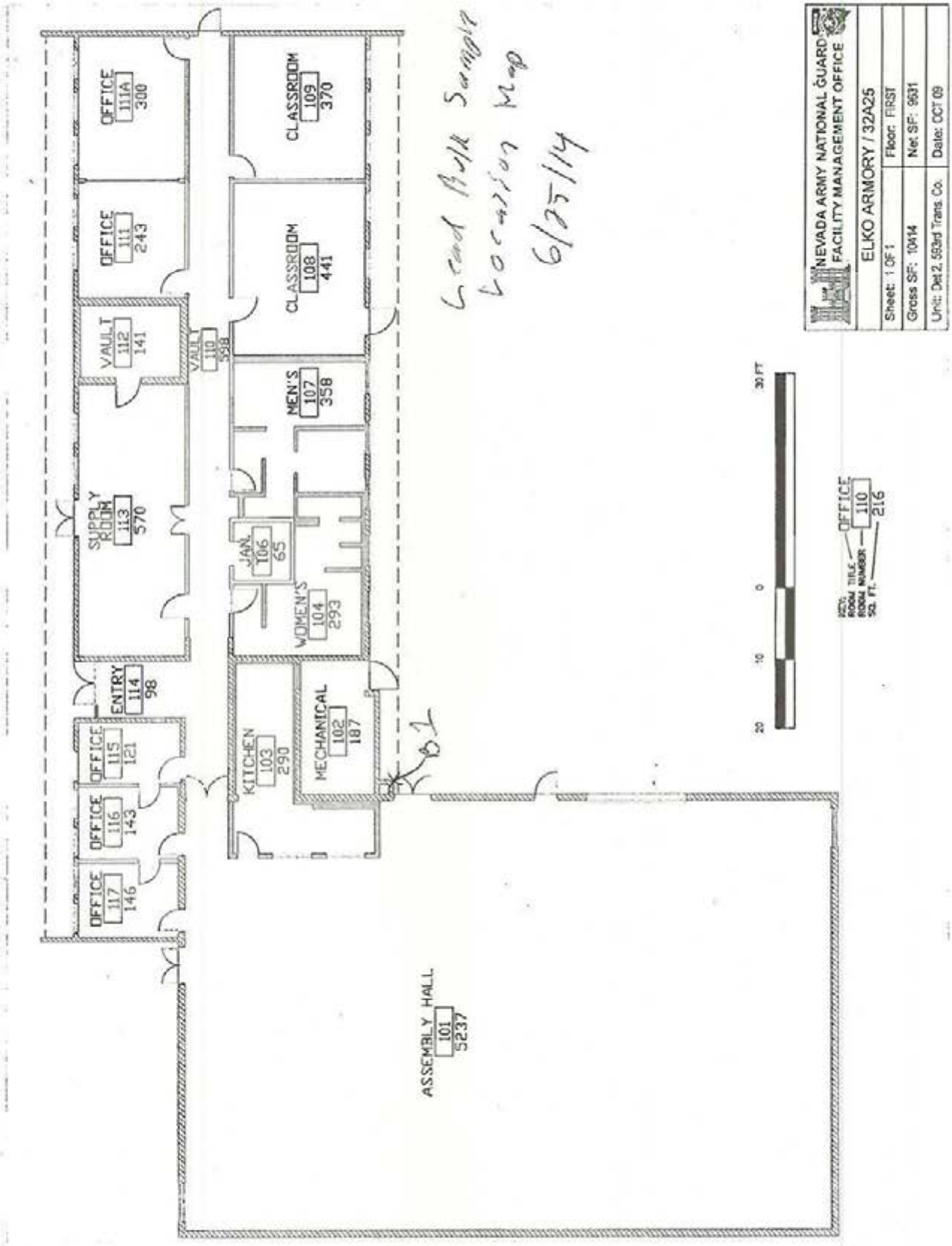



NEVADA ARMY NATIONAL GUARD
FACILITY MANAGEMENT OFFICE
ELKO ARMORY / 32A25
Sheet: 1 OF 1
Floor: FIRST
Gross SF: 10414
Net SF: 9631
Unit: Det 2, 593rd Trans. Co.
Date: OCT 09
OFFICE 111A 300
CLASSROOM 109 370
OFFICE 111 243
CLASSROOM 108 441
VAULT 112 141
VAULT 110 398
MEN'S 107 358
SUPPLY ROOM 113 570
JAN. 106 65
WOMEN'S 104 293
ENTRY 114 98
OFFICE 115 121
KITCHEN 103 290
MECHANICAL 102 187
OFFICE 116 143
OFFICE 117 146
ASSEMBLY HALL 101 5237
OFFICE 110 216
30 FT
0
10
20
N




NEVADA ARMY NATIONAL GUARD
FACILITY MANAGEMENT OFFICE
ELKO ARMORY / 32A25
Sheet: 1 OF 1
Floor: FIRST
Gross SF: 10414
Net SF: 9631
Unit: Det 2, 593rd Trans. Co.
Date: OCT 09
OFFICE 111A 300
OFFICE 111 243
CLASSROOM 109 370
CLASSROOM 108 441
VAULT 112 141
VAULT 110 598
MEN'S 107 358
JAN. 106
WOMEN'S 104 293
SUPPLY ROOM 113 570
ENTRY 114 98
OFFICE 115 121
OFFICE 116 143
OFFICE 117 146
KITCHEN 103 290
MECHANICAL 102 187
ASSEMBLY HALL 101 5237
OFFICE 110 216
KEY: ROOM TITLE / ROOM NUMBER / SQ. FT.
30 FT
0
10
20


NEVADA ARMY NATIONAL GUARD
FACILITY MANAGEMENT OFFICE
ELKO ARMORY / 32A25
Sheet: 1 OF 1
Floor: FIRST
Gross SF: 10414
Net SF: 9631
Unit: Det 2, 593rd Trans. Co.
Date: OCT 09
OFFICE 111A 300
CLASSROOM 109 370
OFFICE 111 243
CLASSROOM 108 441
VAULT 112 141
VAULT 110 598
MEN'S 107 358
SUPPLY ROOM 113 570
JAN. 106 65
WOMEN'S 104 293
ENTRY 114 98
OFFICE 115 121
KITCHEN 103 290
MECHANICAL 102 187
OFFICE 116 143
OFFICE 117 146
ASSEMBLY HALL 101 5237
OFFICE 110 216
W1
W2
W3
W4
W5
X-W1
X-W5
Land Wipe Sample Location Map
Class IV
30 FT
20
10
0



6/25/14

(UIC WPN8A2)

593rd Medium Truck Company, (MTC)
1375 13th Street
Elko NV 89801

[redacted]

12 copies Site plan
Master Chemical list - No Janitorial or Maint
Equipment List None Equip in caplsu
Employee List 1 above
~~Maint on facility~~
ACM Survey None but 9x9
Previous IHSAV None

How Many Employees? only 1 AGR
Other Units? None
Civilian Functions? Rented for Parties occasionally
Rented facility? College uses 2 classrooms (108-109) also does janitorial on contract for all
Maint on facility? None
Small Arms cleaning? No.
HVAC Maint? - from Carlin Armory & Subcontract

6 Batteries in old POL Storage
- old OMS Not used Any more
- Separator Not used because OMS shutdown
- AST ↗
- Storage shed ↗

- Emergency lighting - Not working 1, 2, 6 - Mens Restroom (Drill Hall)
- there Are fire Alarms
- Fire Ex ~~No~~ Annual punch on tag on ticket - Monthly ~~Annually~~ June 14
↳ ~~[illegible]~~ Monthly outdated
↳ No Fire Ex Alarms
- Fire Evac plan posted
- Kitchen Vent Same as Libby

W1 – Drill Hall floor
W2 – Entry way floor
W3 – Kitchen floor
W4 – Guard offices floor
W5 – in front of ~~the~~ Janitors closet floor

B1 – Exterior white / storm undercoats Paint chips
S inside corner

BEST AVAILABLE COPY

CERTIFICATE OF CALIBRATION AND TESTING

TSI Incorporated, 500 Cardigan Road, Shoreview, MN 55126 USA
Tel: 1-800-874-2811 1-651-490-2811 Fax: 1-651-490-3824 http://www.tsi.com

ENVIRONMENT CONDITION		
TEMPERATURE	67.3 (19.6)	°F (°C)
RELATIVE HUMIDITY	40	%RH
BAROMETRIC PRESSURE	28.77 (974.3)	inHg (hPa)

MODEL	9555-P
SERIAL NUMBER	9555P1013022

☒ AS LEFT ☒ IN TOLERANCE
☐ AS FOUND ☐ OUT OF TOLERANCE

– CALIBRATION VERIFICATION RESULTS –

THERMO COUPLE — SYSTEM PRESSURE01-02 — *Unit: °F (°C)*

#	STANDARD	MEASURED	ALLOWABLE RANGE	#	STANDARD	MEASURED	ALLOWABLE RANGE
1	70.1 (21.2)	70.1 (21.2)	[illegible]				

DIFFERENTIAL PRESSURE — SYSTEM PRESSURE01-02 — *Unit: inH_2O (Pa)*

#	STANDARD	MEASURED	ALLOWABLE RANGE	#	STANDARD	MEASURED	ALLOWABLE RANGE
1	-3.670 (-913.8)	-3.688 (-918.3)	-3.711~-3.629 (-924.0~-903.6)	3	7.979 (1986.8)	7.980 (1987.0)	7.895~8.063 (1965.9~2007.7)
2	1.864 (464.1)	1.861 (463.4)	1.841~1.887 (458.4~469.9)	4	13.783 (3432.0)	13.793 (3434.5)	13.641~13.925 (3396.6~3467.3)

BAROMETRIC PRESSURE — SYSTEM PRESSURE01-02 — *Unit: inHg (hPa)*

#	STANDARD	MEASURED	ALLOWABLE RANGE	#	STANDARD	MEASURED	ALLOWABLE RANGE
1	19.95 (675.6)	19.95 (675.6)	19.55~20.35 (662.0~689.1)	3	35.57 (1204.5)	35.56 (1204.2)	34.86~36.28 (1180.5~1228.6)
2	28.87 (977.7)	28.87 (977.7)	28.29~29.45 (958.0~997.3)				

TSI does hereby certify that the above described instrument conforms to the original manufacturer's specification (not applicable to As Found data) and has been calibrated using standards whose accuracies are traceable to the United States National Institute of Standards and Technology (NIST) or has been verified with respect to instrumentation whose accuracy is traceable to NIST, or is derived from accepted values of physical constants. TSI's calibration system is registered to ISO-9001:2008 and meets the requirements of ISO 10012:2003.

Measurement Variable	System ID	Last Cal.	Cal. Due	Measurement Variable	System ID	Last Cal.	Cal. Due
Temperature	E002827	02-06-13	02-06-14	Pressure	E003984	10-03-12	10-03-13
Pressure	E003982	03-21-13	09-21-13	DC Voltage	E003493	03-14-13	03-14-14

Non-Responsive

September 4, 2013
DATE

CERTIFICATE MAY BE COPIED
RETURN ORIGINAL

TSI P/N 2300167

CERTIFICATE OF CALIBRATION AND TESTING

TSI Incorporated, 500 Cardigan Road, Shoreview, MN 55126 USA
Tel: 1-800-874-2811 1-651-490-2811 Fax: 1-651-490-3824 http://www.tsi.com

ENVIRONMENT CONDITION		
TEMPERATURE	74.1 (23.4)	°F (°C)
RELATIVE HUMIDITY	53	%RH
BAROMETRIC PRESSURE	29.09 (985.1)	inHg (hPa)

MODEL	982
SERIAL NUMBER	P07190021

☒ AS LEFT ☒ IN TOLERANCE
☐ AS FOUND ☐ OUT OF TOLERANCE

– CALIBRATION VERIFICATION RESULTS –

TEMPERATURE VERIFICATION — SYSTEM T-101 — *Unit: °F (°C)*

#	STANDARD	MEASURED	ALLOWABLE RANGE	#	STANDARD	MEASURED	ALLOWABLE RANGE
1	32.0 (0.0)	32.6 (0.3)	31.0~33.0 (-0.6~0.6)	2	140.0 (60.0)	140.7 (60.4)	139.0~141.0 (59.4~60.6)

HUMIDITY VERIFICATION — SYSTEM H-102 — *Unit: %RH*

#	STANDARD	MEASURED	ALLOWABLE RANGE	#	STANDARD	MEASURED	ALLOWABLE RANGE
1	10.0	9.5	7.0~13.0	4	70.0	69.3	67.0~73.0
2	30.0	29.8	27.0~33.0	5	90.0	88.4	87.0~93.0
3	49.9	49.7	46.9~52.9				

CO2 GAS VERIFICATION — SYSTEM G-101 — *Unit: ppm*

#	STANDARD	MEASURED	ALLOWABLE RANGE	#	STANDARD	MEASURED	ALLOWABLE RANGE
1	0	0	0~50	4	3000	3021	2910~3090
2	506	497	456~556	5	4980	5011	4831~5129
3	1003	1012	953~1053				

CO GAS VERIFICATION — SYSTEM G-101 — *Unit: ppm*

#	STANDARD	MEASURED	ALLOWABLE RANGE	#	STANDARD	MEASURED	ALLOWABLE RANGE
1	35	36	32~38	2	100	100	97~103

TSI does hereby certify that the above described instrument conforms to the original manufacturer's specification (not applicable to As Found data) and has been calibrated using standards whose accuracies are traceable to the United States National Institute of Standards and Technology (NIST) or has been verified with respect to instrumentation whose accuracy is traceable to NIST, or is derived from accepted values of physical constants. TSI's calibration system is registered to ISO-9001:2008 and meets the requirements of ISO 10012:2003.

Measurement Variable	System ID	Last Cal.	Cal. Due	Measurement Variable	System ID	Last Cal.	Cal. Due
Temperature	E003986	04-12-13	10-12-13	Temperature	E003987	04-12-13	10-12-13
Humidity	E003539	08-21-13	08-21-14	5000 CO2	k100246125	07-22-13	07-02-16
200 CO	EB0014717	07-08-13	06-03-21	N2	28210	08-20-13	08-08-18
Air	T-0158	08-15-13	06-26-16	Flow	E004631	07-08-13	07-08-14
Flow	E003298	07-08-13	07-08-14	Flow	E003981	11-14-12	11-14-13
Flow	E003525	03-12-13	03-12-14	2000 C4H8	EB0028230	05-25-12	05-18-15
100 C4H8	EB0004721	08-23-12	08-22-15				

Non-Responsive

September 4, 2013
DATE

Doc. ID: CERT_GEN_WCC

CERTIFICATE MAY BE COPIED
RETURN ORIGINAL

testo

Kalibrier-Protokoll

Certificate of conformity • Protocole d'étalonnage
Protocollo di collaudo • Informe de calibración

Gerät / Module type /
Modèle / Modelo: **testo 540**

Messbereich / Measuring range /
Etendue de mesure / Rango de medición : **0...99999 Lux**

Serien-Nr. / Serial no. /
N°. de série / Número de serie: **39041581/307**

Segmenttest / Display test /
Test d'affichage / Test del visualizador: ☑ OK

Messwerte / Measured values / Valeurs mesurées / Valores medidos:		
Sollwert / Reference / Référence / Referencia:	Zulässige Toleranz / Permissible tolerance / Tolérance admise / Tolerancia permitida :	Istwert / Actual Value / Valeur réelle / Valor medido :
Lux:		
4000lux	**±120lux**	**3997lux**

Non-Responsive

Prüfer / Inspector /
Responsable / Verificador

GASCO AFFILIATES, LLC.

320 Scarlet Blvd.
Oldsmar, FL 34677
(800) 910-0051
Fax: (866) 755-8920
www.gascogas.com

CERTIFICATE OF ANALYSIS

Date: January 2, 2014
Order Number: 729-1
Lot Number: MAN-1-10

Customer: RAECO Rents,LLC

Use Before: 01/02/2018

Component	Specification	Analytical Result (+/- 2%)
Oxygen	20.9% vol.	20.9% vol. THC <0.1 PPM
Nitrogen	Balance	Balance

Cylinder Size: 3.6 Cu. Ft.
Contents: 103 Liter

Valve: 5/8" -18UNF
Pressure: 1000 psig

The calibration gas prepared by Gasco is considered a certified standard. It is prepared by gravimetric, or partial pressure techniques. The calibration standard provided is certified against Gasco's G.M.I.S. (Gas Manufacturer's Intermediate Standard) which is either prepared by weights traceable to the National Institute of Standards and Technology (NIST) or by using NIST Standard Reference Materials where available.

Analyst:
Non-Responsive

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GASCO AFFILIATES, LLC.

320 Scarlet Blvd.
Oldsmar, FL 34677
(800) 910-0051
fax: (866) 755-8920
www.gascogas.com

CERTIFICATE OF ANALYSIS

Date: January 2, 2014
Order Number: 729-1
Lot Number: BAO-389-35-1

Customer: RAECO Rents,LLC

Use Before: 01/02/2018

Component	Specification (+/- 10%)	Analytical Result (+/- 2%)
Carbon Monoxide	35 PPM	36.3 PPM
Carbon Dioxide	1000 PPM	1025.1 PPM
Air	Balance	Balance

Cylinder Size: 3.6 Cu. Ft.
Contents: 103 Liter

Valve: 5/8" -18UNF
Pressure: 1000 psig

The calibration gas prepared by Gasco is considered a certified standard. It is prepared by gravimetric, or partial pressure techniques. The calibration standard provided is certified against Gasco's G.M.I.S. (Gas Manufacturer's Intermediate Standard) which is either prepared by weights traceable to the National Institute of Standards and Technology (NIST) or by using NIST Standard Reference Materials where available.

Analyst:

Non-Responsive

BEST AVAILABLE COPY

Certificate of Conformance

CASELLA CEL

Model: CEL-254 Serial No: 2106426134

The instrument identified above has been manufactured, inspected and tested, in accordance with company drawings and specifications, and conforms to the standard(s) indicated below.

IEC-61672: 2002 Class 1	☐	Class 2	☑		
IEC-60651: 1979 Type 1	☐	Type 2	☑		
IEC-60804: 2000 Type 1	☐	Type 2	☐		
ANSI S1.4: 1997 Type S(1)	☐	Type S(2)	☑	ANSI S1:11: 1986 (R1998) Type 0	☐
IEC-1260: Class 2	☐	Class 0	☐	ANSI S1.11: 1986 (R1998) Type 2	☐
IEC-1252: 1993	☐			ANSI S1.25: 1991 Class 2	☐
Manufacturers specification	☐				

Company test equipment and acoustic working standards, used for conformance testing, are subject to periodic calibration, traceable to UK national standards, in accordance with the company's ISO 9001 Quality System.

Signature [redacted] CEL 3 Date: **12 NOV 2013**

CEL and Dawe instrumentation is manufactured by Casella CEL,

Regent House, Wolseley Road, Kempston, Bedford, MK42 7JY, UK
Phone: +44 (0) 1234 844100, Fax: +44 (0) 1234 841490, E-mail: info@casellacel.com

17 Old Nashua Road, #15, Amherst, NH03031, U.S.A.
Phone: +1 800 366 2966, Fax: +1 603 672 8053, E-mail: info@casellausa.com

Certificate of Conformance

CASELLA CEL

CEL 110 Acoustic Calibrator

Model: CEL-110/2 Serial No: 2106426134 Firmware: 2.000

The instrument identified above has been manufactured, inspected and tested, in accordance with company drawings and specifications, and conforms to the standard(s) indicated below.

CEL-110/1 Class 1 ☐ IEC 60942: 2003 ☐

CEL-110/2 Class 2C ☐ ANSI S1.40: 1994 (R1997) ☐

Company test equipment and acoustic working standards, used for conformance testing, are subject to periodic calibration, traceable to UK national standards, in accordance with the company's ISO 9001 Quality

Signature [redacted] Date: 12 NOV 2013

17 Old Nashua Road, #15, Amherst, NH03031, U.S.A.
Phone: +1 800 366 2966, Fax: +1 603 672 8053, E-mail: info@casellausa.com

Regent House, Wolseley Road, Kempston, Bedford, MK42 7JY, UK
Phone: +44 (0) 1234 844100, Fax: +44 (0) 1234 841456, E-mail: info@casellacel.com

060352

3M Oconomowoc
Personal Safety Division

3M Detection Solutions
1060 Corporate Center Drive
Oconomowoc, WI 53066-4828
www.3M.com/detection
262 567 9157 800 245 0779
262 567 4047 Fax

An ISO 9001
Registered Company

3M

Certificate of Calibration

Certificate No:5502360ESK100117

Submitted By: RAECO-LIC, L.L.C.
135 BERNICE DRIVE
BENSENVILLE, IL 60106

Serial Number: ESK100117
Customer ID:
Model: EDGE 5 DOSIMETER

Date Received: 11/20/2013
Date Issued: 12/2/2013
Valid Until: 12/2/2014

Test Conditions:
Temperature: 18°C to 29°C
Humidity: 20% to 80%
Barometric Pressure: 890 mbar to 1050 mbar

Model Conditions:
As Found: IN TOLERANCE
As Left: IN TOLERANCE

SubAssemblies:

Description:	Serial Number:
MICROPHONE BSWA MP418	493726

Calibrated per Procedure:53V735

Reference Standard(s):

I.D. Number	Device	Last Calibration	Date Calibration Due
ET0000556	B&K ENSEMBLE	5/10/2013	5/10/2014

Measurement Uncertainty:
+/- 2.2% ACOUSTIC (0.19DB)
Estimated at 95% Confidence Level (k=2)

Calibrated By: Non-Responsive 12/2/2013

This report certifies that all calibration equipment used in the test is traceable to NIST, and applies only to the unit identified under equipment above. This report must not be reproduced except in its entirety without the written approval of 3M Detection Solutions.

CERTIFICATE MAY
BE COPIED
RETURN ORIGINAL

098-393 Rev. B

3M Oconomowoc
Personal Safety Division

3M Detection Solutions
1060 Corporate Center Drive
Oconomowoc, WI 53066-4828
www.3M.com/detection
262 567 9157 800 245 0779
262 567 4047 Fax

An ISO 9001
Registered Company

3M

Certificate of Calibration

Certificate No:5502360ESK100116

Submitted By: RAECO-LIC, L.L.C.
135 BERNICE DRIVE
BENSENVILLE, IL 60106

Serial Number: ESK100116
Customer ID:
Model: EDGE 5 DOSIMETER

Date Received: 11/20/2013
Date Issued: 12/2/2013
Valid Until: 12/2/2014

Test Conditions:
Temperature: 18°C to 29°C
Humidity: 20% to 80%
Barometric Pressure: 890 mbar to 1050 mbar

Model Conditions:
As Found: IN TOLERANCE
As Left: IN TOLERANCE

SubAssemblies:

Description:	Serial Number:
MICROPHONE BSWA MP418	493581

Calibrated per Procedure:53V735

Reference Standard(s):

I.D. Number	Device	Last Calibration	Date Calibration Due
ET0000556	B&K ENSEMBLE	5/10/2013	5/10/2014

Measurement Uncertainty:
+/ 2.2% ACOUSTIC (0.19DB)
Estimated at 95% Confidence Level (k=2)

Calibrated By: Non-Responsive 12/2/2013

This report certifies that all calibration equipment used in the test is traceable to NIST, and applies only to the unit identified under equipment above. This report must not be reproduced except in its entirety without the written approval of 3M Detection Solutions.

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BE COPIED
RETURN ORIGINAL

098-393 Rev. B

TABLE 1
WIPE SAMPLING FOR LEAD
ARMORY
593RD MTC, ELKO, NEVADA
JUNE 25, 2014

Sample Number	Sample Location	Sample Results ($\mu g/ft^2$)	ARNG standard ($\mu g/ft^2$)
W1	Drill Hall Floor	<1.3	40
W2	Entryway Floor	2.8	40
W3	Kitchen Floor	2.3	40
W4	Guard Offices Floor	1.4	40
W5	Front of Janitors Closet Door	<1.3	40

$\mu g/ft^2$ = micrograms per square foot
< = not detected above the laboratory analytical limit
Bold = results above the ARNG standard

TABLE 2
BULK SAMPLING FOR LEAD
ARMORY
593RD MTC, ELKO, NEVADA
JUNE 25, 2014

Sample Number	Sample Location	Sample Results (mg/kg)	HUD standard (mg/kg)
B1	Exterior, White/Green Underneath, South Inside Corner	3,100	5,000

mg/kg = milligrams per kilogram = ppm
< = not detected above the laboratory analytical limit
Bold = results above the HUD standard

ANALYTICAL REPORT

Report Date: July 07, 2014

Non-Responsive
R & R Environmental, Inc.
47 West 9000 South #2
Sandy, UT 84094

Phone: (801) 541-1035
Fax: (801) 492-7751
Non-Responsive

Workorder: 34-1417738
Client Project ID: Elko Armory 062614
Purchase Order: Elko Armory
Project Manager: Non-Responsive

Analytical Results

Sample ID: W1			Collected: 06/25/2014
Lab ID: 1417738001	Sampling Location: Elko Armory		Received: 06/26/2014
Method: NIOSH 7300 Mod.	Media: Wipe Sampling Parameter: Area 1 ft²		Prepared: 07/03/2014 Analyzed: 07/07/2014

Analyte	ug/sample	ug/ft²	RL (ug/sample)
Lead	<1.3	<1.3	1.3

Sample ID: W2			Collected: 06/25/2014
Lab ID: 1417738002	Sampling Location: Elko Armory		Received: 06/26/2014
Method: NIOSH 7300 Mod.	Media: Wipe Sampling Parameter: Area 1 ft²		Prepared: 07/03/2014 Analyzed: 07/07/2014

Analyte	ug/sample	ug/ft²	RL (ug/sample)
Lead	2.8	2.8	1.3

Sample ID: W3			Collected: 06/25/2014
Lab ID: 1417738003	Sampling Location: Elko Armory		Received: 06/26/2014
Method: NIOSH 7300 Mod.	Media: Wipe Sampling Parameter: Area 1 ft²		Prepared: 07/03/2014 Analyzed: 07/07/2014

Analyte	ug/sample	ug/ft²	RL (ug/sample)
Lead	2.3	2.3	1.3

Sample ID: W4			Collected: 06/25/2014
Lab ID: 1417738004	Sampling Location: Elko Armory		Received: 06/26/2014
Method: NIOSH 7300 Mod.	Media: Wipe Sampling Parameter: Area 1 ft²		Prepared: 07/03/2014 Analyzed: 07/07/2014

Analyte	ug/sample	ug/ft²	RL (ug/sample)
Lead	1.4	1.4	1.3

ANALYTICAL REPORT

Workorder: 34-1417738
Client Project ID: Elko Armory 062614
Purchase Order: Elko Armory
Project Manager: Non-Responsive

Analytical Results

Sample ID: W5			Collected: 06/25/2014
Lab ID: 1417738005	Sampling Location: Elko Armory		Received: 06/26/2014
Method: NIOSH 7300 Mod.	Media: Wipe Sampling Parameter: Area 1 ft²		Prepared: 07/03/2014 Analyzed: 07/07/2014

Analyte	ug/sample	ug/ft²	RL (ug/sample)
Lead	<1.3	<1.3	1.3

Sample ID: B1			Collected: 06/25/2014
Lab ID: 1417738006	Sampling Location: Elko Armory		Received: 06/26/2014
Method: NIOSH 7300 Mod.	Media: Paint Chip Sampling Parameter: Weight 0.1009 grams		Prepared: 07/02/2014 Analyzed: 07/02/2014

Analyte	%	RL (%)
Lead	0.31	0.0012

Report Authorization

Method	Analyst	Peer Review
NIOSH 7300 Mod.	Non-Responsive	Non-Responsive
NIOSH 7300 Mod.		

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com

ANALYTICAL REPORT

Workorder: 34-1417738
Client Project ID: Elko Armory 062614
Purchase Order: Elko Armory
Project Manager: Non-Responsive

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

Definitions

LOD = Limit of Detection = MDL = Method Detection Limit, A statistical estimate of method/media/instrument sensitivity.
LOQ = Limit of Quantitation = RL = Reporting Limit, A verified value of method/media/instrument sensitivity.
ND = Not Detected, Testing result not detected above the LOD or LOQ.
NA = Not Applicable.
** No result could be reported, see sample comments for details.
< This testing result is less than the numerical value.
( ) This testing result is between the LOD and LOQ and has higher analytical uncertainty than values at or above the LOQ.

W 1417738

ANALYTICAL REQUEST FORM

1417738

1. ☒ REGULAR Status

☐ RUSH Status Requested - ADDITIONAL CHARGE
RESULTS REQUIRED BY _____ DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 6/25/14 Purchase Order No. _____

3. Company Name R&R Environmental, Inc.

Address 47 West 9000 South, Suite 2
Sandy, Utah 84070

Person to C [redacted]

Telephone (

Fax Telepho

E-mail Addr

Billing Address (if different from above)

4. Quote No. _____

ALS Project Manager _____

5. Sample Collection

Sampling Site Elko Armory

Industrial Process Offices

Date of Collection 6/25/14

Time Collected 1300

Date of Shipment Hand Carry

Chain of Custody No. _____

6. How did you first learn about ALS?

7. REQUEST FOR ANALYSES

Laboratory Use Only	Client Sample Number	Matrix*	Sample Volume	ANALYSES REQUESTED - Use method number if known	Units**
	W1	Wipe	1 ft²	Total Lead	1
	W2	Wipe	1 ft²	Total Lead	1
	W3	Wipe	1 ft²	Total Lead	1
	W4	Wipe	1 ft²	Total Lead	1
	W5	Wipe	1 ft²	Total Lead	1
	B1	Bulk	chip	Total Lead	3

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m³ 3. ppm 4. % 5. µg/m³ 6._____ (other) Please indicate one or more units in the column entitled Units**

Comments _____

Possible Contamination and/or Chemical Hazards _____

7. Chain of Custod [redacted]

Relinquished by		Date/Time	6/25/14 1900
Received by		Date/Time	6/26/14 850
Relinquished by		Date/Time	
Received by		Date/Time	

960 West LeVoy Drive / Salt Lake City, UT 84123 800-356-9135 or 801-266-7700 / FAX: 801-268-9992

ALS Environmental

Non-Responsive

Employee List

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Industrial Hygiene Southwest

Violation Inventory Log

LOG OF SCHEDULE OF CORRECTIVE ACTION - COMPLIANCE WITH SAFETY AND HEALTH STANDARDS

Elko Armory-Elko, NV

CONTROL NUMBER CLOSED ☐	HAZARD DESCRIPTION	SITE	RAC	HAZARD COUNTERMEASURE	SUSPENSE DATE	ACTION OIC/NCOIC	Estimated Cost(s)	DATE CORRECTED	REFERENCES
NVEA-062514-4.6	Six batteries were identified in the POL shed	Armory, Elko, NV	4	1. Ensure an SDS is on file and HazCom training is conducted related to the batteries until they are removed from the site. 2. Remove the unused batteries from the site and properly recycle them.					Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
NVEA-062514-4.7	The kitchen ventilation hood either did not operate when the switch was thrown or some other action needed to be taken	Kitchen	4	Either repair the kitchen ventilation hood or post operating instructions indicating how to initiate the ventilation hood.					NFPA 96
NVEA-062514-4.11	Three emergency lighting units were not functional and there was no log indicating the emergency lighting has been tested	Armory, Elko, NV	3	Repair or replace the non-functioning emergency lighting, institute an emergency lighting weekly operational verification procedure and ensure the verification is noted and kept as a log or on file.					NFPA 101, Para 7.9.3.1.1

Reference DA FORM 4754

APPENDIX–N: CONCLUSIONS AND RECOMMENDATIONS

Introduction – This section provides conclusions and recommendations for the findings and observations described in the previous sections of the IHSAV report for the facility. The paragraphs are numbered to correspond to the report sections where noted.

4.6 Hazardous Communication and Hazardous Material Storage - Six batteries were identified in the POL shed from the former use of the OMS and have no current reason to be stored there

1. Ensure an SDS is on file and HazCom training is conducted related to the batteries until they are removed from the site.
2. Remove the unused batteries from the site and properly recycle them.

4.7 Ventilation Survey – There is a kitchen area and a ventilation hood was located in the kitchen area. The vent either did not operate when the switch was thrown or some other action needed to be taken.

Either repair the kitchen ventilation hood or post operating instructions indicating how to initiate the ventilation hood.

4.11.1 General Safety Walkthrough – Three of the emergency lighting units were not functional and there was no weekly inspection checklist maintained at the facility.

Repair or replace the non-functioning emergency lighting, institute an emergency lighting weekly operational verification procedure and ensure the verification is noted and kept as a log or on file.

APPENDIX–N: CONCLUSIONS AND RECOMMENDATIONS

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Either repair the kitchen ventilation hood or post operating instructions indicating how to initiate the ventilation hood.

4.11.1 General Safety Walkthrough – Three of the emergency lighting units were not functional and there was no weekly inspection checklist maintained at the facility.

Repair or replace the non-functioning emergency lighting, institute an emergency lighting weekly operational verification procedure and ensure the verification is noted and kept as a log or on file.

ARMORY

CLEANUP & FOLLOW-UP HOUSEKEEPING RECOMMENDATIONS

Materials Needed:

1. Cloth Mop head (s) & Mop head holder(s) with handle.
2. Mop bucket (s) with wringer.
3. Clean cotton rags and sponges.
4. Disposable gloves
5. Large barrel (55 gal.) to store wastewater in after changing out of dirty scrub water. Waste water containers.
6. Disposable overshoes or rubber boots. Personnel conducting cleaning operations should not take clothes, boots, etc., home for laundering.
7. HEPA vacuum
8. Six (6) mill plastic bags to dispose of waste.
9. Detergent with surfactant, e.g., Spic-N-Span, Mr. Clean, etc.

Disposal of Waste Water and Cleaning Materials:

1. *NOTE*: Consult with Local Army National Guard Environmental Office prior to taking any collection, disposal or wiping activities commence. Each state and territory may have additional regulatory guidance on collection, storage and disposal of wastewater.

2. Mop heads should be disposed of after initial cleanup, unless otherwise advised by Environmental office personnel. Note: thorough cleaning of mop heads may be sufficient enough to reuse on future Armory cleanups but check with local Environmental Office.

3. Disposable gloves should be treated as hazardous waste.

4. Soiled cotton rags should be treated as hazardous waste.

5. Wash water contaminated with Lead can be collected and allowed to slowly evaporate leaving Lead deposits/sludge that may be collected in plastic containers, placed in metal drums, and stored for future delivery to an authorized hazardous waste disposal site.

a. Drums shall be properly labeled to identify contents In-Accordance With (IAW) Federal, State and local regulatory guidance.
b. Disposal of containerized waste shall be coordinated IAW State hazardous waste program requirements.
c. The Environmental Office shall coordinate removal and disposal of all containerized hazardous waste through established waste streams.

Post-Cleanup Precautionary Measures:

1. Thoroughly wash hands with soap and water.
2. Rinse off rubber boots with soap and water, capturing wastewater for collection into established waste stream. If personnel choose to use over shoes for protection, dispose of overshoes into waste stream. NOTE: This recommendation is for initial clean up activities and PPE requirements may be reduced after it has been determined non-hazardous levels have been achieved.
3. Wash ACU's or personal clothing separately from children's clothes.

NOTE: No eating, drinking or cosmetics allowed during cleanup procedures (these may be allowed after washing of hands/face and done outside of cleanup area)

NOTE: Avoid blowing, shaking or like actions which could potentially disperses lead dust. Dry sweeping, dusting, wiping or blowing with compressed air shall not be permitted

Initial Armory Cleanup:

1. Use a vacuum cleaner equipped with a HEPA exhaust filter. HEPA vacuum all surfaces in the room (ceiling, walls trim, and floors). Start with the ceiling and work down, moving toward the entry door. **Completely clean each room before moving on**.

2. Prepare water and detergent for the wipe down phase, according to manufactures recommendations.

3. Wet wipe, with cotton rags or sponge, any horizontal, diagonal or vertical surfaces up six (6) feet from floor surfaces using hot water and "Spic-n-Span" or an equivalent product.

    a. Rinse out cleaning cloths thoroughly and frequently.
    b. Change out cleaning water as necessary.

NOTE: **If walls to be cleaned show signs of deterioration, e.g., chipping or crumbling paint, in which wiping, scrubbing, or disrupting might potentially increase or spread contamination, then this portion of the clean up should be avoided**.

4. Now prepare water and detergent (e.g. Spic N Span, Mr. Clean, Pine Sol) for the mopping phase, according to manufactures recommendations, which should be found on the products label for general clean up.

    a. Change out water frequently (when water appears dirty)
    b. Rinse out mop heads frequently to prevent contamination of dirty water.

5. Cover entire drill floor surface with above prescribed water and detergent.

6. Final rinse should be with clean water only - -after mop heads have been cleaned.

Recommended Follow-up Housekeeping Practices *after Clearance sampling of cleaned area is performed by certified personnel:*

1. Floor cleaning and dusting should be accomplished using the wet method described in Initial Armory Cleanup SOP.

Note: Only exception to these wet cleaning procedures would be the use of a chemically treated dust floor mop. This can be used for follow-up armory cleaning by sweeping of large particles of dirt and paper.

    a. Pre-treated (chemically treated) dust floor mop will limit dust particles from being disbursed into the surround atmosphere.

b. If treated dust mop is used - -Do Not Shake Mop head - - have mop head laundered after use. **Always keep used dust mop heads in sealed double plastic bags when stored at armory/facility**. Shaking of mop head could release unwanted contaminants into surrounding atmosphere.

2. Frequency of Cleanup- Armories will vary, according to usage and how often they should be cleaned. The following general cleaning schedule is provided:

   a. Only full-time technicians and traditional soldiers using facility during the month. (***Cleaned Monthly***)

   b. Occasional activities taking place during the month, e.g., 1-2 classes or volleyball games, etc. (***Cleaned 2x's Monthly***)

   c. Used regularly by soldiers or outside agencies/personnel. (***Cleaned Regularly - -at least Weekly***)

NOTE: Armories with adjoining Indoor Firing Ranges (IFR) should be cleaned more than weekly, again depending on use of Armory and IFR.

NOTE: Clearance sampling/testing is to be accomplished by certified personnel after these cleanup procedures are followed. If the area is an average Armory, occupied by adults only, for which you are cleaning and **is not a Converted IFR space**, you may continue to utilize the Armory space before the officials re-test this space. Please notify your Safety and/or Occupational Health personnel of the completion of this cleaning regime and they will notify the proper officials of the sampling/testing requirements needed.

If work is contracted out, a third party should do the clearance sampling.

Young children and females who are pregnant, there should be posted signs on all facilities, warning of the potential danger of exposure to lead dust.

Data Element Description for IH Site Visit	Intellicode	IH Visit Qty	Q1	Q2	Q3	Q4 Annual
Breathing Zone samples collected above Occupational Exposure Limit (OEL), with no controls	953-01-04	0			X	
Breathing Zone samples collected above Occupational Exposure Limit (OEL)	953-01-04	0			X	
Number of Personal Noise Dosimetry samples collected >= 85 dBA with no controls	953-01-05	0			X	
Number of Personal Noise Dosimetry samples collected >= 85 dBA	953-01-05	0			X	
Number of Noise Sound Level samples collected >= 140 dBP with no controls	953-01-06	0			X	
Number of Noise Sound Level samples collected >= 140 dBP	953-01-06	0			X	
Number of Noise Sound Level samples collected >= 140 dBP not controlled, that are recommended for control	953-01-07	0			X	
Number of Noise Sound Level samples collected >= 140 dBP not controlled	953-01-07	0			X	
Number of Breathing Zone samples collected above Occupational Exposure Limit (OEL) not controlled, that are recommended for control	953-01-08	0			X	
Number of Breathing Zone samples collected above Occupational Exposure Limit (OEL) not controlled	953-01-08	0			X	
Number of Personal Noise Dosimetry samples collected >= 85 dBA not controlled, that are recommended for control	953-01-09	0			X	
Number of Personal Noise Dosimetry samples collected >= 85 dBA not controlled	953-01-09	0			X	
Total number of DOEHRS-IH shops coded as Priority 1 which have at least one task performed in the past 12 months	953-02-10	N/A	N/A	N/A	N/A	N/A
Total number of DOEHRS-IH shops coded as Priority 1	953-02-10	N/A	N/A	N/A	N/A	N/A
Number of buildings for which all processes requiring a basic industrial hygiene characterization have received one within the last 12 months	953-02-11	IHT	IHT	IHT	IHT	IHT
Number of buildings requiring a basic industrial hygiene characterization within the last 12 months	953-02-11	IHT	IHT	IHT	IHT	IHT
Number of buildings for which all processes requiring a basic industrial hygiene characterization have received one within the last 12 months	953-02-12	IHT	IHT	IHT	IHT	IHT
Number of buildings requiring an industrial hygiene exposure assessment within the last 12 months	953-02-12	IHT	IHT	IHT	IHT	IHT
Number of processes that were assessed for potential inhalation exposure to employees during this IH Visit	953-02-13	0			X	
Number of processes that require an assessment for potential inhalation exposure to employees during this IH Visit	953-02-13	0			X	

DEPARTMENT OF THE ARMY
NEVADA ARMY NATIONAL GUARD
593rd Medium Truck Company Armory
1375 13th Street
Elko, Nevada 89801

1. Date Prepared: 25 June 2014

2. Names (and Company Name) of Personnel Conducting Industrial Hygiene Site Assistance Visit: Non-Responsive R&R Environmental, Inc., 47 West 9000 South, Suite #2, Sandy, Utah 84070

3. Facility Name and Brief Summary of Primary Activities Conducted at Facility: Armory, administration offices only.

4. Facility Address: 1375 13th Street, Elko, NV 89801

5. Primary Unit Assigned to Facility: 593rd Medium Truck Company (MTC), Non-Responsive

6. Co-Tenant Units Assigned or Working Within Facility (LIST ALL): None

7. Square Ft. Area of Facility: 10,500.

8. Work Schedule: Mon-Fri, 0800-1700 Monday through Friday

9. Number of work bays: None

10. Equipment Density and Type:

    a. List Equipment Nomenclature Serviced or Maintained at Facility: None

    b. List Total Number for Each Nomenclature Serviced or Maintained at Facility: None

11. Total Number of Personnel: 1

12. No. of Admin. Personnel (Include Status – AGR, Fed. Tech., IDT, State or Contract Employee): 1 AGR

13. No. of Maintenance Personnel (Include Status – AGR, Fed. Tech., IDT, State or Contract Employee): 0

14. Total Number of Personnel Enrolled in the Hearing Conservation Program: 0

15. Total Number of Personnel Enrolled in the Respiratory Protection Program: 0

16. Total Number of Personnel Enrolled in the Medical Surveillance Program: 0

17. Total Number of Personnel Enrolled in the Vision Program: 0

18. Facility Commander: Non-Responsive

    a. Email address, Commercial Telephone Number and Unit Assigned to: Non-Responsive 75-778-3003, 593rd MTC

19. Safety Officer: N/A

    a. Email Address, Commercial Telephone Number and Unit Assigned to: N/A

20. Facility Telephone Number: 775-778-3003

Number of processes that were assessed for potential inhalation exposure to employees within the last 12 months.	953-02-14	0			X	
Number of processes that require an assessment for potential inhalation exposure to employees within the last 12 months.	953-02-14	0			X	
Number of personnel who were reassessed by industrial hygiene within the last 12 months.	953-02-15	0			X	
Number of personnel who required reassessment by industrial hygiene within the last 12 months.	953-02-15	0			X	
Number of processes which have been measured for potential hazardous noise levels with a sound level meter within the last 12 months.	953-02-16	0			X	
Number of processes which require measurement for potential hazardous noise levels using a sound level meter within the last 12 months.	953-02-16	0			X	
Number of personnel for which noise dosimetry was collected during their complete work shift to quantify their daily noise exposures within the last 12 months.	953-02-17	0			X	
Number of personnel who require work shift dosimetry to quantify their daily noise exposures within the last 12 months.	953-02-17	0			X	
Number of ventilation systems (e.g., spray paint booths, tailpipe exhausts, etc.) which were inspected and measured for airflow rates	953-02-18	0			X	
Number of ventilation systems (e.g., spray paint booths, tailpipe exhausts, etc.) which require inspection and measurement of airflow rates	953-02-18	0			X	
Number of ventilation systems which require corrective action based on deficiencies identified during an IH survey	953-02-19	0			X	
Number of ventilation systems which were evaluated by an IH	953-02-19	0			X	
Number of design review packages evaluated and addressed by an IH with recommendations applicable to occupational health concerns	953-02-20	0			X	
Number of design review packages which required IH evaluation and recommendations applicable to occupational health concerns	953-02-20	0			X	

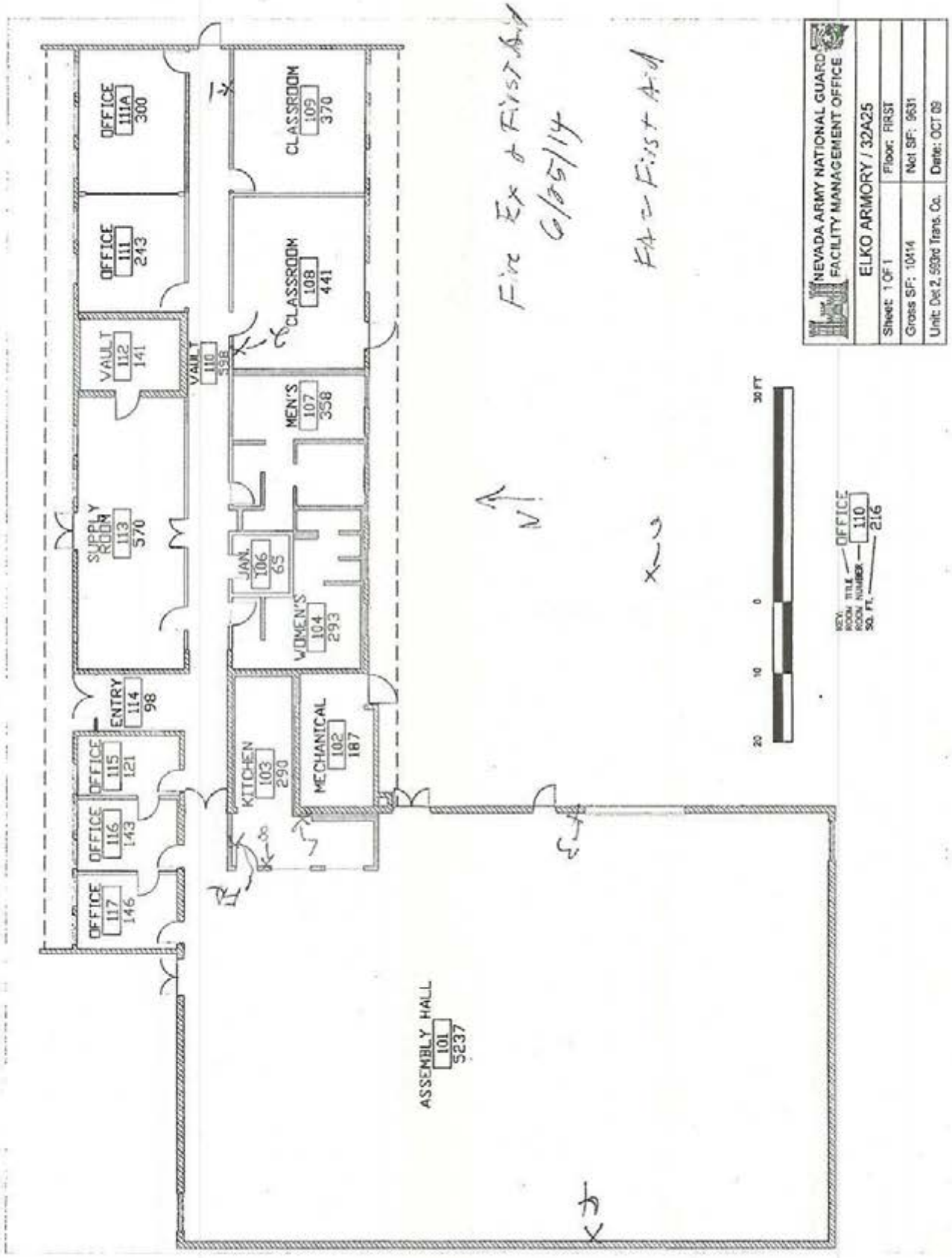
Army National Guard Armory Survey
(To Be Included In Report)

Five **lead wipe** samples collected from drill floor (take samples from dusty horizontal floor surfaces)	Done
Are any **weapons cleaned** in the facility, if yes where are they cleaned?	Not
Additional lead **wipe** samples taken from 25% of the rest of the building - -**(on floor areas only)**	NA
Is there **a converted indoor firing range?** If so collect additional wipe samples IAW the SOW.	ND
Is there any peeling **paint?** Take bulk sample if able.	Yes – obtained
Are there any signs of water damage or **mold?**	ND
Any suspected **ACM?** Where and what condition is it in. Bulk sample if able.	Yes – Good shape
Quality of housekeeping	Good
HVAC maintenance plan in place?	Subcontract
Overall condition of HVAC system	Good
Obtained **CO2, Temp,** RH monitoring	Done
HAZMAT inventory on hand (make copies for the report), **MSDS** available for all materials.	Yes
HAZMAT storage, Condition of lockers, if outside storage building is used is it ventilated and does it meet OSHA standards.	Done

Evaluate Kitchen Stove Hood Flow if Present IAW NFPA Standard 96.	Could not obtain
Collect Source Noise Measurements of Kitchen Appliances and Document Using DD 2214	N/A
Conduct a safety walkthrough of entire facility document any safety deficiencies found.	Done
Take photos of outside of **building**, all **sample points** and any **pertinent hazards** or concerns.	Done
Name of Armory, **POC**, **phone #**, **address** and **organizations** in Armory **(Add Checklist to Report)**	obtained **(Add Checklist to Report)**

Army National Guard IAQ Checklist

General Info – Name and address of facility with Zip code, POC's name, phone #, Military organization.	obtained
Shop Layout – clearly depicting location of operation identified in the survey. Fire evacuation plan.	obtained
Mechanical Room: check for --- dampness, bird/mice droppings, general cleanliness, make-up airflow, chemical/disinfectant storage, etc., spills, leaks (oil, steam), Operating schedule (up and down times), Humidification and what kind.	Done
HVAC system: check - -drip pan (dampness, mold, etc.), filters, coils, dampers (bird screens)	Done
Outside building: check - -prevailing winds, outside air vents for HVAC, traffic near vents	Done
Inside building: check—Temp (69-79 F), RH (30-60%), CO2 (700ppm+ outside reading) should not exceed this, CO (0-2ppm), Outside Airflow (20cfm/person)	Done
Additional Inside building info: check--- partitions blocking airflow, ceiling tile (dampness, stains, breaking down), diffusers (open, blocked, diverted), smells (mold, perfume, chemical, etc.), new furniture, additions, carpet, carpet cleaning, new cleaning products (general housekeeping practices), to hot, cold, dry, moist.	Done
Ventilation – survey of all general and local ventilation systems	Done
Overall condition of HVAC system and maintenance plan.	Good
Obtained **CO2, Temp, RH** monitoring	Done
Provide **Photographs** of exterior / interior of each facility, each ventilation system any other areas or conditions pertinent to the survey	Obtained


OFFICE 111A 300
CLASSROOM 109 370
OFFICE 111 243
CLASSROOM 108 441
VAULT 112 141
VAULT 110 398
MEN'S 107 358
SUPPLY ROOM 113 570
JAN. 106 65
WOMEN'S 104 293
ENTRY 114 98
OFFICE 115 121
KITCHEN 103 290
MECHANICAL 102 187
OFFICE 116 143
OFFICE 117 146
ASSEMBLY HALL 101 5237
OFFICE 110 216
KEY:
ROOM TITLE
ROOM NUMBER
SQ. FT.
30 FT
0
10
20
NEVADA ARMY NATIONAL GUARD
FACILITY MANAGEMENT OFFICE
ELKO ARMORY / 32A25
Sheet: 1 OF 1
Floor: FIRST
Gross SF: 10414
Net SF: 9631
Unit: Det 2, 593rd Trans. Co.
Date: OCT 09

Standard Operating Procedure
Respiratory Protection Plan Review

Equipment

1. None

Focus

1. Review Respiratory Protection Program for Accuracy and completeness.

Verify

1. Identify individual appointed as Installation Respirator Program Director
    a. Is individual still there?
    b. Name
    c. Email
    d. Telephone
2. Identify Installation Respirator Specialist
    a. Is individual still there?
    b. Name
    c. Email
    d. Telephone
3. Processes utilizing respiratory protection are adequate and consistent with current regs and contaminates?
4. Grade D air sampling records reviewed – or collected.

Reporting

Program director name, email and telephone
Respirator Specialist name, email, and telephone
Information for protection is incorporated into HAs
Grade D air sample results include in Appendix J – Laboratory Results of Final Report

Fire alarm in working condition - -not usually in place in older armories	N/A
Fire extinguishers in place and properly identified and mounted	Dorr

Army National Guard Armory Survey
(To Be Included In Report)

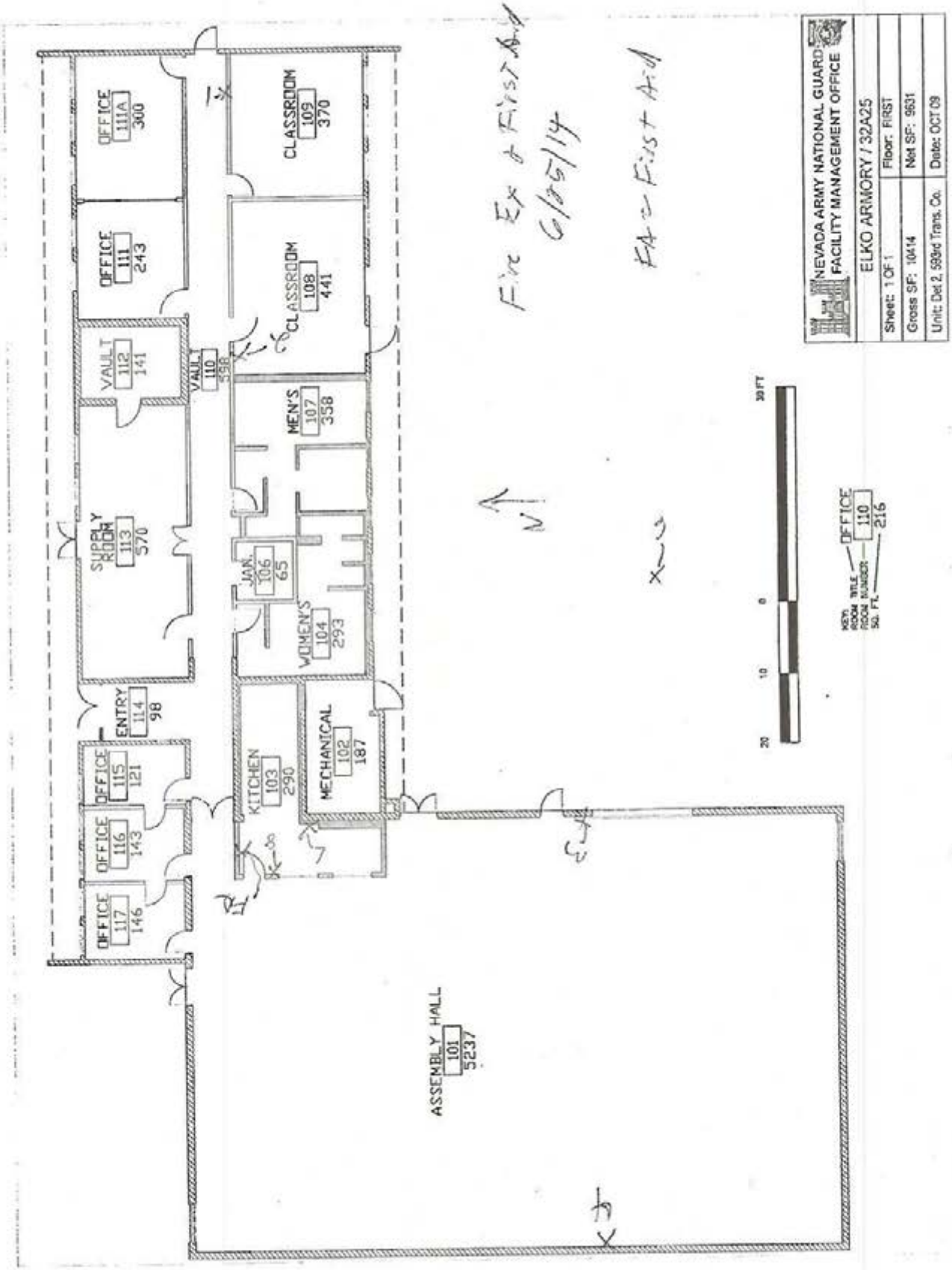
Five **lead wipe** samples collected from drill floor (take samples from dusty horizontal floor surfaces)	Done
Are any **weapons cleaned** in the facility, if yes where are they cleaned?	Not
Additional lead **wipe** samples taken from 25% of the rest of the building - -**(on floor areas only)**	NA
Is there **a converted indoor firing range**? If so collect additional wipe samples IAW the SOW.	ND
Is there any peeling **paint**? Take bulk sample if able.	Yes - obtained
Are there any signs of water damage or **mold**?	ND
Any suspected **ACM**? Where and what condition is it in. Bulk sample if able.	Yes - Good shape
Quality of housekeeping	Good
HVAC maintenance plan in place?	Subcontract
Overall condition of HVAC system	Good
Obtained **CO2, Temp, RH** monitoring	Done
HAZMAT inventory on hand (make copies for the report), **MSDS** available for all materials.	Yes
HAZMAT storage, Condition of lockers, if outside storage building is used is it ventilated and does it meet OSHA standards.	Done

Fire alarm in working condition - -not usually in place in older armories	N/A
Fire extinguishers in place and properly identified and mounted	Done
Evidence of **monthly fire extinguisher inspections**	Done
Annual fire extinguisher inspections tags current	Done
Are **eye wash stations** available in areas where hazardous materials are used and are they inspected weekly (inspections must be documented)	Done
Egress routes accessible and properly marked - -noted on Fire Evacuation Plan	Done
Training programs in place; Hazcom, Respiratory Protection, Confined Spaces, Hearing conservation, PPE (if applicable)	Done
Any Photo labs	~~N/A~~ No
Any hazardous **noise** sources	No
Light levels checked throughout building	Done
Breaker panels properly labeled with no exposed wiring	Done
Check **building occupancy** 1. How many military personnel, how many civilian personnel 2. What types of units occupy facility, i.e. Administrative, Maintenance, etc.?	Done
Any **civilian activities** in armory (cub scouts, classes, day care, parties etc)	None
Obtain two **lead air samples**	On IHSW Request Only

Army National Guard IAQ Checklist

General Info – Name and address of facility with Zip code, POC's name, phone #, Military organization.	obtained
Shop Layout – clearly depicting location of operation identified in the survey. Fire evacuation plan.	obtained
Mechanical Room: check for --- dampness, bird/mice droppings, general cleanliness, make-up airflow, chemical/disinfectant storage, etc., spills, leaks (oil, steam), Operating schedule (up and down times), Humidification and what kind.	Done
HVAC system: check - -drip pan (dampness, mold, etc.), filters, coils, dampers (bird screens)	Done
Outside building: check - -prevailing winds, outside air vents for HVAC, traffic near vents	Done
Inside building: check—Temp (69-79 F), RH (30-60%), CO2 (700ppm+ outside reading) should not exceed this, CO (0-2ppm), Outside Airflow (20cfm/person)	Done
Additional Inside building info: check—partitions blocking airflow, ceiling tile (dampness, stains, breaking down), diffusers (open, blocked, diverted), smells (mold, perfume, chemical, etc.), new furniture, additions, carpet, carpet cleaning, new cleaning products (general housekeeping practices), to hot, cold, dry, moist.	Done
Ventilation – survey of all general and local ventilation systems	Done
Overall condition of HVAC system and maintenance plan.	Good
Obtained CO2, Temp, RH monitoring	Done
Provide **Photographs** of exterior / interior of each facility, each ventilation system any other areas or conditions pertinent to the survey	Obtained

Check **building occupancy:** How many military personnel, how many civilian personnel	obtained
Any **civilian activities** in facility (cub scouts, classes, day care, parties etc)	None
Conduct a **safety walkthrough** of entire facility document any safety deficiencies found.	Done
Sampling – (Air) shall be conducted to ensure employees are not being exposed to any occupational health hazards – **(Bulk)** whenever applicable, e.g., paint chips, carpet, paneling – **(Wipe)** whenever applicable, e.g., floors (break room, general work), **Scotch Tape** samples for molds	Done
Submit **final written report** within 30 days after receipt of sample results. Which includes: **4** comb bound **final reports** with attachments, **CD** of each facility surveyed, **POC, phone #** and facility **address** included in Introduction portion.	Done
Appendices – should include: Shop layout with locations of measurements of local and general exhaust fan; sampling & ventilation data and this **Checklist**	Done


NEVADA ARMY NATIONAL GUARD
FACILITY MANAGEMENT OFFICE
ELKO ARMORY / 32A25
Sheet: 1 OF 1
Floor: FIRST
Gross SF: 10414
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Unit: Det 2, 939rd Trans. Co.
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VAULT 112 141
VAULT 110 98
MEN'S 107 358
SUPPLY ROOM 113 570
JAN. 106 65
WOMEN'S 104 293
ENTRY 114 98
OFFICE 115 121
KITCHEN 103 290
MECHANICAL 102 187
OFFICE 116 143
OFFICE 117 146
ASSEMBLY HALL 101 5237
KEY:
ROOM TITLE
ROOM NUMBER
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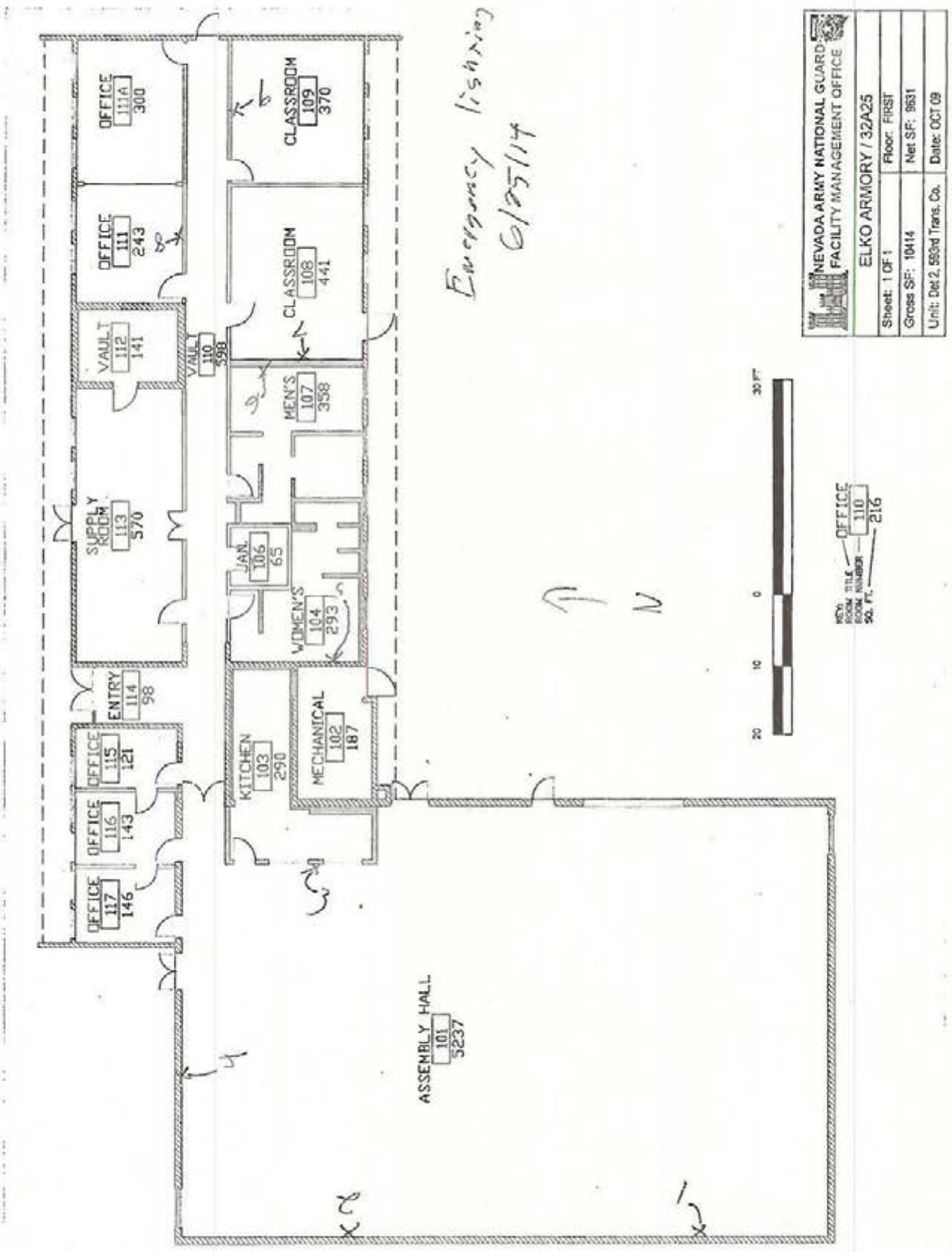

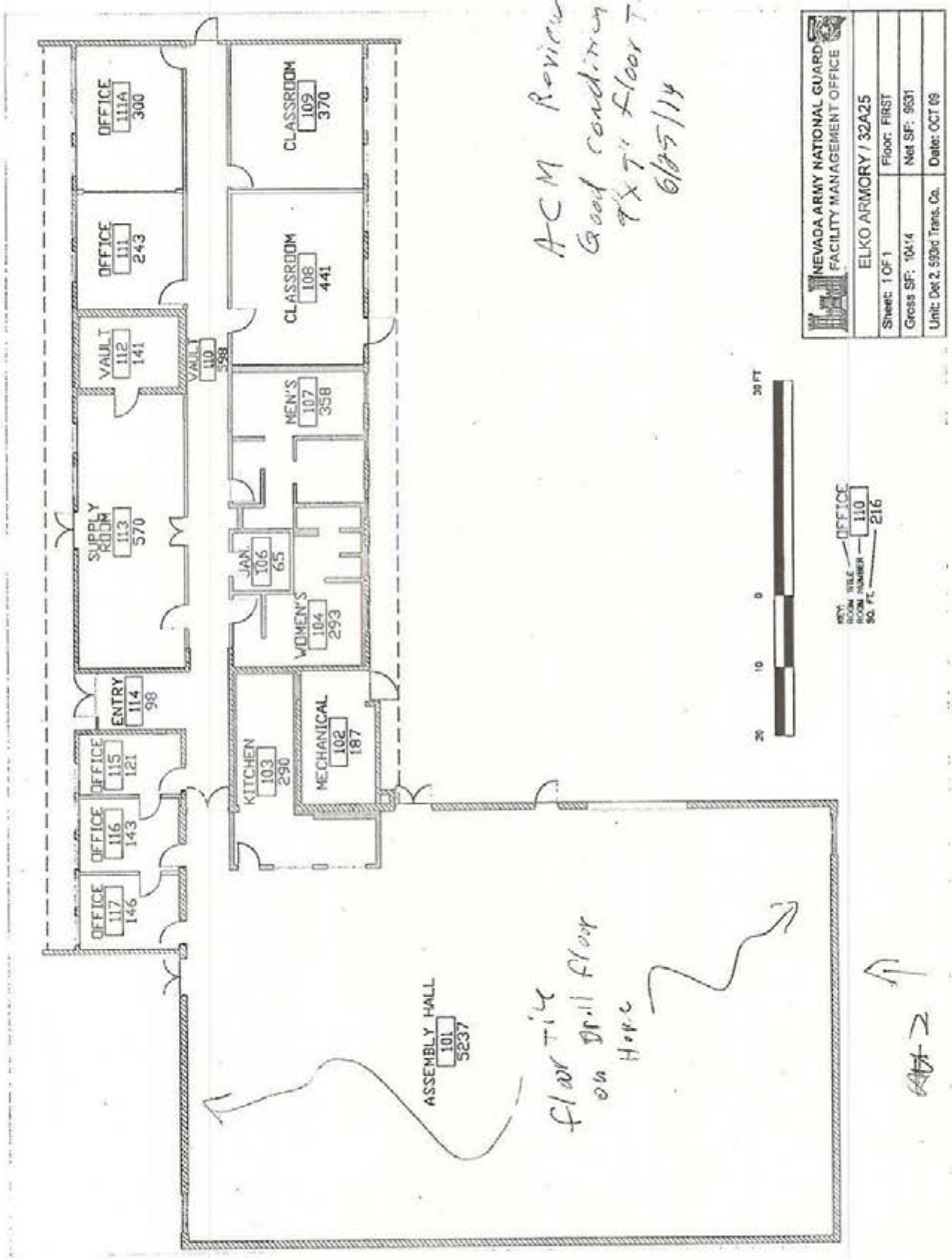

Standard Operating Procedure
Respiratory Protection Plan Review

Equipment

1. None

Focus

1. Review Respiratory Protection Program for Accuracy and completeness.

Verify

1. Identify individual appointed as Installation Respirator Program Director
    a. Is individual still there?
    b. Name
    c. Email
    d. Telephone
2. Identify Installation Respirator Specialist
    a. Is individual still there?
    b. Name
    c. Email
    d. Telephone
3. Processes utilizing respiratory protection are adequate and consistent with current regs and contaminates?
4. Grade D air sampling records reviewed – or collected.

Reporting

Program director name, email and telephone
Respirator Specialist name, email, and telephone
Information for protection is incorporated into HAs
Grade D air sample results include in Appendix J – Laboratory Results of Final Report

Standard Operating Procedure
Photographs

Equipment

1. Camera

Focus

1. Exterior of facility
2. Interior of facility
3. Each area of the facility
4. Pertinent conditions
5. Pertinent processes

Reporting

Include in Final Report Appendix C, Photo Log

Standard Operating Procedure
Hazard Assessments

Equipment

1. Dosimeter
2. Calibration Certificate
3. DD 2214

Focus

1. Review each HA for the facility.
2. Create HA if none exists for a specific hazardous product used in the facility

Verify

1. What is process? Title of process? Brief explanation of process?
2. Where is the process conducted (limited access area, controlled access area, general work area)?
3. Is MSDS attached for each hazardous product used in process?
4. Is NSN and product name included in HA?
5. Include previous exposure levels and exposure sampled during this IH review.
6. Annotate date of last HA evaluation and indicated date of next one, if required (2 month, 6 month).
7. What type of respiratory protection is required (if any)? – indicate half face, full face, PAPR, or supplied air).
    a. If supplied, what support equipment is required, (hoses, vortex tubes, cooling equipment, etc.)
    b. Describe how supplied air is utilized.
    c. Indicate what scheduled and unscheduled maintenance is required for supplied and how is it set up for the process?
    d. If cartridge, what type?
    e. If cartridge, what is the change out schedule?
8. What other PPE is recommended?
    a. Glove type and NSN
    b. Coveralls and NSN
    c. Protective eyewear and NSN
    d. Protective headwear and NSN
    e. Hearing Protection and NSN
    f. Protective footwear and NSN
    g. Respiratory protection and NSN AND CHANGE OUT SCHEDULE
        i. Respiratory protection must be validated with an Exposure Assessment/monitoring observed during HA development/evaluation
9. List other hazards involved with process.
10. List procedures for wastes generated (hazardous and non-hazardous).

Conduct

1. If hearing protection is required
    a. List noise levels during this review
    b. Annotate dates of last noise survey
    c. Document on DD 2214

Reporting

Include in Final Report list of all MSDSs used in the facility (table OK).

Standard Operating Procedure
HazCom Program Review

Equipment
1. None

Focus
1. Review HazCom Program for the facility.

Verify
1. Have employees in the facility received HazCom Training IAW 29 CFR 190.1200?
2. If records not at facility, where are they?
3. Does the program include multiple units?
4. Does program include labeling consistent with 29 CFR 1910.1200?
5. Are all MSDSs available? Does facility have a list of all HazMat?
6. Does written program include methods to communicate the MSDS precautions and labeling methods to others not in the ARNG?
7. Has program been communicated to the lowest level in the facility?
8. Get complete list of HazMat.

Reporting
Include in Final Report complete list of HazMat in Appendix D – Chemical Listing.

Standard Operating Procedure
Lighting

Equipment
1. Illumination Meter
2. Calibration Certificate

Focus
1. Each area of the facility assessed to determine illumination is adequate

Verify
1. Determine quality of illumination
2. Determine quantity of illumination
3. Annotate levels on drawing of facility

Conduct
1. Typical office areas
    a. Desktops
    b. Workstations
2. Shop areas
    a. Workstations
    b. Waist level
3. Hallways

Reporting
Drawing in Appendix E in Final Report.

Standard Operating Procedure
SOP Review

Equipment
1. None

Focus
1. Review SOPs for accuracy and completeness.

Verify
1. Accuracy
2. Completeness

Reporting
Comments and observations in separate paragraph.

Standard Operating Procedure
ACM /Asbestos Use and Management Plan Review

Equipment

1. COC
2. Pumps
3. Tape
4. Pump Holder
5. Rotameter
6. Media
7. Tubing
8. Certificate of calibration

Focus

1. Review ACM Program for Wheeled / Clutch Maintenance and simple building ACM..

Verify

1. How many brake jobs are done per week (estimate)
2. How many personnel do wheeled / clutch maintenance (estimate)
3. What type of method is used (i.e. wet, HEPA-Vac, etc.)
4. Conduct 8 hour TWA with 30 STEL per individual conducting process.
5. Review written procedures and actual methods employed.
    a. Name
    b. When fit tested
    c. When completed medical surveillance and is document available
    d. What cartridges are used
    e. Is there a written procedure
    f. Document PPE used

Reporting

Report all above inclusive of sample results.

Standard Operating Procedure
Ergonomics Program Review

Equipment
1. DA Pam 40-21

Focus
1. Review Ergonomic Program referencing DA Pam 40-21, Ergonomic program.

Verify
1. Identify Individual appointed as the Installation Ergonomics Officer (IEO)
    a. Name
    b. Email
    c. Telephone number
2. Review written Ergonomics Program for accuracy and completeness using DA Pam 40-21
3. If time permits, conduct a limited workstation or equipment evaluation in accordance with DA Pam 40-21.

Reporting
Report all above inclusive of sample results.

Standard Operating Procedure
Hearing Conservation Program Review

Equipment

1. DD Form 2214
2. Hearing Notification Letter
3. Dosimeters (3dB exchange rate and 85 dBA TWA)
4. Calibration Certificate
5. DA Pam 40-501 Army Hearing Conservation Program

Focus

1. Sample all personnel within the facility to ensure a representative baseline is established
2. All Noise Hazard Areas and equipment are identified.

Verify

1. Conduct 8-hour TWA Noise Dosimetry (include last 4 of SSN).
2. Identify Hearing Conservation Officer for the facility.
    a. Name
    b. Email
    c. Telephone number
3. List all identified Noise Hazard Areas
    a. With list of operation or processes which have been determined NOT to be Noise Hazards
4. List all Noise Hazardous equipment
    a. With a list of operations or processes which have been determined NOT to be Noise Hazards.
5. Annotate on the DD Form 2214.
6. Annotate Noise Hazard areas on a diagram (i.e. fire escape plan or facility drawing).

Reporting

1. Report noise dose expressed as a dose percentage or an 8 hour TWA.
2. Include diagram in Appendix O.
3. Include DD Form 2214 in Appendix O.
4. Hearing Notification Letters for each individual monitored.
5. Listing of the total number of dosimeters deployed and number of valid measurements.

Standard Operating Procedure
Ventilation Survey

Equipment

1. Smoke tube or smoke candle
2. Anemometer
3. Calibration Certificate

Focus

1. Conduct ventilation survey of all general and local ventilation systems (i.e. welding, paint booths, vehicle exhaust, hoods)

Verify

1. Obtain ventilation reading at respective locations.
2. Airflow patterns with smoke tubes and include on drawings.
3. Identify all locations of ventilations systems and indicate on drawings.
4.
    a. With a list of operations or processes which have been determined NOT to be Noise Hazards.
5. Annotate on the DD Form 2214.
6. Annotate Noise Hazard areas on a diagram (i.e. fire escape plan or facility drawing).

Reporting

1. Ventilation data include in Appendix F.
2. Airflow pattern diagram
3. Provide all measurements, observations, and recommendations to highlight and identify any potential for contamination of clean air sources by contaminated exhaust air.
4. Locations of ventilations systems annotated in Appendix E.
5. If issues with the HVAC system, include drawings of the system in Attachment 8e.

ARMY NATIONAL GUARD
INDUSTRIAL HYGIENE – SOUTHWEST
Guam • Hawaii • California • Oregon • Washington • Nevada • Arizona • Idaho • Utah • Wyoming • Montana • New Mexico • Nebraska

Industrial Hygiene Site Assistance Visit

Fallon Armory
895 E. Richards Street
Fallon, NV 89406

10510 Superfortress Avenue, Suite C, Mather, CA 95655 (916) 854-1491

DEPARTMENT OF THE ARMY AND AIRFORCE
NATIONAL GUARD BUREAU
INDUSTRIAL HYGIENE SOUTHWEST
10510 Superfortress Ave, Ste. C
Mather, CA 95655

ARNG-CSG-IHSW

22 October 2012

MEMORANDUM THRU Nevada Army National Guard, Deputy State Surgeon (DSS), 2460 Fairview Drive, Carson City, NV 89701

FOR Commander, Fallon Armory, 895 E. Richards Street, Fallon, NV 89406

SUBJECT: Executive Summary for Industrial Hygiene Site Assistance Visit (IHSAV) for the Fallon Armory, 895 E. Richards Street, Fallon, NV conducted on 25 September 2012.

1. **References.** See survey report.

2. **General.**

a. At the request of the NGB Industrial Hygiene, Southwest (IHSW), an Annual Industrial Hygiene Site Assistance Visit was conducted for the Fallon Armory, 895 E. Richards St., Fallon, NV on 25 SEP 2012.

b. The findings and recommendations in this Executive Summary are controlling and supersede all recommendations in the contractor report (reference Attachment II). However, IHSW concurs with the observations and findings within the attached contractor report.

c. Risk Assessment Codes (RAC) provided in this report have been derived from two sources: Deriving Risk Assessment Codes (RAC's) for Health Hazards (Ref: DOD Instruction 6055.1) and AR 385-10, The Army Safety Program.

d. Use of trademark names in the attached report, or this Executive Summary, does not imply Army National Guard endorsement of any product.

3. **Findings.** See survey report.

4. **Commendable.**

The facility personnel were helpful during this SAV.

5. **Observations / Recommendations.**

NOTE: This section provides conclusions and recommendations for the findings and observations made within the attached contractors report. The paragraphs are numbered to correspond to the sections where they were first noted. (i.e., paragraph 2.1a represents the 2.1a located within the contractors report.

a. Personnel should obtain MSDS's for each product within the facility. MSDS's should be kept in a easy access binder, updated annual (as a minimum) or whenever new chemicals are added to the inventory. (para. 4.1.2) **(RAC 4)**

b. A complete inventory of all hazardous and non-hazardous chemicals should be created, maintained, and kept on the premises with corresponding MSDS's. (para. 4.1.1) (**RAC 4**)

6. Violation Correction Log.

a. IHSW has provided a Violation Correction Log derived from the observations from this visit. IHSW recommends the following:

1. Commander(s) assign an Action OIC/NCOIC, Suspense Date for completion, and Estimated Cost(s) to ensure item completion and corrective status is briefed during quarterly (or monthly) Safety Meetings/Councils until resolved.

2. Corrective measures should be implemented and accomplished at the lowest levels possible. Hazards and Corrective Measures that cannot be corrected at the facility level, and require assistance from higher headquarters or from the state level, should be elevated to the Quarterly State/BN Safety Council Meeting for resolution.

3. Recommend a representative from the facility attend all quarterly/monthly meetings to ensure the appropriate emphasis and corrective actions are followed for hazard resolution and abatement of the observations made during this visit.

4. Retain entries of the items corrected, or closed, for future reference. This may be accomplished by posting completed items within the Corrected Hazard Sheet portion of the Excel Violation Correction Log Workbook we've provided.

5. The preferred method to document and track identified hazards for resolution is for their entry into the Reserve Component Automation System – Safety and Occupational Health (**RCAS-SOH**) Program.

6. IHSW recommends the **Senior Unit Commander of this Facility and any Co-Tenant Organizations or Units, review and provide assistance with implementation of these recommendations.** This will educate the chain of command and allow the unit or co-tenant organizations to take any necessary precautions or actions required by them and their personnel.

7. Hazard Assessment/Job Safety Analysis (JSA).

a. Documenting the Hazard Assessments provides a method to obtain initial and periodic review from the Industrial Hygiene, Occupational Health and Safety Professions located at the JFHQ/HQ/state level.

b. The Hazard Assessments should be used as written training materials for the new, transfer and unit personnel working under the auspice of the facility.

c. IHSW recommends facility supervisory staff and facility personnel conduct initial Hazard Assessments outlined in AR 40-5, Army Preventive Medicine (Section V) and 29 CFR 1910.132 and submit for review and obtain approval from the state Industrial Hygiene, Occupational Health and Safety Professions.

d. We have provided an appendix with Hazard Assessments (HA) examples of some of this facilities operations. Additional operations can utilize this format to design HA not observed during this SAV.

SUBJECT: Executive Summary for Industrial Hygiene Site Assistance Visit (IHSAV) for the Fallon Armory, 895 E. Richards Street, Fallon, NV conducted on 25 September 2012.

e. An integral and important factor of the Hazard Assessment/JSA process is for the review and guidance from qualified Safety, Occupational Health and Industrial Hygiene professions located at the higher headquarters level or state level. For this reason, the Hazard Assessments (to include all pertinent and supporting documents) should be completed by the facility personnel and forward to the Nevada Army National Guard Industrial Hygiene, Occupational Health and Safety Office for final review and approval (signature).

f. Job Safety Analysis (JSA's)/Hazard Assessments.

NOTE: The Hazard Assessments can be used for monthly meetings to brief/train, and document large group training events and activities.

8. IHSW recommends the **Senior Unit Commander of this Facility and any Co-Tenant Organizations or Units, review and provide assistance with implementation of these recommendations.** This will educate the chain of command and allow the unit or co-tenant organizations to take any necessary precautions or actions required by them and their personnel.

9. To assist you with execution of your responsibilities in correcting the observations noted, we encourage you to consult with the State Safety Manager, Occupational Health Manager and Industrial Hygiene professions located and/or authorized within the State Safety and Occupational Health Office.

10. For additional information please contact the undersigned at (916) 854-1491 or via email at Non-Responsive

Non-Responsive

NGB, IHSW, CIV
Industrial Hygiene

NATIONAL GUARD BUREAU
111 SOUTH GEORGE MASON DRIVE
ARLINGTON VA 22204-1382

ARNG-CSG-P

15 OCT 2012

MEMORANDUM FOR Non-Responsive ne Adjutant General of Nevada, 2460 Fairview Dr, Carson C

SUBJECT: Executive Summary for the Industrial Hygiene Survey of Fallon Armory 895 E. Richards St., Fallon, NV on 25 SEP 2012.

1. Purpose. Industrial Hygiene Southwest Region contracted to have an Annual Industrial Hygiene (IH) survey conducted which would identify, assess, and make recommendations for the reduction or elimination of potential health hazards present in the workplace. This EXSUM provides the most critical recommendations which need to be addressed promptly. The IH Report contains additional findings and recommendations which should be addressed as funding and manpower permit.

2. **Findings**.

a. The Armory had the following high risk level findings:

1. There were no RAC 1's or RAC 2's identified during this Site Assistant Visit (SAV)

b. The full IH report contains information which can be used in correcting deficiencies, establishing priorities and developing suspense dates.

c. Some locations were not evaluated during this visit. However, additional IH services can be requested to monitor them for potential health hazards when operations are ongoing.

3. **Recommendations**. A risk assessment code (RAC) has been assigned to each health hazard identified in the report. Each type of RAC (health, safety, ergonomic) uses slightly different matrices to determine the overall severity, however a RAC 1 should be considered Critical; a RAC 2 is Serious. Follow all recommendations made in the attached IH survey report, the Violation Log as well as the following recommendations.

a. There were no RAC 1's or RAC 2's identified during this SAV.

ARNG-CSG-P
SUBJECT: Executive Summary for the Industrial Hygiene Survey of Fallon Armory on 25 SEP 2012.

4. The technical point of contact is Non-Responsive at (775) 771-3956. For follow up information, contact the Occupational Health Manager, Non-Responsive at (775) 972-7253.

Non-Responsive

Non-Responsive

CF
Chief, Occupational Health Non-Responsive
DSS, Non-Responsive airview Dr, Carson City, NV 89701
CFMO 460 Fairview Dr, Carson City, NV 89701
ASO, 20,000 Army Aviation Dr, Reno, NV 89506

CF w/encl
OHN, Non-Responsive Dr, Carson City, NV 89701
Facility Supervisor, 20,000 Army Aviation Dr, Reno, NV 89506

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Industrial Hygiene Southwest

Violation Inventory Log

LOG OF SCHEDULE OF CORRECTIVE ACTION - COMPLIANCE WITH SAFETY AND HEALTH STANDARDS

ARNG Fallon, NV Armory

CONTROL NUMBER CLOSED ☐	HAZARD DESCRIPTION	SITE	RAC	CORRECTIVE ACTIONS (Abatement Plan)	SUSPENSE DATE	ACTION OIC/NCOIC	Estimated Cost(s)	DATE CORRECTED	REFERENCES
NVFAL-092512-4.1.1	A current Hazardous Materials/Chemical Inventory list could not be located	Plumb Lane Armory	4	A complete inventory of all hazardous and non-hazardous chemicals should be created, maintained, and kept on the premises with corresponding MSDS's attached, listed in a binder, and organized in a simple format.					29 CFR 1910.1200 NGR 385-10, Chapter 6 DODI 6050.5
NVFAL-092512-4.1.2	MSDS binders and/or chemical inventory lists are not available for any products at this facility	Plumb Lane Armory	4	Obtain MSDS files for each product at the facility. MSDS log/books should be updated, at a minimum, annually or when new chemicals are added to the inventory.					29 CFR 1910.1200 NGR 385-10, Chapter 6 DODI 6050.5

Industrial Hygiene Southwest's mission is to ensure all military personnel and military leadership is provided the specialized technical expertise, consultation and assistance to ensure all military operations and processes are conducted in a healthy manner

10510 Superfortress Avenue, Suite C, Mather, CA 95655 (916) 854-1491

ARMORY

CLEANUP & FOLLOW-UP HOUSEKEEPING RECOMMENDATIONS

Materials Needed:

1. Cloth Mop head (s) & Mop head holder(s) with handle.
2. Mop bucket (s) with wringer.
3. Clean cotton rags and sponges.
4. Disposable gloves
5. Large barrel (55 gal.) to store wastewater in after changing out of dirty scrub water. Waste water containers.
6. Disposable overshoes or rubber boots. Personnel conducting cleaning operations should not take clothes, boots, etc., home for laundering.
7. HEPA vacuum
8. Six (6) mill plastic bags to dispose of waste.
9. Detergent with surfactant, e.g., Spic-N-Span, Mr. Clean, etc.

Disposal of Waste Water and Cleaning Materials:

1. *NOTE*: Consult with Local Army National Guard Environmental Office prior to taking any collection, disposal or wiping activities commence. Each state and territory may have additional regulatory guidance on collection, storage and disposal of wastewater.

2. Mop heads should be disposed of after initial cleanup, unless otherwise advised by Environmental office personnel. Note: thorough cleaning of mop heads may be sufficient enough to reuse on future Armory cleanups but check with local Environmental Office.

3. Disposable gloves should be treated as hazardous waste.

4. Soiled cotton rags should be treated as hazardous waste.

5. Wash water contaminated with Lead can be collected and allowed to slowly evaporate leaving Lead deposits/sludge that may be collected in plastic containers, placed in metal drums, and stored for future delivery to an authorized hazardous waste disposal site.

a. Drums shall be properly labeled to identify contents In-Accordance With (IAW) Federal, State and local regulatory guidance.
b. Disposal of containerized waste shall be coordinated IAW State hazardous waste program requirements.
c. The Environmental Office shall coordinate removal and disposal of all containerized hazardous waste through established waste streams.

Post-Cleanup Precautionary Measures:

1. Thoroughly wash hands with soap and water.
2. Rinse off rubber boots with soap and water, capturing wastewater for collection into established waste stream. If personnel choose to use over shoes for protection, dispose of overshoes into waste stream. NOTE: This recommendation is for initial clean up activities and PPE requirements may be reduced after it has been determined non-hazardous levels have been achieved.
3. Wash BDU's or personal clothing separately from children's clothes.

NOTE: No eating, drinking or cosmetics allowed during cleanup procedures (these may be allowed after washing of hands/face and done outside of cleanup area)

NOTE: Avoid blowing, shaking or like actions which could potentially disperses lead dust. Dry sweeping, dusting, wiping or blowing with compressed air shall not be permitted

Initial Armory Cleanup:

1. Use a vacuum cleaner equipped with a HEPA exhaust filter. HEPA vacuum all surfaces in the room (ceiling, walls trim, and floors). Start with the ceiling and work down, moving toward the entry door. **Completely clean each room before moving on**.

2. Prepare water and detergent for the wipe down phase, according to manufactures recommendations.

3. Wet wipe, with cotton rags or sponge, any horizontal, diagonal or vertical surfaces up six (6) feet from floor surfaces using hot water and "Spic-n-Span" or an equivalent product.

    a. Rinse out cleaning cloths thoroughly and frequently.
    b. Change out cleaning water as necessary.

NOTE: **If walls to be cleaned show signs of deterioration, e.g., chipping or crumbling paint, in which wiping, scrubbing, or disrupting might potentially increase or spread contamination, then this portion of the clean up should be avoided**.

4. Now prepare water and detergent (e.g. Spic N Span, Mr. Clean, Pine Sol) for the mopping phase, according to manufactures recommendations, which should be found on the products label for general clean up.

    a. Change out water frequently (when water appears dirty)
    b. Rinse out mop heads frequently to prevent contamination of dirty water.

5. Cover entire drill floor surface with above prescribed water and detergent.

6. Final rinse should be with clean water only - -after mop heads have been cleaned.

Recommended Follow-up Housekeeping Practices *after Clearance sampling of cleaned area is performed by certified personnel:*

1. Floor cleaning and dusting should be accomplished using the wet method described in Initial Armory Cleanup SOP.

Note: Only exception to these wet cleaning procedures would be the use of a chemically treated dust floor mop. This can be used for follow-up armory cleaning by sweeping of large particles of dirt and paper.

    a. Pre-treated (chemically treated) dust floor mop will limit dust particles from being disbursed into the surround atmosphere.

b. If treated dust mop is used - -Do Not Shake Mop head - - have mop head laundered after use. **Always keep used dust mop heads in sealed double plastic bags when stored at armory/facility**. Shaking of mop head could release unwanted contaminants into surrounding atmosphere.

2. Frequency of Cleanup- Armories will vary, according to usage and how often they should be cleaned. The following general cleaning schedule is provided:

   a. Only full-time technicians and traditional soldiers using facility during the month. (***Cleaned Monthly***)

   b. Occasional activities taking place during the month, e.g., 1-2 classes or volleyball games, etc. (***Cleaned 2x's Monthly***)

   c. Used regularly by soldiers or outside agencies/personnel. (***Cleaned Regularly - -at least Weekly***)

NOTE: Armories with adjoining Indoor Firing Ranges (IFR) should be cleaned more than weekly, again depending on use of Armory and IFR.

NOTE: Clearance sampling/testing is to be accomplished by certified personnel after these cleanup procedures are followed. If the area is an average Armory, occupied by adults only, for which you are cleaning and **is not a Converted IFR space**, you may continue to utilize the Armory space before the officials re-test this space. Please notify your Safety and/or Occupational Health personnel of the completion of this cleaning regime and they will notify the proper officials of the sampling/testing requirements needed.

If work is contracted out, a third party should do the clearance sampling.

Young children and females who are pregnant, there should be posted signs on all facilities, warning of the potential danger of exposure to lead dust.

Industrial Hygiene Services

SITE ASSISTANCE VISIT

Army National Guard – Fallon Armory
895 East Richards St
Fallon, NV 89406

Prepared for:

Non-Responsive
Program Manager
National Guard Bureau
Industrial Hygiene Southwest

By:

Cole & Associates Training & Consulting, Inc.
18062 72nd Avenue South
Kent, WA 98032

Project Number: ARNG12-004-04

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TABLE OF CONTENTS

ATTACHMENTS

1.0 EXECUTIVE SUMMARY

On September 25th, 2012, Non-Responsive of Cole & Associates Training & Consulting, Inc. conducted a follow-up Industrial Hygiene Site Assistance Visit (SAV) at the Army National Guard's Fallon Armory located at 895 East Richards St, Fallon, NV 89406.

The primary point of contact for information gathered during this survey was Non-Responsive at (775) 428-0701. The survey was conducted at the direction of Non-Responsive of the National Guard Bureau, Southwest Regional Industrial Hygiene Office in Mather, California and included a physical walk-through survey of the facility including the drill floor, office areas, supply areas, kitchen, classrooms, and one weapons vault. Existing programs, i.e., respiratory protection, hazardous materials program, etc. were reviewed for compliance.

The purpose of this IH SAV was to re-evaluate the occupational environment of the facility, and to make recommendations for corrective actions or follow-up work to be completed during an annual re-inspection.

A lead dust wipe sampling plan was prepared for the facility to ensure residual lead dust is kept to a minimum. These areas included the drill floor/assembly hall, one weapons vault, the kitchen, hallway, and classrooms. All lead levels are at acceptable levels.

1.1 Recommendation 4.1.1

A complete inventory of all hazardous and non-hazardous chemicals should be created, maintained, and kept on the premises with corresponding MSDS's attached, listed in a binder, and organized in a simple format.

1.2 Recommendation 4.2.1

Obtain MSDS files for each product at the facility. MSDS log/books should be updated, at a minimum, annually or when new chemicals are added to the inventory.

2.0 INTRODUCTION

The Fallon Armory supports 609th Combat Engineers. The Unit Identification Code (UIC) is WY7MAA. This facility is under the command of Non-Responsive and there are no co-tenants.

This facility has 3 (AGR) full time guard members on a daily basis and houses up to 70 members on a drill training weekends which are once a month. The current work schedule is set up for 4 10 hour days, Tuesday–Friday from 0630-1700. The armory was constructed in 1962 and was renovated in 2004.

The armory has general offices and administrative areas, to include command and administrative offices, a drill floor/assembly hall, one weapons vault, a kitchen, and several classrooms. There is a hazardous materials/POL shed and one metal unit storage building located behind the main armory building.

Weapons training is usually held at Hawthorne Weapons Center and weapons are said to be cleaned throughout the armory however mainly in the drill hall and classroom areas. Reportedly, there has never been an indoor firing range at this facility.

Findings in this report were obtained by observations at the facility, previous inspection reports, and through interviews with personnel regarding the armory.

No civilian activities are held at the facility at this time however there have been in the past.

2.1 Follow-up SAV Objectives

The purpose of this follow-up SAV was to re-evaluate potential high lead levels identified from prior SAV results. This also includes interviews of armory personnel regarding industrial hygiene issues as well as any changes in operations in the work area that might affect the workers' health & safety.

2.2 Scope of Assistance Visit Services

This review of findings report is divided into the following sections:

Section 2 – Introduction
Section 2.3- Recurring Observations
Section 3 – Survey Procedures
Section 4 – Survey Observations and Findings
Section 5 - Written Programs and Approvals
Section 6 – Limitations and Approvals

2.3 Recurring Observations

Information was gathered from the previous report and further observations were gathered from interviews and conversations with facility personnel. There were no major issues regarding recurring observations with the exception of the MSDS binders and chemical inventory list. These items seem to be an ongoing problem. Most of the items mentioned in previous reports were taken care of otherwise.

2.3.1 Lead Dust Hazards

Previous inspection reports indicate normal lead dust levels.

3.0 SURVEY PROCEDURES

Lead wipe samples were collected from dusty horizontal floor surfaces in the facility including but not limited to the drill floor, kitchen, hallways, and the vault area. "Lead Wipe™" brand wipes were used with a 72 square-inch template. The wipes used conform to American Standards for Testing Materials E1792-96A, *Standard Specification for Wipe Sampling Materials for Lead in Surface Dust*. The collected wipe samples were placed in clean, labeled centrifuge tubes. Samples were submitted to Reservoirs Environmental Inc. for analysis via Flame Atomic Absorption, USEPA Method SW846-(7420). Laboratory results are listed in micrograms of lead per square foot ($\mu g/ft^2$). Copies of the raw analytical data are presented in Attachment 4.

The photos associated with the following section are included as Attachment 3.

4.0 SURVEY OBSERVATIONS & FINDINGS

The following survey observations and findings are the result of direct observations by Cole & Associates personnel and laboratory analysis of samples taken in the field.

4.1 Hazardous Materials \ MSDS

There were small amounts of cleaning supplies found in a janitorial closet off the main hallway. Products were somewhat organized and it was reported that only environmentally safe products were to be purchased in the future.

SSG Martinez has recently taken over the responsibilities of Building Manager and is in the process of organizing and bringing the armory up to compliance in all areas.

There is a flammable storage locker outside behind the building however it was locked and inaccessible. The POL shed was locked as well.

There are no MSDS binders for the facility although there were miscellaneous single sheets for a few of the products tacked to the wall in the janitorial closet.

No master chemical list was available for the facility as well.

4.1.1 Recommendation

A complete inventory of all hazardous and non-hazardous chemicals should be created, maintained, and kept on the premises with corresponding MSDS's attached, listed in a binder, and organized in a simple format.

4.1.2 Recommendation

Obtain MSDS files for each product at the facility. MSDS log/books should be updated, at a minimum, annually or when new chemicals are added to the inventory.

4.2 Lead Dust

There are currently no standards that dictate what a safe level of lead is from a wipe sample. However, lead sampling results can be compared to the protocol outlined in the U.S. Department of Housing and Urban Development's (HUD's) *Guidelines For The Evaluation And Control Of Lead-Based Paint Hazards In Housing,* 2009. HUD currently recommends an exposure limit of 40 µg/ft^2 for floors. This guideline was established to prevent lead exposure to children in domestic homes, along with females who are pregnant.

The office of Industrial Hygiene Southwest, located in Mather, California has developed a Standard Operating Procedure (SOP) for Armory Cleanup. Essentially, this SOP sets forth a criterion of 200 micrograms per square foot µg/ft^2 in all areas of the facility. Areas that have levels exceeding 200 µg/ft^2 should be thoroughly cleaned and employees that may come into contact with those areas should be properly trained in the hazards of lead exposure.

A summary of results from the lead wipe sampling obtained from the armory can be found in Table 4.2.A below and complete analytical results can be found in Attachment 4. Floor plans and sample locations can be found in Attachment 2.

Table 4.2.A - Lead Dust-Wipe Results

Sample Number	Location Floors	Results (µg/ft^2)
ARNG12-004-04-1	Drill floor SE	BRL
ARNG12-004-04-2	Drill floor NE	BRL
ARNG12-004-04-3	Drill Floor Center	BRL
ARNG12-004-04-4	Drill floor NW	BRL
ARNG12-004-04-5	Drill floor SW	BRL
ARNG12-004-04-6	Kitchen	BRL
ARNG12-004-04-7	Hallway at Entrance to Drill Floor	BRL

ARNG12-004-04-8	Hallway outside Supply Room	BRL
ARNG12-004-04-9	Training Room (111) Table Top	74.5
ARNG12-004-04-10	Outside Vault Door	17.0
ARNG12-004-04-11	Day Room Table Top	14.0
ARNG12-004-04-12	Drill Floor on Weight Bench	24.5
ARNG12-004-04-13	Field Blank	BRL
ARNG12-004-04-14	Field Blank	BRL

All areas tested resulted in dust lead levels well below the recommended level of 200 µg/ft^2.

4.3 Kitchen Range Hood

This facility has a commercial kitchen however is not being used as there is no cook assigned to the facility. The range is not currently hooked up to power.

4.4 Illumination

Industrial Engineering Society (IES)/American National Standards Institute (ANSI) RP7-1991. in general, recommends a range of 20 to 50 foot-candles as the minimum lighting requirements for the performance of visual tasks of high contrast or large size, such as would typically occur in shop areas. In addition, IES recommends a range of 50 to 100 foot-candles as the minimum lighting requirements for the performance of visual tasks of medium contrast or small size, such as would typically occur in an office area.

There was adequate lighting throughout the facility.

5.0 WRITTEN PROGRAMS & TRAINING

5.1 Written Programs

Written programs centrally located and are not maintained at the facility.

5.2 Training

Training records are centrally located and are not maintained at the facility.

6.0 LIMITATIONS AND APPROVALS

6.1 Technical Assistance

Contact Non-Responsive of the Southwest Regional Industrial Hygiene Office, (916) 804-1707 for technical assistance regarding information found in this report or the performed survey.

Contact the State Safety and Occupational Health Office should any of the operations change, or should the personnel become incapable of following the previous recommendations and subsequent recommendations are needed.

Signatures

Cole & Associates Training & Consulting, Inc. warrants that the findings contained herein have been assessed and reported in general accordance with accepted professional practices as applied by similar industrial hygiene professionals in the industry at the time of this report preparation.

This report is based upon conditions observed at the facility and information made available to the inspector(s). This report does not intend to identify all environmental hazards, nor is it intended to indicate that other hazards do not exist at the premises. There is a distinct possibility that conditions may exist that could not be identified within the scope of the survey or that were not apparent during the site visit.

IH Technician: Non-Responsive _____ 10-5-12
Date
Cole & Associates Training & Consulting, Inc.

Quality Assurance: Non-Responsive _____ 10/15/12
Date
Cole & Associates Training & Consulting, Inc.

IHSW Program Manager: Non-Responsive _____ _____
Date
NGB- Industrial Hygiene Southwest

Industrial Hygiene Southwest

Violation Inventory Log

LOG OF SCHEDULE OF CORRECTIVE ACTION - COMPLIANCE WITH SAFETY AND HEALTH STANDARDS

ARNG Fallon, NV Armory

CONTROL NUMBER CLOSED ☐	HAZARD DESCRIPTION	SITE	RAC	CORRECTIVE ACTIONS (Abatement Plan)	SUSPENSE DATE	ACTION OIC/NCOIC	Estimated Cost(s)	DATE CORRECTED	REFERENCES
NVFAL-092512-4.1.1	A current Hazardous Materials/Chemical Inventory list could not be located	Fallon Armory	4	A complete inventory of all hazardous and non-hazardous chemicals should be created, maintained, and kept on the premises with corresponding MSDS's attached, listed in a binder, and organized in a simple format.					29 CFR 1910.1200 NGR 385-10, Chapter 6 DODI 6050.5
NVFAL-092512-4.1.2	MSDS binders and/or chemical inventory lists are not available for any products at this facility	Fallon Armory	4	Obtain MSDS files for each product at the facility. MSDS log/books should be updated, at a minimum, annually or when new chemicals are added to the inventory.					29 CFR 1910.1200 NGR 385-10, Chapter 6 DODI 6050.5

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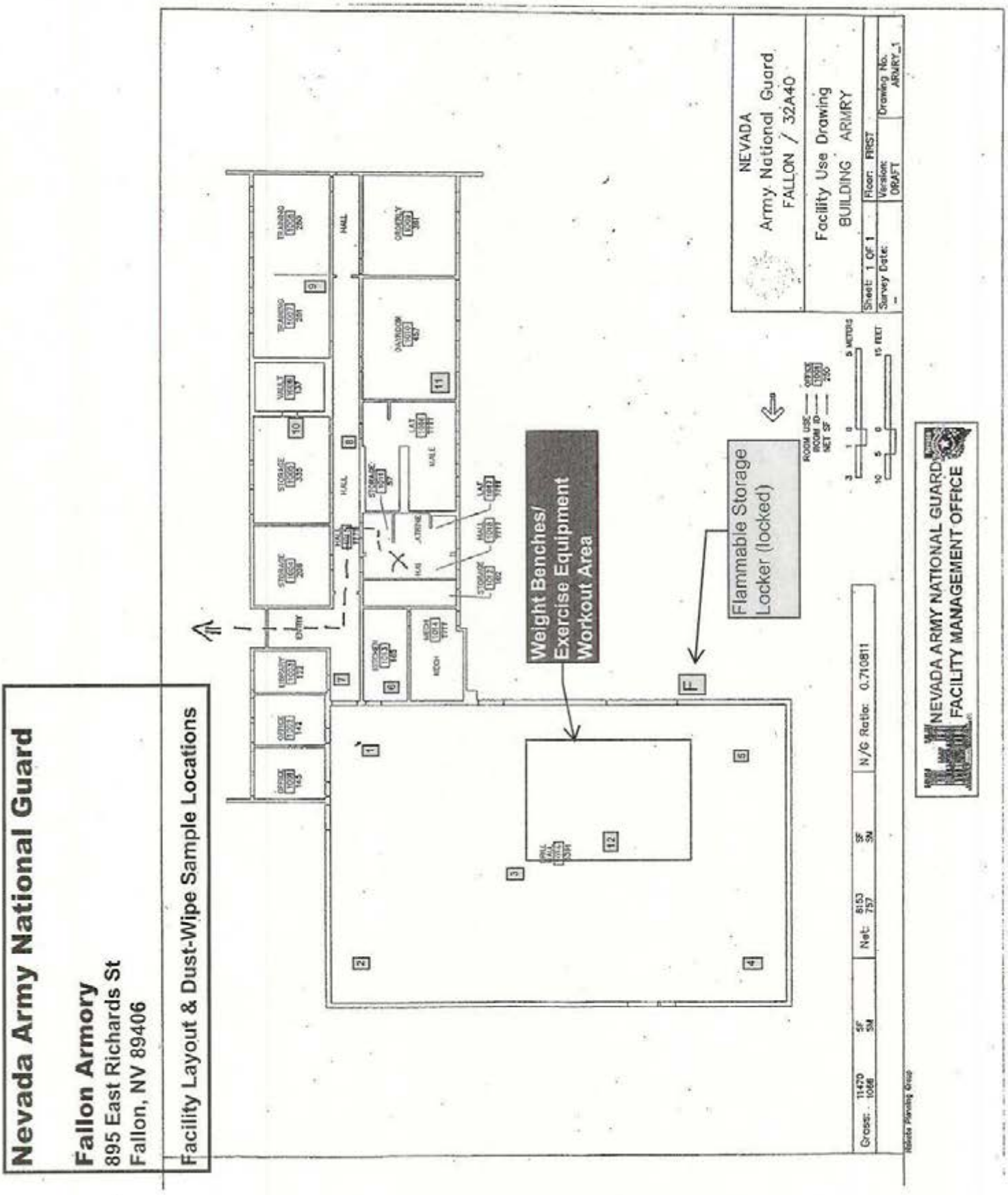
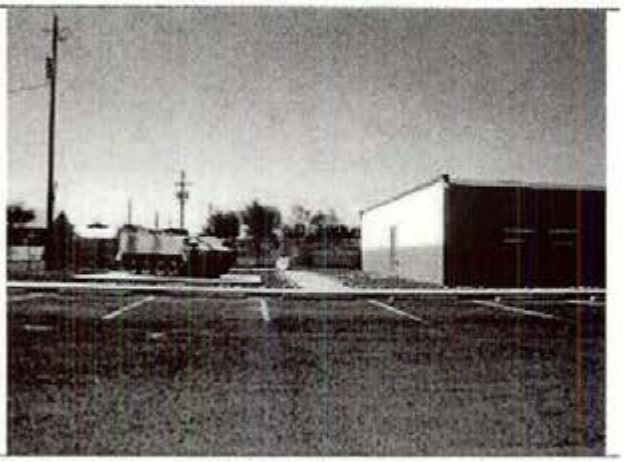
Reference DA FORM 4754
VER: 15 OCT 2009



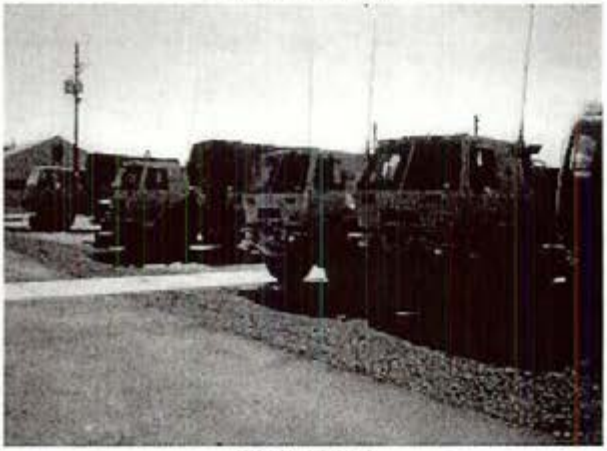
Fallon Armory 9/25/2012
Site Photos

Front of Armory



Left Side (south)

Front from right



Motor Pool

North Bay Tailpipe Exhaust

Foyer

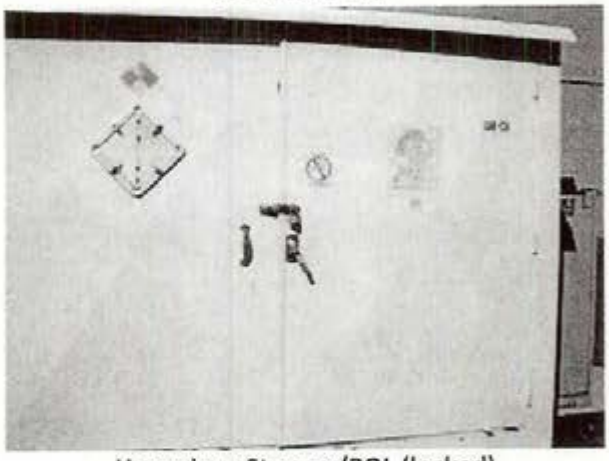
Fallon Armory 9/25/2012
Site Photos

Unit Storage Building

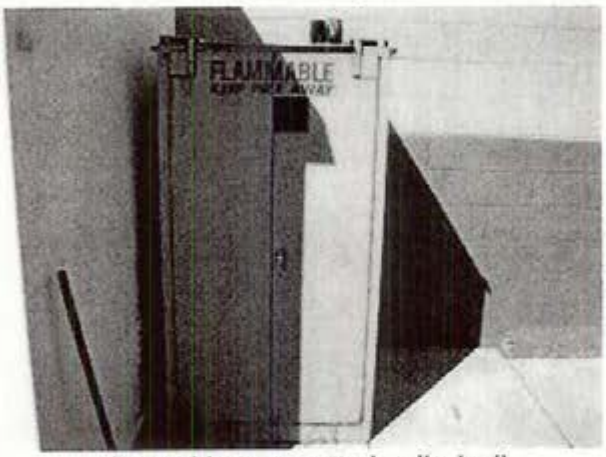
Inside Unit Storage Building

West Side Left

West side Right



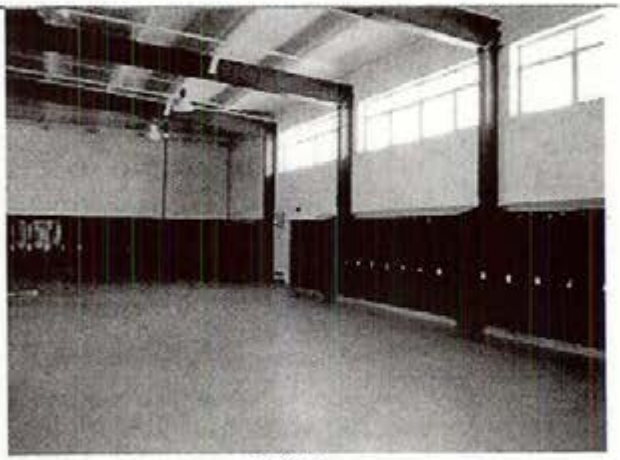
Hazardous Storage/POL (locked)



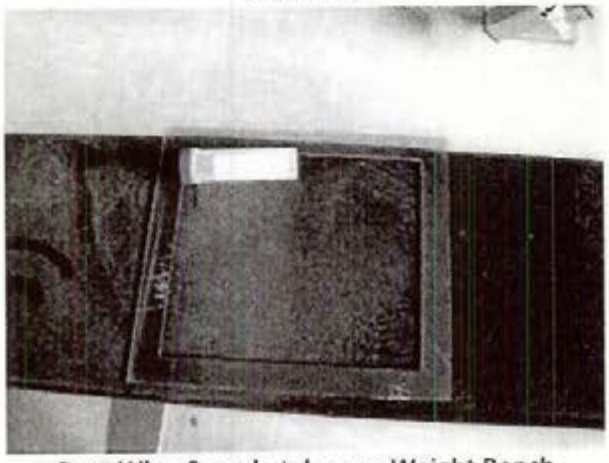
Flammable Storage Locker (locked)

Fallon Armory 9/25/2012
Site Photos

Drill Floor



Drill Floor



Dust Wipe Sample taken on Weight Bench

Hallway

Commercial Kitchen

Commercial Kitchen

Fallon Armory 9/25/2012
Site Photos

Commercial Kitchen

Fire Extinguisher Properly Tagged

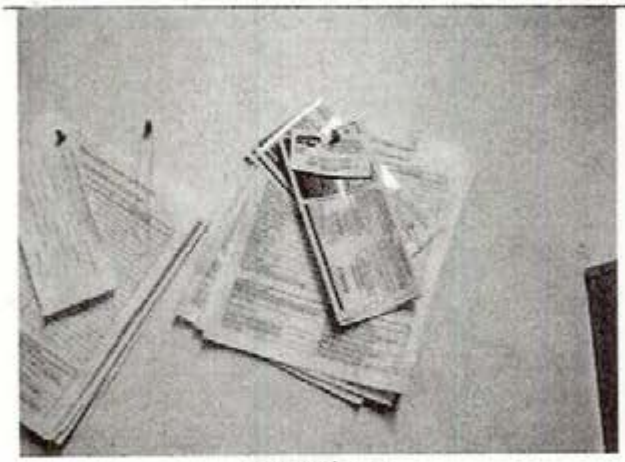
Classroom

Classroom

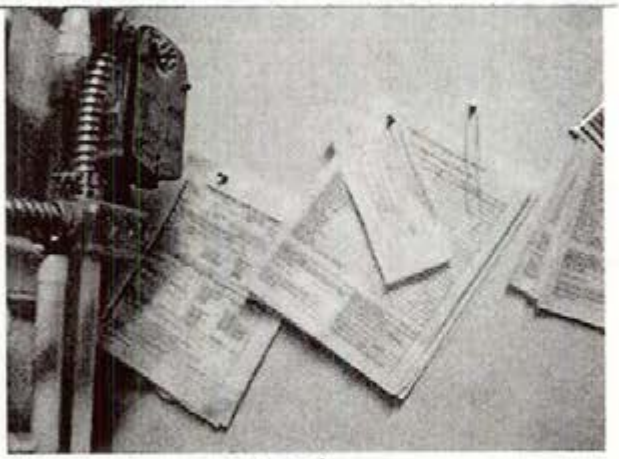
Classroom

Hallway

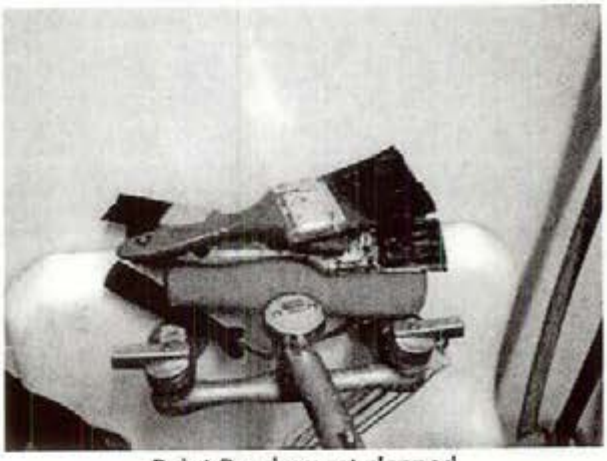
Fallon Armory 9/25/2012
Site Photos



MSDS Sheets



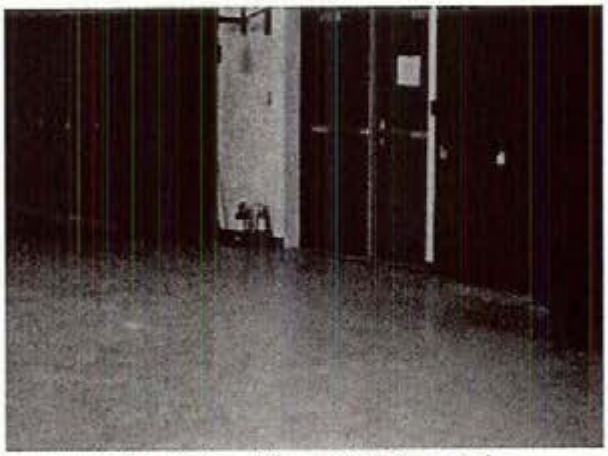
MSDS Sheets



Paint Brushes not cleaned

Hallway

Weapons Vault



Fire Extinguishers Not Mounted

RESERVOIRS ENVIRONMENTAL, INC.

5801 Logan St., Suite 100
Denver CO 80216

TABLE ANALYSIS: LEAD BY WIPE SAMPLING

RES Job Number:	**RES 245158-1**
Client:	**Cole & Associates**
Client Project Number / P.O.:	**ARNG12-004-04**
Client Project Description:	**Fallon Armory (NV) 895 E. Richards St. Fallon NV 894**
Date Samples Received:	**October 1, 2012**
Analysis Type:	**USEPA SW846 3050B / AA (7420)**
Turnaround:	**3 Day**
Date Samples Analyzed:	**October 3, 2012**

Client ID Number	Lab ID Number	Sample Area (sq.ft.)	LEAD (µg)	Reporting Limit (µg/ft²)	LEAD CONCENTRATION (µg/ft²)
ARNG12-004-04-1	EM 902704	0.50	BRL	12.5	BRL
ARNG12-004-04-2	EM 902705	0.50	BRL	12.5	BRL
ARNG12-004-04-3	EM 902706	0.50	BRL	12.5	BRL
ARNG12-004-04-4	EM 902707	0.50	BRL	12.5	BRL
ARNG12-004-04-5	EM 902708	0.50	BRL	12.5	BRL
ARNG12-004-04-6	EM 902709	0.50	BRL	12.5	BRL
ARNG12-004-04-7	EM 902710	0.50	BRL	12.5	BRL
ARNG12-004-04-8	EM 902711	0.50	BRL	12.5	BRL
ARNG12-004-04-9	EM 902712	0.50	37.3	12.5	74.5
ARNG12-004-04-10	EM 902713	0.50	8.5	12.5	17.0
ARNG12-004-04-11	EM 902714	0.50	7.0	12.5	14.0
ARNG12-004-04-12	EM 902715	0.50	12.3	12.5	24.5
ARNG12-004-04-13	EM 902716	0.00		< 6.3 µg	
ARNG12-004-04-14	EM 902717	0.00		< 6.3 µg	

***Calculations Based On A 1 sq.ft. Sample Area Unless Otherwise Noted**
*** Unless otherwise noted all quality control samples performed within specifications established by the laboratory.**

BRL = Below Reporting Limit

Data QA_____

Fallon Facility Information

1. Date Prepared: September 25, 2012 Unit Identification Code (UIC): [redacted]
2. Names (and company name) of Personnel Conducting IH SAV: [redacted] - Cole & Associates
3. Facility Name and Brief Summary of Primary Activities Conducted at Facility: Fallon Armory Admin
4. Facility Address: 895 E. Richards St. Fallon, NV 89406
5. Primary Unit Assigned to Facility: 609th Combat Engineers
6. Co-Tenant Units Assigned or Working Within Facility (LIST ALL): N/A
7. Square Feet Area of Facility: DOC: 1962 Renovated 2004
8. Work Schedule: T-F 06:30-1700 4x10 hour days
9. Number of Work Bays: 0
10. Equipment Density and Type: Some stored here;
    a. List Nomenclature Serviced or Maintained at Facility: HMVEE: 9 LMTR: 7 WRECKER: 2
    b. List Total Number for Each Nomenclature Services or Maintained at Facility: NA
11. Total Number of Personnel: 3 Full Time Drill Weekend: 1 X (Month) Up to 70
12. No. of Admin Personnel (Include AGR, Fed., Tech., IDT, State or Contract Employee): 3 AGR
13. No. of Maintenance Personnel (Include AGR, Fed., Tech., IDT, State or Contract Employee): IDT= 6
14. Total Number of Personnel Enrolled in the Hearing Conservation Program: NA
15. Total Number of Personnel Enrolled in the Respiratory Protection Program: NA
16. Total Number of Personnel Enrolled in the Medical Surveillance Program: NA
17. Total Number of Personnel Enrolled in the Vision Program: NA
18. Facility Commander: a. [redacted] E-mail address, Commercial Telephone Number and Unit Assigned to:
19. Safety Officer: a. [redacted] E-mail address, Commercial Telephone Number and Unit Assigned to:
20. Facility Telephone Number: (775) 428 - 0701

Army National Guard Fallon Armory
Survey Checklist
(To Be Included In Report)

Five lead wipe samples collected from drill floor (take samples from dusty horizontal floor surfaces)	Yes
Are any weapons cleaned in the facility, if yes where are they cleaned?	Yes, throughout the facility Usually have weapons training at Hawthorne Weapons Center and return to the armory
Additional lead wipe samples taken from 25% of the rest of the building - -(on floor areas only)	Yes
Is there a converted indoor firing range? If so collect additional wipe samples IAW the SOW.	No IFR (never has been)
Is there any peeling paint? Take bulk sample if able.	None to mention
Are there any signs of water damage or mold?	None noticed
Any suspected ACM? Where and what condition is it in. Bulk sample if able.	Renovated 2004, ACM removed. None noticed
Quality of housekeeping	Average, state cleans facility
HVAC maintenance plan in place?	State maintains
Overall condition of HVAC system	State maintains
Obtained CO2, Temp, RH monitoring	A/C sometimes too cold but HVAC works well

COLE & ASSOCIATES TRAINING & CONSULTING, INC.
ENGINEERING, HEALTH, SAFETY, AND ENVIRONMENTAL

25 September 2012

US Army National Guard Bureau
Industrial Hygiene Southwest
10510 Superfortress Ave, Suite C
Mather, CA, 95655

Subject: **ARNG12-004-04**
Fallon Armory Recommendations

To Whom It May Concern:

Hazardous Materials / MSDS

1. A complete inventory of all hazardous and non-hazardous chemicals should be created, maintained, and kept on the premises with corresponding MSDS's attached, listed in a binder, and organized in a simple format.(4.1.1)
2. Obtain MSDS files for each product at the facility. MSDS log/books should be updated, at a minimum, annually or when new chemicals are added to the inventory. (4.1.2)

Non-Responsive

Cole & Associates Training & Consulting, Inc.

Industrial Hygiene Site Assistance Visit

Flloyd Edsall Training Center

6400 Range Road
Las Vegas, NV 89112

10510 Superfortress Avenue, Suite C, Mather, CA 95655 (916) 854-1492

DEPARTMENT OF THE ARMY AND AIRFORCE
NATIONAL GUARD BUREAU
INDUSTRIAL HYGIENE SOUTHWEST
10510 Superfortress Ave, Ste. C
Mather, CA 95655

ARNG-CSG-IHSW

13 November 2012

MEMORANDUM THRU Nevada Army National Guard, Deputy State Surgeon (DSS), 2460 Fairview Drive, Carson City, NV 89701

FOR Commander, Flloyd Edsall Training Center, 6400 Range Road, Las Vegas, NV 89112

SUBJECT: Executive Summary for Industrial Hygiene Site Assistance Visit (IHSAV) for the Flloyd Edsall Training Center 6400 Range Road, Las Vegas, NV conducted on 26 September 2012.

1. **References**. See survey report.

2. **General.**

a. At the request of the NGB Industrial Hygiene, Southwest (IHSW), an Annual Industrial Hygiene Site Assistance Visit was conducted for the Flloyd Edsall Training Center, 6400 Range Road, Las Vegas, NV on 26 SEP 2012.

b. The findings and recommendations in this Executive Summary are controlling and supersede all recommendations in the contractor report (reference Attachment II). However, IHSW concurs with the observations and findings within the attached contractor report.

c. Risk Assessment Codes (RAC) provided in this report have been derived from two sources: Deriving Risk Assessment Codes (RAC's) for Health Hazards (Ref: DOD Instruction 6055.1) and AR 385-10, The Army Safety Program.

d. Use of trademark names in the attached report, or this Executive Summary, does not imply Army National Guard endorsement of any product.

3. **Findings.** See survey report.

4. **Commendable.**

The facility personnel were very helpful to IH personnel during this SAV.

5. **Observations / Recommendations.**

NOTE: This section provides conclusions and recommendations for the findings and observations made within the attached contractors report. The paragraphs are numbered to correspond to the sections where they were first noted. (i.e., paragraph 2.1a represents the 2.1a located within the contractors report.

a. Personnel should continue good housekeeping and safety practices within this well kept facility.

6. Violation Correction Log.

a. IHSW has provided a Violation Correction Log derived from the observations from this visit. IHSW recommends the following:

1. Commander(s) assign an Action OIC/NCOIC, Suspense Date for completion, and Estimated Cost(s) to ensure item completion and corrective status is briefed during quarterly (or monthly) Safety Meetings/Councils until resolved.

2. Corrective measures should be implemented and accomplished at the lowest levels possible. Hazards and Corrective Measures that cannot be corrected at the facility level, and require assistance from higher headquarters or from the state level, should be elevated to the Quarterly State/BN Safety Council Meeting for resolution.

3. Recommend a representative from the facility attend all quarterly/monthly meetings to ensure the appropriate emphasis and corrective actions are followed for hazard resolution and abatement of the observations made during this visit.

4. Retain entries of the items corrected, or closed, for future reference. This may be accomplished by posting completed items within the Corrected Hazard Sheet portion of the Excel Violation Correction Log Workbook we've provided.

5. The preferred method to document and track identified hazards for resolution is for their entry into the Reserve Component Automation System – Safety and Occupational Health (**RCAS-SOH)** Program.

6. IHSW recommends the **Senior Unit Commander of this Facility and any Co-Tenant Organizations or Units, review and provide assistance with implementation of these recommendations.** This will educate the chain of command and allow the unit or co-tenant organizations to take any necessary precautions or actions required by them and their personnel.

7. Hazard Assessment/Job Safety Analysis (JSA).

a. Documenting the Hazard Assessments provides a method to obtain initial and periodic review from the Industrial Hygiene, Occupational Health and Safety Professions located at the JFHQ/HQ/state level.

b. The Hazard Assessments should be used as written training materials for the new, transfer and unit personnel working under the auspice of the facility.

c. IHSW recommends facility supervisory staff and facility personnel conduct initial Hazard Assessments outlined in AR 40-5, Army Preventive Medicine (Section V) and 29 CFR 1910.132 and submit for review and obtain approval from the state Industrial Hygiene, Occupational Health and Safety Professions.

d. We have provided an appendix with Hazard Assessments (HA) examples of some of this facilities operations. Additional operations can utilize this format to develop HA not observed during this SAV.

e. An integral and important factor of the Hazard Assessment/JSA process is for the review and guidance from qualified Safety, Occupational Health and Industrial Hygiene professions located at the higher headquarters level or state level. For this reason, the Hazard Assessments (to include all pertinent and supporting documents) should be completed by the facility personnel and forward to the Nevada Army National Guard Industrial Hygiene, Occupational Health and Safety Office for final review and approval (signature).

f. Job Safety Analysis (JSA's)/Hazard Assessments.

NOTE: The Hazard Assessments can be used for monthly meetings to brief/train, and document large group training events and activities.

8. IHSW recommends the **Senior Unit Commander of this Facility and any Co-Tenant Organizations or Units, review and provide assistance with implementation of these recommendations.** This will educate the chain of command and allow the unit or co-tenant organizations to take any necessary precautions or actions required by them and their personnel.

9. To assist you with execution of your responsibilities in correcting the observations noted, we encourage you to consult with the State Safety Manager, Occupational Health Manager and Industrial Hygiene professions located and/or authorized within the State Safety and Occupational Health Office.

10. For additional information please contact the undersigned at (916) 854-1491 or via email at Non-Responsive

Non-Responsive

FOR

NGB, IHSW, CIV
Industrial Hygiene

Industrial Hygiene Southwest's mission is to ensure all military personnel and military leadership is provided the specialized technical expertise, consultation and assistance to ensure all military operations and processes are conducted in a healthy manner

10510 Superfortress Avenue, Suite C, Mather, CA 95655 (916) 854-1491

ARMORY

CLEANUP & FOLLOW-UP HOUSEKEEPING RECOMMENDATIONS

Materials Needed:

1. Cloth Mop head (s) & Mop head holder(s) with handle.
2. Mop bucket (s) with wringer.
3. Clean cotton rags and sponges.
4. Disposable gloves
5. Large barrel (55 gal.) to store wastewater in after changing out of dirty scrub water. Waste water containers.
6. Disposable overshoes or rubber boots. Personnel conducting cleaning operations should not take clothes, boots, etc., home for laundering.
7. HEPA vacuum
8. Six (6) mill plastic bags to dispose of waste.
9. Detergent with surfactant, e.g., Spic-N-Span, Mr. Clean, etc.

Disposal of Waste Water and Cleaning Materials:

1. *NOTE*: Consult with Local Army National Guard Environmental Office prior to taking any collection, disposal or wiping activities commence. Each state and territory may have additional regulatory guidance on collection, storage and disposal of wastewater.

2. Mop heads should be disposed of after initial cleanup, unless otherwise advised by Environmental office personnel. Note: thorough cleaning of mop heads may be sufficient enough to reuse on future Armory cleanups but check with local Environmental Office.

3. Disposable gloves should be treated as hazardous waste.

4. Soiled cotton rags should be treated as hazardous waste.

5. Wash water contaminated with Lead can be collected and allowed to slowly evaporate leaving Lead deposits/sludge that may be collected in plastic containers, placed in metal drums, and stored for future delivery to an authorized hazardous waste disposal site.

a. Drums shall be properly labeled to identify contents In-Accordance With (IAW) Federal, State and local regulatory guidance.
b. Disposal of containerized waste shall be coordinated IAW State hazardous waste program requirements.
c. The Environmental Office shall coordinate removal and disposal of all containerized hazardous waste through established waste streams.

Post-Cleanup Precautionary Measures:

1. Thoroughly wash hands with soap and water.
2. Rinse off rubber boots with soap and water, capturing wastewater for collection into established waste stream. If personnel choose to use over shoes for protection, dispose of overshoes into waste stream. NOTE: This recommendation is for initial clean up activities and PPE requirements may be reduced after it has been determined non-hazardous levels have been achieved.
3. Wash BDU's or personal clothing separately from children's clothes.

NOTE: No eating, drinking or cosmetics allowed during cleanup procedures (these may be allowed after washing of hands/face and done outside of cleanup area)

NOTE: Avoid blowing, shaking or like actions which could potentially disperses lead dust. Dry sweeping, dusting, wiping or blowing with compressed air shall not be permitted

Initial Armory Cleanup:

1. Use a vacuum cleaner equipped with a HEPA exhaust filter. HEPA vacuum all surfaces in the room (ceiling, walls trim, and floors). Start with the ceiling and work down, moving toward the entry door. **Completely clean each room before moving on**.

2. Prepare water and detergent for the wipe down phase, according to manufactures recommendations.

3. Wet wipe, with cotton rags or sponge, any horizontal, diagonal or vertical surfaces up six (6) feet from floor surfaces using hot water and "Spic-n-Span" or an equivalent product.

    a. Rinse out cleaning cloths thoroughly and frequently.
    b. Change out cleaning water as necessary.

NOTE: **<u>If walls to be cleaned show signs of deterioration, e.g., chipping or crumbling paint, in which wiping, scrubbing, or disrupting might potentially increase or spread contamination, then this portion of the clean up should be avoided</u>**.

4. Now prepare water and detergent (e.g. Spic N Span, Mr. Clean, Pine Sol) for the mopping phase, according to manufactures recommendations, which should be found on the products label for general clean up.

    a. Change out water frequently (when water appears dirty)
    b. Rinse out mop heads frequently to prevent contamination of dirty water.

5. Cover entire drill floor surface with above prescribed water and detergent.

6. Final rinse should be with clean water only - -after mop heads have been cleaned.

<u>Recommended Follow-up Housekeeping Practices</u> *after Clearance sampling of cleaned area is performed by certified personnel:*

1. Floor cleaning and dusting should be accomplished using the wet method described in Initial Armory Cleanup SOP.

Note: Only exception to these wet cleaning procedures would be the use of a chemically treated dust floor mop. This can be used for follow-up armory cleaning by sweeping of large particles of dirt and paper.

    a. Pre-treated (chemically treated) dust floor mop will limit dust particles from being disbursed into the surround atmosphere.

b. If treated dust mop is used - -Do Not Shake Mop head - - have mop head laundered after use. **Always keep used dust mop heads in sealed double plastic bags when stored at armory/facility**. Shaking of mop head could release unwanted contaminants into surrounding atmosphere.

2. Frequency of Cleanup- Armories will vary, according to usage and how often they should be cleaned. The following general cleaning schedule is provided:

   a. Only full-time technicians and traditional soldiers using facility during the month. (***Cleaned Monthly***)

   b. Occasional activities taking place during the month, e.g., 1-2 classes or volleyball games, etc. (***Cleaned 2x's Monthly***)

   c. Used regularly by soldiers or outside agencies/personnel. (***Cleaned Regularly - -at least Weekly***)

NOTE: Armories with adjoining Indoor Firing Ranges (IFR) should be cleaned more than weekly, again depending on use of Armory and IFR.

NOTE: Clearance sampling/testing is to be accomplished by certified personnel after these cleanup procedures are followed. If the area is an average Armory, occupied by adults only, for which you are cleaning and **is not a Converted IFR space**, you may continue to utilize the Armory space before the officials re-test this space. Please notify your Safety and/or Occupational Health personnel of the completion of this cleaning regime and they will notify the proper officials of the sampling/testing requirements needed.

If work is contracted out, a third party should do the clearance sampling.

Young children and females who are pregnant, there should be posted signs on all facilities, warning of the potential danger of exposure to lead dust.

Industrial Hygiene Services

SITE ASSISTANCE VISIT

Nevada Army National Guard
Floyd Edsall Training Center Armory
6400 Range Road
North Las Vegas, NV 89112

Prepared for:

Non-Responsive
rogram Manager
National Guard Bureau
Industrial Hygiene Southwest

By:

Cole & Associates Training & Consulting, Inc.
18062 72nd Avenue South
Kent, WA 98032

Project Number: ARNG12-004-01

1.0 EXECUTIVE SUMMARY

On September 26th, 2012, Non-Responsive of Cole & Associates Training & Consulting, Inc. conducted a follow-up Industrial Hygiene Site Assistance Visit (SAV) at the Army National Guard's Flloyd Edsall Training Center (FETC) Armory located at 6400 Range Road, North Las Vegas, NV 89112. This armory is also known as the Clark County Armory.

The primary point of contacts for information gathered during this survey was Non-Responsive and Non-Responsive (who occupy offices in the armory) and Nathan Stromberg, (who has an office off site in Las Vegas and is the acting Nevada Army National Guard's Environmental Protection Non-Responsive can be reached at (702) 856-4835. The survey was conducted at the direction of Non-Responsive of the National Guard Bureau, Southwest Regional Industrial Hygiene Office in Mather, California and included a physical walk-through survey of the facility including the drill floor, office areas, nine individual unit supply areas, each with their own weapons vault, mechanical rooms, locker rooms and out buildings. Existing programs, i.e., respiratory protection, hazardous materials program, etc. were also reviewed for compliance.

The purpose of this IH SAV was to re-evaluate the occupational environment of the facility, and to make recommendations for corrective actions or follow-up work to be completed during an annual re-inspection.

A lead dust wipe sampling plan was prepared for the facility to ensure residual lead dust is kept to a minimum. These areas included the drill floor/assembly hall, two weapons vaults, hallways, the elevator floor, locker rooms, and the state maintenance areas within the building. All lead levels are at acceptable levels.

stand out in a crowd and shine brightly. Copies will be sent to their superiors for recognition and for individual employee files.

2.1 Follow-up SAV Objectives

The purpose of this follow-up SAV was to re-evaluate potential high lead levels identified from prior SAV results. This also includes interviews of armory personnel regarding industrial hygiene issues as well as any changes in operations in the work area that might affect the workers' health & safety.

2.2 Scope of Assistance Visit Services

This review of findings report is divided into the following sections:

Section 2 – Introduction
Section 2.3- Recurring Observations
Section 3 – Survey Procedures
Section 4 – Survey Observations and Findings
Section 5 - Written Programs and Approvals
Section 6 – Limitations and Approvals

2.3 Recurring Observations

Information was gathered from the previous report and further observations were gathered from interviews and conversations with facility personnel. There were no major issues regarding recurring observations. Issues from previous reports have been corrected.

2.3.1 Lead Dust Hazards

Previous inspection reports indicate normal lead dust levels.

3.0 SURVEY PROCEDURES

Lead wipe samples were collected from dusty horizontal floor surfaces in the facility including but not limited to the drill floor, kitchen, hallways, and the vault areas. "Lead Wipe™", brand wipes were used with a 72 square-inch template. The wipes used conform to American Standards for Testing Materials E1792-96A, *Standard Specification for Wipe Sampling Materials for Lead in Surface Dust*. The collected wipe samples were placed in clean, labeled centrifuge tubes. Samples were submitted to Reservoirs Environmental Inc. for analysis via Flame Atomic Absorption, USEPA Method SW846-(7420). Laboratory results are listed in micrograms of lead per square foot (µg/ft^2). Copies of the raw analytical data are presented in Attachment 4.

The photos associated with the following section are included as Attachment 3.

4.0 SURVEY OBSERVATIONS & FINDINGS

The following survey observations and findings are the result of direct observations by Cole & Associates personnel and laboratory analysis of samples taken in the field.

4.1 Hazardous Materials \ MSDS

The Nevada Army National Guard is in the process of implementing a state wide policy mandating that only "green" environmentally safe chemicals/products be purchased and used at each facility. This policy is already in affect at the FETC.

State maintenance personnel have offices and supply areas in the northeast corner of the building. Workers assigned to this facility maintain the armory, the OMS-2, and the CSMS on the cantonment site.

Each unit has their own set of flammable storage lockers which are located outside and neatly lined up against the wall by the corresponding unit rear door. Products are listed by NSN numbers and easily identified and labeled. Right to Know Centers with MSDS binders are mounted in each unit supply area. Chemical Inventory lists for products inside are on a clipboard inside each flammable storage locker as well as MSDS binders.

Complete chemical inventory lists for the facility are available for *all* products and are stored electronically as well as posted with MSDS binders. HAZCOM Systems are all in excellent order.

4.2 Lead Dust

There are currently no standards that dictate what a safe level of lead is from a wipe sample. However, lead sampling results can be compared to the protocol outlined in the U.S. Department of Housing and Urban Development's (HUD's) *Guidelines For The Evaluation And Control Of Lead-Based Paint Hazards In Housing,* 2009. HUD currently recommends an exposure limit of 40 µg/ft^2 for floors. This guideline was established to prevent lead exposure to children in domestic homes, along with females who are pregnant.

The office of Industrial Hygiene Southwest, located in Mather, California has developed a Standard Operating Procedure (SOP) for Armory Cleanup. Essentially, this SOP sets forth a criterion of 200 micrograms per square foot µg/ft^2 in all areas of the facility. Areas that have levels exceeding 200 µg/ft^2 should be thoroughly cleaned and employees that may come into contact with those areas should be properly trained in the hazards of lead exposure.

A summary of results from the lead wipe sampling obtained from the armory can be found in Table 4.2.A below and complete analytical results can be found in Attachment 4. Floor plans and sample locations can be found in Attachment 2.

as the minimum lighting requirements for the performance of visual tasks of medium contrast or small size, such as would typically occur in an office area.

Lighting levels were acceptable and within range.

5.0 WRITTEN PROGRAMS & TRAINING

5.1 Written Programs

Written programs are current and maintained at the facility.

5.2 Training

Training records are centrally located and maintained at the facility.

6.0 LIMITATIONS AND APPROVALS

6.1 Technical Assistance

Contact Mr. Ron Faull of the Southwest Regional Industrial Hygiene Office, (916) 804-1707 for technical assistance regarding information found in this report or the performed survey.

Contact the State Safety and Occupational Health Office should any of the operations change, or should the personnel become incapable of following the previous recommendations and subsequent recommendations are needed.

Signatures

Cole & Associates Training & Consulting, Inc. warrants that the findings contained herein have been assessed and reported in general accordance with accepted professional practices as applied by similar industrial hygiene professionals in the industry at the time of this report preparation.

This report is based upon conditions observed at the facility and information made available to the inspector(s). This report does not intend to identify all environmental hazards, nor is it intended to indicate that other hazards do not exist at the premises. There is a distinct possibility that conditions may exist that could not be identified within the scope of the survey or that were not apparent during the site visit.

IH Technician: Non-Responsive _____ 10-31-12
Date
Cole & Associates Training & Consulting, Inc.

Quality Assurance: Non-Responsive _____ 10/31/12
Date
Cole & Associates Training & Consulting, Inc.

IHSW Program Manager: Non-Responsive _____ _____
Date
NGB- Industrial Hygiene Southwest

Industrial Hygiene Southwest

Violation Inventory Log

LOG OF SCHEDULE OF CORRECTIVE ACTION - COMPLIANCE WITH SAFETY AND HEALTH STANDARDS

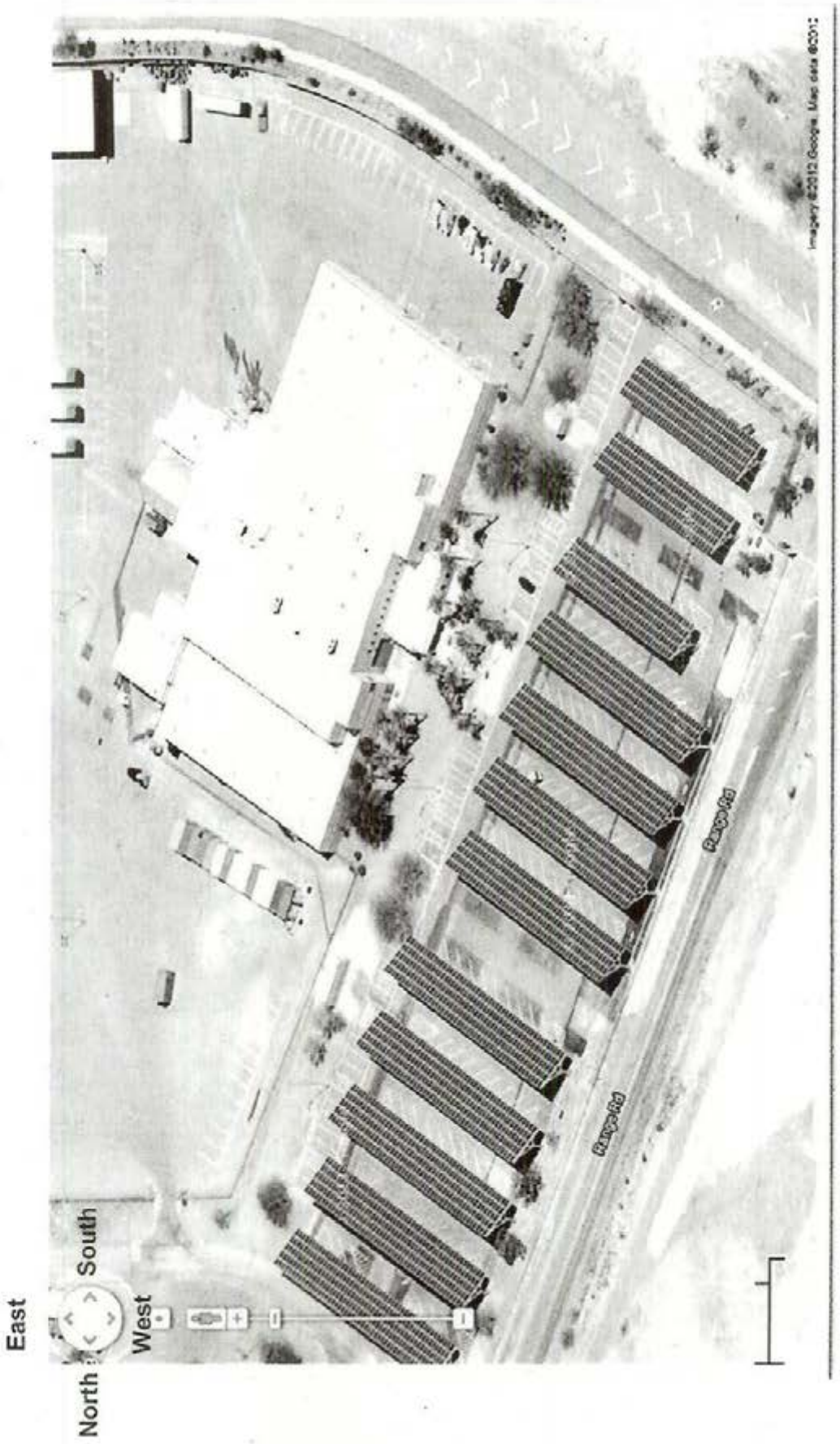
Floyd Edsall Training Center, Las Vegas, NV

CONTROL NUMBER CLOSED ☐	HAZARD DESCRIPTION	SITE	RAC	CORRECTIVE ACTIONS (Abatement Plan)	SUSPENSE DATE	ACTION OIC/NCOIC	Estimated Cost(s)	DATE CORRECTED	REFERENCES
FETCNV-092612-Exec. Summary	No Significant Adverse Observations noted during this Industrial Hygiene Site Assistant Visit	TC	None	Continue Sound Safety and Housekeeping Practices					NGB, OSHA Regulations

Reference DA FORM 4754
VER: 15 OCT 2009

Nevada Army National Guard

Floyd Edsall Training Center Armory, North Las Vegas (Clark County Armory)

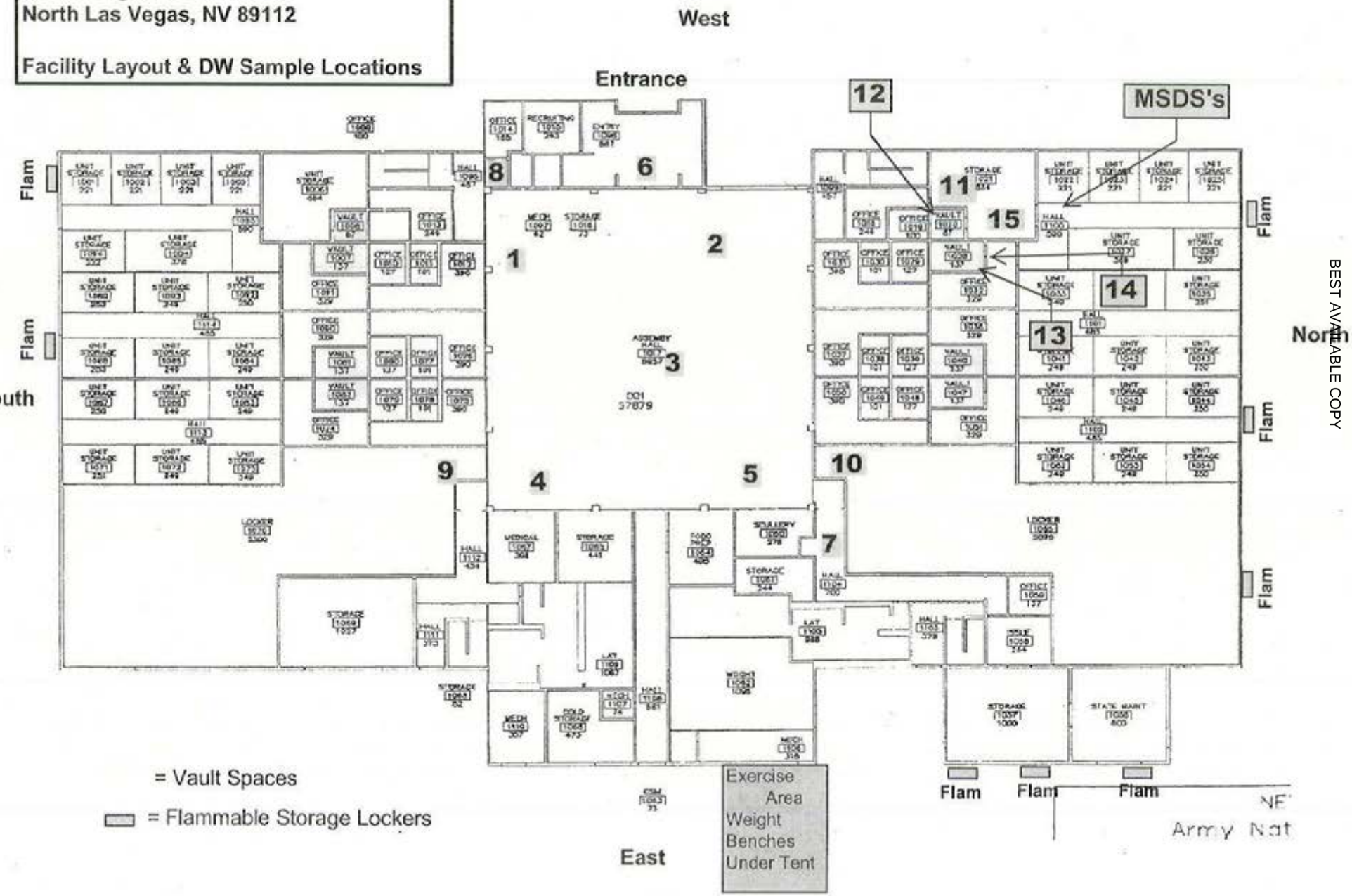


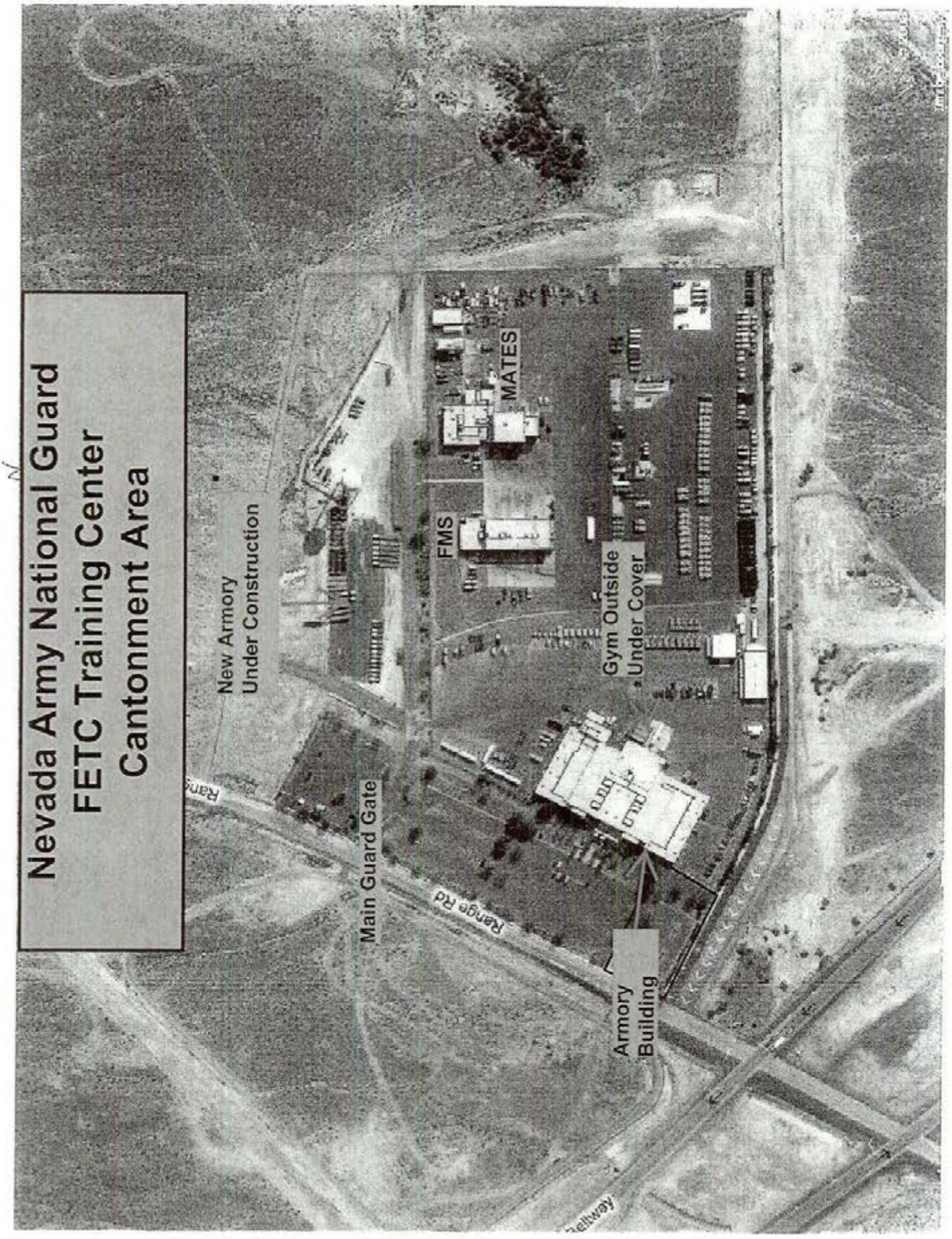
Nevada Army National Guard
ARNG12-004-01

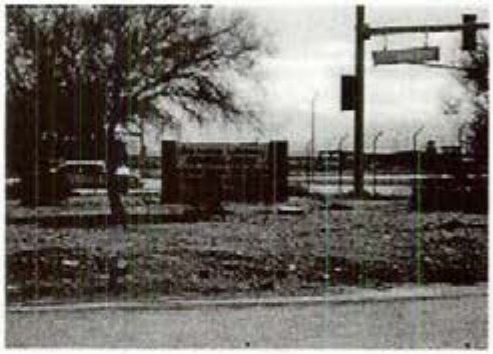
FETC Armory
6400 Range Road
North Las Vegas, NV 89112

Facility Layout & DW Sample Locations

CCA First Floor







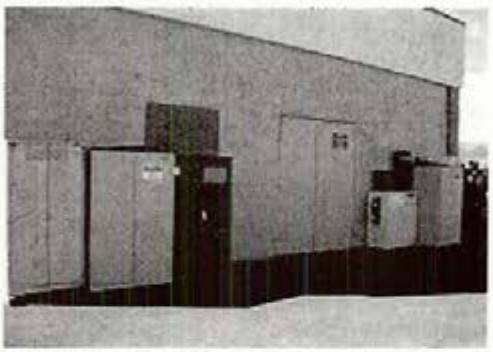
FETC Entrance Sign

Signage

FETC Armory Entrance
West Side

FETC Armory Entrance
Right Side

FETC Armory
Back Side (east)



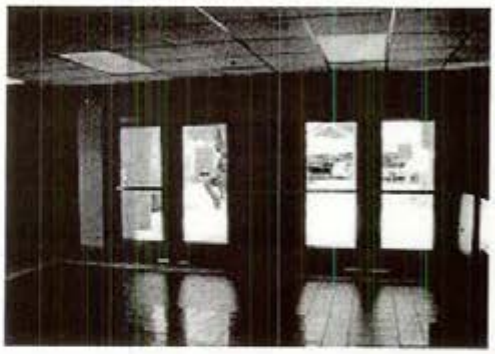
Flammable Storage Lockers
East Side

Drill Floor/Assembly Hall
From Second Floor

2nd Floor Hallway

Drill Floor/Assembly Hall
From Second Floor

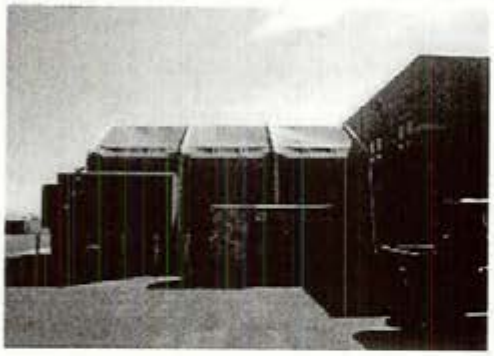
Drill Floor/Assembly Hall
From Second Floor



Main Entrance Lobby

New Construction (new armory)

Exercise/Workout Tent



Exercise/Workout Tent

Weight Room Area
Under Tent

Classroom

OMS #8

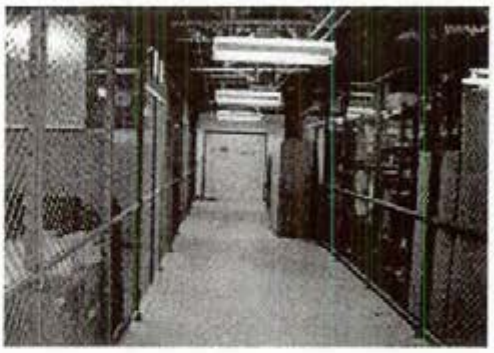
Back of Building
East Side

Unit Flammable Storage Locker
South Side

Locked Kitchen

Hallway to Maintenance Rooms
Inside Armory

Weapons Vault



Unit Storage Cages

State Maintenance Supply Room

State Maintenance Supply Room

State Maintenance Supply Room

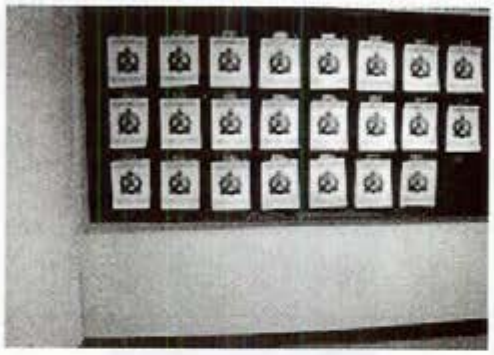
State Maintenance Supply Room

State Maintenance Supply Room

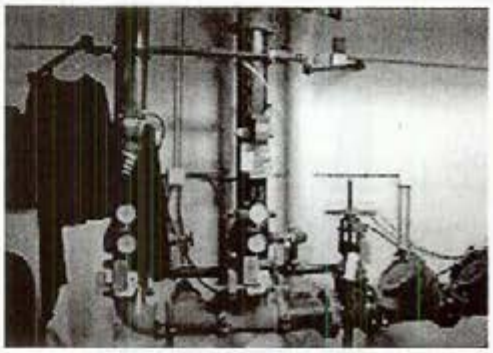
OMS #8

OMS #8
Vehicle Storage

India Troop



India Troop



India Troop

India Troop

India Troop MSDS

Chemical Inventory List
Inside Locker

India Troop Flamm Locker
Shelves Labeled By
NSN & Product Identification

India Troop
Chemical Inventory List

First Aid & Information Board

Unit MSDS Right to Know Material

RESERVOIRS ENVIRONMENTAL, INC.

5801 Logan St., Suite 100
Denver CO 80216

TABLE ANALYSIS: LEAD BY WIPE SAMPLING

RES Job Number: **RES 245320-1**
Client: **Cole & Associates**
Client Project Number / P.O.: **ARNG12-004-01**
Client Project Description: **Flloyd Edsall Training Center (FETC) 6400 Range Road, Las Vegas NV**
Date Samples Received: **October 3, 2012**
Analysis Type: **USEPA SW846 3050B / AA (7420)**
Turnaround: **3 Day**
Date Samples Analyzed: **October 8, 2012**

Client ID Number	Lab ID Number	Sample Area (sq.ft.)	LEAD (µg)	Reporting Limit (µg/ft²)	LEAD CONCENTRATION (µg/ft²)
ARNG12-004-01-1	EM 903116	0.50	BRL	12.5	BRL
ARNG12-004-01-2	EM 903117	0.50	BRL	12.5	BRL
ARNG12-004-01-3	EM 903118	0.50	BRL	12.5	BRL
ARNG12-004-01-4	EM 903119	0.50	BRL	12.5	BRL
ARNG12-004-01-5	EM 903120	0.50	BRL	12.5	BRL
ARNG12-004-01-6	EM 903121	0.50	BRL	12.5	BRL
ARNG12-004-01-7	EM 903122	0.50	BRL	12.5	BRL
ARNG12-004-01-8	EM 903123	0.50	BRL	12.5	BRL
ARNG12-004-01-9	EM 903124	0.50	BRL	12.5	BRL
ARNG12-004-01-10	EM 903125	0.50	BRL	12.5	BRL
ARNG12-004-01-11	EM 903126	0.50	BRL	12.5	BRL
ARNG12-004-01-12	EM 903127	0.50	7.0	12.5	14.0
ARNG12-004-01-13	EM 903128	0.50	11.3	12.5	22.5
ARNG12-004-01-14	EM 903129	0.50	BRL	12.5	BRL
ARNG12-004-01-15	EM 903130	0.50	BRL	12.5	BRL
ARNG12-004-01-16	EM 903131	0.50	BRL	12.5	BRL
ARNG12-004-01-17	EM 903132	0.00	< 6.3 µg		

***Calculations Based On A 1 sq.ft. Sample Area Unless Otherwise Noted**
*** Unless otherwise noted all quality control samples performed within specifications established by the laboratory.**

BRL = Below Reporting Limit

Data QA_____

Facility Information

1. Date Prepared: 9/26/2012 Unit Identification Code (UIC) [redacted]
2. Names (and company name) of Personnel Conducting IH SAV [redacted] - Cole & Associates [redacted] [redacted] [redacted]
3. Facility Name and Brief Summary of Primary Activities Conducted at Facility: Floyd Edsall Training Center
4. Facility Address: 6400 Range Rd. , N Las Vegas, NV 89112
5. Primary Unit Assigned to Facility: 1-221 Cav
6. Co-Tenant Units Assigned or Working Within Facility (LIST ALL): 150th Maint, B Co 422nd, C Co 422nd, 1-864th TC, 100th QM, RTI, Soldier Support, Security
7. Square Feet Area of Facility: DOC: 1995
8. Work Schedule: 630-1700
9. Number of Work Bays: 0
10. Equipment Density and Type: N/A
    a. List Nomenclature Serviced or Maintained at Facility: N/A
    b. List Total Number for Each Nomenclature Services or Maintained at Facility: N/A
11. Total Number of Personnel: 75 FT Drill Weekend: Several Hundred (it varies)
12. No. of Admin Personnel (Include AGR, Fed., Tech., IDT, State or Contract Employee): 75 FT
13. No. of Maintenance Personnel (Include AGR, Fed., Tech., IDT, State or Contract Employee): 35
14. Total Number of Personnel Enrolled in the Hearing Conservation Program: N/A
15. Total Number of Personnel Enrolled in the Respiratory Protection Program: N/A
16. Total Number of Personnel Enrolled in the Medical Surveillance Program: N/A
17. Total Number of Personnel Enrolled in the Vision Program: N/A
18. Facility Commander: a. E-mail address, Commercial Telephone Number and Unit Assigned to: [redacted], 702-632-0563
19. Safety Officer: a. E-mail address, Commercial Telephone Number and Unit Assigned to: [redacted] 702-632-0568
20. Facility Telephone Number: 702-632-0545

Evaluate Kitchen Stove Hood Flow if Present IAW NFPA Standard 96.	Locked
Collect Source Noise Measurements of Kitchen Appliances and Document Using DD 2214	Locked
Conduct a safety walkthrough of entire facility document any safety deficiencies found.	No deficiencies
Take photos of outside of **building**, all **sample points** and any **pertinent hazards** or concerns.	Yes
Name of Armory, **POC, phone #, address** and **organizations** in Armory **(Add Checklist to Report)**	FETC (old clark county armory) 6400 Range Road N Las Vegas, NV 89112 **(Add Checklist to Report)**

ARMY NATIONAL GUARD
INDUSTRIAL HYGIENE – SOUTHWEST
Guam • Hawaii • California • Oregon • Washington • Nevada • Arizona • Idaho • Utah • Wyoming • Montana • New Mexico • Nebraska

Industrial Hygiene Site Assistance Visit

Plumb Lane Armory

685 E. Plumb Lane
Reno, NV 89502

10510 Superfortress Avenue, Suite C, Mather, CA 95655 (916) 854-1491

DEPARTMENT OF THE ARMY AND AIRFORCE
NATIONAL GUARD BUREAU
INDUSTRIAL HYGIENE SOUTHWEST
10510 Superfortress Ave, Ste. C
Mather, CA 95655

ARNG-CSG-IHSW

18 October 2012

MEMORANDUM THRU Nevada Army National Guard, 2460 Fairview Drive, Carson City, NV 89701

FOR Commander, Plumb Lane Armory, 685 E. Plumb Lane, Reno, NV 89502.

SUBJECT: Executive Summary for Industrial Hygiene Site Assistance Visit (IHSAV) for the Plumb Lane Armory, 685 E. Plumb Lane, Reno, NV conducted on 25 September 2012.

1. References. See survey report.

2. General.

a. At the request of the NGB Industrial Hygiene, Southwest (IHSW), an Annual Industrial Hygiene Site Assistance Visit was conducted for the Plumb Lane Armory, 685 E. Plumb Lane, Reno, NV on 25 SEP 2012.

b. The findings and recommendations in this Executive Summary are controlling and supersede all recommendations in the contractor report (reference Attachment II). However, IHSW concurs with the observations and findings within the attached contractor report.

c. Risk Assessment Codes (RAC) provided in this report have been derived from two sources: Deriving Risk Assessment Codes (RAC's) for Health Hazards (Ref: DOD Instruction 6055.1) and AR 385-10, The Army Safety Program.

d. Use of trademark names in the attached report, or this Executive Summary, does not imply Army National Guard endorsement of any product.

3. Findings. See survey report.

4. Commendable.

The facility personnel were helpful during this SAV.

5. Observations / Recommendations.

NOTE: This section provides conclusions and recommendations for the findings and observations made within the attached contractors report. The paragraphs are numbered to correspond to the sections where they were first noted. (i.e., paragraph 2.1a represents the 2.1a located within the contractors report.

a. Personnel should obtain MSDS's for each product within the facility. MSDS's should be kept in a easy access binder, updated annual (as a minimum) or whenever new chemicals are added to the inventory. (para. 4.1.2) **(RAC 4)**

b. A complete inventory of all hazardous and non-hazardous chemicals should be created, maintained, and kept on the premises with corresponding MSDS's. (para. 4.1.1) (**RAC 4**)

6. Violation Correction Log.

a. IHSW has provided a Violation Correction Log derived from the observations from this visit. IHSW recommends the following:

1. Commander(s) assign an Action OIC/NCOIC, Suspense Date for completion, and Estimated Cost(s) to ensure item completion and corrective status is briefed during quarterly (or monthly) Safety Meetings/Councils until resolved.

2. Corrective measures should be implemented and accomplished at the lowest levels possible. Hazards and Corrective Measures that cannot be corrected at the facility level, and require assistance from higher headquarters or from the state level, should be elevated to the Quarterly State/BN Safety Council Meeting for resolution.

3. Recommend a representative from the facility attend all quarterly/monthly meetings to ensure the appropriate emphasis and corrective actions are followed for hazard resolution and abatement of the observations made during this visit.

4. Retain entries of the items corrected, or closed, for future reference. This may be accomplished by posting completed items within the Corrected Hazard Sheet portion of the Excel Violation Correction Log Workbook we've provided.

5. The preferred method to document and track identified hazards for resolution is for their entry into the Reserve Component Automation System – Safety and Occupational Health (**RCAS-SOH**) Program.

6. IHSW recommends the **Senior Unit Commander of this Facility and any Co-Tenant Organizations or Units, review and provide assistance with implementation of these recommendations.** This will educate the chain of command and allow the unit or co-tenant organizations to take any necessary precautions or actions required by them and their personnel.

7. Hazard Assessment/Job Safety Analysis (JSA).

a. Documenting the Hazard Assessments provides a method to obtain initial and periodic review from the Industrial Hygiene, Occupational Health and Safety Professions located at the JFHQ/HQ/state level.

b. The Hazard Assessments should be used as written training materials for the new, transfer and unit personnel working under the auspice of the facility.

c. IHSW recommends facility supervisory staff and facility personnel conduct initial Hazard Assessments outlined in AR 40-5, Army Preventive Medicine (Section V) and 29 CFR 1910.132 and submit for review and obtain approval from the state Industrial Hygiene, Occupational Health and Safety Professions.

Executive Summary for Industrial Hygiene Site Assistance Visit (IHSAV) for the Plumb Lane E. Plumb Lane, Reno, NV conducted on 25 September 2012.

...ve have provided an appendix with Hazard Assessments (HA) examples of some of this facilities ...erations. Additional operations can utilize this format to design HA not observed during this SAV.

e. An integral and important factor of the Hazard Assessment/JSA process is for the review and guidance from qualified Safety, Occupational Health and Industrial Hygiene professions located at the higher headquarters level or state level. For this reason, the Hazard Assessments (to include all pertinent and supporting documents) should be completed by the facility personnel and forward to the Nevada Army National Guard Industrial Hygiene, Occupational Health and Safety Office for final review and approval (signature).

f. Job Safety Analysis (JSA's)/Hazard Assessments.

NOTE: The Hazard Assessments can be used for monthly meetings to brief/train, and document large group training events and activities.

8. IHSW recommends the **Senior Unit Commander of this Facility and any Co-Tenant Organizations or Units, review and provide assistance with implementation of these recommendations.** This will educate the chain of command and allow the unit or co-tenant organizations to take any necessary precautions or actions required by them and their personnel.

9. To assist you with execution of your responsibilities in correcting the observations noted, we encourage you to consult with the State Safety Manager, Occupational Health Manager and Industrial Hygiene professions located and/or authorized within the State Safety and Occupational Health Office.

10. For additional information please contact the undersigned at (916) 854-1491 or via email at Non-Responsive

Non-Responsive

NGB, IHSW, CIV
Industrial Hygiene

NATIONAL GUARD BUREAU
111 SOUTH GEORGE MASON DRIVE
ARLINGTON VA 22204-1382

ARNG-CSG-P

09 OCT 2012

MEMORANDUM FOR Non-Responsive e Adjutant General of Nevada, 2460 Fairview Dr, Carson City, NV 89701

SUBJECT: Executive Summary for the Industrial Hygiene Survey of Plumb Lane Armory 685 E. Plumb Lane, Reno, NV on 25 SEP 2012.

1. Purpose. Industrial Hygiene Southwest Region contracted to have an Annual Industrial Hygiene (IH) survey conducted which would identify, assess, and make recommendations for the reduction or elimination of potential health hazards present in the workplace. This EXSUM provides the most critical recommendations which need to be addressed promptly. The IH Report contains additional findings and recommendations which should be addressed as funding and manpower permit.

2. **Findings**.

a. The Armory had the following high risk level findings:

1. There were no RAC 1's or RAC 2's identified during this Site Assistant Visit (SAV)

b. The full IH report contains information which can be used in correcting deficiencies, establishing priorities and developing suspense dates.

c. Some locations were not evaluated during this visit. However, additional IH services can be requested to monitor them for potential health hazards when operations are ongoing.

3. **Recommendations**. A risk assessment code (RAC) has been assigned to each health hazard identified in the report. Each type of RAC (health, safety, ergonomic) uses slightly different matrices to determine the overall severity, however a RAC 1 should be considered Critical; a RAC 2 is Serious. Follow all recommendations made in the attached IH survey report, the Violation Log as well as the following recommendations.

a. There were no RAC 1's or RAC 2's identified during this SAV.

-P
SUBJECT: Executive Summary for the Industrial Hygiene Survey of Plumb Armory on 25 SEP 2012.

4. The technical point of contact is Non-Responsive at (775) 771-3956. For follow up information, contact the Occupational Health Manager Non-Responsive at (775) 972-7253.

Non-Responsive
Chief, Industrial Hygiene

CF
Chief, Occupational Health Non-Responsive
DSS, Non-Responsive airview Dr, Carson City, NV 89701
CFM 460 Fairview Dr, Carson City, NV 89701
ASO 20,000 Army Aviation Dr, Reno, NV 89506

CF w/encl
OHN, Non-Responsive Dr, Carson City, NV 89701
Facility Supervisor Non-Responsive 20,000 Army Aviation Dr, Reno, NV 89506

BEST AVAILABLE COPY

Industrial Hygiene Southwest

Violation Inventory Log

LOG OF SCHEDULE OF CORRECTIVE ACTION - COMPLIANCE WITH SAFETY AND HEALTH STANDARDS

ARNG Plumb Lane, NV Armory

CONTROL NUMBER CLOSED ☐	HAZARD DESCRIPTION	SITE	RAC	CORRECTIVE ACTIONS (Abatement Plan)	SUSPENSE DATE	ACTION OIC/NCOIC	Estimated Cost(s)	DATE CORRECTED	REFERENCES
NVPLU-092512-4.1.1	A current Hazardous Materials/Chemical Inventory list could not be located	Plumb Lane Armory	4	A complete inventory of all hazardous and non-hazardous chemicals should be created, maintained, and kept on the premises with corresponding MSDS's attached, listed in a binder, and organized in a simple format.					29 CFR 1910.1200 NGR 385-10, Chapter 6 DODI 6050.5
NVPLU-092512-4.1.2	MSDS binders and/or chemical inventory lists are not available for any products at this facility	Plumb Lane Armory	4	Obtain MSDS files for each product at the facility. MSDS log/books should be updated, at a minimum, annually or when new chemicals are added to the inventory.					29 CFR 1910.1200 NGR 385-10, Chapter 6 DODI 6050.5

Reference DA FORM 4754
VER: 15 OCT 2009

Industrial Hygiene Southwest's mission is to ensure all military personnel and military leadership is provided the specialized technical expertise, consultation and assistance to ensure all military operations and processes are conducted in a healthy manner

10510 Superfortress Avenue, Suite C, Mather, CA 95655 (916) 854-1491

ARMORY

CLEANUP & FOLLOW-UP HOUSEKEEPING RECOMMENDATIONS

Materials Needed:

1. Cloth Mop head (s) & Mop head holder(s) with handle.
2. Mop bucket (s) with wringer.
3. Clean cotton rags and sponges.
4. Disposable gloves
5. Large barrel (55 gal.) to store wastewater in after changing out of dirty scrub water. Waste water containers.
6. Disposable overshoes or rubber boots. Personnel conducting cleaning operations should not take clothes, boots, etc., home for laundering.
7. HEPA vacuum
8. Six (6) mill plastic bags to dispose of waste.
9. Detergent with surfactant, e.g., Spic-N-Span, Mr. Clean, etc.

Disposal of Waste Water and Cleaning Materials:

1. *NOTE*: Consult with Local Army National Guard Environmental Office prior to taking any collection, disposal or wiping activities commence. Each state and territory may have additional regulatory guidance on collection, storage and disposal of wastewater.

2. Mop heads should be disposed of after initial cleanup, unless otherwise advised by Environmental office personnel. Note: thorough cleaning of mop heads may be sufficient enough to reuse on future Armory cleanups but check with local Environmental Office.

3. Disposable gloves should be treated as hazardous waste.

4. Soiled cotton rags should be treated as hazardous waste.

5. Wash water contaminated with Lead can be collected and allowed to slowly evaporate leaving Lead deposits/sludge that may be collected in plastic containers, placed in metal drums, and stored for future delivery to an authorized hazardous waste disposal site.

a. Drums shall be properly labeled to identify contents In-Accordance With (IAW) Federal, State and local regulatory guidance.
b. Disposal of containerized waste shall be coordinated IAW State hazardous waste program requirements.
c. The Environmental Office shall coordinate removal and disposal of all containerized hazardous waste through established waste streams.

Post-Cleanup Precautionary Measures:

1. Thoroughly wash hands with soap and water.
2. Rinse off rubber boots with soap and water, capturing wastewater for collection into established waste stream. If personnel choose to use over shoes for protection, dispose of overshoes into waste stream. NOTE: This recommendation is for initial clean up activities and PPE requirements may be reduced after it has been determined non-hazardous levels have been achieved.
3. Wash BDU's or personal clothing separately from children's clothes.

NOTE: No eating, drinking or cosmetics allowed during cleanup procedures (these may be allowed after washing of hands/face and done outside of cleanup area)

NOTE: Avoid blowing, shaking or like actions which could potentially disperses lead dust. Dry sweeping, dusting, wiping or blowing with compressed air shall not be permitted

Initial Armory Cleanup:

1. Use a vacuum cleaner equipped with a HEPA exhaust filter. HEPA vacuum all surfaces in the room (ceiling, walls trim, and floors). Start with the ceiling and work down, moving toward the entry door. **Completely clean each room before moving on**.

2. Prepare water and detergent for the wipe down phase, according to manufactures recommendations.

3. Wet wipe, with cotton rags or sponge, any horizontal, diagonal or vertical surfaces up six (6) feet from floor surfaces using hot water and "Spic-n-Span" or an equivalent product.

    a. Rinse out cleaning cloths thoroughly and frequently.
    b. Change out cleaning water as necessary.

NOTE: **If walls to be cleaned show signs of deterioration, e.g., chipping or crumbling paint, in which wiping, scrubbing, or disrupting might potentially increase or spread contamination, then this portion of the clean up should be avoided**.

4. Now prepare water and detergent (e.g. Spic N Span, Mr. Clean, Pine Sol) for the mopping phase, according to manufactures recommendations, which should be found on the products label for general clean up.

    a. Change out water frequently (when water appears dirty)
    b. Rinse out mop heads frequently to prevent contamination of dirty water.

5. Cover entire drill floor surface with above prescribed water and detergent.

6. Final rinse should be with clean water only - -after mop heads have been cleaned.

Recommended Follow-up Housekeeping Practices *after Clearance sampling of cleaned area is performed by certified personnel:*

1. Floor cleaning and dusting should be accomplished using the wet method described in Initial Armory Cleanup SOP.

Note: Only exception to these wet cleaning procedures would be the use of a chemically treated dust floor mop. This can be used for follow-up armory cleaning by sweeping of large particles of dirt and paper.

    a. Pre-treated (chemically treated) dust floor mop will limit dust particles from being disbursed into the surround atmosphere.

b. If treated dust mop is used - -Do Not Shake Mop head - - have mop head laundered after use. **Always keep used dust mop heads in sealed double plastic bags when stored at armory/facility**. Shaking of mop head could release unwanted contaminants into surrounding atmosphere.

2. Frequency of Cleanup- Armories will vary, according to usage and how often they should be cleaned. The following general cleaning schedule is provided:

   a. Only full-time technicians and traditional soldiers using facility during the month. (***Cleaned Monthly***)

   b. Occasional activities taking place during the month, e.g., 1-2 classes or volleyball games, etc. (***Cleaned 2x's Monthly***)

   c. Used regularly by soldiers or outside agencies/personnel. (***Cleaned Regularly - -at least Weekly***)

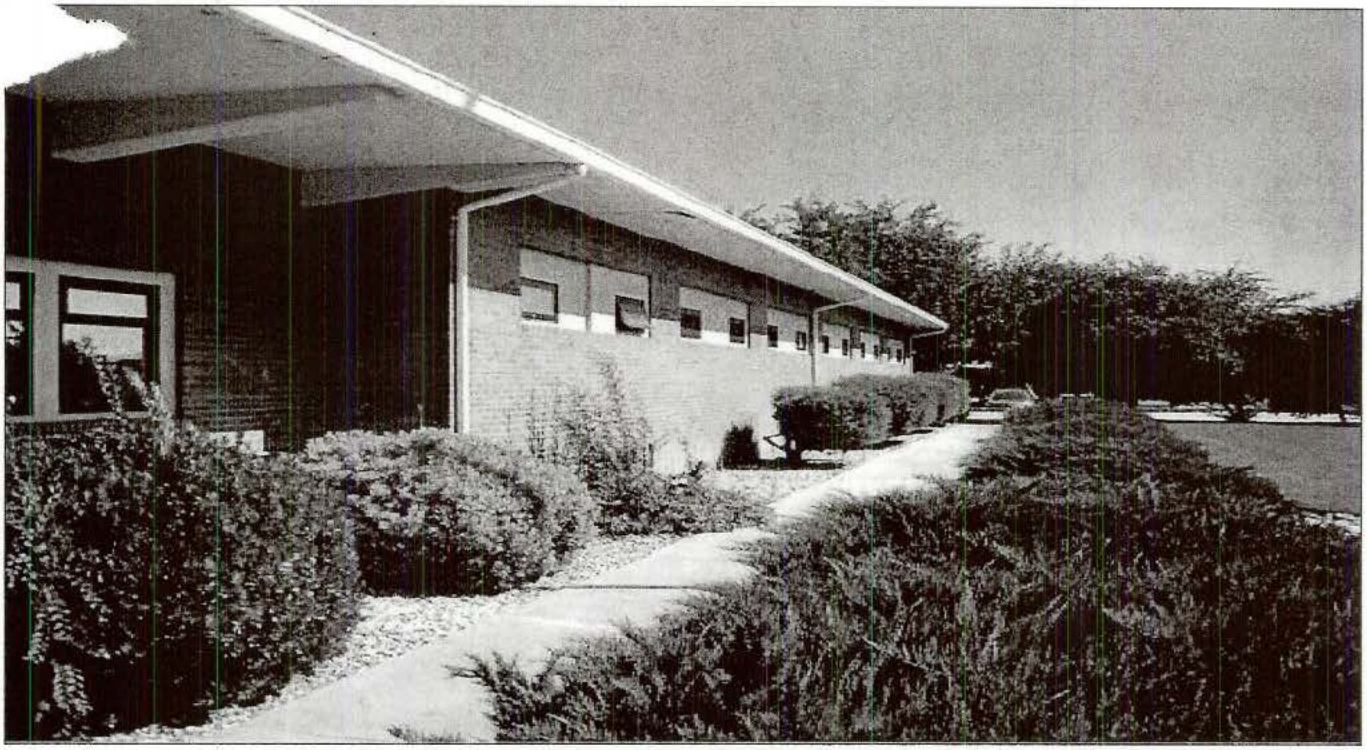
NOTE: Armories with adjoining Indoor Firing Ranges (IFR) should be cleaned more than weekly, again depending on use of Armory and IFR.

NOTE: Clearance sampling/testing is to be accomplished by certified personnel after these cleanup procedures are followed. If the area is an average Armory, occupied by adults only, for which you are cleaning and **is not a Converted IFR space**, you may continue to utilize the Armory space before the officials re-test this space. Please notify your Safety and/or Occupational Health personnel of the completion of this cleaning regime and they will notify the proper officials of the sampling/testing requirements needed.

If work is contracted out, a third party should do the clearance sampling.

Young children and females who are pregnant, there should be posted signs on all facilities, warning of the potential danger of exposure to lead dust.

Industrial Hygiene Services
SITE ASSISTANCE VISIT



Army National Guard – Plumb Lane Armory
685 E Plumb Lane
Reno, NV 89502

Prepared for:

Non-Responsive
Program Manager
National Guard Bureau
Industrial Hygiene Southwest

By:

Cole & Associates Training & Consulting, Inc.
18062 72nd Avenue South
Kent, WA 98032

Project Number: ARNG12-004-03

TABLE OF CONTENTS

ATTACHMENTS

EXECUTIVE SUMMARY

On September 25th, 2012, Non-Responsive of Cole & Associates Training & Consulting, Inc. conducted a follow-up Industrial Hygiene Site Assistance Visit (SAV) at the Army National Guard's Plumb Lane Armory located at 685 E Plumb Lane, Reno, NV 89502.

The primary point of contact for information gathered during this survey was Non-Responsive at (775) 348-1034. The survey was conducted at the direction of Non-Responsive of the National Guard Bureau, Southwest Regional Industrial Hygiene Office in Mather, California and included a physical walk-through survey of the facility including the drill floor, office areas, supply areas, one weapons vault, and out buildings. Existing programs, i.e., respiratory protection, hazardous materials program, etc. were also reviewed for compliance.

The purpose of this IH SAV was to re-evaluate the occupational environment of the facility, and to make recommendations for corrective actions or follow-up work to be completed during an annual re-inspection.

A lead dust wipe sampling plan was prepared for the facility to ensure residual lead dust is kept to a minimum. These areas included the drill floor/assembly hall, one weapons vault, the kitchen, hallways, and the maintenance bay building. All lead levels are at acceptable levels.

1.1 Recommendation 4.1.1

A complete inventory of all hazardous and non-hazardous chemicals should be created, maintained, and kept on the premises with corresponding MSDS's attached, listed in a binder, and organized in a simple format.

1.2 Recommendation 4.1.2

Obtain MSDS files for each product at the facility. MSDS log/books should be updated, at a minimum, annually or when new chemicals are added to the inventory.

2.0 INTRODUCTION

The Plumb Lane Armory supports NVARNG Medical Detachment. The Unit Identification Code (UIC) is Non-Responsive. This facility is under the command of Non-Responsive Co-tenants for the facility are Recruiting & Retention and the Honor Guard.

This facility's main function is to provide family support services through various programs made available to guardsmen and their families. Approximately three quarters of the facility is used for this purpose. The drill hall is also set up with temporary offices and cubicles for the same.

This facility employs 32 full time guard members on a day to day basis, 9 AGR, 6 ADOS, 5 Tech, and several contractors who work directly with the family services staff. The armory was constructed in the 1940's and is approximately 16,000 square feet.

The armory has general offices and administrative areas, to include command and administrative offices, one arms vault, male and female latrines, boiler room, and a kitchen. There is a maintenance bay behind the facility and is currently occupied by recruiting staff and honor guard members.

Reportedly, there has never been an indoor firing range at this facility.

Drill weekends (IDT) are held once a month and are held at the Las Vegas Readiness Center. Weapons are cleaned and stored there as well. There is one weapons vault in the building however it was condemned a number of years ago. Currently the vault is used to store books, supplies, pamphlets, and other materials used by family services.

Findings in this report were obtained by observations at the facility, previous inspection reports, and through interviews with personnel regarding the armory.

2.1 Follow-up SAV Objectives

The purpose of this follow-up SAV was to re-evaluate potential high lead levels identified from prior SAV results. This also includes interviews of armory personnel regarding industrial hygiene issues as well as any changes in operations in the work area that might affect the workers' health & safety.

2.2 Scope of Assistance Visit Services

This review of findings report is divided into the following sections:

Section 2 – Introduction
Section 2.3- Recurring Observations
Section 3 – Survey Procedures
Section 4 – Survey Observations and Findings
Section 5 - Written Programs and Approvals
Section 6 – Limitations and Approvals

2.3 Recurring Observations

Information was gathered from the previous report and further observations were gathered from interviews and conversations with facility personnel. There were no major issues regarding recurring observations. Most issues from previous reports have been corrected

2.3.1 Lead Dust Hazards

Previous inspection reports indicate normal lead dust levels.

3.0 SURVEY PROCEDURES

Lead wipe samples were collected from dusty horizontal floor surfaces in the facility including but not limited to the drill floor, kitchen, hallways, and the vault area. "Lead Wipe™" brand wipes were used with a 72 square-inch template. The wipes used conform to American Standards for Testing Materials E1792-96A, *Standard Specification for Wipe Sampling Materials for Lead in Surface Dust*. The collected wipe samples were placed in clean, labeled centrifuge tubes. Samples were submitted to Reservoirs Environmental Inc. for analysis via Flame Atomic Absorption, USEPA Method SW846-(7420). Laboratory results are listed in micrograms of lead per square foot ($\mu g/ft^2$). Copies of the raw analytical data are presented in Attachment 4.

The photos associated with the following section are included as Attachment 3.

4.0 SURVEY OBSERVATIONS & FINDINGS

The following survey observations and findings are the result of direct observations by Cole & Associates personnel and laboratory analysis of samples taken in the field.

4.1 Hazardous Materials \ MSDS

There were no hazardous chemicals on the premises and only small amounts of cleaning supplies were found in a janitorial closet in the main hallway. A long time state maintenance worker has been assigned to this facility for custodial work and was said to have severe allergies to cleaning supplies therefore only "green" chemicals are purchased and used at this facility.

There is an empty unlocked flammable storage locker outside of the maintenance garage which was reported to have not been used for quite some time.

MSDS binders and/or chemical inventory lists are not available for *any* products at this facility and even though the products used at this facility are "green", MSDS's are still required.

4.1.1 Recommendation

A complete inventory of all hazardous and non-hazardous chemicals should be created, maintained, and kept on the premises with corresponding MSDS's attached, listed in a binder, and organized in a simple format.

4.1.2 Recommendation

Obtain MSDS files for each product at the facility. MSDS log/books should be updated, at a minimum, annually or when new chemicals are added to the inventory.

4.2 Lead Dust

There are currently no standards that dictate what a safe level of lead is from a wipe sample. However, lead sampling results can be compared to the protocol outlined in the U.S. Department of Housing and Urban Development's (HUD's) *Guidelines For The Evaluation And Control Of Lead-Based Paint Hazards In Housing*, 2009. HUD currently recommends an exposure limit of 40 µg/ft^2 for floors. This guideline was established to prevent lead exposure to children in domestic homes, along with females who are pregnant.

The office of Industrial Hygiene Southwest, located in Mather, California has developed a Standard Operating Procedure (SOP) for Armory Cleanup. Essentially, this SOP sets forth a criterion of 200 micrograms per square foot µg/ft^2 in all areas of the facility. Areas that have levels exceeding 200 µg/ft^2 should be thoroughly cleaned and employees that may come into contact with those areas should be properly trained in the hazards of lead exposure.

A summary of results from the lead wipe sampling obtained from the armory can be found in Table 4.2.A below and complete analytical results can be found in Attachment 4. Floor plans and sample locations can be found in Attachment 2.

Table 4.2.A - Lead Dust-Wipe Results

Sample Number	Location Floors	Results (µg/ft^2)
ARNG12-004-03-1	Drill floor NW	BRL
ARNG12-004-03-2	Drill floor NE	BRL
ARNG12-004-03-3	Drill Floor Center	BRL
ARNG12-004-03-4	Drill floor SE	BRL
ARNG12-004-03-5	Drill floor SW	BRL
ARNG12-004-03-6	Inside vault	BRL
ARNG12-004-03-7	Outside vault	BRL

ARNG12-004-03-8	Kitchen	BRL
ARNG12-004-03-9	Hallway East End	BRL
ARNG12-004-03-10	Maintenance Bay Garage By Door	BRL
ARNG12-004-03-11	Hallway West End Center	BRL
ARNG12-004-03-12	Maintenance Bay Garage	BRL
ARNG12-004-03-13	Drill Hall Table Top	BRL
ARNG12-004-03-14	Field Blank	BRL
ARNG12-004-03-15	Field Blank	BRL

All areas tested resulted in dust lead levels well below the recommended level of 200 µg/ft^2.

4.3 Kitchen Range Hood

This facility has previously been set up as a commercial kitchen, however the commercial ranges have been removed and replaced with a residential style kitchen cabinet with a formica countertop. A microwave, refrigerator, and coffee pot are reported to be used on a daily basis.

4.4 Illumination

Industrial Engineering Society (IES)/American National Standards Institute (ANSI) RP7-1991. in general, recommends a range of 20 to 50 foot-candles as the minimum lighting requirements for the performance of visual tasks of high contrast or large size, such as would typically occur in shop areas. In addition, IES recommends a range of 50 to 100 foot-candles as the minimum lighting requirements for the performance of visual tasks of medium contrast or small size, such as would typically occur in an office area.

New lighting was installed throughout the facility and garage in June of 2012. All light levels are well above the minimum standards.

5.0 WRITTEN PROGRAMS & TRAINING

5.1 Written Programs

Written programs are current and maintained at the facility.

5.2 Training

Training records are centrally located and maintained at the facility.

6.0 LIMITATIONS AND APPROVALS

6.1 Technical Assistance

Contact Non-Responsive of the Southwest Regional Industrial Hygiene Office, (916) 804-1707 for technical assistance regarding information found in this report or the performed survey.

Contact the State Safety and Occupational Health Office should any of the operations change, or should the personnel become incapable of following the previous recommendations and subsequent recommendations are needed.

Signatures

Cole & Associates Training & Consulting, Inc. warrants that the findings contained herein have been assessed and reported in general accordance with accepted professional practices as applied by similar industrial hygiene professionals in the industry at the time of this report preparation.

This report is based upon conditions observed at the facility and information made available to the inspector(s). This report does not intend to identify all environmental hazards, nor is it intended to indicate that other hazards do not exist at the premises. There is a distinct possibility that conditions may exist that could not be identified within the scope of the survey or that were not apparent during the site visit.

IH Technician: Non-Responsive _____ 10-12-12
Cole & Associates Training & Consulting, Inc. Date

Quality Assurance: Non-Responsive _____ 10/12/12
Cole & Associates Training & Consulting, Inc. Date

IHSW Program Manager: Non-Responsive _____
NGB- Industrial Hygiene Southwest Date

Industrial Hygiene Southwest

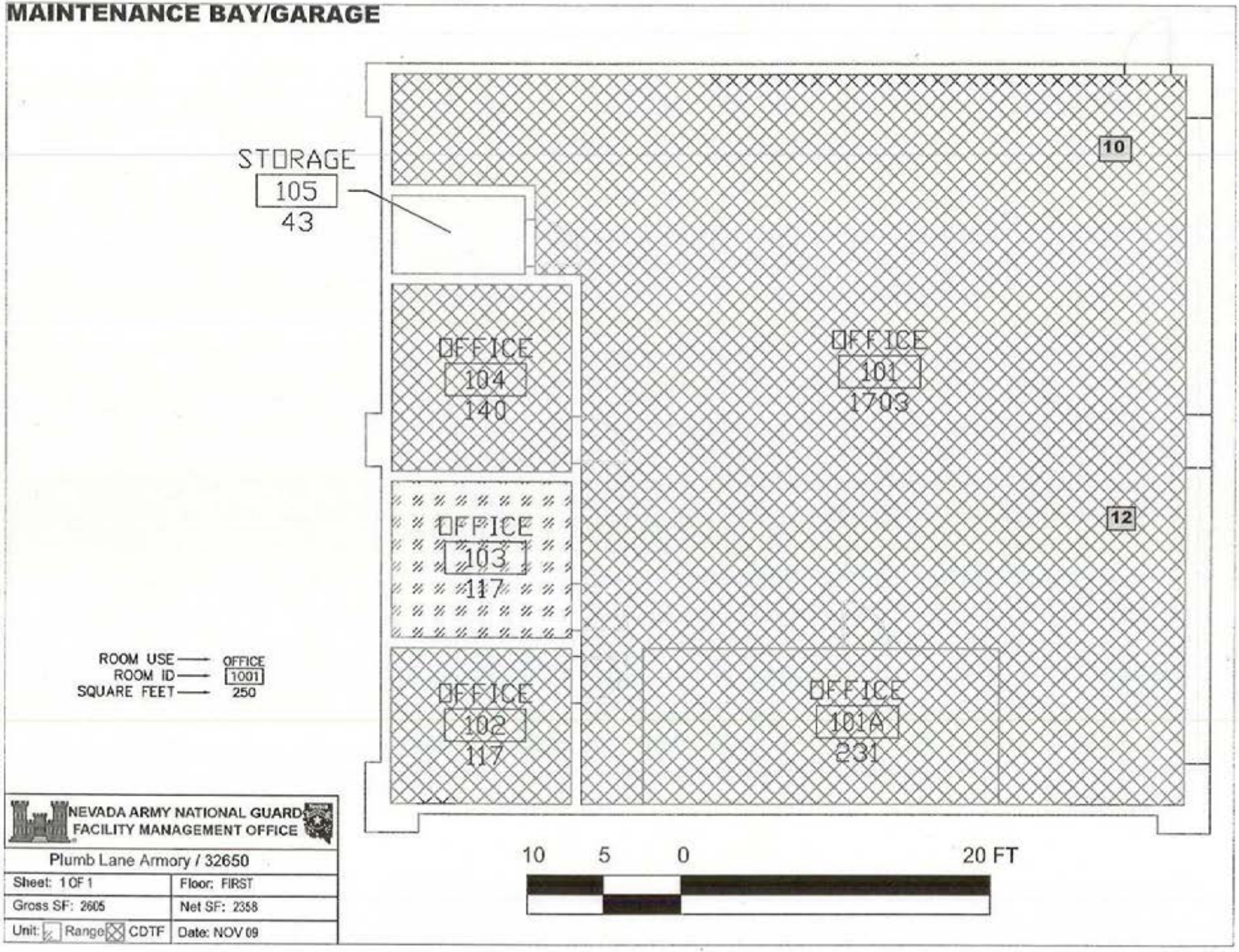
Violation Inventory Log

LOG OF SCHEDULE OF CORRECTIVE ACTION - COMPLIANCE WITH SAFETY AND HEALTH STANDARDS

ARNG Plumb Lane, NV Armory

CONTROL NUMBER CLOSED ☐	HAZARD DESCRIPTION	SITE	RAC	CORRECTIVE ACTIONS (Abatement Plan)	SUSPENSE DATE	ACTION OIC/NCOIC	Estimated Cost(s)	DATE CORRECTED	REFERENCES
NVPLU-092512-4.1.1	A current Hazardous Materials/Chemical Inventory list could not be located	Plumb Lane Armory	4	A complete inventory of all hazardous and non-hazardous chemicals should be created, maintained, and kept on the premises with corresponding MSDS's attached, listed in a binder, and organized in a simple format.					29 CFR 1910.1200 NGR 385-10, Chapter 6 DODI 6050.5
NVPLU-092512-4.1.2	MSDS binders and/or chemical inventory lists are not available for any products at this facility	Plumb Lane Armory	4	Obtain MSDS files for each product at the facility. MSDS log/books should be updated, at a minimum, annually or when new chemicals are added to the inventory.					29 CFR 1910.1200 NGR 385-10, Chapter 6 DODI 6050.5

MAINTENANCE BAY/GARAGE



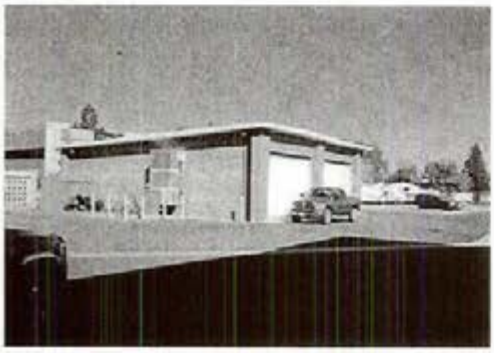
NEVADA ARMY NATIONAL GUARD
FACILITY MANAGEMENT OFFICE

Plumb Lane Armory / 32650	
Sheet: 1 OF 1	Floor: FIRST
Gross SF: 2605	Net SF: 2358
Unit: Range CDTF	Date: NOV 09

Plumb Lane Armory
Recruiting Entrance
(south side)

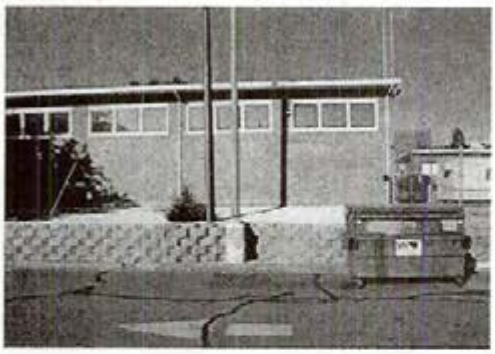
South Side Right

West Side



Maintenance Bay Building

East Side Entrance



East Side Right

East Side
(far right)

NW Corner

Drill Floor/Assembly Hall
From Exterior

Drill Floor/Assembly Hall
From Exterior

Drill Floor/Assembly Hall

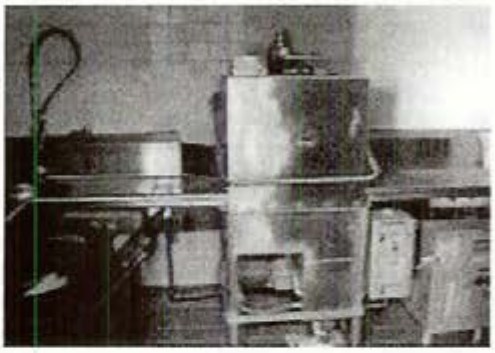
Drill Floor/Assembly Hall

Drill Floor
Leading to Kitchen

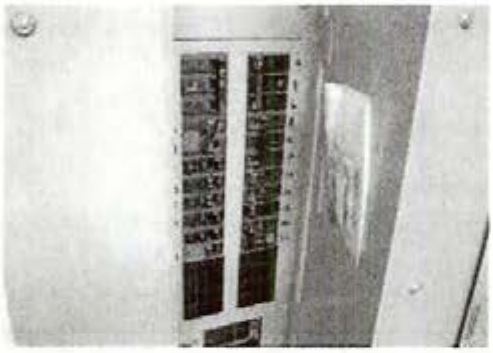
Kitchen

Kitchen

Kitchen



Dishwashing Area



Breaker Panel

Empty Flammable Storage Locker
Outside Garage

Empty Flammable Storage Locker
Outside Garage

Inside Garage/Maintenance Bay

Inside Garage

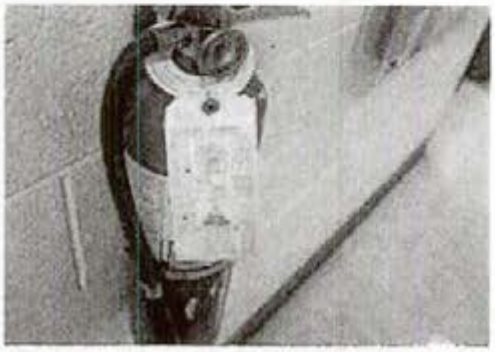
Inside Garage

Street Side of Building
South Side

Hallway
From East Entrance

Hallway to Drill Floor
Vault on Right

Portable Eyewash



Fire Extinguisher
Current and Mounted Properly

Inside Vault
Storage Only

Inside Vault
Storage Only

RESERVOIRS ENVIRONMENTAL, INC.

5801 Logan St., Suite 100
Denver CO 80216

TABLE ANALYSIS: LEAD BY WIPE SAMPLING

RES Job Number:	**RES 245159-1**
Client:	**Cole & Associates**
Client Project Number / P.O.:	**ARNG12-004-03**
Client Project Description:	**Plumb Lane Armory (NV) 685 E. Plumb Lane, Reno N**
Date Samples Received:	**October 1, 2012**
Analysis Type:	**USEPA SW846 3050B / AA (7420)**
Turnaround:	**3 Day**
Date Samples Analyzed:	**October 3, 2012**

Client ID Number	Lab ID Number	Sample Area (sq.ft.)	LEAD (µg)	Reporting Limit (µg/ft²)	LEAD CONCENTRATION (µg/ft²)
ARNG12-004-03-1	EM 902718	0.50	BRL	12.5	BRL
ARNG12-004-03-2	EM 902719	0.50	BRL	12.5	BRL
ARNG12-004-03-3	EM 902720	0.50	BRL	12.5	BRL
ARNG12-004-03-4	EM 902721	0.50	BRL	12.5	BRL
ARNG12-004-03-5	EM 902722	0.50	BRL	12.5	BRL
ARNG12-004-03-6	EM 902723	0.50	BRL	12.5	BRL
ARNG12-004-03-7	EM 902724	0.50	BRL	12.5	BRL
ARNG12-004-03-8	EM 902725	0.50	BRL	12.5	BRL
ARNG12-004-03-9	EM 902726	0.50	BRL	12.5	BRL
ARNG12-004-03-10	EM 902727	0.50	BRL	12.5	BRL
ARNG12-004-03-11	EM 902728	0.50	BRL	12.5	BRL
ARNG12-004-03-12	EM 902729	0.50	BRL	12.5	BRL
ARNG12-004-03-13	EM 902730	0.50	BRL	12.5	BRL
ARNG12-004-03-14	EM 902731	0.00		< 6.3 µg	
ARNG12-004-03-15	EM 902732	0.00		< 6.3 µg	

***Calculations Based On A 1 sq.ft. Sample Area Unless Otherwise Noted**

*** Unless otherwise noted all quality control samples performed within specifications established by the laboratory.**

BRL = Below Reporting Limit

Data QA_____

Plumb Lane Facility Information

1. Date Prepared: 9/25/12 Unit Identification Code (UIC [redacted]
2. Names (and company name) of Personnel Conducting IH SAV [redacted] Cole & Associates
3. Facility Name and Brief Summary of Primary Activities Conducted at Facility : Plumb Lane Armory Medical Screening, Recruiting, Family Support Programs, Honor Guard, Funeral Honors, Tricare, Deers, Sarts, Rangers and Operations
4. Facility Address: 685 E Plumb Lane, Reno, NV 89502
5. Primary Unit Assigned to Facility: NVARNG Medical Detachment
6. Co-Tenant Units Assigned or Working Within Facility (LIST ALL): Recruiting & Retention Horor Guard
7. Square Feet Area of Facility: 16,000 DOC: 1940's
8. Work Schedule: ARNG 4 10 hr days T-F - Family Programs M-F 8-5
9. Number of Work Bays: 0 - Maintenance garage out back w/ 2 bays but used for recruiting offices
10. Equipment Density and Type:
    a. List Nomenclature Serviced or Maintained at Facility: N/A
    b. List Total Number for Each Nomenclature Services or Maintained at Facility: N/A
11. Total Number of Personnel: 32 FT Drill Weekend: Unknown
12. No. of Admin Personnel (Include AGR, Fed., Tech., IDT, State or Contract Employee): 9AGR, 6 ADOS
13. No. of Maintenance Personnel (Include AGR, Fed., Tech., IDT, State or Contract Employee): 5 Tech
14. Total Number of Personnel Enrolled in the Hearing Conservation Program: N/A
15. Total Number of Personnel Enrolled in the Respiratory Protection Program: N/A
16. Total Number of Personnel Enrolled in the Medical Surveillance Program: N/A
17. Total Number of Personnel Enrolled in the Vision Program: N/A
18. Facility Commander: a. E-mail address, Commercial Telephone Number and Unit Assigned to: [redacted] (775) 384-5800,
19. Safety Officer: a. E-mail address, Commercial Telephone Number and Unit Assigned to: Same as #18
20. Facility Telephone Number: (775) 348-1034

Plumb Lane Armory IH SAV Survey
(To Be Included In Report)

Five **lead wipe** samples collected from drill floor (take samples from dusty horizontal floor surfaces)	Yes
Are any **weapons cleaned** in the facility, if yes where are they cleaned?	No. All weapons are cleaned at the Las Vegas Readiness Center on drill weekends. The Medical Unit does drill here however without weapons.
Additional lead **wipe** samples taken from 25% of the rest of the building - -(**on floor areas only**)	Yes
Is there **a converted indoor firing range**? If so collect additional wipe samples IAW the SOW.	No, there has never been an IFR at this facility
Is there any peeling **paint**? Take bulk sample if able.	None noticed.
Are there any signs of water damage or **mold**?	Possibly in the drill hall although it is hard to tell.
Any suspected **ACM**? Where and what condition is it in. Bulk sample if able.	None noticed.
Quality of housekeeping	Above average. A state worker is on site 4x's per week performing cleaning duties for the entire facility.
HVAC maintenance plan in place?	State maintains, however a new geo-thermal ground source HVAC was installed recently
Overall condition of HVAC system	Some of the vent filters appear to be dusty
Obtained **CO2, Temp, RH** monitoring	N/A
HAZMAT inventory on hand (make copies for the report), **MSDS** available for all materials.	Reportedly there are no hazardous materials stored on site. It was said that the cleaning lady has severe allergies to chemicals so all products are green. There are no MSDS's or chemical inventory lists for the facility. This is a recurring problem as it was addressed in 2008 in the previous report and written as a recommendation.
HAZMAT storage, Condition of lockers,	One empty locker outside.

if outside storage building is used is it ventilated and does it meet OSHA standards.	
Fire alarm in working condition - -not usually in place in older armories	No, although the fire marshal and the air guard are in the process of drawing up a plan
Fire extinguishers in place and properly identified and mounted	Yes
Evidence of **monthly fire extinguisher inspections**	Yes
Annual fire extinguisher inspections tags current	Yes
Are **eye wash stations** available in areas where hazardous materials are used and are they inspected weekly (inspections must be documented)	The medical guard has one portable unit.
Egress routes accessible and properly marked - -noted on Fire Evacuation Plan	Yes
Training programs in place; Hazcom, Respiratory Protection, Confined Spaces, Hearing conservation, PPE (if applicable)	None necessary for units within.
Any Photo labs	N/A
Any hazardous **noise** sources	None
Light levels checked throughout building	New lighting was installed throughout the facility in June 2012.
Breaker panels properly labeled with no exposed wiring	Yes
Check **building occupancy** 1. How many military personnel, how many civilian personnel 2. What types of units occupy facility, i.e. Administrative, Maintenance, etc.?	32 total 20 full time military, 9 AGR, 6 Ados, Medical, recruiting, family programming & civilian contractors.
Any **civilian activities** in armory (cub scouts, classes, day care, parties etc)	Not rented out however the above mentioned persons occupy space for family services.

Obtain two **lead air samples**	N/A
Evaluate Kitchen Stove Hood Flow if Present IAW NFPA Standard 96.	There is a range hood although the stoves have been removed. It is reportedly not used.
Collect Source Noise Measurements of Kitchen Appliances and Document Using DD 2214	None
Conduct a safety walkthrough of entire facility document any safety deficiencies found.	No safety hazards noticed
Take photos of outside of **building**, all **sample points** and any **pertinent hazards** or concerns.	Yes
Name of Armory, **POC**, **phone #, address** and **organizations** in Armory **(Add Checklist to Report)**	Plumb Lane Armory 685 E Plumb Lane Reno, NV 89502 Family Services & Recruiting

COLE & ASSOCIATES TRAINING & CONSULTING, INC.
ENGINEERING, HEALTH, SAFETY, AND ENVIRONMENTAL

25 September 2012

US Army National Guard Bureau
Industrial Hygiene Southwest
10510 Superfortress Ave, Suite C
Mather, CA, 95655

Subject: **ARNG12-004-03**
Plumb Lane Armory (Reno) Recommendations

To Whom It May Concern:

Hazardous Materials / MSDS

1. A complete inventory of all hazardous and non-hazardous chemicals should be created, maintained, and kept on the premises with corresponding MSDS's attached, listed in a binder, and organized in a simple format.(4.1.1)
2. Obtain MSDS files for each product at the facility. MSDS log/books should be updated, at a minimum, annually or when new chemicals are added to the inventory. (4.1.2)

Non-Responsive

Cole & Associates Training & Consulting, Inc.

ARMY NATIONAL GUARD
INDUSTRIAL HYGIENE – SOUTHWEST
Guam • Hawaii • California • Oregon • Washington • Nevada • Arizona • Idaho • Utah • Wyoming • Montana • New Mexico • Nebraska

Industrial Hygiene Site Assistance Visit

Yerington Armory
14 Joe Parr Way
Yerington, NV 89447

10510 Superfortress Avenue, Suite C, Mather, CA 95655 (916) 854-1494

Industrial Hygiene Southwest's mission is to ensure all military personnel and military leadership is provided the specialized technical expertise, consultation and assistance to ensure all military operations and processes are conducted in a healthy manner

10510 Superfortress Avenue, Suite C, Mather, CA 95655 (916) 854-1494

DEPARTMENT OF THE ARMY AND AIRFORCE
NATIONAL GUARD BUREAU
INDUSTRIAL HYGIENE SOUTHWEST
10510 Superfortress Ave, Ste. C
Mather, CA 95655

ARNG-CSG-P

17 November 2013

MEMORANDUM THRU Non-Responsive Acting OHN, 2460 Fairview Dr., Carson City, NV 89701

FOR Commander Yerington Armory 14 Joe Parr Way, Yerington, NV 89447

SUBJECT: Executive Summary for Industrial Hygiene Site Assistance Visit (SAV) for the Yerington Armory 14 Joe Parr Way, Yerington, NV on 05 November 2013.

1. **References**. See survey report.

2. **General.**

a. At the request of the NGB Industrial Hygiene, Southwest (IHSW), an Annual Industrial Hygiene Site Assistance Visit was conducted for the Yerington Armory 14 Joe Parr Way, Yerington, NV on 05 NOV 2013.

b. The findings and recommendations in this Executive Summary are controlling and supersede all recommendations in the contractor report (reference Attachment II). However, IHSW concurs with the observations and findings within the attached contractor report.

c. Risk Assessment Codes (RAC) provided in this report have been derived from two sources: Deriving Risk Assessment Codes (RAC's) for Health Hazards (Ref: DOD Instruction 6055.1) and AR 385-10, The Army Safety Program.

d. Use of trademark names in the attached report, or this Executive Summary, does not imply Army National Guard endorsement of any product.

3. **Findings.** See survey report.

4. **Commendable.**

The facility personnel were helpful during this SAV.

5. **Observations / Recommendations.**

NOTE: This section provides conclusions and recommendations for the findings and observations made within the attached contractors report. The paragraphs are numbered to correspond to the sections where they were first noted. (i.e., paragraph 2.1a represents the 2.1a located within the contractors report.

a. Obtain a copy of the asbestos survey and assessment for this facility. If asbestos containing materials have been identified provide awareness training to assigned personnel and maintenance workers on location of these materials within this facility and the roof repaired. (para. 4.4) **(RAC 4)**

b. All fire extinguishers within this facility should be checked monthly and certified annually. (para. 4.10.3) **(RAC 3)**

c. Lead based paint was noted on sampled areas within the armory. The FMO, State Safety and Environmental directorates should be contacted before any work on these identified areas if performed. Personnel doing any construction must follow OSHA Lead in Construction Standard, 29 CFR 1926.62 if they perform activities involving this painted surface that could create lead dust or fume. (para. 4.2) **(RAC 3)**

d. Install industrial grade Carbon Monoxide (CO) monitors alarm system within the shop area and adjoining occupied office spaces. Personnel should be trained on maintenance of this system and assure CO monitors are calibrated as recommended by manufacture. (para 4.4.1 & 2) **(RAC 3)**

e. Recharge the fire extinguisher found in the server room. (para. 4.10.6) **(RAC 2)**

f. Mount the fire extinguisher in the classroom to a wall and designate this fire extinguisher location. (para. 4.10.7) **(RAC 3)**

g. Provide metal covers for the electrical panel boxes in the mechanical room to prevent accidental contact. (para. 4.10.9) **(RAC 4)**

6. Violation Correction Log.

a. IHSW has provided a Violation Correction Log derived from the observations from this visit. IHSW recommends the following:

1. Commander(s) assign an Action OIC/NCOIC, Suspense Date for completion, and Estimated Cost(s) to ensure item completion and corrective status is briefed during quarterly (or monthly) Safety Meetings/Councils until resolved.

2. Corrective measures should be implemented and accomplished at the lowest levels possible. Hazards and Corrective Measures that cannot be corrected at the facility level, and require assistance from higher headquarters or from the state level, should be elevated to the Quarterly State/BN Safety Council Meeting for resolution.

3. Recommend a representative from the facility attend all quarterly/monthly meetings to ensure the appropriate emphasis and corrective actions are followed for hazard resolution and abatement of the observations made during this visit.

4. Retain entries of the items corrected, or closed, for future reference. This may be accomplished by posting completed items within the Corrected Hazard Sheet portion of the Excel Violation Correction Log Workbook we've provided.

5. The preferred method to document and track identified hazards for resolution is for their entry into the Reserve Component Automation System – Safety and Occupational Health **(RCAS-SOH)** Program.

ARNG-CSG-P

SUBJECT: Executive Summary for Industrial Hygiene Site Assistance Visit (SAV) for the Yerington Armory 14 Joe Parr Way, Yerington, NV on 05 NOV 2013

6. IHSW recommends the **Senior Unit Commander of this Facility and any Co-Tenant Organizations or Units, review and provide assistance with implementation of these recommendations.** This will educate the chain of command and allow the unit or co-tenant organizations to take any necessary precautions or actions required by them and their personnel.

7. Hazard Assessment/Job Safety Analysis (JSA).

a. Documenting the Hazard Assessments provides a method to obtain initial and periodic review from the Industrial Hygiene, Occupational Health and Safety Professions located at the JFHQ/HQ/state level.

b. The Hazard Assessments should be used as written training materials for the new, transfer and unit personnel working under the auspice of the facility.

c. IHSW recommends facility supervisory staff and facility personnel conduct initial Hazard Assessments outlined in AR 40-5, Army Preventive Medicine (Section V) and 29 CFR 1910.132 and submit for review and obtain approval from the state Industrial Hygiene, Occupational Health and Safety Professions.

d. We have provided an appendix with Hazard Assessments (HA) examples of some of this facilities operations. Additional operations can utilize this format to design HA not observed during this SAV.

e. An integral and important factor of the Hazard Assessment/JSA process is for the review and guidance from qualified Safety, Occupational Health and Industrial Hygiene professions located at the higher headquarters level or state level. For this reason, the Hazard Assessments (to include all pertinent and supporting documents) should be completed by the facility personnel and forward to the Nevada Army National Guard Industrial Hygiene, Occupational Health and Safety Office for final review and approval (signature).

f. Job Safety Analysis (JSA's)/Hazard Assessments.

NOTE: The Hazard Assessments can be used for monthly meetings to brief/train, and document large group training events and activities.

8. IHSW recommends the **Senior Unit Commander of this Facility and any Co-Tenant Organizations or Units, review and provide assistance with implementation of these recommendations.** This will educate the chain of command and allow the unit or co-tenant organizations to take any necessary precautions or actions required by them and their personnel.

9. To assist you with execution of your responsibilities in correcting the observations noted, we encourage you to consult with the State Safety Manager, Occupational Health Manager and Industrial Hygiene professions located and/or authori[redacted] Safety and Occupational Health Office.

Non-Responsive

10. For additional information please conta[redacted]ffice at (916) 854-1491 or via email at

Non-Responsive

[redacted]

NGB, IHSW, CIV
Industrial Hygiene

Industrial Hygiene Southwest

Violation Inventory Log

LOG OF SCHEDULE OF CORRECTIVE ACTION - COMPLIANCE WITH SAFETY AND HEALTH STANDARDS

Nevada Army National Guard - Yerington Armory - Yerington, Nevada

CONTROL NUMBER CLOSED ☐	HAZARD DESCRIPTION	SITE	RAC	CORRECTIVE ACTIONS (Abatement Plan)	SUSPENSE DATE	ACTION OIC/NCOIC	Estimated Cost(s)	DATE CORRECTED	REFERENCES
NVYA-11052013-4.2 ☐	Measureable lead was detected in the paint chip samples collected from gray and green paint on the classroom floor and the white paint on the Supply Room ceiling.	Yerington Armory	3	1. Contact the State FMO, State Safety, and the State Environmental directorates before conducting any work that may disturb the integrity of the classroom floor and Supply Room ceiling painted surfaces. 2. Construction personnel must follow the requirements of the OSHA Lead in Construction Standard, 29 CFR 1926.62, if they perform activities involving this painted surface that could create lead dust or fume.					29 CFR 1926.62
NVYA-11052013-4.4 ☐	Documentation of an asbestos survey was not available for the Yerington Armory; however, personnel from the Environmental Office reported that a survey is on file in their office in Las Vegas, Nevada.	Yerington Armory	4	1. Obtain a copy of the asbestos survey and assessment for the Yerington Armory and maintain this report in the Armory. 2. If asbestos-containing materials have been identified and assessed, provide awareness training to assigned personnel for the specific material types and locations of asbestos in this Armory.					29 CFR 1926.1101
NVYA-11052013-4.10.3 ☐	The annual and monthly fire extinguisher inspections are overdue.	Yerington Armory	3	Ensure all fire extinguishers undergo annual and monthly inspections and document the results of these inspections on the cards attached to each fire extinguisher.					29 CFR 1910.157 (e) (2) 29 CFR 1910.157 (e) (3)

Industrial Hygiene Southwest

Violation Inventory Log

LOG OF SCHEDULE OF CORRECTIVE ACTION - COMPLIANCE WITH SAFETY AND HEALTH STANDARDS

Nevada Army National Guard - Yerington Armory - Yerington, Nevada

CONTROL NUMBER CLOSED ☐	HAZARD DESCRIPTION	SITE	RAC	CORRECTIVE ACTIONS (Abatement Plan)	SUSPENSE DATE	ACTION OIC/NCOIC	Estimated Cost(s)	DATE CORRECTED	REFERENCES
NVYA-11052013-4.10.6 ☐	There is one fire extinguisher in the classroom near the server that requires recharging.	Server Room	2	Recharge the fire extinguisher in the server room.					29 CFR 1910.157 (c) (4)
NVYA-11052013-4.10.7 ☐	There is an un-mounted fire extinguisher in the classroom adjacent to the server.	Classroom	3	Mount the fire extinguisher in the classroom to a wall and designate this fire extinguisher location.					29 CFR 1910.157 (c) (1)
NVYA-11052013-4.10.8 ☐	One emergency light failed to operate in the Men's restroom.	Men's Restroom	4	Repair or replace the emergency light in the Men's restroom.					29 CFR 1910.37 (b) (1)
NVYA-11052013-4.10.9 ☐	There are exposed electrical wiring in two of the electrical panel boxes in the mechanical room.	Exterior Accessed Mechanical Room	4	Provide metal covers for the electrical panel boxes in the mechanical room to prevent accidental contact with live electrical wiring.					29 CFR 1910.305 (b) (2)

ARMORY

CLEANUP & FOLLOW-UP HOUSEKEEPING RECOMMENDATIONS

Materials Needed:

1. Cloth Mop head (s) & Mop head holder(s) with handle.
2. Mop bucket (s) with wringer.
3. Clean cotton rags and sponges.
4. Disposable gloves
5. Large barrel (55 gal.) to store wastewater in after changing out of dirty scrub water. Waste water containers.
6. Disposable overshoes or rubber boots. Personnel conducting cleaning operations should not take clothes, boots, etc., home for laundering.
7. HEPA vacuum
8. Six (6) mill plastic bags to dispose of waste.
9. Detergent with surfactant, e.g., Spic-N-Span, Mr. Clean, etc.

Disposal of Waste Water and Cleaning Materials:

1. *NOTE*: Consult with Local Army National Guard Environmental Office prior to taking any collection, disposal or wiping activities commence. Each state and territory may have additional regulatory guidance on collection, storage and disposal of wastewater.

2. Mop heads should be disposed of after initial cleanup, unless otherwise advised by Environmental office personnel. Note: thorough cleaning of mop heads may be sufficient enough to reuse on future Armory cleanups but check with local Environmental Office.

3. Disposable gloves should be treated as hazardous waste.

4. Soiled cotton rags should be treated as hazardous waste.

5. Wash water contaminated with Lead can be collected and allowed to slowly evaporate leaving Lead deposits/sludge that may be collected in plastic containers, placed in metal drums, and stored for future delivery to an authorized hazardous waste disposal site.

3. Wet wipe, with cotton rags or sponge, any horizontal, diagonal or vertical surfaces up six (6) feet from floor surfaces using hot water and "Spic-n-Span" or an equivalent product.

    a. Rinse out cleaning cloths thoroughly and frequently.
    b. Change out cleaning water as necessary.

NOTE: **If walls to be cleaned show signs of deterioration, e.g., chipping or crumbling paint, in which wiping, scrubbing, or disrupting might potentially increase or spread contamination, then this portion of the clean up should be avoided**.

4. Now prepare water and detergent (e.g. Spic N Span, Mr. Clean, Pine Sol) for the mopping phase, according to manufactures recommendations, which should be found on the products label for general clean up.

    a. Change out water frequently (when water appears dirty)
    b. Rinse out mop heads frequently to prevent contamination of dirty water.

5. Cover entire drill floor surface with above prescribed water and detergent.

6. Final rinse should be with clean water only - -after mop heads have been cleaned.

Recommended Follow-up Housekeeping Practices *after Clearance sampling of cleaned area is performed by certified personnel:*

1. Floor cleaning and dusting should be accomplished using the wet method described in Initial Armory Cleanup SOP.

Note: Only exception to these wet cleaning procedures would be the use of a chemically treated dust floor mop. This can be used for follow-up armory cleaning by sweeping of large particles of dirt and paper.

    a. Pre-treated (chemically treated) dust floor mop will limit dust particles from being disbursed into the surround atmosphere.

b. If treated dust mop is used - -Do Not Shake Mop head - - have mop head laundered after use. **Always keep used dust mop heads in sealed double plastic bags when stored at armory/facility**. Shaking of mop head could release unwanted contaminants into surrounding atmosphere.

2. Frequency of Cleanup- Armories will vary, according to usage and how often they should be cleaned. The following general cleaning schedule is provided:

   a. Only full-time technicians and traditional soldiers using facility during the month. (***Cleaned Monthly***)

   b. Occasional activities taking place during the month, e.g., 1-2 classes or volleyball games, etc. (***Cleaned 2x's Monthly***)

   c. Used regularly by soldiers or outside agencies/personnel. (***Cleaned Regularly - -at least Weekly***)

NOTE: Armories with adjoining Indoor Firing Ranges (IFR) should be cleaned more than weekly, again depending on use of Armory and IFR.

NOTE: Clearance sampling/testing is to be accomplished by certified personnel after these cleanup procedures are followed. If the area is an average Armory, occupied by adults only, for which you are cleaning and **is not a Converted IFR space**, you may continue to utilize the Armory space before the officials re-test this space. Please notify your Safety and/or Occupational Health personnel of the completion of this cleaning regime and they will notify the proper officials of the sampling/testing requirements needed.

If work is contracted out, a third party should do the clearance sampling.

Young children and females who are pregnant, there should be posted signs on all facilities, warning of the potential danger of exposure to lead dust.

IHI ENVIRONMENTAL
A Terracon COMPANY

IH ASSISTANCE VISIT

Nevada Army National Guard
Yerington Armory
14 Joe Parr Way
Yerington, Nevada 89447-2382

November 25, 2013

Prepared for:

Industrial Hygiene Southwest
10510 Superfortress Avenue, Suite C
Mather, California 95655

Non-Responsive [redacted]

Non-Responsive [redacted]

Project No. AL137794

640 EAST WILMINGTON AVENUE SALT LAKE CITY, UT 84106 TELEPHONE: 801-466-2223 FAX: 801-466-9616 E-MAIL: IHI@IHI-ENV.COM
SALT LAKE CITY EMERYVILLE PHOENIX DENVER SEATTLE

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APPENDICES

EXECUTIVE SUMMARY

On November 5, 2013, Non-Responsive E, CSP, with IHI Environmental (IHI), and Non-Responsive ith the Nevada Army National Guard, Medical Detachment, conducted an Industrial Hygiene (IH) Assistance Visit at the Yerington Armory located at 14 Joe Parr Way, Yerington, Nevada 89447-2382. The primary point of contact for information gathered during this survey was Non-Responsive

The objectives of this IH Assistance Visit were to perform the following activities:

- collect wipe samples for lead residue;
- evaluate the condition of painted surfaces and collect paint chip samples for lead analysis where painted surfaces are peeling;
- inspect the interior rooms of the armory for water damage and the presence of fungal growth;
- review asbestos survey and assessment files and determine if documentation of asbestos awareness training is current;
- evaluate the condition of the Heating, Ventilation, and Air-Conditioning system, and collect indoor air quality data;
- review hazardous material storage and use procedures;
- review safety training and record keeping;
- perform a ventilation survey on the kitchen stove hood (if present);
- perform a noise survey on the kitchen appliances; and
- conduct a safety walk-through evaluation and note any existing safety hazards.

Significant findings for this IH Assistance Visit can be found in the Industrial Hygiene Southwest – Violation Inventory Log located in Appendix K of this report.

The report that follows this Executive Summary should be read in its entirety because it includes important information not included in this summary, such as task descriptions, work space locations, regulatory requirements, and additional recommendations.

1.0 INTRODUCTION

On November 5, 2013 Non-Responsive PE, CSP, with IHI Environmental (IHI), and Non-Responsive with the Nevada Army National Guard, Medical Detachment, conducted an Industrial Hygiene (IH) Assistance Visit at the Yerington Armory located at 14 Joe Parr Way, Yerington, Nevada 89447-2382. The primary point of contact for information gathered during this survey was Non-Responsive

1.1 Objective

The objective of the IH Assistance survey is to evaluate the occupational environment of the administrative areas in the armory to determine the presence of operational health and safety risks, and make recommendations for corrective actions or follow-up work to manage those risks.

1.2 Scope of Work

To achieve the above objectives at this facility, the survey included the following work:

- collect wipe samples for lead residue;
- evaluate the condition of painted surfaces and collect paint chip samples for lead analysis where painted surfaces are peeling;
- inspect the interior rooms of the armory for water damage and the presence of fungal growth;
- review asbestos survey and assessment files and determine if documentation of asbestos awareness training is current;
- evaluate the condition of the Heating, Ventilation, and Air-Conditioning system and collect indoor air quality data;
- review hazardous material storage and use procedures;
- review safety training and record keeping;
- perform a ventilation survey on the kitchen stove hood (if present);
- perform a noise survey on the kitchen appliances; and
- conduct a safety walk-through evaluation and note any existing safety hazards.

2.0 FACILITY DESCRIPTION

The Yerington Armory has two full-time Guard members. The armory houses administrative offices, training facilities, classrooms, supply room, weapons vault, janitor's closet, kitchen, and a drill floor. The kitchen is no longer used by this Armory. as there are no cooks assigned to this unit.

The only organization assigned to this armory is the Lima Troop 1221 Cavalry.

There are no full-time or part-time civilians employed at the armory.

There are no civilian activities conducted in this armory.

Army National Guard members perform weapons maintenance and cleaning activities outside.

Armory housekeeping is performed by contract employees.

Employees at this armory work between the hours of 0830-1700 hours Monday through Friday, with every other Monday off.

3.0 METHODS AND APPLICABLE REGULATIONS AND STANDARDS

3.1 Lead Wipe Sampling

Lead residue (dust) wipe samples were collected on horizontal surfaces, such as the drill floor, kitchen, and administrative areas, to determine housekeeping standards. Lead Wipe™ brand wipes were used within a 100-square-centimeter template. The wipes used conform to American Society for Testing and Materials E1792, *Standard Specification for Wipe Sampling Materials for Lead in Surface Dust*. The collected wipe samples were placed in clean and labeled plastic containers. Samples were submitted to ALS Laboratories for analysis, using NIOSH Method 7300. See Appendix I for sample locations and Appendix J for laboratory results.

The Mather, California, office of Industrial Hygiene Southwest has developed a Standard Operating Procedure (SOP) for lead, which is a blend of OSHA, HUD, and Army regulations. Essentially, this SOP sets forth a criterion of 40 micrograms per square foot ($\mu g/ft^2$) for converted indoor firing ranges, break rooms, floor surfaces, or any area that might be used for non-military functions. Additionally, a 200 $\mu g/ft^2$ criterion has been established for tool rooms, maintenance bays, furnace rooms, boiler rooms, storage closets, and other areas where general public access is not expected.

3.2 Painted Surface Evaluation

The interior of the armory was visually inspected for peeling paint on the walls and ceilings. If peeling paint was encountered, a representative chip sample was collected, placed in a clean plastic container, and sent to ALS Laboratories for lead analysis by a modified

National Institute for Occupational Safety and Health (NIOSH) Method 7300. Lead paint results are reported as percent by weight.

3.3 Moisture Intrusion and Limited Visual Fungal Growth Evaluation

The interior of the armory was visually inspected for signs of moisture intrusion that could result in fungal growth. Any signs of moisture intrusion (e.g., discoloration, staining, blistering) were noted and documented on a drawing for a follow-up evaluation.

3.4 Asbestos Management

Armory personnel were asked if an asbestos survey and assessment had been conducted and whether there was a written Operations and Maintenance Program for the facility. IHI also reviewed any asbestos awareness training records.

3.5 Heating, Ventilation, and Air-Conditioning Systems and Indoor Air Quality

The armory's heating, ventilation, and air-conditioning (HVAC) system was evaluated. This evaluation consisted of a visual inspection of the system to note any obvious problems and a review of the facility maintenance plan, if available.

Carbon dioxide (CO_2), temperature, and relative humidity were measured using a TSI Model 7575-X IAQ-Calc™ Meter. The unit was calibrated before use with certified zero gas and 1,000 parts per million (ppm) CO_2 span gas. See Appendix E for IAQ data.

Carbon dioxide is a normal constituent of exhaled breath and is commonly measured as a screening tool to evaluate whether adequate fresh outdoor air is being provided. If typical CO_2 levels within a building are maintained at or less than 1,000 ppm, with appropriate temperature and humidity levels, complaints about indoor air quality should be minimized (American Society for Testing and Material (ASTM) – International D6245-12, *Using Indoor Carbon Dioxide Concentrations to Evaluate Indoor Air Quality*). If a building exceeds this guideline, it should not be interpreted as an unhealthy or hazardous situation. An elevated CO_2 level is only an indication that the amount of outside air being brought into a building may be inadequate or poorly distributed, and further investigation may be warranted.

In building areas where there are potential sources of CO_2 other than exhaled breath, the guidelines above cannot be used. The Occupational Safety and Health Administration (OSHA) standard for CO_2 should be used in these instances. The OSHA standard is an eight-

hour time-weighted average (TWA) of 5,000 ppm, with a short-term 15-minute average limit of 30,000 ppm.

3.6 Hazard Communication and Hazardous Material Storage

Because personnel in the Yerington Armory do not use or store hazardous materials, this area was not evaluated.

3.7 Safety Training and Recordkeeping

An inspection of safety training programs and documentation was performed to determine if the armory's site-specific training programs and annual documentation were current.

3.8 Kitchen Ventilation Survey

Duct velocity measurements are performed on facility kitchen exhaust hoods (when present), using a TSI VelociCalc, Model 8345.

The 2011 National Fire Protection Association Standard 96, Section 8.2.1.1, requires exhaust fan ducts used in commercial cooking equipment to have a duct velocity of not less than 500 feet per minute (fpm).

3.9 Kitchen Appliance Sound-Level Measurements

Sound-pressure-levels of the kitchen appliances were not measured since there are no cooks assigned to the Yerington Armory and the appliances are unplugged or removed from service.

3.10 General Safety Walk-Through

A limited Fire/Life Safety Code walk-through evaluation of the armory was performed to:

- document the presence of a fire alarm,
- determine if fire extinguishers are properly mounted and current on their monthly and annual inspections,
- determine if eyewash station inspections are current, and
- document any fire or safety hazards in the armory.

3.11 Equipment Used

The following equipment was used for this survey.

Type	Model Number	Serial Number	Calibration Date
TSI IAQ-Calc™ Meter	7575-X	7575X1306021	02/07/2013

The calibration certificate for this instrument is attached in Appendix H.

3.12 Quality Assurance

IHI employs, at a minimum, the following methods to help assure quality of field investigations and reports:

- Use of appropriately educated and experienced personnel;
- Documentation of pertinent field and sampling information;
- Continuing education of technical personnel through attendance at training sessions and conferences, and literature review;
- Peer and supervisory review of sampling strategy, field methods, calculations, and reports;
- Strict adherence to method requirements, in particular to NIOSH and OSHA, and standard methods, including strict chain-of-custody protocol;
- Use of accredited laboratories, or, in cases where specific accreditation is not available, choice of laboratories of good reputation, having strong QA/QC programs.
- Calibration of instruments, including field calibration via manufacturers' recommended procedures and routine (typically annual) off-site calibration of equipment via certified third parties.

4.0 FINDINGS AND RECOMMENDATIONS

4.1 Lead Wipe Sampling

All of the surface lead concentrations measured were below the IHSW lead criterion of 40 $\mu g/ft^2$ for areas that are accessible to members of the general public and the 200-$\mu g/ft^2$ limit where general public access is not expected, with the exception of the weapons vault floor, where a result of 220 $\mu g/ft^2$ was obtained. See Appendix F for a data table and a drawing showing sample locations and Appendix J for the laboratory reports. Photographs were taken of each sampling point and are presented in Appendix C.

Recommendation

None

4.2 Painted Surface Evaluation

Peeling paint was observed on the north east classroom floor and the ceiling of the supply office.

The analytical result for the paint chip sample for the gray and green paint on the classroom floor indicates that it contains 0.076% lead by weight. The analytical result for the paint chip sample for the white paint on the Supply Room ceiling indicates that it contains 0.095% lead by weight.

Both of these paint chip samples are less than the HUD standard of 0.5% for lead; however, because there is measureable lead in the sample, OSHA's Lead in Construction Standard applies when renovation work is conducted that may affect this paint.

See Appendix F for a data table and a drawing showing sample locations and Appendix J for the laboratory reports. Photographs were taken of each sampling point and are presented in Appendix C.

Note: All painted surfaces should be considered suspect lead-containing materials until determined otherwise.

Recommendations

1. Contact the State FMO, State Safety, and the State Environmental directorates before conducting any work that may disturb the integrity of the classroom floor and supply room ceiling painted surfaces.
2. Construction personnel must follow the requirements of the OSHA Lead in Construction Standard, 29 CFR 1926.62, if they perform activities involving this painted surface that could create lead dust or fume.

4.3 Moisture Intrusion and Limited Visual Fungal Growth Evaluation

The ceilings in the Yerington Armory have ceiling tiles on them. The drill hall has an exposed ceiling. The walls in the armory are constructed of concrete masonry units and for the most part are covered with gypsum board. There was no water damage noted on the day of the visit. No visible fungal growth was observed in any of the areas surveyed.

Recommendation

None

4.4 Asbestos Management

Documentation of an asbestos survey was not available for the Yerington Armory; however, personnel from the Environmental Office reported that a survey is on file in their office in Las Vegas, Nevada.

According to the Occupational Safety and Health Administration, Code of Federal Regulations (CFR) 1910.1001, thermal system insulation and surfacing materials found in buildings constructed before 1980 are *Presumed Asbestos Containing Material* (PACM). Although there may not be any PACM in the Yerington Armory, suspect materials should be tested for the presence of asbestos prior to renovation and demolition activities.

Recommendations

1. Obtain a copy of the asbestos survey and assessment for the Yerington Armory and maintain this report in the armory.
2. If asbestos-containing materials have been identified and assessed, provide awareness training to assigned personnel for the specific material types and locations of asbestos in this armory.

4.5 Heating, Ventilation, and Air-Conditioning Systems and Indoor Air Quality

There are four split-unit heating, ventilation, and air-conditioning units (HVAC) that serve the administrative areas, classrooms, and drill hall floor in the Yerington Armory. The supply office has its own dedicated ceiling-mounted HVAC unit.

The State of Nevada's Facility Maintenance Division regularly services and provides monthly preventive maintenance checks of the HVAC system for this armory.

The average outdoor CO_2 concentration at the time of the survey was 359 ppm. The highest CO_2 concentration measured inside the building was 494 ppm, which should not result in indoor air quality complaints.

Building air temperatures were 66°F and relative humidity was between 15% and 16% during the testing period. Air temperatures were slightly below the recommended comfort range of 68°F to75°F and the relative humidity was also below the recommended comfort range of between 30% and 60%. Humidity levels above 60% can result in proliferation of bacteria and fungi, while levels below 30% can cause dry eyes, skin, and mucous membranes. Building air

temperatures are controlled by unit personnel and set to levels that are comfortable to the building users or are set to conserve energy.

Recommendation

None

4.6 Hazard Communication and Hazardous Material Storage

4.6.1 Hazardous Materials Inventory and Material Safety Data Sheets (MSDS)

There are no hazardous materials used by Yerington Armory personnel. Non-Responsive reported that all hazardous materials are stored in the adjacent Field Maintenance Shop. There are a few custodial products maintained in a janitor's closet; however, all building maintenance is performed by contract employees.

Recommendation

None

4.7 Safety Training and Record Keeping

4.7.1 Safety Policies and Procedures

The following safety policies and procedures were found at the site:

a. Abbreviated Ground Accident Report
b. Army Safety Program AR 385-10
c. Small Unit Safety Officer/NCO Guide DA PAM 385-1
d. Army Safety Program DA PAM 385-10
e. Army Accident Investigation and Reporting DA PAM 385-40
f. Army Test, Measurement, and Diagnostic Equipment AR 750-43
g. Safety and Occupational Health Program NMD 385-10
h. Preventive Medicine AR 40-5
i. ARNG Safety and Occupational Health Program NGR 385-10
j. Composite Risk Management FM 5-19

In addition to these documents found on site, more safety-related information is available electronically.

4.7.2 Training Documents

The following training schedule for 2013 was found at the site:

a. Emergency Action Plan Training
b. Pre-Accident Plan Training

c. Risk Management Training
d. Hazard Communication Training
e. Hearing Conservation Training
f. Defensive Driving Training
g. Accident Avoidance Training
h. Convoy Training

Note: IHI did not conduct a thorough evaluation of the contents or quality of any of the documents identified during this visit.

Recommendation

None

4.8 Kitchen Ventilation Survey

There is an industrial kitchen for the Yerington Armory; however, there are no cooks assigned. The exhaust fan for the stove was removed from service as an energy savings measure to prevent it from automatically activating throughout the day.

Recommendation

None

4.9 Kitchen Appliance Sound-Level Measurements

The only operational appliance is a refrigerator; all other appliances are not used. Sound level measurements were not obtained since the kitchen is not operational.

Recommendation

None

4.10 General Safety Walk-Through

1. Housekeeping throughout the facility was good.
2. There is a fire alarm in this facility and there is a sprinkler system as well.
3. Fire extinguishers are strategically located throughout the armory. The annual and monthly inspections are overdue.
4. Fire evacuation routes are posted in the rooms of this armory.
5. All ground fault interrupter circuits tripped at 7 milliamps or less.
6. There is one fire extinguisher in the classroom near the server that requires recharging.
7. There is an un-mounted fire extinguisher in the classroom adjacent to the server.
8. One emergency light failed to operate in the men's restroom.

9. There is exposed electrical wiring in two of the electrical panel boxes in the mechanical room.

Recommendations

1. Ensure all fire extinguishers undergo annual and monthly inspections and document the results of these inspections on the cards attached to each fire extinguisher.
2. Recharge the fire extinguisher in the server room.
3. Mount the fire extinguisher in the classroom to a wall and designate this fire extinguisher location.
4. Repair or replace the emergency light in the men's restroom.
5. Provide metal covers for the electrical panel boxes in the mechanical room to prevent accidental contact with live electrical wiring.

5.0 PROJECT LIMITATIONS

This Project was performed using, as a minimum, practices consistent with standards acceptable within the industry at this time, and a level of diligence typically exercised by industrial hygiene and environmental consultants performing similar services.

The procedures used in this investigation attempt to establish a balance between the competing goals of limiting investigative and reporting costs and time, and reducing the uncertainty about unknown conditions. Therefore, because the findings of this report were derived from the scope, costs, time, and other limitations, the conclusions should not be construed as a guarantee that all environmental or occupational hazards have been identified and fully evaluated. Where sample collection and testing have been performed, IHI's professional opinions are based in part on the interpretation of data from discrete sampling locations that may not represent conditions at non-sampled locations. IHI assumes no responsibility for omissions or errors resulting from inaccurate information or data provided by sources outside of IHI, or from omissions or errors in public records.

Furthermore, it is emphasized that the final decision on how much risk to accept always remains with the client since IHI is not in a position to fully understand all of the client's needs. Clients with a greater aversion to risk may want to take additional actions while others, with less aversion to risk, may want to take no further action.

6.0 PROJECT APPROVAL

This IH Assistance Visit was reviewed and approved by:

Non-Responsive

November 25, 2013
Date

Technical Assistance: For technical assistance regarding information found in this report or the performed survey, please contact Non-Responsive 801-466-2223, or Non-Responsive of the Southwest Regional Industrial Hygiene Office at 916-804-1707.

Contact the State Safety and Occupational Health Office and/or the Regional Industrial Hygienist should any of the operations change, or should the personnel become incapable of following the previous recommendations and subsequent recommendations are needed.

Appendix A

References

American Conference of Governmental Industrial Hygienists (ACGIH), Industrial Ventilation, A Manual of Recommended Practice

American Conference of Governmental Industrial Hygienists (ACGIH), Threshold Limit Values for Chemical Substances and Physical Agents and Biological Indices

American National Standards Institute (ANSI)/Illuminating Engineering Society (IES), Industrial Lighting.

American National Standards Institute, Z358. 1-1998. Emergency Eyewash and Shower Equipment

AR 40-5, Preventative Medicine

AR 40-10, Appendix B – Health Hazard Assessment Program in Support of Army Material Acquisition Decision Process

AR 385-10, The Army Safety Program

Corps of Engineers Guide Specification, CEGS-1585 1, Overhead vehicle tailpipe (and welding fume) Exhaust Systems

DA PAM 40-ERG, Ergonomics

DA PAM 40-501, Hearing Conservation.

National Safety Council, Fundamentals of Industrial Hygiene

NOR 385-10, Army National Guard Safety and Occupational Health Program

TB MED 503, The Army Industrial Hygiene Program

TG022, US Army Environmental Hygiene Agency (USAEHA), Industrial Hygiene Evaluation Guide

TG 141, US Army for Health Promotion and Preventive Medicine (USACHPPM) Industrial Hygiene Air Sampling Guide, Nov. 1997

Title 29, Code of Federal Regulations (CFR), 2011, revision Part 1910, Occupational Safety and Health Standards

Appendix B

Assessment Criteria

A. Ventilation Standards

Ventilation rates were compared to recommendations made in 29 CFR 1910, ACGIH Industrial Ventilation Manual, and Corps of Engineers specifications. See Appendix A for reference information.

B. Illumination Standards

Illumination measurements were compared with recommendations made by the Industrial Engineering Society (IES)/American National Standards Institute (ANSI) RP7-1991 Standard and MIL-STD-1472E.

C. Noise

Noise measurements were taken and compared with OSHA Standard 29 CFR 1910.95 and Department of the Army Pamphlet 40-501.

D. Air Sampling

Personal air sampling was conducted in compliance with applicable NIOSH Analytical Methods. Sampling results were compared to relevant Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLV), or National Institute of Occupational Safety and Health (NIOSH) Recommended Exposure Limits (REL).

Occupational Safety and Health Administration (OSHA)

OSHA has established Permissible Exposure Limits (PELs) for workplace toxic and hazardous substances listed in 29 CFR 1910.1000 Table Z-1. Most OSHA PELs are based on 8-hour time weighted averages (TWAs); when sampling periods differ from 8 hours, the result must first be converted to an 8-hour TWA before comparing it to the OSHA PEL. Some OSHA PELs are based on Short Term Exposures Limits (STEL) of 15 minutes of worst case exposure or Ceiling Limits of worst case peak exposures (sampled as a 15 minute exposure if direct-reading methods are not available).

OSHA regulations are legally enforceable. Employers are required to maintain employee exposures below PELs. The best practice is to eliminate hazards and use safer substitutes. Alternatively, engineering and/or administrative (work practice) controls may reduce exposures to acceptable levels. Personal protective equipment should be the solution of last resort, implemented after all other efforts to eliminate the hazard have been exhausted or deemed infeasible. OSHA 29 CFR 1910.134 covers the use of respiratory protection in the work place.

American Conference of Governmental Industrial Hygienists (ACGIH)

Unlike the OSHA PELs, the ACGIH TLVs are not consensus standards; however, TLVs represent a scientific opinion based on a review of existing peer-reviewed scientific literature by committees of experts in public health and related sciences.

Occupational Exposure Limit

In accordance with the Department of the Army (DA) Pamphlet 40-503, Industrial Hygiene Program (DA PAM 40-503), "The DA mandates the use of ACGIH TLVs when they are more stringent than OSHA regulations or when there is no PEL." The DA defines the resulting exposure limit as the Occupational Exposure Limit (OEL).

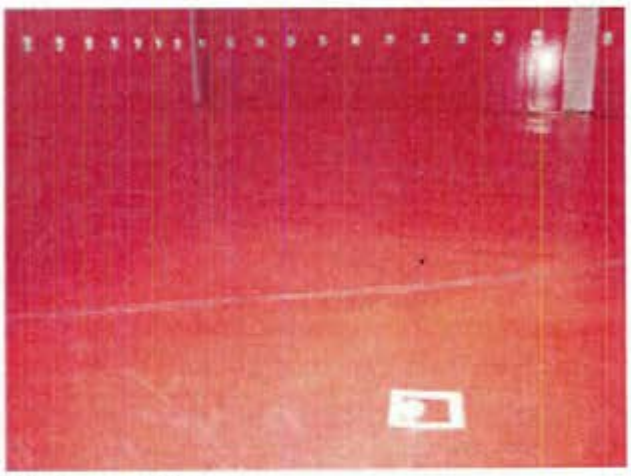
Photograph 1
Yerington Nevada Armory, Front, Exterior

Photograph 2
Yerington Nevada Armory, Rear, Exterior

Photograph 3
General view – Drill hall floor

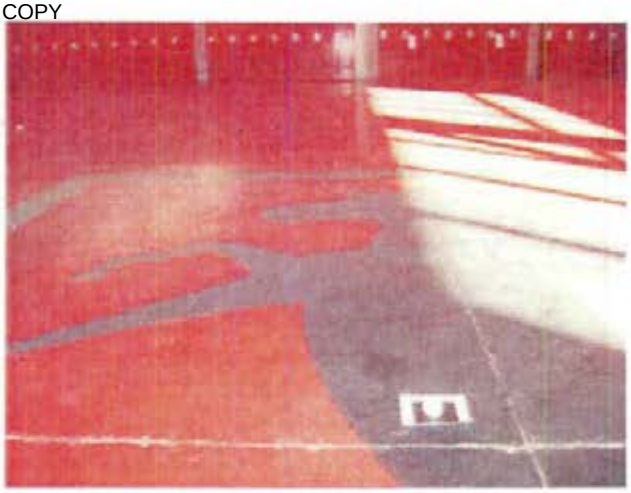
Photograph 4
General view – Kitchen

Photograph 5
General view – Typical classroom



Photograph 6
Location of lead wipe sample 794-01

Photograph 7
Location of lead wipe sample 794-02



Photograph 8
Location of lead wipe sample 794-03

Photograph 9
Location of lead wipe sample 794-04

Photograph 10
Location of lead wipe sample 794-05

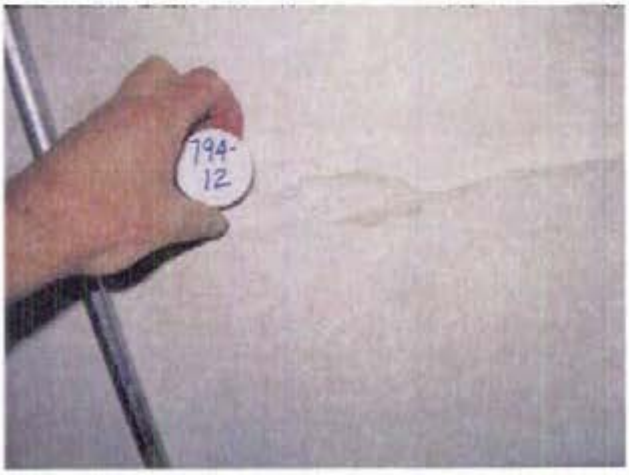
Photograph 11
Location of lead wipe sample 794-06

Photograph 12
Location of lead wipe sample 794-07

Photograph 13
Location of lead wipe sample 794-08

Photograph 14
Location of lead wipe sample 794-09

Photograph 15
Location of paint chip sample 794-11



Photograph 16
Location of paint chip sample 794-12

Photograph 17
Safety – Fire extinguisher without current annual or monthly inspections

Photograph 18
Safety – Un-mounted fire extinguisher

Photograph 19
Safety – Emergency light in men's restroom that failed to operate

Photograph 20
Safety – Electrical panel box in mechanical room with exposed electrical wiring

Photograph 21
Safety – Electrical panel box in mechanical room with exposed electrical wiring

Appendix E

Drawing: IAQ Test Data

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Nevada Army National Guard
Yerington Armory
14 Joe Parr Way
Yerington, Nevada

Indoor Air Quality Data

N
1" = 20' - 0"
0 10' 20'

PROJECT No:	AL137794
SHEET:	3 of 3
DRAWN BY:	Keith
DATE:	11-11-2013
REVISED BY:	
DATE:	
REVIEWED BY:	
DATE:	

ation

e Locations
Location
een & Gray Floor Paint
ite Ceiling Paint

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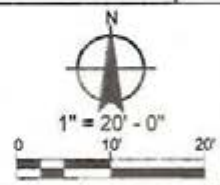
Nevada Army National Guard
Yerington Armory
14 Joe Parr Way
Yerington, Nevada

Peeling Paint Sample Locations



PROJECT No:	AL137794
SHEET:	2 of 3
DRAWN BY:	Keith
DATE:	11-11-2013
REVISED BY:	
DATE:	
REVIEWED BY:	
DATE:	

I:\Projects\2013\AL137794\Working Files\Diagrams-Drawings-Figures\AL137794.dwg, peeling paint, 11/11/2013 12:37:20 PM, Mastell, ANSI full bleed B (17.00 x 11.00 Inches)

Table 1
Yerington Armory

Paint Chip Sample Results

Sample Number	Collection Date	Location	Result % by Weight
794-11	11/5/2013	Green and Gray Floor Paint - Server/Classroom	0.076
794-12	11/5/2013	White Ceiling Paint - Supply Room Ceiling	0.095

FACILITY INFORMATION

(Information listed in First Section)
(1st Few Paragraphs/Pages of Report)

1. Date Prepared: November 5, 2013

2. Names (and Company Name) of Personnel Conducting Industrial Hygiene Site Assistance Visit: Non-Responsive

3. Facility Name and Brief Summary of Primary Activities Conducted at Facility: Yerington Armory, Yerington, Nevada

4. Facility Address: 14 Joe Parr Way, Yerington, Nevada 89447

5. Primary Unit Assigned to Facility (Ensure to capture and provide Unit Identification Code (UIC)): Non-Responsive Lima Troop 1221 Cavalry

6. Co-Tenant Units Assigned or Working Within Facility (LIST ALL): None

7. Square Ft. Area of Facility: ~10,500 ft^2

8. Work Schedule: 0830-1700 hours Monday- Friday with every other Monday off

9. Number of work bays: 0

10. Equipment Density and Type: N/A

    a. List Equipment Nomenclature Serviced or Maintained at Facility: N/A

    b. List Total Number for Each Nomenclature Serviced or Maintained at Facility: N/A

11. Total Number of Personnel: 2

12. No. of Admin. Personnel (Include Status – AGR

13. No. of Maintenance Personnel (Include Status –None

14. Total Number of Personnel Enrolled in the Hearing Conservation Program: 0

15. Total Number of Personnel Enrolled in the Respiratory Protection Program: 0

16. Total Number of Personnel Enrolled in the Medical Surveillance Program: 0

17. Total Number of Personnel Enrolled in the Vision Program: 0

18. Facility Commander: Non-Responsive

BEST AVAILABLE COPY

a. Email address, Commercial Telephone Number and Unit Assigned to:
Non-Responsive (775) 463-6202, Lima Troop 1221 Cavalry

19. Safety Officer: Non-Responsive

a. Email Address, Commercial Telephone Number and Unit Assigned to:
Non-Responsive (775) 463-6202, Lima Troop 1221 Cavalry

20. Facility Telephone Number: (775) 463-6202

BEST AVAILABLE COPY

TSI P/N 2300157

CERTIFICATE OF CALIBRATION AND TESTING

TSI Incorporated, 500 Cardigan Road, Shoreview, MN 55126 USA
Tel: 1-800-874-2811 1-651-490-2811 Fax: 1-651-490-3824 http://www.tsi.com

ENVIRONMENT CONDITION		
TEMPERATURE	67.6 (19.8)	°F (°C)
RELATIVE HUMIDITY	19	%RH
BAROMETRIC PRESSURE	29.00 (982.1)	inHg (hPa)

MODEL	7575-X
SERIAL NUMBER	7575X1306021

☒ AS LEFT ☐ AS FOUND
☒ IN TOLERANCE ☐ OUT OF TOLERANCE

– CALIBRATION VERIFICATION RESULTS –

THERMO COUPLE — SYSTEM PRESSURE01-01 — *Unit: °F (°C)*

#	STANDARD	MEASURED	ALLOWABLE RANGE	#	STANDARD	MEASURED	ALLOWABLE RANGE
1	68.6 (20.3)	68.5 (20.3)	66.6~70.6 (19.2~21.4)				

BAROMETRIC PRESSURE — SYSTEM PRESSURE01-01 — *Unit: inHg (hPa)*

#	STANDARD	MEASURED	ALLOWABLE RANGE	#	STANDARD	MEASURED	ALLOWABLE RANGE
1	29.17 (987.8)	29.17 (987.8)	28.59~29.75 (968.2~1007.5)				

TSI does hereby certify that the above described instrument conforms to the original manufacturer's specification (not applicable to As Found data) and has been calibrated using standards whose accuracies are traceable to the United States National Institute of Standards and Technology (NIST) or has been verified with respect to instrumentation whose accuracy is traceable to NIST, or is derived from accepted values of physical constants. TSI's calibration system is registered to ISO-9001:2008 and meets the requirements of ISO 10012:2003

Measurement Variable	System ID	Last Cal.	Cal. Due
DC Voltage	E003299	07-12-12	01-12-14
Temperature	E003170	01-09-13	01-09-14
Pressure	E003303	09-25-12	03-25-13

Measurement Variable	System ID	Last Cal.	Cal. Due
DC Voltage	E003300	07-12-12	01-12-14
Pressure	E003302	03-29-12	03-29-13

Non-Responsive

February 7, 2013
DATE

Doc ID: CERT_GEN_WCC

TSI P/N 2930157

CERTIFICATE OF CALIBRATION AND TESTING

TSI Incorporated, 500 Cardigan Road, Shoreview, MN 55126 USA
Tel: 1-800-874-2811 1-651-490-2811 Fax: 1-651-490-3824 http://www.tsi.com

ENVIRONMENT CONDITION		
TEMPERATURE	68.0 (20.0)	°F (°C)
RELATIVE HUMIDITY	41	%RH
BAROMETRIC PRESSURE	29.03 (983.1)	inHg (hPa)

MODEL	8345
SERIAL NUMBER	98060408

☒ AS LEFT ☐ AS FOUND

☒ IN TOLERANCE ☐ OUT OF TOLERANCE

– CALIBRATION VERIFICATION RESULTS –

VELOCITY VERIFICATION — SYSTEM V-106 — *Unit: ft/min (m/s)*

#	STANDARD	MEASURED	ALLOWABLE RANGE	#	STANDARD	MEASURED	ALLOWABLE RANGE
1	0 (0.00)	0 (0.00)	-3~3 (-0.02~0.02)	7	644 (3.27)	643 (3.27)	625~663 (3.17~3.37)
2	35 (0.18)	35 (0.18)	32~38 (0.16~0.19)	8	996 (5.06)	996 (5.06)	966~1025 (4.91~5.21)
3	65 (0.33)	64 (0.33)	62~68 (0.31~0.34)	9	1476 (7.50)	1472 (7.48)	1431~1520 (7.27~7.72)
4	99 (0.50)	99 (0.50)	96~102 (0.49~0.52)	10	2493 (12.67)	2505 (12.73)	2419~2568 (12.29~13.05)
5	159 (0.81)	159 (0.81)	154~164 (0.78~0.83)	11	4498 (22.85)	4493 (22.83)	4363~4633 (22.16~23.53)
6	327 (1.66)	329 (1.67)	317~337 (1.61~1.71)	12	5897 (29.96)	5845 (29.69)	5720~6074 (29.06~30.86)

TEMPERATURE VERIFICATION — SYSTEM T-119 — *Unit: °F (°C)*

#	STANDARD	MEASURED	ALLOWABLE RANGE	#	STANDARD	MEASURED	ALLOWABLE RANGE
1	32.0 (0.0)	32.1 (0.1)	31.5~32.5 (-0.3~0.3)	2	140.0 (60.0)	140.2 (60.1)	139.5~140.5 (59.7~60.3)

TSI does hereby certify that the above described instrument conforms to the original manufacturer's specification (not applicable to As Found data) and has been calibrated using standards whose accuracies are traceable to the United States National Institute of Standards and Technology (NIST) or has been verified with respect to instrumentation whose accuracy is traceable to NIST, or is derived from accepted values of physical constants. TSI's calibration system is registered to ISO-9001:2008 and meets the requirements of ISO 10012:2003.

Measurement Variable	System ID	Last Cal.	Cal. Due	Measurement Variable	System ID	Last Cal.	Cal. Due
DC Voltage	E004477	07-12-12	07-12-13	Temperature	E001644	01-17-13	07-17-13
Pressure	E001558	05-23-13	11-23-13	Pressure	E001560	05-23-13	11-23-13
Velocity	E004603	09-19-12	09-19-17	Barometric Pressure	E001992	04-04-13	04-04-14
Temperature	E001800	01-16-13	07-16-13	Temperature	E001799	01-16-13	07-16-13

Non-Responsive

June 4, 2013

DATE

DXP

THE INDUSTRIAL DISTRIBUTION EXPERTS

Technical Services Division

Certificate of Calibration

The following equipment was calibrated to manufacturer's specification with instrumentation whose accuracies are traceable to the *National Institute of Standards and Technology*.

Manufacturer:	Greenlee Test Instruments
Model:	SM-100
Serial Number:	010613107
Calibration Date:	October 8, 2013
Calibrated By:	Non-Responsive [redacted]

1111 South 27th Street Billings, Montana 59101
1-800-947-7120

ation

Locations
Location
rthwest Drill Hall Floor
rtheast Drill Hall Floor
nter Drill Hall Floor
uthwest Drill Hall Floor
utheast Drill Hall Floor
chen food Preparation Table
apons Vault Floor
pply NCO Desk
ssroom Floor
nk

cm^2

IHI ENVIRONMENTAL
A Terracon COMPANY
ihi-env.com | terracon.com

Nevada Army National Guard
Yerington Armory
14 Joe Parr Way
Yerington, Nevada

Lead Wipe Sample Locations

N

1" = 20' - 0"
0 10' 20'

PROJECT No:	AL137794
SHEET:	1 of 3
DRAWN BY:	Keith
DATE:	11-11-2013
REVISED BY:	
DATE:	
REVIEWED BY:	
DATE:	

N:\Projects\2013\AL137794\Working Files\Diagrams Drawings\Figures\AL137794.dwg, lead wipe, 11/11/2013 12:36:53 PM, kterrell, ANSI full bleed B (17.00 x 11.00 Inches)

Table 2
Yerington Armory

Lead Wipe Sample Results

Sample Number	Collection Date	Location	Result µg/ft^2
794-01	11/5/2013	North West Drill Hall - Floor	<12
794-02	11/5/2013	North East Drill Hall - Floor	<12
794-03	11/5/2013	Center Drill Hall - Floor	<12
794-04	11/5/2013	South West Drill Hall - Floor	<12
794-05	11/5/2013	South East Drill Hall - Floor	<12
794-06	11/5/2013	Kitchen - Food Preparation Table	<12
794-07	11/5/2013	Weapons Vault - Floor	77
794-08	11/5/2013	Supply NCO - Desk	<12
794-09	11/5/2013	Classroom - Floor	<12
794-10	11/5/2013	Blank	<12

ANALYTICAL REPORT

Report Date: November 13, 2013

Non-Responsive
IHI Environmental
640 East Wilmington Avenue
Salt Lake City, UT 84106

Phone: (801) 466-2223
Fax: (801) 466-9616
Non-Responsive

Workorder: 34-1331503
Client Project ID: AL137794/Yerington Armory-Yeri
Purchase Order: AL137794
Project Manager: Non-Responsive

Analytical Results

Sample ID: 794-01
Lab ID: 1331503001
Sampling Location: Yerington Armory-Yer
Collected: 11/05/2013
Received: 11/11/2013

Method: NIOSH 7300 Mod.
Media: Lead Dust Wipe
Sampling Parameter: Area 100 cm²
Prepared: 11/13/2013
Analyzed: 11/13/2013

Analyte	ug/sample	ug/ft²	RL (ug/sample)
Lead	<1.3	<12	1.3

Sample ID: 794-02
Lab ID: 1331503002
Sampling Location: Yerington Armory-Yer
Collected: 11/05/2013
Received: 11/11/2013

Method: NIOSH 7300 Mod.
Media: Lead Dust Wipe
Sampling Parameter: Area 100 cm²
Prepared: 11/13/2013
Analyzed: 11/13/2013

Analyte	ug/sample	ug/ft²	RL (ug/sample)
Lead	<1.3	<12	1.3

Sample ID: 794-03
Lab ID: 1331503003
Sampling Location: Yerington Armory-Yer
Collected: 11/05/2013
Received: 11/11/2013

Method: NIOSH 7300 Mod.
Media: Lead Dust Wipe
Sampling Parameter: Area 100 cm²
Prepared: 11/13/2013
Analyzed: 11/13/2013

Analyte	ug/sample	ug/ft²	RL (ug/sample)
Lead	<1.3	<12	1.3

Sample ID: 794-04
Lab ID: 1331503004
Sampling Location: Yerington Armory-Yer
Collected: 11/05/2013
Received: 11/11/2013

Method: NIOSH 7300 Mod.
Media: Lead Dust Wipe
Sampling Parameter: Area 100 cm²
Prepared: 11/13/2013
Analyzed: 11/13/2013

Analyte	ug/sample	ug/ft²	RL (ug/sample)
Lead	<1.3	<12	1.3

ANALYTICAL REPORT

Workorder: 34-1331503
Client Project ID: AL137794/Yerington Armory-Yeri
Purchase Order: AL137794
Project Manager: Non-Responsive

Analytical Results

Sample ID: 794-05	Lab ID: 1331503005	Sampling Location: Yerington Armory-Yer	Collected: 11/05/2013 Received: 11/11/2013
Method: NIOSH 7300 Mod.	Media: Lead Dust Wipe Sampling Parameter: Area 100 cm²		Prepared: 11/13/2013 Analyzed: 11/13/2013

Analyte	ug/sample	ug/ft²	RL (ug/sample)
Lead	<1.3	<12	1.3

Sample ID: 794-06	Lab ID: 1331503006	Sampling Location: Yerington Armory-Yer	Collected: 11/05/2013 Received: 11/11/2013
Method: NIOSH 7300 Mod.	Media: Lead Dust Wipe Sampling Parameter: Area 100 cm²		Prepared: 11/13/2013 Analyzed: 11/13/2013

Analyte	ug/sample	ug/ft²	RL (ug/sample)
Lead	<1.3	<12	1.3

Sample ID: 794-07	Lab ID: 1331503007	Sampling Location: Yerington Armory-Yer	Collected: 11/05/2013 Received: 11/11/2013
Method: NIOSH 7300 Mod.	Media: Lead Dust Wipe Sampling Parameter: Area 100 cm²		Prepared: 11/13/2013 Analyzed: 11/13/2013

Analyte	ug/sample	ug/ft²	RL (ug/sample)
Lead	**8.2**	**77**	1.3

Sample ID: 794-08	Lab ID: 1331503008	Sampling Location: Yerington Armory-Yer	Collected: 11/05/2013 Received: 11/11/2013
Method: NIOSH 7300 Mod.	Media: Lead Dust Wipe Sampling Parameter: Area 100 cm²		Prepared: 11/13/2013 Analyzed: 11/13/2013

Analyte	ug/sample	ug/ft²	RL (ug/sample)
Lead	<1.3	<12	1.3

Sample ID: 794-09	Lab ID: 1331503009	Sampling Location: Yerington Armory-Yer	Collected: 11/05/2013 Received: 11/11/2013
Method: NIOSH 7300 Mod.	Media: Lead Dust Wipe Sampling Parameter: Area 100 cm²		Prepared: 11/13/2013 Analyzed: 11/13/2013

Analyte	ug/sample	ug/ft²	RL (ug/sample)
Lead	<1.3	<12	1.3

ANALYTICAL REPORT

Workorder: 34-1331503
Client Project ID: AL137794/Yerington Armory-Yeri
Purchase Order: AL137794
Project Manager: Non-Responsive

Analytical Results

Sample ID: 794-10			Collected: 11/05/2013
Lab ID: 1331503010	Sampling Location: Yerington Armory-Yer		Received: 11/11/2013
Method: NIOSH 7300 Mod.	Media: Lead Dust Wipe Sampling Parameter: Area 100 cm²		Prepared: 11/13/2013 Analyzed: 11/13/2013

Analyte	ug/sample	ug/ft²	RL (ug/sample)
Lead	<1.3	<12	1.3

Sample ID: 794-11			Collected: 11/05/2013
Lab ID: 1331503011	Sampling Location: Yerington Armory-Yer		Received: 11/11/2013
Method: NIOSH 7300 Mod.	Media: Paint Chip Sampling Parameter: Weight 0.1005 grams		Prepared: 11/12/2013 Analyzed: 11/13/2013

Analyte	%	RL (%)
Lead	0.076	0.0012

Sample ID: 794-12			Collected: 11/05/2013
Lab ID: 1331503012	Sampling Location: Yerington Armory-Yer		Received: 11/11/2013
Method: NIOSH 7300 Mod.	Media: Paint Chip Sampling Parameter: Weight 0.101 grams		Prepared: 11/12/2013 Analyzed: 11/13/2013

Analyte	%	RL (%)
Lead	0.095	0.0012

Comments

Quality Control: NIOSH 7300 Mod. - (HBN: 117041)

The MCE LMB 363187 was above the reporting limit equivalent to 1.39 µg/sample lead so the LCS 363188, LCSD 363189, and RLSS 363190 results have been media blank corrected for lead with LMB 363187.

Report Authorization

Method	Analyst	Peer Review
NIOSH 7300 Mod.	Non-Responsive	Non-Responsive

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com

ANALYTICAL REPORT

Workorder: 34-1331503
Client Project ID: AL137794/Yerington Armory-Yeri
Purchase Order: AL137794
Project Manager: Non-Responsive

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

Definitions

LOD = Limit of Detection = MDL = Method Detection Limit, A statistical estimate of method/media/instrument sensitivity.
LOQ = Limit of Quantitation = RL = Reporting Limit, A verified value of method/media/instrument sensitivity.
ND = Not Detected, Testing result not detected above the LOD or LOQ.
NA = Not Applicable.
** No result could be reported, see sample comments for details.
< This testing result is less than the numerical value.
( ) This testing result is between the LOD and LOQ and has higher analytical uncertainty than values at or above the LOQ.

Industrial Hygiene Southwest

Violation Inventory Log

LOG OF SCHEDULE OF CORRECTIVE ACTION - COMPLIANCE WITH SAFETY AND HEALTH STANDARDS

Nevada Army National Guard - Yerington Armory - Yerington, Nevada

CONTROL NUMBER CLOSED ☐	HAZARD DESCRIPTION	SITE	RAC	CORRECTIVE ACTIONS (Abatement Plan)	SUSPENSE DATE	ACTION OIC/NCOIC	Estimated Cost(s)	DATE CORRECTED	REFERENCES
NVYA-11052013-4.2 ☐	Measureable lead was detected in the paint chip samples collected from gray and green paint on the classroom floor and the white paint on the Supply Room ceiling.	Yerington Armory	3	1. Contact the State FMO, State Safety, and the State Environmental directorates before conducting any work that may disturb the integrity of the classroom floor and Supply Room ceiling painted surfaces. 2. Construction personnel must follow the requirements of the OSHA Lead in Construction Standard, 29 CFR 1926.62, if they perform activities involving this painted surface that could create lead dust or fume.					29 CFR 1926.62
NVYA-11052013-4.4 ☐	Documentation of an asbestos survey was not available for the Yerington Armory; however, personnel from the Environmental Office reported that a survey is on file in their office in Las Vegas, Nevada.	Yerington Armory	4	1. Obtain a copy of the asbestos survey and assessment for the Yerington Armory and maintain this report in the Armory. 2. If asbestos-containing materials have been identified and assessed, provide awareness training to assigned personnel for the specific material types and locations of asbestos in this Armory.					29 CFR 1926.1101
NVYA-11052013-4.10.3 ☐	The annual and monthly fire extinguisher inspections are overdue.	Yerington Armory	3	Ensure all fire extinguishers undergo annual and monthly inspections and document the results of these inspections on the cards attached to each fire extinguisher.					29 CFR 1910.157 (e) (2) 29 CFR 1910.157 (e) (3)

Reference DA FORM 4754
VER: 15 OCT 2009

Industrial Hygiene Southwest

Violation Inventory Log

LOG OF SCHEDULE OF CORRECTIVE ACTION - COMPLIANCE WITH SAFETY AND HEALTH STANDARDS

Nevada Army National Guard - Yerington Armory - Yerington, Nevada

CONTROL NUMBER CLOSED ☐	HAZARD DESCRIPTION	SITE	RAC	CORRECTIVE ACTIONS (Abatement Plan)	SUSPENSE DATE	ACTION OIC/NCOIC	Estimated Cost(s)	DATE CORRECTED	REFERENCES
NVYA-11052013-4.10.6 ☐	There is one fire extinguisher in the classroom near the server that requires recharging.	Server Room	2	Recharge the fire extinguisher in the server room.					29 CFR 1910.157 (c) (4)
NVYA-11052013-4.10.7 ☐	There is an un-mounted fire extinguisher in the classroom adjacent to the server.	Classroom	3	Mount the fire extinguisher in the classroom to a wall and designate this fire extinguisher location.					29 CFR 1910.157 (c) (1)
NVYA-11052013-4.10.8 ☐	One emergency light failed to operate in the Men's restroom.	Men's Restroom	4	Repair or replace the emergency light in the Men's restroom.					29 CFR 1910.37 (b) (1)
NVYA-11052013-4.10.9 ☐	There are exposed electrical wiring in two of the electrical panel boxes in the mechanical room.	Exterior Accessed Mechanical Room	4	Provide metal covers for the electrical panel boxes in the mechanical room to prevent accidental contact with live electrical wiring.					29 CFR 1910.305 (b) (2)

Summary of Recommendations for NVARNG Yerington Armory

4.2 Painted Surface Evaluation

Recommendation

1. Contact the State FMO, State Safety, and the State Environmental directorates before conducting any work that may disturb the integrity of the classroom floor and Supply Room ceiling painted surfaces.

2. Construction personnel must follow the requirements of the OSHA Lead in Construction Standard, 29 CFR 1926.62, if they perform activities involving this painted surface that could create lead dust or fume.

4.4 Asbestos Management

Recommendations

1. Obtain a copy of the asbestos survey and assessment for the Yerington Armory and maintain this report in the Armory.

2. If asbestos-containing materials have been identified and assessed, provide awareness training to assigned personnel for the specific material types and locations of asbestos in this Armory.

4.10 General Safety Walk-Through

Recommendations

1. Ensure all fire extinguishers undergo annual and monthly inspections and document the results of these inspections on the cards attached to each fire extinguisher.

2. Recharge the fire extinguisher in the server room.

3. Repair or replace the emergency light in the Men's restroom.

4. Provide metal covers for the electrical panel boxes in the mechanical room to prevent accidental contact with live electrical wiring.