1258329 - R8 SDMS

FINAL REPORT
HIGHWAY 89 STORAGE UNITS SITE

Prepared for:
United States Environmental Protection Agency – Region 8

Prepared by:
ATK Launch Systems Inc.

March 2010

March 18, 2010

Mr. Tien Nguyen, On-Scene Coordinator
United States Environmental Protection Agency – Region 8
8EPR-SA
1595 Wynkoop St.
Denver, CO 80202-1129

Re: Highway 89 Storage Units Site – Box Elder and Davis Counties, Utah
Final Report

Dear Mr. Nguyen:

ATK Launch Systems Inc. (ATK) is submitting herein, four (4) copies of the Final Report for the Highway 89 Storage Units Site. The report is formatted to conform to Section 300.165 of the NCP entitled "OSC Reports." Inside the front cover of one of the copies we have included the text portion of the report in electronic format on compact disc (CD). The CD also contains electronic files of the materials removed and transported for off-site disposal, in a searchable Excel file format.

If you have any questions or comments, please contact me at 801.251.2664 or the ATK Project Coordinator, Ron Bowlin at 801.251.4865.

Sincerely,

David P. Gosen, P.E.
Director, Environmental Services

cc: George Gooch, ATK
Mike Bell, ATK

EXECUTIVE SUMMARY

ATK Launch Systems Inc. (ATK) conducted an emergency removal of potentially hazardous chemical that were being stored in two public/commercial storage facilities and at the residence of the materials owner. Removal actions were conducted as part of an Administrative Settlement Agreement and Order on Consent (Agreement).

An initial emergency removal was conducted by the United States Environmental Protection Agency - Region 8 (EPA) office following notification from the Box Elder County Sheriff's Office that drums and containers of old chemicals had been found in the storage units. The EPA and their contractor inventoried, classified, and segregated over 7,000 chemical items. Several "batches" of potentially explosive compounds were removed and detonated by local governmental bomb squads.

ATK mobilized to the first of the three sites on November 30, 2009 and completed the removal actions on December 10, 2009. Based on knowledge and familiarity of the site materials, ATK segregated, repackaged, labeled, and arranged for transport and disposal a total of 265 repackaged containers. Materials were manifested for disposal to either Veolia Environmental in Henderson, Colorado, or US Ecology in Grandview, Idaho. These facilities were approved by the EPA. Selection and notification of the disposal facilities were in compliance with the Agreement.

Upon completion of removal activities, the storage units floors were cleaned and wipe samples of the concrete floors were collected. The verification samples were analyzed for volatile (VOC) and semi-volatile (SVOC) organic compounds, explosives, and fuel metals. Two wipe samples were collected in each of the original storage units at locations agreed to by ATK and the EPA. Results of the verification samples identified various VOC, SVOC, and fuel metal compounds. No explosive compound residues were reported. Many of the VOC and SVOC compounds in the samples-of-record were also identified in the quality control field blank.

Although there is no consensus as to the interpretation of the results of wipe-sampling, results were evaluated against regional screening levels for soil and air established by the EPA – Region 9. There is not a standardized method to determine if chemicals found at sampled levels pose a threat to human health. The results do however provide a representative and qualitative value on potential exposures.

Based on the conclusion of all site activities, the following conclusions and recommendations are made:

1. All known waste materials associated with the storage activities of John Rahkonen have been removed.
2. All known waste materials familiar to ATK have been segregated, packaged, and transported for disposal according to applicable regulations.
3. Materials that ATK was unable to transport and/or dispose of according to applicable State and EPA regulations were received by local authorities (Box Elder County Sheriff, etc) for subsequent disposal.
4. Storage units have been inspected and the floors cleaned.
5. Analytical results of wipe samples from the storage unit floors indicate that there should be no adverse affect to human health.
6. It is recommended that the storage units be released to the storage unit owners for usual business purposes.
7. No restrictions to use of the storage units should be in effect.
8. Certificates of Disposal (CDs) will be tracked and collected. Upon collection of all CDs, an additional Attachment will be generated and sent to the EPA for addition to this Final Report.

TABLE OF CONTENTS

EXCUTIVE SUMMARY i
1.0 INTRODUCTION 1
1.1 Background 1
1.2 Project Objectives 2
2.0 INVESTIGATION and PRE-REMOVAL ACTIVITIES 3
2.1 Initial Site Conditions 3
2.2 Contractor Procurement 3
3.0 REMOVAL ACTIONS 4
3.1 Rahkonen Residence 4
3.1.1 Removal Activities 4
3.1.2 Transportation and Disposal Activities 5
3.1.3 Sampling Activities 5
3.2 EZ Access Storage (Willard) 5
3.2.1 Removal Activities 5
3.2.2 Transportation and Disposal Activities 6
3.2.3 Sampling Activities 7
3.3 Double D Storage (Perry) 7
3.3.1 Removal Activities 8
3.3.2 Transportation and Disposal Activities 8
3.3.3 Sampling Activities 9
4.0 ANALYTICAL RESULTS 10
4.1 Sampling Protocol 10
4.2 Data Use and Results 11
4.2.1 Analytical Results 11
4.2.2 VOC Wipe Sample Results 12
4.2.3 SVOC Wipe Sample Results 12
4.2.4 Explosive Wipe Sample Results 13
4.2.5 Fuel Metals Wipe Sample Results 13
4.2.6 Quality Control Samples 13
4.2.6.1 Split Sample Results 14
4.2.6.2 Field Blank Sample Results 15

4.3 Laboratory Data Validation 15

5.0 SUMMARY and RECOMMENDATIONS 17

6.0 PROTECTIVENESS STATEMENT 18

7.0 PROJECT COSTS 19

7.1 Direct Costs 19

7.2 Additional Project Costs 19

7.3 Subcontractor Costs 20

7.4 Total Project Costs 20

8.0 CERTIFICATON 21

FIGURES

Figure 1 – Site Locations 23
Figure 2 – Rahkonen Residence Location 24
Figure 3 – EZ Access Storage Location 25
Figure 4 – Double D Storage Location 26

TABLES

Table 1 – VOC and SVOC Reported Analytes 28
Table 2 – VOC Wipe Sample Results 29
Table 3 – SVOC Wipe Sample Results 31
Table 4 – Fuel Metals Wipe Sample Results 33

ATTACHMENTS

Attachment A – Rahkonen Residence Activity Summaries
Attachment B – EZ Access Storage Activity Summaries
Attachment C – Double D Storage Activity Summaries
Attachment D – Laboratory Reports
Attachment E – Certificates of Disposal

1.0 INTRODUCTION

An emergency removal of potentially hazardous chemicals was conducted by ATK Launch Systems Inc. (ATK). The removal action was part of an Administrative Settlement Agreement and Order on Consent (Agreement) entered into between ATK and the United States Environmental Protection Agency (EPA). The Agreement provided for removal actions in connection with the Highway 89 Storage Unit Sites (the Site). The Site consisted of three individual and geographically separate locations in Weber and Box Elder Counties, Utah, shown in Figure 1:

1) John Rahkonen Residence, 1629 9th Street, Ogden, Utah (the Residence);
2) EZ Access Storage, 8823 Highway 89, Willard, Utah (the Willard location); and,
3) Double D Storage, 2100 South Highway 89, Perry, Utah (the Perry location).

This Final Report presents methodologies employed during the removal action, accounting of the materials removed, and transport and disposal options of the materials. It presents the associated documentation of removal activities and verification sampling results. The final section presents costs incurred by ATK during the removal operation. This report has been prepared in conformance with the criteria in the "Highway 89 Storage Units Site Work Plan," as approved by the EPA for implementation of this operation.

1.1 BACKGROUND

EPA Region 8 initiated an emergency removal on October 9, 2009 after they received notification from the Box Elder County Sheriff's Office that numerous drums and containers of old chemicals, possibly used to make rocket propellant, had been found in storage units at commercial storage lots in South Willard and Perry, Utah. The EPA and their emergency response contractor were dispatched to the Site to assist the County with Site assessment activities and stabilization actions.

During these activities the EPA discovered that the originator of these materials (Mr. John Rahkonen) also had similar materials at his residence in Ogden, Utah. The EPA and its contractor inventoried, classified, and segregated over 7,000 chemical items. Materials identified at the Residence were removed and placed into two secure storage units located in the back of the property. Materials at the Willard location were initially stored by Mr. Rahkonen in five storage units, but were expanded by the EPA contractor to nine units following classification and segregation. In conjunction with the City of Ogden and Box Elder

County, several "batches" of potential explosive compounds were removed from the Site and detonated in local fields by local governmental bomb squads.

Following the initial inventory, segregation, and classification actions, the EPA entered into negotiations with ATK for the complete removal and disposal of remaining materials at the three Site locations. An Administrative Settlement Agreement and Order on Consent was entered into voluntarily by the EPA and ATK on November 17, 2009. A Work Plan for removal and disposal of materials at the Site locations was approved on November 23, 2009. Mobilization and implementation of the Work Plan began on November 30, 2009; removal activities were completed on December 10, 2009. Verification sampling of the storage unit floors at the Willard and Perry sites was conducted on December 17, 2009.

1.2 PROJECT OBJECTIVES

The objectives of this removal project were defined in the EPA-approved Work Plan as required by the Agreement. The Work Plan presented the actions and methodologies that were to be used to safely and thoroughly handle, store, transport, and dispose of the remaining chemicals and materials at the Site. Work was to be conducted in a manner that ensured the safest, most stable working conditions as possible, to protect the site workers, as well as any nearby residents. Provisions were also made to be protective of the environment during site operations.

Once the materials at the Site units had been removed and the threat of release had been absolved, ATK would conduct a visual assessment of the storage units, in conjunction with the EPA, to determine if additional verification sampling was necessary. All regulated and non-regulated hazardous materials would be removed, contained, labeled, manifested, and transported for disposal at facilities approved by the EPA prior to beginning site removal activities.

This Final Report is submitted to satisfy Section VII, Paragraph 27 of the Agreement. This report is written to conform to the requirements of Section 300.165 of the National Contingency Plan, as codified in 40 CFR 300.165.

2.0 INVESTIGATION AND PRE-REMOVAL ACTIVITIES

Upon approval of the Work Plan, ATK mobilized as quickly as possible. Arrangements were made concerning ATK personnel to reassign normal work duties while the removal activities were being conducted. An evaluation of the current Site conditions and selection of a contractor to assist ATK in the removal action were necessary as a first step. All ATK personnel were screened for current Hazardous Waste Operations and Emergency Response (HAZWOPER) training and 8-hour refresher, as well as a current occupational medical examination.

2.1 INITIAL SITE CONDITIONS

Prior to mobilization ATK visited the Site to evaluate the current conditions and layout of the three locations that comprised the Site. It was decided that the Residence location could have the most severe and detrimental effect on the local response forces, surrounding population, and the environment. Materials at the Residence location were in two secured containers in the back of the Residence on City of Ogden right-of-way property.

The Willard location included nine storage units spread through three separate buildings. The location was locked and secured by chain-link fencing. Access into the Willard location was only through notification and escort by the Box Elder County Sheriff's Office. The greatest amount of the work to be conducted occurred at the Willard location.

The Perry location included two storage units within the same building. The entrance gate was locked 24-hours a day, and was accessible only through notification and escort by the Perry Police Department.

All three locations had ample room for equipment, packaging, and loading activities. The Residence location had the least amount of work area; however, the easement to the east of the Rahkonen residence allowed for acceptable loading and equipment movement. No additional site preparation had to be done to begin activities.

2.2 CONTRACTOR PROCUREMENT

Several contractors are under contract to ATK for waste services. ATK selected Veolia Environmental Services (Veolia) to assist in the profiling, packaging, labeling, manifesting, and transport/disposal of materials at the Site. Veolia was selected based on past and current experience with ATK operations, equipment capability, safety record, and ability to mobilize quickly and meet the schedule requirements.

3.0 REMOVAL ACTIONS

Work at the Site was performed according to the Work Plan and the Health and Safety Plan, under the direction of the ATK Project Coordinator. The work team was comprised of both ATK and Veolia employees. Veolia responsibilities included preparing container inventory sheets, waste profile approvals, container shipping labels, DOT shipping papers, and land disposal restriction notifications and/or certifications under direction of ATK personnel.

ATK employee functions included sorting and packaging wastes based on profile requirements. ATK was also responsible for sampling and analytical activities that may have been required during the removal action.

At each unit location a staging area for packed containers was established. This area kept the containers secure and segregated from potentially incompatible materials, and out of the weather elements until loaded for transport to the appropriate disposal site. ATK consulted with the local authorities and the On-Scene Coordinator (OSC) to determine disposal options for any energetic or extremely hazardous substances that required special handling.

3.1 RAHKONEN RESIDENCE

Removal activities were initiated at the Rahkonen Residence on November 30, 2009. Two secured storage containers that contained the waste materials were located on a City of Ogden right-of-way behind the residence. These containers stored the materials removed from the residence during the EPA response. The Site location is show in Figure 2.

3.1.1 Removal Activities

Upon mobilizing to the site, the two storage containers were screened for volatile organic vapors and an explosive atmosphere. Containers (55-gallon and 85-gallon drums, as well as 1-cubic yard (cy) boxes) were set up in a staging area near the storage containers to receive the waste materials as they were removed and categorized. Receiving drums and boxes were marked prior to any items being placed in them to mitigate the potential of misplacing materials.

ATK personnel familiar with many of the materials indentified by the EPA cross-referenced them with company documentation for placing like materials together. As the repackaging containers were filled they were weighted, labeled, and loaded onto a truck for subsequent transport.

3.1.2 Transportation and Disposal Activities

Materials removed from the storage containers were packaged and prepared for transportation according to the disposal facility waste profile requirements. The proposed disposal facilities were included in the EPA-approved Work Plan. No changes to the proposed facilities were made. ATK maintained waste profiles for the majority of the materials at the Highway 89 Sites on-site during the removal action. The wastes were manifested from the site to one or more of the disposal facilities listed in the Work Plan. Notifications to out-of-state waste management facilities were made as required in the Agreement.

A total of 41 containers, listed on three manifests, were packaged, and shipped for disposal. Thirty-nine (39) containers were transported to the Veolia facility in Henderson, Colorado, for additional sorting and shipment to facilities of final destination. Two (2) containers were shipped directly to US Ecology in Grandview, Idaho, for disposal. Activity summaries for each manifest are included in Attachment A. The summaries show the waste stream, number of containers, waste codes associated with each waste stream, initial destination, and the projected final destination for disposal. Included with each summary are copies of the manifests, land disposal restriction notifications (LDRs), and LDR Certifications for Exempt Lab Packs.

3.1.3 Sampling Activities

The materials at the Residence were initially segregated and packed by the EPA contractor. The containers were placed directly into secure storage containers. At no time were any materials stored directly on the storage container floor. After removal activities, the storage container floors were swept and inspected for any remaining waste residues. With EPA site concurrence it was determined that verification sampling would not be required at the Residence.

3.2 EZ ACCESS STORAGE (WILLARD)

Removal activities were initiated at the Willard location on December 2, 2009, and completed on December 9, 2009. Box Elder County Sheriff's opened the site and unlocked the nine (9) storage units that contained the waste materials. The units were scattered across three separate building complexes. The Site location is shown in Figure 3.

3.2.1 Removal Activities

The waste materials were initially stored in five of the nine storage units. During the initial categorizing and segregation by the EPA contractor, additional units were necessary to store

the materials. Many of the initial units were stacked front to back, and from floor to ceiling. The floors of the four additional units had been covered with visqueen prior to placement of waste materials.

Prior to the storage units being entered by ATK personnel, the units were screened for volatile organic vapors and an explosive atmosphere. Once the units were deemed safe personnel were allowed to begin segregating and packaging the waste materials. Containers (55-gallon and 85-gallon drums, as well as 1-cy boxes) were set up in a staging area between the west and center storage buildings to receive the waste materials as they were removed and categorized. Receiving drums and boxes were marked prior to any items being placed in them to mitigate the potential of misplacing materials.

Standard practice in removal actions is to try and not leave containers exposed to the outside elements or potential contact with anyone who may be onsite at times other than during working hours. Heavy snow and cold conditions were also a concern; therefore, storage units with the least amount of materials were handled first to allow for placement of filled containers.

ATK personnel familiar with many of the materials indentified by the EPA cross-referenced them with company documentation for placing like materials together. As the repackaging containers were filled they were weighted, labeled, and placed into empty storage bays until loaded onto a truck for subsequent transport.

3.2.2 Transportation and Disposal Activities

Materials removed from the storage units were packaged and prepared for transportation according to the disposal facility waste profile requirements. The proposed disposal facilities were included in the EPA-approved Work Plan. No changes to the proposed facilities were made. ATK maintained waste profiles for the majority of the materials at the Highway 89 Sites on-site during the removal action. The wastes were manifested from the site to one or more of the disposal facilities listed in the Work Plan. Notifications to out-of-state waste management facilities were made as required in the Agreement.

A total of 255 containers, listed on six manifests, were packaged, and shipped for disposal. A total of 194 containers were transported to the Veolia facility in Henderson, Colorado, for additional sorting and shipment to facilities of final destination, and 61 containers were shipped directly to US Ecology in Grandview, Idaho, for disposal. Activity summaries for each manifest are included in Attachment B. The summaries show the waste

stream, number of containers, waste codes associated with each waste stream, initial destination, and the projected final destination for disposal. Included with each summary are copies of the manifests, land disposal restriction notifications (LDRs), and LDR Certifications for Exempt Lab Packs.

Common trash was collected in 30-cy roll off boxes. At total of approximately 100 cy of common trash was collected and disposed at the ATK Promontory Landfill. Two (2) 30-cy roll off containers were filled with non-regulated/non-hazardous industrial wastes during removal activities. These materials were transported to ATK Promontory and disposed in an asbestos/industrial waste trench in their permitted industrial waste landfill.

The floors of all nine storage units were swept and wet mopped following removal activities. Swept material and mop water were collected, drummed, and brought back to ATK Bacchus for processing and disposal.

3.2.3 Sampling Activities

The floors of the five storage units were inspected with EPA oversight on December 17, 2009. Locations where wipe samples of the concrete floor would be collected were discussed and agreed upon by the ATK sampling team and the EPA On-Scene Coordinator (OSC). Prior to beginning verification sampling activities the OSC was called out for an emergency action, and was not able to be present during sampling.

Samples were collected as per the EPA-approved Work Plan. Two wipe samples were collected on the floor of each of the five original storage units in areas that indicated the highest visible potential for contamination. Samples were collected for four analyte groups: volatile organics, semi-volatile organics, explosives (nitroglycerin, HMX, and RDX), and combustible fuel metals (aluminum and magnesium). Replicate split samples and a field blank were also collected for identical analyte compounds. Details of the sampling results are presented in Section 4.0.

3.3 DOUBLE D STORAGE (PERRY)

Removal activities were initiated at the Perry location on the afternoon of December 8, 2009, and completed on December 10, 2009. The City of Perry Police opened the site and unlocked the two (2) storage units that contained the waste materials. The Site location is shown in Figure 4.

3.3.1 Removal Activities

The waste materials were stored in two storage units in the southern-most building. Prior to the storage units being entered by ATK personnel, the units were screened for volatile organic vapors and an explosive atmosphere. Once the units were deemed safe personnel were allowed to begin segregating and packaging the waste materials. Containers (55-gallon and 85-gallon drums) were set up in a staging area to receive the waste materials as they were removed and categorized. Receiving drums were marked prior to any items being placed in them to mitigate the potential of misplacing materials.

ATK personnel familiar with many of the materials indentified by the EPA cross-referenced them with company documentation for placing like materials together. As the repackaging containers were filled they were weighted, labeled, and staged in preparation for subsequent transport.

3.3.2 Transportation and Disposal Activities

Materials removed from the storage units were packaged and prepared for transportation according to the disposal facility waste profile requirements. The proposed disposal facilities were included in the EPA-approved Work Plan. No changes to the proposed facilities were made. ATK maintained waste profiles for the majority of the materials at the Highway 89 Sites on-site during the removal action. The wastes were manifested from the site to one or more of the disposal facilities listed in the Work Plan. Notifications to out-of-state waste management facilities were made as required in the Agreement.

A total of 54 containers, listed on three manifests, were packaged, and shipped for disposal. A total of 22 containers were transported to the Veolia facility in Henderson, Colorado, for additional sorting and shipment to facilities of final destination, and 32 containers were shipped directly to US Ecology in Grandview, Idaho, for disposal. Activity summaries for each manifest are included in Attachment C. The summaries show the waste stream, number of containers, waste codes associated with each waste stream, initial destination, and the projected final destination for disposal. Included with each summary are copies of the manifests, land disposal restriction notifications (LDRs), and LDR Certifications for Exempt Lab Packs.

Common trash was collected in a 30-cy roll off box moved to the Perry location from the Willard location. One (1) 30-cy roll off container was partially filled (20 cy) with non-regulated/non-hazardous industrial wastes during removal activities. These materials were

transported to ATK Promontory and disposed in an asbestos/industrial waste trench in their permitted industrial waste landfill.

The floors of both storage units were swept and wet mopped following removal activities. Swept material and mop water were collected, drummed, and brought back to ATK Bacchus for processing and disposal.

3.3.3 Sampling Activities

The floors of the two storage units were inspected December 17, 2009. The OSC had been called to an outside emergency and was unable to be present during the inspection and sampling activities.

Samples were collected as per the EPA-approved Work Plan. Two wipe samples were collected on the floor of each of the storage units in areas that indicated the highest visible potential for contamination. Samples were collected for four analyte groups: volatile organics, semi-volatile organics, explosives (nitroglycerin, HMX, and RDX), and combustible fuel metals (aluminum and magnesium). Details of the sampling results are presented in Section 4.0.

4.0 ANALYTICAL RESULTS

Verification wipe samples from the concrete floor were collected in seven storage units, five (5) storage units at the Willard location and two (2) storage units at the Perry location. The EPA was in agreement that samples from the four storage units used by the EPA at the Willard location would not be sampled. The floor in each sampled unit was visually inspected with the EPA On-Site OSC and the sample locations agreed upon. The sample locations were selected based on staining and the potential for contaminants to be adsorbed onto the concrete floor. Samples were collected for four sets of analytes: volatile organic compounds - VOCs (EPA Method 8260B), semi-volatile organic compounds - SVOCs (EPA Method 8270B), explosives (nitroglycerin, HMX, and RDX; SW-846, 8330 Modified), and fuel metals (aluminum and magnesium; EPA Method 6010B).

4.1 SAMPLING PROTOCOL

Samples were collected at two distinct locations in each storage unit to be sampled. Samples were collected by saturating a sterile gauze pad with a solvent, then wiping a 100 cm^2 area. Distilled water was used as the solvent for VOC and fuel metal collection. Methanol was used as the solvent for collection of SVOC and explosive analytes.

After wiping the area within the template, the sampling gauze was immediately placed into a 40 ml glass vial with a Teflon septum. A discreet template was used for each analyte set at each location. A description of the laboratory extraction for each analyte set is included in the ATK laboratory results in Attachment D. A total of 14 samples-of-record were collected. Three duplicate/split samples were collected and one field blank.

The duplicate samples were sent as split samples to an independent laboratory for analysis and the results compared with the samples-of-record. One field blank was collected by exposing the solvent-saturated gauzes to the atmosphere while a sample-of-record was being collected.

In accordance with the Agreement, sampling and analysis conformed to EPA guidance regarding sampling, quality assurance/control (QA/QC), data validation, and chain of custody procedures. Sampling and QA/QC followed the guidance, as appropriate, in "Quality Assurance/Quality Control Guidance for Removal Activities: Sampling QA/QC Plan and Data Validation Procedures" (OSWER Directive No. 9360.4-01, April 1, 1990). Analyses were conducted by the ATK laboratory in Promontory, Utah, and ALS Laboratory Group in Salt

Lake City, Utah. Both laboratories are accredited under the National Environmental Laboratory Accreditation Program (NELAP).

4.2 DATA USE AND RESULTS

The environmental characterization of surfaces has generally been performed with wipe-sampling because it is a non-destructive technique. There is no consensus, however, as to the interpretation of the results of wipe-sampling. Specifically, there is not a standardized method to determine if chemicals found at sampled levels pose a threat to human health. Wipe surface results are generally used as preliminary guidelines which help to determine whether further sampling or additional cleanup are necessary. The levels are not meant as cleanup or compliance criteria. The results do however provide a representative and qualitative value on potential exposures.

Risk-based screening levels are assigned using an analyte mass per unit of media (i.e., milligrams per kilogram, micrograms per cubic meter, etc.) in developing ingestion or inhalation quantities, or ability to transfer to another media (i.e., soil transport to groundwater). Wipe samples are expressed as analyte mass per unit area wiped, and as such, the key element in risk would be assigning dermal contact frequency, duration, exposure area, etc. The results discussed below were evaluated by taking the greatest concentration of each analyte, with no regard to which Site location it was identified or number of times reported. The average square footage for the storage units was estimated, giving a total mass of the analyte throughout the floor of the storage unit. This mass was then compared to EPA Region IX Regional Screening Levels (RSLs) for residential soil and residential air.

4.2.1 Analytical Results

The ATK laboratory reported at least one detectable concentration on 15 VOC analytes and 9 SVOC analytes. No explosive analytes were detected; both aluminum and magnesium, as fuel metals, were detected in all samples-of-record. Table 1 lists the VOC and SVOC analytes reported, with a brief description of the possible cause of discovery for each analyte.

The analytical results were reported by the laboratories in nanograms (ng), micrograms (ug), or milligrams (mg) per gauze pad. For this report all concentrations were converted to either micrograms or milligrams. Each gauze pad was used to wipe a 100 cm^2 area, therefore, the sample results are assumed to be equal to the reported concentration per 100 cm^2. Each storage unit was approximately 10ft by 25ft, or 250 sq.ft.

4.2.2 VOC Wipe Sample Results

The most common VOCs reported from the EPA Method 8260B list were acetone, 2-butanone (MEK), benzene, 1-butanol (butyl alcohol), toluene, 2-hexanone, and m,p-xylenes. The VOCs reported are presented in Table 2 as analyte mass per 100 cm^2. Based on the wipe sample information and assumptions presented in Section 4.2, the maximum concentration of each analyte was multiplied by the approximate area of a storage unit; estimating the total analyte mass.

The seven VOCs listed above have an approximate maximum analyte mass of 150, 157, 243, 571, 37, 81, and 4.4 micrograms (ug), respectively. All of the total analyte masses are considerably less than the corresponding RSL_{soil} , were they distributed within a residential soil matrix.

The total estimated maximum analyte mass for a storage unit floor was also compared to the RSL_{air}, simply as an added assurance that there was no risk to human health. The RSL_{air} is based on human exposure to a chronic inhalation reference concentration for continuous or near continuous inhalation exposures that occur for 7 years or more. All of the maximum concentrations for the reported analytes are orders of magnitude less than the RSL_{air}. Only four analytes had a total floor mass at concentrations greater than the RSL_{air}.

4.2.3 SVOC Wipe Sample Results

Only nine (9) SVOC analytes were reported from the EPA Method 8270B list; only one analyte (di-n-butyl phthalate) was reported at every storage unit, one analyte (bis(2-ethylhexyl)phthalate) was reported in five of the storage units, and one analyte (butyl benzyl phthalate) reported in four of the storage units (see Table 3). The total mass of each analyte for the storage unit floors was orders of magnitude less than the RSL_{soil}, with the exception of bis(2-ethylhexyl)phthalate. However, the maximum concentration for bis(2-ethylhexyl)phthalate was 0.0183 mg/100cm^2, compared to an RSL_{soil} of 35 mg/kg.

Only three (3) of the reported SVOC analytes have a published RSL_{air}, bis(2-ethylhexyl)phthalate, n-nitro-di-n propylamine, and 2-methyl phenol. The latter two reported only one detection each. Bis(2-ethylhexyl)phthalate, has an RSL_{air} concentration of 1 ug/m^3; a total mass floor concentration is estimated to be 42.4 mg. Bis(2-ethylhexyl)phthalate has a very low vapor pressure and Henry's Law constant, and therefore, it should not evaporate from the floor surface.

4.2.4 Explosive Wipe Sample Results

The explosive compounds nitroglycerin, octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX), and 1,3,5-trinitroperhydro-1,3,5-triazine (RDX) were analyzed from wipe samples. No detectable concentrations of residue from the storage unit floors were reported from any of the submitted samples.

4.2.5 Fuel Metals Wipe Sample Results

Metals analysis using EPA Method 6010B was limited to metals that are routinely used in the production of energetics; aluminum and magnesium. Both metals were reported in all samples submitted for analysis. Aluminum was the most prevalent (see Table 4), not only as a potential residue from the waste materials, but also from possible leaching of the concrete during wipe sample collection. The greatest concentration of aluminum (9.44 mg/100cm^2) only calculated a total mass of 21,900 mg; the RSL_{soil} for aluminum is 77,000 mg/kg. Magnesium does not have a published RSL_{soil}.

The RSL_{air} for aluminum is 5.2 ug/m^3. Although this is low compared to the total mass and maximum reported concentration, the lack of volatility of aluminum does not present an inhalation risk. Magnesium does not have a published RSL_{air}.

4.2.6 Quality Control Samples

A total of 14 samples-of-record were collected to verify the storage unit floors were clean enough to release them to the property owners. As a quality control action, three (3) split samples and one (1) field bank were collected during sampling activities. Duplicate/split samples were collected at the Willard location in storage units #3, 4, and 5; the field blank was collected in storage unit #45 at the Willard location. Surface contamination sampling forms are included with the analytical reports in Attachment D.

The duplicate/split samples were collected simultaneously with the corresponding sample-of-record. At the selected location, the template area for each set of analytes was wiped. The gauze was cut in half, with each half placed into the appropriate vial. The area was then wiped a second time, with the gauze cut in half again, and added to the appropriate vial. A new template then used for the next analyte set, and the process repeated until all four analyte sets were collected. One set of samples was sent to the ATK laboratory, the other sent to ALS for comparative analysis.

The field blank sample was collected by saturating the gauze for each analyte set with the appropriate solvent. The vials for VOCs, SVOCs, and explosives were placed on a piece of aluminum foil set on the concrete floor, and the solvent-saturated gauze laid over the vial. The vial used for fuel metals was placed in a similar fashion, but on top of a clean piece of visqueen. After the samples-of-record were collected the gauze for each analyte set was placed into the appropriate vial.

4.2.6.1 Split Sample Results

The split samples, EZ-3-3, EZ-4-3, and EZ-5-3 corresponded to the samples-of-record EZ-3-1, EZ-4-2, and EZ-5-1, respectively. Toluene was the only VOC that was reported in the split sample, in EZ-4-3 and EZ-5-3. Of the SVOCs, only bis(2-ethylhexyl)phthalate and di-n-butyl phthalate were reported in the split sample. Aluminum and magnesium were reported in all three split samples.

The table below lists the constituents with detected analytes in both the sample-of-record and the corresponding split sample with the relative percent deviation (RPD) value. RPDs ranged from 4.1% to 192.5%; where values were reported in both the sample-of-record and the split sample. Only five (5) of the 13 results where an RPD could be calculated were less than 25%. RPDs above 25% may be attributed to heterogeneity in the samples due to the inherit inconsistencies in the collection of wipe samples: contact time, contact pressure, area of gauze in contact, condition of concrete surface, condition of material/stain being sampled, etc.

SPLIT SAMPLE RESULT COMPARISON

Sample No.	Toluene	bis(2-ethylhexyl) phthalate	di-n-butyl phthalate	Aluminum	Magnesium
EZ-3-1	0.00341	0.018	0.015	1.15	1.54
EZ-3-3	U	0.013	0.017	0.992	1.03
RPD	--	32.3%	12.5%	14.8%	39.7%
EZ-4-2	0.0046	0.0097	0.020	2.76	3.03
EZ-4-3	0.24	0.031	0.024	1.75	1.79
RPD	192.5%	104.7%	18.2%	44.8%	51.5%
EZ-5-1	0.0104	0.0013	0.015	1.09	0.71
EZ-5-3	0.39	U	0.024	1.26	0.74
RPD	189.6%	--	46.2%	14.5%	4.1%

4.2.6.2 Field Blank Sample Results

One field blank (EZ-5-3) was sent to the ATK laboratory for analysis. The collection method was presented in Section 4.2.6. Four VOC analytes were reported in the field blank: acetone, toluene, 2-hexanone, and m,p-xylene. These are the four most common reported VOC analytes in the samples-of-record. One SVOC and both fuel metals were identified in the field blank. As shown in the table below, many of the detected concentrations were less than the field blank concentration, which had not come in contact with any media except the air in the storage unit. In the case of toluene, m,p-xylene, and di-n-butyl phthalate in storage unit #45, the field blank concentration exceeded the sample-of-record concentrations in both samples (EZ-45-1 and EZ-45-2). It appears there is potential for many of the detected concentrations of these analytes reported in the samples-of-record to be influenced by means other than material residues on the concrete floors of the storage units.

FIELD BLANK RESULT COMPARISON

	Acetone	Toluene	2-Hexanone	m,p-Xylene	di-n-butyl phthalate	Aluminum	Magnesium
# of Detects	12	13	13	11	14	14	14
Max. Conc.	0.0646 ug/100cm^2	0.0158 ug/100cm^2	0.0348 ug/100cm^2	0.0019 ug/100cm^2	0.0243 mg/100cm^2	9.44 mg/100cm^2	3.03 mg/100cm^2
Field Blank Conc.	0.0159	0.0035	0.0062	0.0010	0.0193	0.01	0.05
# of Detects Less than Field Blank	2	6	5	2	12	0	0

4.3 LABORATORY DATA VALIDATION

The results of quality control checks are the primary tools used for data validation. The laboratory director, as results became available, reviewed raw data and final results. The laboratory director confirmed the documentation was complete and legible, qualitative identifications were accurate, calculations were accurate, results were expressed in the appropriate units and number of significant figures, and the required quality control checks

were run and met acceptance criteria. In addition to the internal data validation, a Level II data validation was completed, which included evaluations for completeness, chain-of-custody, holding times, machine calibration, instrument performance, and error checks.

The Level II data validation was completed by Analytical Quality Solutions (AQS) of Salt Lake City, Utah. The personnel at AQS are not directly associated with ATK or the project. Validation included a quality assurance assessment to determine whether the specified protocols were followed by the laboratory personnel. Results of duplicates were reviewed for consistency (i.e., relative percent difference values) and results of other QA/QC analyses were evaluated for the presence of contaminants. The laboratory provided reagent blank, surrogate spike, and matrix spike results as applicable to the method. The conclusion of the Level II data validation is that the data submitted are suitable for use without qualifiers on all analyte sets.

5.0 SUMMARY AND RECOMMENDATIONS

The following recommendations are being made for site closeout based on the verification sampling data and unit inspections.

9. All known waste materials associated with the storage activities of John Rahkonen have been removed.
10. All known waste materials familiar to ATK have been segregated, packaged, and transported for disposal according to applicable regulations.
11. Materials that ATK was unable to transport and/or dispose of according to applicable State and EPA regulations were received by local authorities (Box Elder County Sheriff, etc) for subsequent disposal.
12. Storage units have been inspected and the floors cleaned.
13. Analytical results of wipe samples from the storage unit floors indicate that there should be no adverse affect to human health.
14. It is recommended that the storage units be released to the storage unit owners for usual business purposes.
15. No restrictions to use of the storage units should be in effect.
16. Certificates of Disposal (CDs) will be tracked and collected. Upon collection of all CDs, an additional Attachment will be generated and sent to the EPA for addition to this Final Report.

6.0 PROTECTIVENESS STATEMENT

Based on the information collected from the analytical results and inspection of the storage units and adjacent grounds, the removal action will be protective of human health and the environment in the long term. Certificates of Disposal are expected to be received over the following months, as allowed by regulation. No additional post-removal site control consistent with Section 300.415(l) of the NCP or institutional controls are required or planned.

7.0 PROJECT COSTS

This section describes the costs for the Highway 89 Storage Units Site. Costs cited in this section are based on inventory of materials pulled from inventory at the time of mobilization, invoices for materials and services rendered, general labor rates based on employee's cost center, and estimated fee rates on equipment mobilized and used. However, some activities are not totally invoiced and some labor activities may remain to be completed; therefore, the information presented in this section represents a good faith estimate of the direct and project costs incurred in complying with Paragraph 27 of the Agreement.

7.1 DIRECT PROJECT COSTS

The direct or out-of-pocket costs associated with preparation, mobilization, materials, and implementation of the project are as follows:

Drums (metal, poly, overpack, buckets)	$17,200
Packing Material (vermiculite, kitty litter)	3,800
Winter Wear	450
Personal Protective Equipment	1,400
Miscellaneous Items	1,250
Pallets	2,200
CY Boxes	1,870
Project Management and Project Team	57,250
Total Direct Costs	$ 85,420

7.2 ADDITIONAL PROJECT COSTS

Additional project costs include items that are not direct out-of-pocket cash costs, but represent use of materials, equipment, property, and expendables that are general routine uses of business. These items have an inherit cost associated with maintenance and value added to the project had these items needed to be leased from outside. The items below list those items and services and as such add a realistic total cost for this project:

Truck Use (9 days @ 300/day)	$ 2,700
Forklift Use (9 days @ 500/day)	4,500
Industrial Waste Disposal (ATK Landfill)	
180 yds (10 tons) @ 60/ton	600
Transportation (6 loads @ 450/load)	2,700
ATK Project Trailer (9 days @ 850/day)	7,650
Miscellaneous Items (Fuel, Salt, etc.)	1,500
Total Direct Costs	$ 19,650

7.3 SUBCONTRACTOR COSTS

Veolia ES was contracted to assist in categorizing, labeling, manifest generation, transportation of waste materials to their holding station, and subsequent transportation to the place of final disposal. Invoices from Veolia include manpower, costs associated with transportation and disposal of each container, materials, fees, and other incidental items. The costs associated with Veolia are separated below into manpower and disposal and other costs:

Manpower Labor	$ 15,225
Disposal and Other Costs	176,103
Total Direct Costs	$ 191,328

7.4 TOTAL PROJECT COST

Summarizing, the total cost of the Removal Action under the Agreement is estimated, under a good faith effort to be:

Direct Project Costs	$ 85,420
Additional Project Costs	19,650
Subcontractor Costs	191,328
TOTAL DIRECT COSTS	**$ 296,398**

8.0 CERTIFICATION

Under penalty of law, I certify that to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of the report, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

David P. Gosen, P.E.
Director, Environmental Services

March 12, 2010
Date

FIGURES

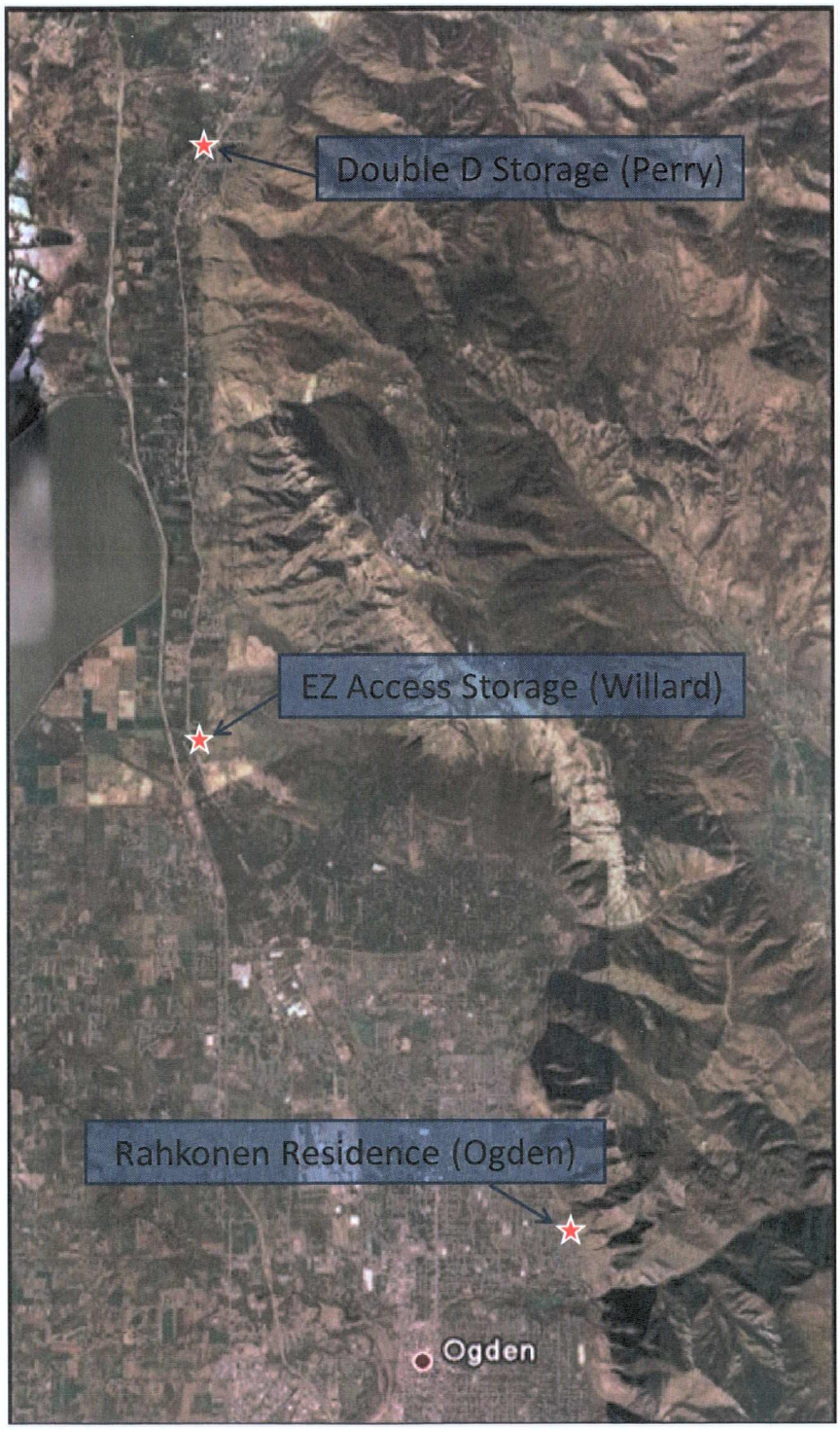

Figure 1 – Site Locations

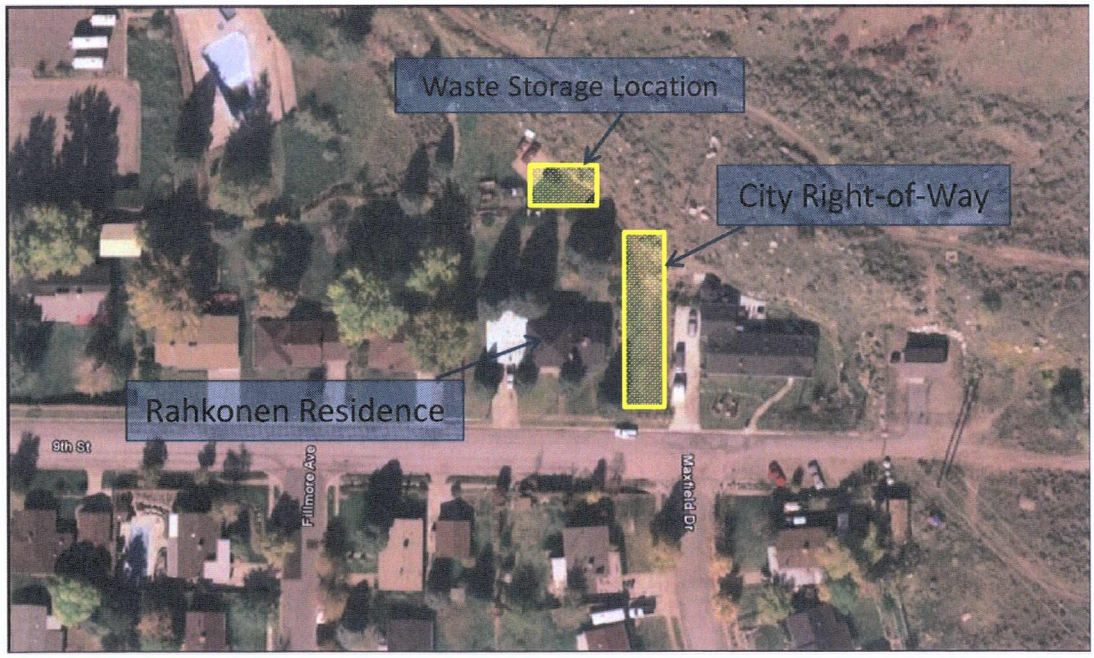

Figure 2 – Rahkonen Residence

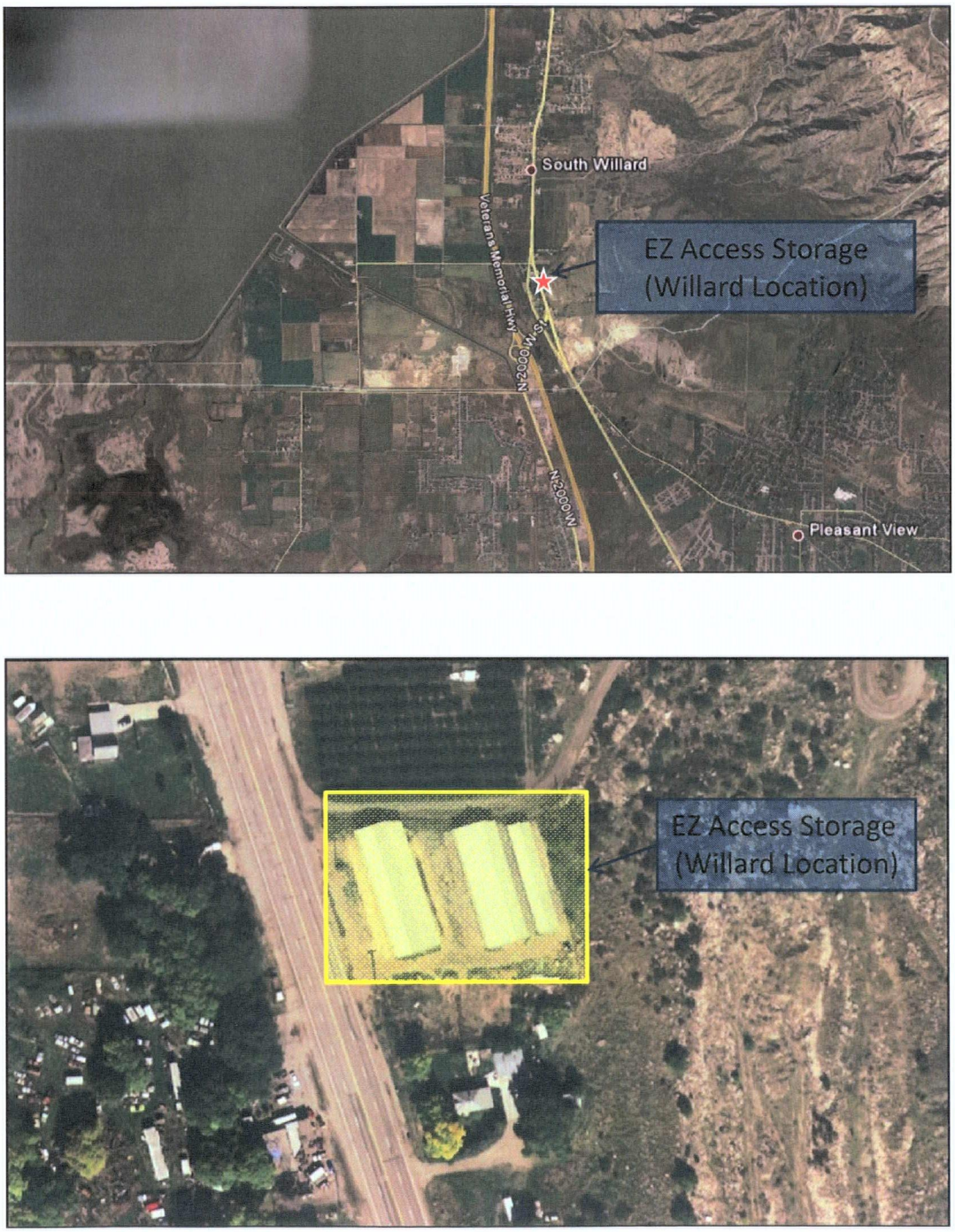

Figure 3 – EZ Access Storage

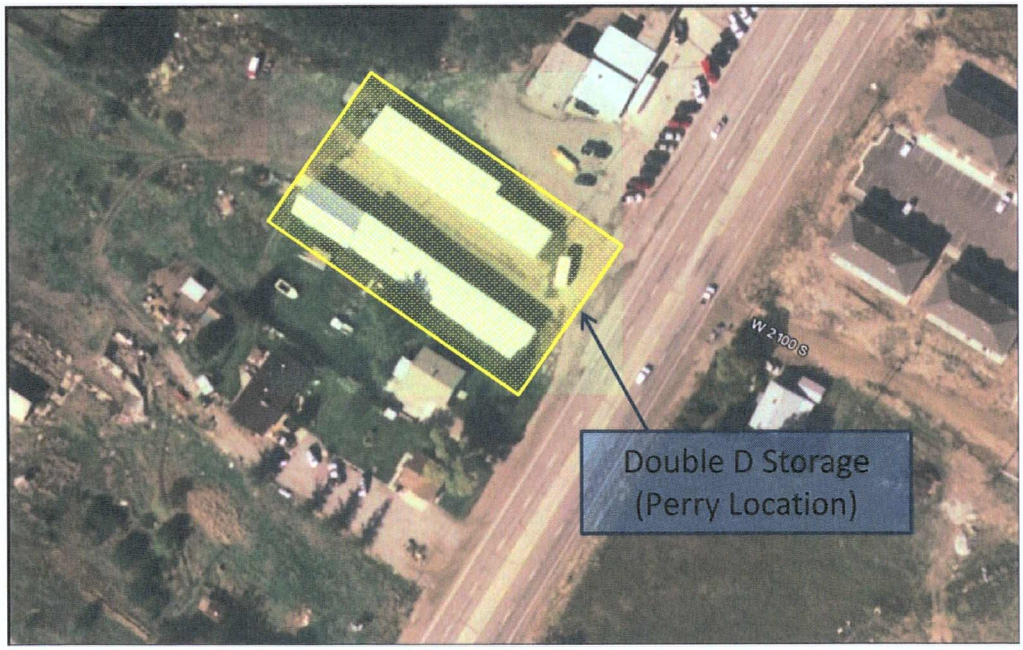

Figure 4 – Double D Storage

TABLES

TABLE 1 VOC AND SVOC REPORTED ANALYTES	
Acrolein – (1); engine combustion processes; intermediate for glycerin	**Acetone** – (12, plus EB); solvent; intermediate of MIBK
Carbon Disulfide – (4); solvent	**Acrylonitrile** – (1); ABS and SAN resins
IPA – (4); solvent	**2-Butanone (MEK)** – (12); solvent; engine combustion processes
Benzene – (8); production and combustion of gasoline; chemical intermediate; solvent	**1-Butanol (butyl alcohol)** – (7); solvent for resins and varnish
4M2P (MIBC) – (2); solvent resins and nitrocellulose; brake fluids	**Toluene** – (14; plus 2 splits and EB); petroleum fuels; solvents; thinners; gasoline combustion
2-Hexanone (MnBK) – (13; plus EB); solvent for lacquers, resins, and oil; evaporating solvent for nitrocellulose acrylate coatings	**m,p-Xylene (1,3; 1,4)** – (11; plus EB); gasoline emissions and combustion; solvent for alkyl resins and lacquers
o-Xylene (1,2) – (3); gasoline emissions and combustion; solvent	**1,2,4-TMB** – (3); gasoline additive; sterilizing agent in manufacture of resins
Napthalene – (2); gasoline emissions and combustion;	**Benzyl Alcohol** – (3); solvent for paint, lacquers, and epoxy resin coatings
Benzoic Acid – (1); gasoline/diesel combustion exhaust; used motor oil	**Butylbenzylphthalate** – (6); plasticizer for cellulosic resins; diffusion from consumer products is minimal.
Bis(2-ethylhexyl)phthalate – (10; plus 2 splits); plasticizer; has been detected in commercial organic solvents	**Di-n-butyl phthalate** – (14; plus 3 splits and EB); plasticizer in nitrocellulose, lacquers, and resins
Di-n-octyl phthalate – (2); a phthalate substance, but no known uses on its own; degradation product of bis(2-ethylhexyl) phthalate	**Di-n-nitro-di-n-propylamine (dipropylamine)** – (1); intermediate in rubber chemicals and organic catalysts
2-methyl phenol (2-Cresol) – (1); gasoline/diesel combustion; metal refining; photooxidation of toluene; organic chemical, plastics, and resin manufacturing	**Di-methyl phthalate** – (3); plasticizer in cellulose esters, and a component in lacquers and coating agents.

Notes: (x) = number of times analyte was reported
EB = equipment blank

TABLE 2
VOC WIPE SAMPLE RESULTS (ug/100cm^2)

Sample #	Acrolein	Acetone	Carbon Disulfide	Acrylonitrile	IPA	2-Butanone	Benzene	1-Butanol
EZ-3-1	0.0199	0.0172	0.0010		1.2580		0.0138	
EZ-3-2							0.1045	
EZ-4-1		0.0646				0.0675	0.0026	0.2348
EZ-4-2		0.0443	0.0008		5.3440	0.0416	0.0037	0.2460
EZ-5-1		0.0257			0.1269	0.0232	0.0009	0.0858
EZ-5-2		0.0227				0.0226	0.0009	0.0816
EZ-14-1		0.0201	0.0009		0.0251	0.0135		0.0524
EZ-14-2		0.0216	0.0010	0.0096		0.0141	0.0005	0.0550
EZ-45-1						0.0380		
EZ-45-2		0.0204				0.0125		
DD-7-1		0.0225				0.0112	0.0005	
DD-7-2		0.0164				0.0092		0.0868
DD-13-1		0.0152				0.0069		
DD-13-2		0.0142				0.0081		
Total (ug)	46	150	2.3	22.3	1.24E+04	157	243	571
RSL_{Soil} (ug/kg)	150	6.1E+07	8.2E+05	240	9.9E+11	2.8E+07	1100	6.1E+06
RSL_{Air} (ug/m^3)	0.02	3.2E+04	730	63	7300	5200	0.31	--

Note: Greatest reported concentration for each analyte is highlighted in red.

TABLE 2 (CONT)
VOC WIPE SAMPLE RESULTS (ug/100cm^2)

Sample #	4M2P	Toluene	2-Hexanone	m,p-Xylene	o-Xylene	1,2,4-TMB	Napthalene
EZ-3-1		0.0034	0.0035	0.0011			
EZ-3-2							
EZ-4-1		0.0037	0.0348	0.0011		0.0011	
EZ-4-2		0.0046	0.0276				
EZ-5-1	0.0040	0.0104	0.0139	0.0017	0.0007	0.0006	0.0055
EZ-5-2	0.0059	0.0158	0.0113	0.0018	0.0007		
EZ-14-1		0.0023	0.0088	0.0011			
EZ-14-2		0.0030	0.0070	0.0012			
EZ-45-1		0.0018	0.0223				0.0053
EZ-45-2		0.0027	0.0070	0.0009			
DD-7-1		0.0054	0.0057	0.0019	0.0008	0.0010	
DD-7-2		0.0036	0.0052	0.0012			
DD-13-1		0.0039	0.0036	0.0013			
DD-13-2		0.0021	0.0033	0.0007			
Total (ug)	13.7	36.7	80.9	4.39	1.9	2.53	12.7
RSL_{Soil} (ug/kg)	5.3E+06	5.0E+06	2.1E+05	3.4E+06	3.8E+06	6.2E+04	3.6E+03
RSL_{Air} (ug/m^3)	3100	5200	31	730	730	7.3	0.072

Note: Greatest reported concentration for each analyte is highlighted in red.

TABLE 3
SVOC WIPE SAMPLE RESULTS (mg/100cm^2)

Sample #	Benzyl Alcohol	Benzoic Acid	butyl benzyl-phthalate	bis(2-ethylhexyl) phthalate	di-n-butyl phthalate	di-n-octyl phthalate	n-nitro-di-n propylamine
EZ-3-1	0.0021			0.0181	0.0154		
EZ-3-2	0.0204	0.0120	0.0014	0.0104	0.0243		0.0121
EZ-4-1				0.0021	0.0177		
EZ-4-2				0.0097	0.0197	0.0005	
EZ-5-1				0.0013	0.0150		
EZ-5-2	0.0056		0.0015	0.0183	0.0192		
EZ-14-1					0.0182		
EZ-14-2					0.0182		
EZ-45-1					0.0152		
EZ-45-2					0.0145		
DD-7-1			0.0009	0.0011	0.0165		
DD-7-2			0.0005	0.0009	0.0185		
DD-13-1			0.0015	0.0013	0.0174	0.0001	
DD-13-2			0.0009	0.0026	0.0193		
Total (mg)	47.3	27.9	3.53	42.4	56.5	1.14	28.1
RSL_{Soil} (mg/kg)	6100	240,000	260	35	6100	4.9E+04	--
RSL_{Air} (ug/m^3)	--	--	--	1	--	--	0.0012

Note: Greatest reported concentration for each analyte is highlighted in red.

TABLE 3 (cont.)
SVOC WIPE SAMPLE RESULTS (mg/100cm^2)

Sample #	2-methyl phenol	dimethyl phthalate
EZ-3-1		
EZ-3-2	0.0144	
EZ-4-1		
EZ-4-2		
EZ-5-1		
EZ-5-2		
EZ-14-1		0.0002
EZ-14-2		
EZ-45-1		
EZ-45-2		
DD-7-1		0.0002
DD-7-2		
DD-13-1		
DD-13-2		0.0001
Total $_{(mg)}$	33.5	0.42
$RSL_{Soil\ (mg/kg)}$	3100	--
$RSL_{Air\ (ug/m^3)}$	630	--

Note: Greatest reported concentration for each analyte is highlighted in red.

TABLE 4 FUEL METALS WIPE SAMPLE RESULTS (mg/100cm^2)		
Sample #	Aluminum	Magnesium
EZ-3-1	1.15	1.54
EZ-3-2	1.44	1.24
EZ-4-1	1.30	1.56
EZ-4-2	2.76	3.03
EZ-5-1	1.09	0.71
EZ-5-2	1.26	1.08
EZ-14-1	6.54	1.87
EZ-14-2	9.44	2.11
EZ-45-1	0.59	1.14
EZ-45-2	2.21	1.54
DD-7-1	2.23	2.50
DD-7-2	0.87	1.00
DD-13-1	0.43	0.49
DD-13-2	0.41	0.40
Total (mg)	21,900	7040
$RSL_{Soil\ (mg/kg)}$	77,000	--
$RSL_{Air\ (ug/m^3)}$	5.2	--

Note: Greatest reported concentration for each analyte is highlighted in red.

ATTACHMENTS

Site Activity Form

Addendum to Manifest Tracking Number

Land Disposal Restriction Notification Form

Land Disposal Restriction Notification Form – Exempt Lab Pack

ATK Landfill Daily Operating Record

ATTACHMENT A

Rahkonen Residence Activity Summaries

Shipment Date: 12/2/2009
Shipped From: Rohkonen Residence
Manifest Numbers: 000191567VES; 000191568VES; ZZ00140087

Waste Stream	# of Containers	Waste Codes D	Waste Codes U	Waste Codes P	Initial Destination	Projected Final Destination
Flammable (Loose)	3	001 007 008 035 040	154 159 209		HEN	PTA
Water Reactive Solid	1	001 003			HEN	PTA
Ammonium Perchlorate	10	001 003			HEN	TWI
Oxidizing Liquid, (LP)	1	001 003 005 007			HEN	TWI
Potassium Perchlorate	1	001			HEN	TWI
Oxidizing Solid (LP)	1	001 008			HEN	TWI
Toxic (LP)	1	007			HEN	PTA
Toxic Liquid	1	005 007 016 040	226	120	HEN	PTA
RCRA Amines (LP)	1	002			HEN	PTA
Corrosive Liquids	1	002			HEN	PTA
DOT Amines (LP)	3	--			HEN	PTA
Asbestos Mix	1	--			HEN	USI
Aerosols	1	001			HEN	PTA
Non-regulated (LP), box	1	--			HEN	PTA
Non-regulated	6	--			HEN	PTA
Pyrophoric metals (LP)	1	001 003			HEN	TWI
Self-heating, Inorganic Solids	1	001 003			HEN	TWI
Zinc Powder	2	001 003			HEN	PTA
Calcium Carbide (LP)	1	001 003			HEN	PTA
Magnesium Powder	1	001 003			HEN	PTA
Dextrose Solid	1	--			USI	USI
Non-regulated Liquids	1	--			USI	USI
	41					

HEN = Veolia, Henderson, Colorado
TWI = Violia, Sauget, Illinois
PTA = Violia, Port Arthur, Texas
USI = US Ecology, Grandview, Idaho

Loose = Loose Pack Contained
LP = Lab Pack
box = 1 cubic yard cardboard box

Poor Quality Source Document

The following document images have been scanned from the best available source copy.

To view the actual hard copy, contact the Region VIII Records Center at (303) 312-6473.

01/05/10

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: UTS000001381
2. Page 1 of 2
3. Emergency Response Phone: (877) 818-0057
4. Manifest Tracking Number: 000191567 VES

5. Generator's Name and Mailing Address: ATK LAUNCH SYSTEMS INC ~~1620 9TH STREET OGDEN UT 84401~~ PO Box 98 MAGNA UT 84044-0098 ATTN: ROB YAROSIK

Generator's Site Address (if different than mailing address): ~~SAME~~ 1620 9TH STREET OGDEN UT 84401

Generator's Phone: 801 250-5911

6. Transporter 1 Company Name: VEOLIA ES TECHNICAL SOLUTIONS
U.S. EPA ID Number: NJD980631369

7. Transporter 2 Company Name: Triad Transport
U.S. EPA ID Number: OKD981588791

8. Designated Facility Name and Site Address: VEOLIA ES TECHNICAL SOLUTIONS L.L.C. 9131 EAST 96TH AVE HENDERSON, CO 80640
U.S. EPA ID Number: COD980591164

Facility's Phone: 303 289-4827

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (METHYL ETHYL ~~E~~ RY KETONE, XYLENE), 3, II, RQ (D001)	001	DF	00194	P	U154 / U159	U239 / D001	D007 / D035
X	2. UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (METHYL ETHYL ~~E~~ RY KETONE, XYLENE), 3, II, RQ (D001)	001	DM	00238	P	U002 / U220	D001 / D007	D008 / D035
X	3. UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (XYLENE, TOLUENE), 3, II	001	DM	00110	P	~~D003~~ RY 12/2/09 / D001		
X	4. UN3132, WASTE WATER-REACTIVE SOLID, FLAMMABLE, n.o.s., 4.3 (4.1), II, RQ (D001) LAB PACK	001	DF	00235	P	D003 / D001		

14. Special Handling Instructions and Additional Information: 1) ERG 128 W 103376 2) ERG 128 W 103376 3) ERG 128 W 103376 4) ERG 128 W 103384 -I- ER Service Contracted by VESTS CD'S REQUESTED PER GENERATOR

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: ROBERT M. YAROSIK JR.
Signature: [signature]
Month 12 Day 02 Year 09

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Brandon Christensen
Signature: [signature]
Month 12 Day 02 Year 09

Transporter 2 Printed/Typed Name: Steve Godwin
Signature: [signature]
Month 12 Day 10 Year 09

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141	H141	H141	H141

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: [signature]
Signature: [signature]
Month Day Year

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number UTP000001131	22. Page 2 of 3	23. Manifest Tracking Number 000191567VES

24. Generator's Name ATK LAUNCH SYSTEMS INC

25. Transporter 3 Company Name VECLA ESTechnical Solutions — U.S. EPA ID Number NJD081631369

26. Transporter _____ Company Name — U.S. EPA ID Number

GENERATOR

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5. UN1442, WASTE AMMONIUM PERCHLORATE, 5.1, II, RQ (D001) LAB PACK	003	DF	00525	P	D003 D001		
X	6. UN1442, WASTE AMMONIUM PERCHLORATE, 5.1, II, RQ (D001) LAB PACK	001	DF	00190	P	D003 D001		
X	7. UN1442, WASTE AMMONIUM PERCHLORATE, 5.1, II, RQ (D001) LAB PACK	001	DM	00211	P	D003 D001		
X	8. UN1442, WASTE AMMONIUM PERCHLORATE, 5.1, II, RQ (D001) LAB PACK	003	DM	00501	P	D003 D001		
X	9. UN1442, WASTE AMMONIUM PERCHLORATE, 5.1, II, RQ (D001)	002	DM	00439	P	D003 D001		
X	10. UN3098, WASTE OXIDIZING LIQUID, TOXIC, N.O.S., 5.1 (6.1), II, RQ (D001) LAB PACK	001	DF	00187	P	D003 D001	D005 D007	
X	11. UN1489, WASTE POTASSIUM PERCHLORATE, 5.1, II, RQ (D001)	001	DM	00467	P	D001		
X	12. UN1479, WASTE OXIDIZING SOLID, n.o.s., 5.1, II LAB PACK	001	DF	00011	P	D001 D008		
X	13. UN2810, WASTE TOXIC LIQUIDS, ORGANIC, n.o.s. (CHROMIUM, ISOPHORONE DIISOCYANATE), 6.1, II	001	DF	00122	P	D007		
X	14. UN3287, WASTE TOXIC LIQUID, INORGANIC, n.o.s., 6.1, II LAB PACK	001	DF	00123	P	U226 U240	P120 D005	D007 D016

32. Special Handling Instructions and Additional Information 5) ERG:143 W:103384 6) ERG:143 W:103384 7) ERG:143 W:103384 8) ERG:143 W:103384 9) ERG:143 W:103384 10) ERG:142 W:103384 11) ERG:140 W:103385 12) ERG:140 W:103384 13) ERG:153 W:103378 14) ERG:151 W:103384

TRANSPORTER

33. Transporter 3P Acknowledgment of Receipt of Materials

Printed/Typed Name Hwang — Signature — Month 12 Day 11 Year 09

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

5. H141 6. H141 7. H141 8. H141 9. H141

10. H141 11. H141 12. H141 13. H141 14. H141

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: UTP000001371

22. Page: 3 of 3

23. Manifest Tracking Number: 000191567VES

24. Generator's Name: ATK LAUNCH SYSTEMS INC

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	15 UN2735, WASTE AMINES, LIQUID, CORROSIVE, n.o.s. (DIETHYLENETRIAMINE (DETA),TRIETHYLENETETRAMINE, TRIETHYLENETETRAMINE), 8, II	001	DM	00154	P	D002		
X	16 UN2922, WASTE CORROSIVE LIQUIDS, TOXIC, n.o.s., 8 (6.1), II LAB PACK	001	DF	00012	P	D002		
X	17 UN2735, POLYAMINES, LIQUID, CORROSIVE, n.o.s. (TETRAETHYLENEPENTAMINE, 4,4-METHYLENEDIANILINE), 8, III, RQ	001	DF	00204	P	NONE		
X	18 UN2735, POLYAMINES, LIQUID, CORROSIVE, n.o.s., (TETRAETHYLENEPENTAMINE, 4,4-METHYLENEDIANILINE), 8, III, RQ	002	DM	00440	P	NONE		
X	19 NA2212, ASBESTOS MIXTURE, 9, III	001	DF	00090	P	NONE		
X	20 WASTE CONSUMER COMMODITY, ORMD	001	DF	00008	P	D001		
	21 NON REGULATED MATERIAL, (LOOSEPACK)	001	CF	01000	P	NONE		
	22 NON REGULATED MATERIAL, (LOOSEPACK)	006	DM	01707	P	NONE		

32. Special Handling Instructions and Additional Information: 15) ERG:153 W:103379 16) ERG:154 W:103384 17) ERG:153 W:103382 18) ERG:153 W:103382 19) ERG:171 W:103384 20) W:103388 21) W:103383 22) W:103383

21) WEIGHT IS ESTIMATED BOX 29, ACTUAL WEIGHT = _____ LBS

GENERATOR

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials — Printed/Typed Name — Signature — Month Day Year

34. Transporter _____ Acknowledgment of Receipt of Materials — Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

35. Discrepancy: 22) Pg 3, line 21, Manifested 6 lbs/pallets vs 558 pounds. box 29 Replacement of 10 change per Mark Christian Rob Yancey 12/14/09

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

16 H141 | 17 H141 | 18 H141 | 19 H141 | 20 H141 | 21 H141 | 22 H141

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Veolia ES, Technical Solutions L.L.C.

ADDENDUM TO MANIFEST TRACKING NUMBER:

000191567VES

GENERATOR : 566181 - ATK LAUNCH SYSTEMS INC. **EPA ID :** UTP000001381 **GEN DOC NUM :** **DATE SHIPPED:** 12/02/2009

Manifest Pg/Ln		WIP #	WIP Description	Approval #	Physical State / Hazard Codes	Waste Codes	Container count & size	Generator Drum ID	Veolia Drum #	PCB Container Number	OOSD
1	1	103376	CAN-DRUM FLAMMABLE (LOOSEPACK)	HENPTA884369	L/I	U154, U159, U239, D001, D007, D035	1x55 GAL		26		
1	2	103376	CAN-DRUM FLAMMABLE (LOOSEPACK)	HENPTA884369	L/I	U002, U220, D001, D007, D008, D035, D040	1x55 GAL		27		
1	3	103376	CAN-DRUM FLAMMABLE (LOOSEPACK)	HENPTA884369	L/I	D001	1x55 GAL		28		
1	4	103384	WATER-REACTIVE SOLID, FLAMMABLE, n.o.s	HENPTAVES045	L/R	D003, D001	1x55 GAL		18		
2	5	103384	AMMONIUM PERCHLORATE, AMMONIUM PERCHLORATE, AMMONIUM PERCHLORATE	HENTWIAJ2769OXN	L/R	D003, D001	3x55 GAL		2, 3, 4		
2	6	103384	AMMONIUM PERCHLORATE	HENTWIAJ2771OXN	L/R	D003, D001	1x55 GAL		12		
2	7	103384	AMMONIUM PERCHLORATE	HENTWIAJ2769OXN	L/R	D003, D001	1x55 GAL		9		
2	8	103384	AMMONIUM PERCHLORATE, AMMONIUM PERCHLORATE, AMMONIUM PERCHLORATE	HENTWIAJ2771OXN	L/R	D003, D001	3x55 GAL		6, 8, 10		
2	9	103384	AMMONIUM PERCHLORATE, AMMONIUM PERCHLORATE	HENTWIAJ2771OXN	L/R	D003, D001	2x55 GAL		7, 11		
2	10	103384	OXIDIZING LIQUID, TOXIC, N.O.S.	HENTWIAJ2769OXN	L/R	D003, D001, D007, D005	1x55 GAL		5		
2	11	103395	POTASSIUM PERCHLORATE	HENTWI802578	S/I	D001	1x55 GAL		1		
2	12	103384	OXIDIZING SOLID, n.o.s.	HENTWIAJ2774OXN	L/I	D001, D008	1x3 GAL		25		
2	13	103378	CAN-DRUM, TOXIC (LOOSEPACK) MISC.	HENPTA884371	S/E	D007	1x30 GAL		23		
2	14	103384	TOXIC LIQUID, INORGANIC, n.o.s.	HENPTAVES045	L/T	D005, D007, NONE, U226, P120, U240, D016, D040	1x30 GAL		19		
3	15	103379	RCRA CAN-DRUM, AMINES (LOOSEPACK)	HENPTA884370	S/C	D002	1x55 GAL		24		
3	16	103384	CORROSIVE LIQUIDS, TOXIC, n.o.s.	HENPTAVES038	L/C	D002	1x3 GAL		21		
3	17	103382	CAN-DRUM, AMINES, DOT ONLY (LOOSEPACK)	HENPTA594360	S/-	NONE	1x55 GAL		29		
3	18	103382	CAN-DRUM, AMINES, DOT ONLY (LOOSEPACK)	HENPTA594360	S/-	NONE	2x55 GAL		31		
3	19	103384	ASBESTOS MIXTURE	HENUSI-16018SLV	L/-	NONE	1x30 GAL		20		
3	20	103388	AEROSOLS-MIXED FLAMMABLE	HENRPKAER001PTA	G/I	D001	1x5 GAL		22		
3	21	103383	NON REGULATED MATERIAL LOOSEPACK	HENPTAVES039	S/-	NONE	1xCYDBOX		32		
3	22	103383	NON REGULATED MATERIAL	HENPTAVES039	S/-	NONE	6x85 GAL		30		

Veolia ES, Technical Solutions L.L.C.

ADDENDUM TO MANIFEST TRACKING NUMBER:

000191567VES

GENERATOR : 566181 - ATK LAUNCH SYSTEMS INC.					EPA ID : UTP000001381		GEN DOC NUM :			DATE SHIPPED: 12/02/2009	
Manifest Pg/Ln		WIP #	WIP Description	Approval #	Physical State / Hazard Codes	Waste Codes	Container count & size	Generator Drum ID	Veolia Drum #	PCB Container Number	OOSD
			LOOSEPACK								

Land Disposal Restriction Notification Form

Generator Name **ATK LAUNCH SYSTEMS INC.**

EPA ID Number **UTP000001381** Manifest **000191567VES**

This notice is being provided in accordance with 40 CFR 268.7 to inform you that this shipment contains waste restricted from land disposal by the USEPA under the land disposal restriction program. Identified below for each container is the designation of the waste as a wastewater or non-wastewater, the Clean Water Act (CWA) permit status associated with the treatment/disposal facility, applicable waste codes and any corresponding subcategories, list of any F001-F005 solvent constituents that are present in the waste, and any underlying hazardous constituents (UHC) that are present.

Container Number: **SM-1117272000-026 (1/ 1)**

WIP / Approval Code:	**103376 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D007, D035, U154, U159, U239**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, LEAD, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117272000-027 (1/ 2)**

WIP / Approval Code:	**103376 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D007, D008 (NONE), D035, D040, U002, U220**
Constituents (F001 - F005):	**None**
UHCs Present:	**BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CYCLOHEXANONE, 1,1-DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, 1,1,1 TRICHLOROETHANE, SILVER, O- XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117272000-028 (1/ 3)**

WIP / Approval Code:	**103376 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), ~~D003 (REACTIVE SULFIDES PER 261.23(a)(5))~~** RY 12/2/09
Constituents (F001 - F005):	**None**
UHCs Present:	**Not Applicable**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**

Additional Notices:

Container Number: **SM-1117272000-001 (2/ 11)**

WIP / Approval Code:	**103395 / HENTWI802578**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS))**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117272000-023 (2/ 13)**

WIP / Approval Code:	**103378 / HENPTA884371**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D007**
Constituents (F001 - F005):	**None**
UHCs Present:	**ARSENIC, BARIUM (ELEMENT), N- BUTYL PHTHALATE, METHYLENE CHLORIDE, LEAD, CADMIUM (METAL), 1,1,1 TRICHLOROETHANE, SILVER**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117272000-024 (3/ 15)**

WIP / Approval Code:	**103379 / HENPTA884370**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D002**
Constituents (F001 - F005):	**None**
UHCs Present:	**PHENYLENEDIAMINE (META)**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117272000-022 (3/ 20)**

WIP / Approval Code:	**103388 / HENRPKAER001PTA**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS))**
Constituents (F001 - F005):	**None**
UHCs Present:	**METHYL ETHYL KETONE (MEK), 1,1,1 TRICHLOROETHANE, 1,1,2,2- TETRACHLOROETHYLENE (NON F-LISTED), 1,1,2-TRICHLOROETHENE (NON F-LISTED)**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

I hearby certify that all information in this and associated land disposal restriction documents is complete and accurate to the best of my knowledge and information.

Signature _____

Title ENVIRONMENTAL ENGINEER Date 12/02/2009

Land Disposal Restriction Certification Form - Exempt Lab Pack

Generator Name **ATK LAUNCH SYSTEMS INC.**

EPA ID Number **UTP000001381** Manifest **000191567VES**

This notice is being provided in accordance with 40 CFR 268.7(a)(9) to inform you that this shipment contains waste restricted from land disposal by the USEPA under the land disposal restriction program. This shipment contains lab packs that do not carry waste codes listed in 40 CFR part 268 Appendix IV. The method of treatment for these wastes is incineration. The container numbers corresponding to the individual lab packs are listed below along with the associated hazardous waste codes.

Container Number: **SM-1117272000-002 (2/ 5)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **SM-1117272000-003 (2/ 5)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **SM-1117272000-004 (2/ 5)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **SM-1117272000-005 (2/ 10)**

Waste Codes: **D001, D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES), **D005, D007**

Container Number: **SM-1117272000-006 (2/ 8)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **SM-1117272000-007 (2/ 9)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **SM-1117272000-008 (2/ 8)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **SM-1117272000-009 (2/ 7)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **SM-1117272000-010 (2/ 8)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **SM-1117272000-011 (2/ 9)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **SM-1117272000-012 (2/ 6)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **SM-1117272000-018 (1/ 4)**

Waste Codes: **D001, D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003, D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES), **D003** (WATER REACTIVES PER 261.23(a)(2-4))

Container Number: **SM-1117272000-019 (2/ 14)**

Waste Codes: **D005, D007, D016, D040, P120, U226, U240** (2,4-D (2,4-DICHLOROPHENOXY ACETIC ACID))

Container Number: **SM-1117272000-021 (3/ 16)**

Waste Codes: **D002**

Container Number: **SM-1117272000-025 (2/ 12)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D008** (NONE)

Phase II Certification: I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack does not contain any of the waste identified under 40 CFR part 268 Appendix IV. I am aware that there are significant penalties for submitting false certifications, including the possibility of fine or imprisonment.

Phase IV Certification: I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only wastes that have not been excluded under Appendix IV to 40 CFR part 268 and that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at 40 CFR 268.42(c). I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

Signature _____

Title ENVIRONMENTAL ENGINEER Date 12/02/2009

U T P 0 0 0 0 0 1 3 8 1 3 (877) 818-0087

ATK LAUNCH SYSTEMS INC.
PO BOX 98
ATTN: ROB YAROSIK
MAGNA, UT 84044-0098
801 250-5911

ATK LAUNCH SYSTEMS INC.
1620 9TH STREET
OGDEN, UT 84401

VEOLIA ES TECHNICAL SOLUTIONS N J D 0 8 0 6 3 1 3 6 9

VEOLIA ES TECHNICAL SOLUTIONS,
L.L.C.
9131 EAST 96TH AVE.
303 289-4827 HENDERSON, CO 80640 C O D 9 8 0 5 9 1 1 8 4

X	UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (METHYL ETHYL KETONE, XYLENE), 3, II, RQ (D001)						U154	U239	D007
		0 0 1	D F	0 0 1 9 4	P		U159	D001	D035
X	UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (METHYL ETHYL KETONE, XYLENE), 3, II, RQ (D001)						U002	D001	D008
		0 0 1	D M	0 0 2 3 8	P		U220	D007	D035
X	UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (XYLENE, TOLUENE), 3, II						D001		
		0 0 1	D M	0 0 1 1 0	P				
X	UN3132, WASTE WATER-REACTIVE SOLID, FLAMMABLE, n.o.s, 4.3 (4.1), II, RQ (D001) LAB PACK						D003		
		0 0 1	D F	0 0 2 3 5	P		D001		

1) ERG:128 W:103376 2) ERG:128 W:103376 3) ERG:128 W:103376 4) ERG:138 W:
3384 -|- ER Service Contracted by VESTS
CD'S REQUESTED PER GENERATOR

X	5. UN1442, WASTE AMMONIUM PERCHLORATE, 5.1, II, RQ (D001) LAB PACK	003	DF	00525	P	D003 D001		
X	6. UN1442, WASTE AMMONIUM PERCHLORATE, 5.1, II, RQ (D001) LAB PACK	001	DF	00190	P	D003 D001		
X	7. UN1442, WASTE AMMONIUM PERCHLORATE, 5.1, II, RQ (D001) LAB PACK	001	DM	00211	P	D003 D001		
X	8. UN1442, WASTE AMMONIUM PERCHLORATE, 5.1, II, RQ (D001) LAB PACK	003	DM	00501	P	D003 D001		
X	9. UN1442, WASTE AMMONIUM PERCHLORATE, 5.1, II, RQ (D001)	002	DM	00439	P	D003 D001		
X	10.UN3099, WASTE OXIDIZING LIQUID, TOXIC, N.O.S., 5.1 (6.1), II, RQ (D001) LAB PACK	001	DF	00187	P	D003 D001	D005 D007	
X	11.UN1489, WASTE POTASSIUM PERCHLORATE, 5.1, II, RQ (D001)	001	DM	00487	P	D001		
X	12.UN1479, WASTE OXIDIZING SOLID, n.o.s., 5.1, II LAB PACK	001	DF	00011	P	D001 D008		
X	13.UN2810, WASTE TOXIC LIQUIDS, ORGANIC, n.o.s., (CHROMIUM, ISOPHORONE DIISOCYANATE), 6.1, II	001	DF	00122	P	D007		
X	14.UN3287, WASTE TOXIC LIQUID, INORGANIC, n.o.s., 6.1, II LAB PACK	001	DF	00123	P	U226 U240	P120 D005	D007 D016

5) ERG:143 W:103384 6) ERG:143 W:103384 7) ERG:143 W:103384 8) ERG:143 W: 103384 9) ERG:143 W:103384 10) ERG:142 W:103384 11) ERG:140 W:103395 12) ERG:140 W:103384 13) ERG:153 W: 103378 14) ERG:151 W:103384

5.	6.	7.	8.	9.
10.	11.	12.	13.	14.

X	15.UN2735, WASTE AMINES, LIQUID, CORROSIVE, n.o.s., (DIETHYLENETRIAMINE (DETA)/TRIETHYLENETETRAMINE, TRIETHYLENETETRAMINE), 8, II	001	DM	00154	P	D002
X	16.UN2922, WASTE CORROSIVE LIQUIDS, TOXIC, n.o.s., 8 (6.1), II LAB PACK	001	DF	00012	P	D002
X	17.UN2735, POLYAMINES, LIQUID, CORROSIVE, n.o.s., (TETRAETHYLENEPENTAMINE, 4,4-METHYLENEDIANILINE), 8, III, RQ	001	DF	00204	P	NONE
X	18.UN2735, POLYAMINES, LIQUID, CORROSIVE, n.o.s., (TETRAETHYLENEPENTAMINE, 4,4-METHYLENEDIANILINE), 8, III, RQ	002	DM	00440	P	NONE
X	19.NA2212, ASBESTOS MIXTURE, 9, III	001	DF	00090	P	NONE
X	20.WASTE CONSUMER COMMODITY, ORMD	001	DF	00008	P	D001
	21.NON REGULATED MATERIAL, (LOOSEPACK)	001	CF	01000	P	NONE
	22.NON REGULATED MATERIAL, (LOOSEPACK)	006	DM	01797	P	NONE

15) ERG:153 W:103379 16) ERG:154 W:103384 17) ERG:153 W:103382 18) ERG:153 W:103382 19) ERG:171 W:103384 20) W:103388 21) W:103383 ACTUAL WEIGHT#_____LBS 22) W:103383

15. 16. 17. 18. 19.

20. 21. 22.

Veolia ES, Technical Solutions L.L.C.

ADDENDUM TO MANIFEST TRACKING NUMBER:

000191568VES

GENERATOR : 566181 - ATK LAUNCH SYSTEMS INC. **EPA ID :** UTP000001381 **GEN DOC NUM :** **DATE SHIPPED:** 12/02/2009

Manifest Pg/Ln		WIP #	WIP Description	Approval #	Physical State / Hazard Codes	Waste Codes	Container count & size	Generator Drum ID	Veolia Drum #	PCB Container Number	OOSD
1	1	103384	PYROPHORIC METALS, n.o.s.	HENTWIAJ2774REA	L/R	D003, D001	1x1 GAL		3		
1	2	103384	SELF-HEATING SOLID, INORGANIC, n.o.s.	HENTWIAJ2769REA	L/R	D003, D001	1x1 GAL		1		
1	3	103384	ZINC POWDER, ZINC POWDER	HENPTAVES045	L/R	D003, D001	2x5 GAL		5, 6		
1	4	103384	CALCIUM CARBIDE	HENTWIAJ2769REA	L/R	D003, D001	1x1 GAL		2		
2	5	103384	MAGNESIUM POWDER	HENPTAVES038	L/R	D003, D001	1x5 GAL		4		

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number
2. Page 1 of
3. Emergency Response Phone
4. Manifest Tracking Number: 000191568 VES

5. Generator's Name and Mailing Address: [illegible] PO BOX 95 MAGNA UT 84044-0095 ATTN ROB YAROSIK

Generator's Site Address (if different than mailing address): 1620 [illegible] STREET OGDEN UT 84401

Generator's Phone:

6. Transporter 1 Company Name — U.S. EPA ID Number

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1.					
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: ROBERT M YAROSIK JR — Signature: [signature] — Month 12 Day 02 Year 09

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] — Signature: [signature] — Month 12 Day 02 Year 09

Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month Day Year

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number

22. Page

23. Manifest Tracking Number

GENERATOR

24. Generator's Name

25. Transporter _____ Company Name

U.S. EPA ID Number

26. Transporter _____ Company Name

U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		

32. Special Handling Instructions and Additional Information

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Veolia ES, Technical Solutions L.L.C.

ADDENDUM TO MANIFEST TRACKING NUMBER:

000191568VES

GENERATOR :	566181 - ATK LAUNCH SYSTEMS INC.	EPA ID :	UTP000001381	GEN DOC NUM :		DATE SHIPPED:	12/01/2009

Manifest Pg/Ln		WIP #	WIP Description	Approval #	Physical State / Hazard Codes	Waste Codes	Container count & size	Generator Drum ID	Veolia Drum #	PCB Container Number	OOSD
1	1	103384	PYROPHORIC METALS, n.o.s.	HENTWIAJ2774REA	L/R	D003, D001	1x1 GAL		3		
1	2	103384	SELF-HEATING SOLID, INORGANIC, n.o.s.	HENTWIAJ2769REA	L/R	D003, D001	1x1 GAL		1		
1	3	103384	ZINC POWDER, ZINC POWDER	HENPTAVES045	L/R	D003, D001	2x5 GAL		5, 6		
1	4	103384	CALCIUM CARBIDE	HENTWIAJ2769REA	L/R	D003, D001	1x1 GAL		2		
2	5	103384	MAGNESIUM POWDER	HENPTAVES038	L/R	D003, D001	1x5 GAL		4		

Land Disposal Restriction Certification Form - Exempt Lab Pack

Generator Name **ATK LAUNCH SYSTEMS INC.**

EPA ID Number **UTP000001381** Manifest **000191568VES**

This notice is being provided in accordance with 40 CFR 268.7(a)(9) to inform you that this shipment contains waste restricted from land disposal by the USEPA under the land disposal restriction program. This shipment contains lab packs that do not carry waste codes listed in 40 CFR part 268 Appendix IV. The method of treatment for these wastes is incineration. The container numbers corresponding to the individual lab packs are listed below along with the associated hazardous waste codes.

Container Number: **SM-1117272999-001 (1/ 2)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **SM-1117272999-002 (1/ 4)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (WATER REACTIVES PER 261.23(a)(2-4))

Container Number: **SM-1117272999-003 (1/ 1)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **SM-1117272999-004 (2/ 5)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (WATER REACTIVES PER 261.23(a)(2-4))

Container Number: **SM-1117272999-005 (1/ 3)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (WATER REACTIVES PER 261.23(a)(2-4))

Container Number: **SM-1117272999-006 (1/ 3)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (WATER REACTIVES PER 261.23(a)(2-4))

Phase II Certification: I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack does not contain any of the waste identified under 40 CFR part 268 Appendix IV. I am aware that there are significant penalties for submitting false certifications, including the possibility of fine or imprisonment.

Phase IV Certification: I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only wastes that have not been excluded under Appendix IV to 40 CFR part 268 and that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at 40 CFR 268.42(c). I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

Signature _____

Title ENVIRONMENTAL ENGINEER Date 12/02/2009

U T P 0 0 0 0 0 1 3 8 1 2 (877) 818-0087

ATK LAUNCH SYSTEMS INC.
PO BOX 98
ATTN: ROB YAROSIK
MAGNA, UT 84044-0098
801 250-5911

ATK LAUNCH SYSTEMS INC.
1620 9TH STREET

OGDEN, UT 84401

VEOLIA ES TECHNICAL SOLUTIONS N J D 0 8 0 6 3 1 3 6 9

VEOLIA ES TECHNICAL SOLUTIONS,
L.L.C.
9131 EAST 96TH AVE.
303 289-4827 HENDERSON, CO 80640

C O D 9 8 0 5 9 1 1 8 4

X	UN1383, WASTE PYROPHORIC METALS, n.o.s., (BORON DUST), 4.2, I						D003
		0 0 1	D F	0 0 0 0 3	P		D001
X	UN3190, WASTE SELF-HEATING SOLID, INORGANIC, n.o.s., (IRON OXIDE BLACK), 4.2, II LAB PACK						D003
		0 0 1	D F	0 0 0 0 3	P		D001
X	UN1436, WASTE ZINC POWDER, 4.3 (4.2), I LAB PACK						D003
		0 0 2	D F	0 0 0 8 8	P		D001
X	UN1402, WASTE CALCIUM CARBIDE, 4.3, II LAB PACK						D003
		0 0 1	D F	0 0 0 0 4	P		D001

1) ERG:135 W:103384 2) ERG:135 W:103384 3) ERG:138 W:103384 4) ERG:138 W:
3384 -|- ER Service Contracted by VESTS
CD'S REQUESTED PER GENERATOR

X	5. UN1418, WASTE MAGNESIUM POWDER, 4.3 (4.2), II LAB PACK	001	DF	00018	P	D003 D001

5) ERG:138 W:103384

5.

VEOLIA ENVIRONMENTAL SERVICES

09121718144

SHIPPING DOCUMENT	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Shipping Document Tracking Number
	UTP000001381	1	(877) 818-0087	ZZ 00140087

5. Generator's Name and Mailing Address

ATK LAUNCH SYSTEMS INC.
~~1020 9TH STREET~~ PO BOX 98
~~OGDEN, UT 84401~~ MAGNA UT 84044-0098
Generator's Phone 801 250-5911 ATTN: ROB YAROSIK

Generator's Site Address (if different than mailing address): ~~SAME~~ 1620 9TH STREET OGDEN UT 84401

6. Transporter 1 Company Name: VEOLIA ES TECHNICAL SOLUTIONS — U.S. EPA ID Number: NJD080631389

7. Transporter 2 Company Name: ~~RINCHEM COMPANY INC.~~ TRIAD TRANSPORT, INC — U.S. EPA ID Number: ~~MMD002208271~~ OKD981588791

8. Designated Facility Name and Site Address: US ECOLOGY OF IDAHO, INC, 20400 LEMLEY ROAD, GRAND VIEW, ID 83624
Facility's Phone: 800 274-1516 — U.S. EPA ID Number: IDD073114654

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Codes
	1. NON REGULATED MATERIAL, (DEXTROSE)	001	DF	00079	P	NONE
	2. NON REGULATED LIQUID	001	DM	00384	P	NONE
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) W:803779 USI-18041
VEOLIA DISPOSAL PO# 0000094677 2) W:103405 USI-18062 -I- ER Service Contracted by VESTS

15. **GENERATOR S/OFFEROR S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: ROBERT M. YAROSIK JR. — Signature: [signature] — Month 12 Day 02 Year 09

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Shipment

Transporter 1 Printed/Typed Name: Chase Ortega — Signature: [signature] — Month 12 Day 02 Year 09

Transporter 2 Printed/Typed Name: John Meeld — Signature: [signature] — Month 12 Day 16 Year 09

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Shipping Document Tracking Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132	H132		

20. Designated Facility Owner or Operator: Certification of receipt of shipment except as noted in Item 18a

Printed/Typed Name: Brenda Johnson for USEI — Signature: [signature] — Month 12 Day 17 Year 09

DESIGNATED FACILITY TO GENERATOR

Veolia ES, Technical Solutions L.L.C.

ADDENDUM TO MANIFEST TRACKING NUMBER:

ZZ00140087

GENERATOR :	566181 - ATK LAUNCH SYSTEMS INC.	EPA ID :	UTP000001381	GEN DOC NUM :		DATE SHIPPED:	12/02/2009

Manifest Pg/Ln		WIP #	WIP Description	Approval #	Physical State / Hazard Codes	Waste Codes	Container count & size	Generator Drum ID	Veolia Drum #	PCB Container Number	OOSD
1	1	803779	DEXTROSE SOLID	USI-	S/-	NONE	1x20 GAL		1		
1	2	103405	NON REG LIQUIDS	USI-18062	S/-	NONE	1x55 GAL		2		

U T P 0 0 0 0 0 1 3 8 1 1 (877) 818-0087

ATK LAUNCH SYSTEMS INC.
PO BOX 98
ATTN: ROB YAROSIK
MAGNA, UT 84044-0098
801 250-5911

ATK LAUNCH SYSTEMS INC.
1620 9TH STREET

OGDEN, UT 84401

VEOLIA ES TECHNICAL SOLUTIONS N J D 0 8 0 6 3 1 3 6 9

RINCHEM COMPANY INC. N M D 0 0 2 2 0 8 6 2 7

US ECOLOGY OF IDAHO, INC
20400 LEMLEY ROAD

800 274-1516 GRAND VIEW, ID 83624 I D D 0 7 3 1 1 4 6 5 4

NON REGULATED MATERIAL, (DEXTROSE) NONE

0 0 1 D F 00079 P

NON REGULATED LIQUID NONE

0 0 1 D M 00364 P

VEOLIA DISPOSAL PO#_____ 1) W:803779 USI-_____
2) W:103405 USI-18062 -|- ER Service Contracted by VESTS

ATTACHMENT B

EZ Access Storage Activity Summaries

Shipment Date: 12/10/2009
Shipped From: EZ Access Storage
Manifest Numbers: 000144405VES; 000144420VES; 000144421VES

Waste Stream	# of Containers	Waste Codes D	U	P	Initial Destination	Projected Final Destination
DOT Amines	12	--			HEN	PTA
Non-regulated (Loose)	12	--			HEN	PTA
Lab Pack	25	001 003 005 007 008 009			HEN	TWI
Lab Pack	4	--			HEN	PTA
Aluminum Powder	2	001 003			HEN	PTA
TCA Toxic (Loose)	1		226		HEN	PTA
Isocyanates	6	--			USI	USI
Non-regulated, Liquids	16	--			USI	USI
Asbestos	1	--			USI	USI
Asbestos, non-friable	3	--			USI	USI
Sodium Hydroxide	3	002			USI	USI
	85					

HEN = Veolia, Henderson, Colorado
TWI = Violia, Sauget, Illinois
PTA = Violia, Port Arthur, Texas
USI = US Ecology, Grandview, Idaho

Loose = Loose Pack Contained
LP = Lab Pack
box = 1 cubic yard cardboard box

01/05/10

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: UTP000001331
2. Page 1 of 1
3. Emergency Response Phone: (877) 318-0087
4. Manifest Tracking Number: 000144405 VES

5. Generator's Name and Mailing Address: ATK LAUNCH SYSTEMS INC, PO BOX 98, ATTN: ROB YAROSIK, MAGNA, UT 84044-0098

Generator's Site Address (if different than mailing address): ATK LAUNCH SYSTEMS INC, EZ ACCESS STORAGE, 8623 HIGHWAY 89, WILLARD, UT 84340

Generator's Phone: 44

6. Transporter 1 Company Name: VEOLIA ES TECHNICAL SOLUTIONS — U.S. EPA ID Number: NJD008631989

7. Transporter 2 Company Name: TRIAD TRANSPORT, INC — U.S. EPA ID Number: OKD981593791

8. Designated Facility Name and Site Address: VEOLIA ES TECHNICAL SOLUTIONS LLC, 9131 EAST 96TH AVE, HENDERSON, CO 80640 — U.S. EPA ID Number: COD980591184

Facility's Phone: 303 289-4827

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN2735, POLYAMINES, LIQUID, CORROSIVE, n.o.s., (TETRAETHYLENEPENTAMINE, 4,4-METHYLENEDIANILINE), 8, III, RQ	012	DM	02809	P	NONE
	2. NON REGULATED MATERIAL (LOOSEPACK)	012	CF	12000	P	NONE
	3.					
	4.					

14. Special Handling Instructions and Additional Information: 1) ERG: 153 W: 803782 2) W: 803783 ACTUAL WEIGHT # 10,194 LBS. Contracted by VESTS — ER Service

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: ROBERT M. YAROSIK JR. — Signature: [signature] — Month 12 Day 09 Year 09

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: ADAM SALINAS — Signature: [signature] — Month 12 Day 8 Year 09

Transporter 2 Printed/Typed Name: Bill Buchanan — Signature: Bill Buchanan — Month 12 Day 21 Year 09

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. H141 2. H141 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: [illegible] — Signature: [signature] — Month 12 Day 29 Year 09

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number

2. Page 1 of

3. Emergency Response Phone

4. Manifest Tracking Number 000144420 VES

5. Generator's Name and Mailing Address

Generator's Site Address (if different than mailing address)

Generator's Phone:

6. Transporter 1 Company Name

U.S. EPA ID Number

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

U.S. EPA ID Number

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1.					
X	2.					
X	3.					
X	4.					

14. Special Handling Instructions and Additional Information

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name | Signature | Month | Day | Year

GENERATOR

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter signature (for exports only): Date leaving U.S.:

INT'L

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name | Signature | Month | Day | Year

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

TRANSPORTER

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: [illegible]

22. Page: [illegible]

23. Manifest Tracking Number: [illegible]

24. Generator's Name: [illegible]

25. Transporter _____ Company Name: [illegible] U.S. EPA ID Number: [illegible]

26. Transporter _____ Company Name: [illegible] U.S. EPA ID Number: [illegible]

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	[illegible]	[illegible]	[illegible]	[illegible]	P	[illegible]		
						[illegible]		
X	[illegible]	[illegible]	[illegible]	[illegible]	P	[illegible]		
						[illegible]		
X	[illegible]	[illegible]	[illegible]	[illegible]	P	[illegible]		
						[illegible]		
X	[illegible]	[illegible]	[illegible]	[illegible]	P	[illegible]		
						[illegible]		
X	[illegible]	[illegible]	[illegible]	[illegible]	P	[illegible]		
						[illegible]		
X	[illegible]	[illegible]	[illegible]	[illegible]	P	[illegible]		
						[illegible]		
X	[illegible]	[illegible]	[illegible]	[illegible]	P	[illegible]		
						[illegible]		
X	[illegible]	[illegible]	[illegible]	[illegible]	P	[illegible]		
						[illegible]		
X	[illegible]	[illegible]	[illegible]	[illegible]	P	[illegible]		
						[illegible]		
X	[illegible]	[illegible]	[illegible]	[illegible]	P	[illegible]		
						[illegible]		

32. Special Handling Instructions and Additional Information: [illegible]

GENERATOR

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

TRANSPORTER

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

DESIGNATED FACILITY

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number	22. Page	23. Manifest Tracking Number
[illegible]	[illegible]	[illegible]

24. Generator's Name [illegible]

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	[illegible]	[illegible]	[illegible]	[illegible]	P	[illegible]		
X	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
X	[illegible]	[illegible]	[illegible]	[illegible]	P	[illegible]		
X	[illegible]	[illegible]	[illegible]	[illegible]	P	[illegible]		
X	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
X	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
X	[illegible]	001	DF	00030	P	[illegible]		
X	[illegible]	[illegible]	[illegible]	[illegible]	P	[illegible]		
X	[illegible]	[illegible]	[illegible]	[illegible]	P	[illegible]		
X	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		

GENERATOR

32. Special Handling Instructions and Additional Information [illegible]

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number	22. Page	23. Manifest Tracking Number

24. Generator's Name

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
X	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
X	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		

32. Special Handling Instructions and Additional Information

GENERATOR

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Veolia ES, Technical Solutions L.L.C.

ADDENDUM TO MANIFEST TRACKING NUMBER:

000144420VES

GENERATOR : 566183 - ATK LAUNCH SYSTEMS INC. EPA ID : UTP000001381 GEN DOC NUM : DATE SHIPPED: 12/08/2009

Manifest Pg/Ln		WIP #	WIP Description	Approval #	Physical State / Hazard Codes	Waste Codes	Container count & size	Generator Drum ID	Veolia Drum #	PCB Container Number	OOSD
1	1	807053	FLAMMABLE LIQUIDS, CORROSIVE, n.o.s.	HENTWIAJ2771BAS	L/I	D001	1x15 GAL		21		
1	2	807053	FLAMMABLE SOLIDS, ORGANIC, n.o.s.	HENTWIAJ2774REA	L/I	D001	1x3 GAL		7		
1	3	807053	FLAMMABLE SOLID, INORGANIC, n.o.s.	HENTWIAJ2769REA	L/R	D003, D001	1x3 GAL		2		
1	4	807053	ALUMINUM POWDER, UNCOATED	HENTWIAJ2769REA	L/R	D003, D001	1x55 GAL		1		
2	5	808162	ALUMINUM POWDER, UNCOATED	HEN	S/R	D003, D001	2x30 GAL		5, 6		
2	6	807053	ALUMINUM POWDER, UNCOATED	HENTWIAJ2769REA	L/R	D003, D001	1x15 GAL		4		
2	7	807053	ALUMINUM POWDER, UNCOATED	HENTWIAJ2771REA	S/R	D003, D001	1x11 GAL		17		
2	8	807053	ALUMINUM POWDER, UNCOATED	HENTWIAJ2769REA	L/R	D003, D001	1x55 GAL		3		
2	9	807053	AMMONIUM PERCHLORATE, AMMONIUM PERCHLORATE	HENTWIAJ2769OXN	S/R	D003, D001	2x55 GAL		26, 27		
2	10	807053	AMMONIUM PERCHLORATE, AMMONIUM PERCHLORATE, AMMONIUM PERCHLORATE, AMMONIUM PERCHLORATE	HENTWIAJ2771OXN	S/R	D003, D001	4x55 GAL		25, 28, 29, 30		
2	11	807053	BARIUM NITRATE	HENTWIAJ2771OXN	S/I	D001, D005	1x55 GAL		32		
2	12	807053	OXIDIZING SOLID, TOXIC, n.o.s.	HENTWIAJ2769OXN	L/I	D001, D008, D007	1x55 GAL		15		
2	13	807053	OXIDIZING SOLID, n.o.s.	HENTWIAJ2769OXN	L/R	D001, D003	1x55 GAL		13		
2	14	807053	OXIDIZING SOLID, n.o.s.	HENTWIAJ2769OXN	S/R	D003, D001	1x55 GAL		31		
3	15	807053	AMMONIUM PERCHLORATE	HENTWIAJ2769OXN	L/R	D003, D001	1x55 GAL		14		
3	16	807053	OXIDIZING SOLID, CORROSIVE, n.o.s.	HENTWIAJ2774OXA	L/I	D001, D007	1x1 GAL		10		
3	17	807053	LEAD DIOXIDE	HENTWIAJ2769OXN	L/I	D001, D008	1x55 GAL		24		
3	18	807053	MERCURIC CHLORIDE	HENSAL8521SLV	L/E	D009	1x1 GAL		9		
3	19	807053	TOXIC LIQUIDS, ORGANIC, n.o.s.	HENTWIAJ2769SLV	L/E	D007, NONE	1x15 GAL		22		
3	20	959990	TCA LOOSEPACK	HENLSPKREC-TCA	L/T	U226	1x55 GAL		23		
3	21	807053	SODIUM HYDROXIDE SOLUTION	HENTWIAJ2769BAS	L/C	D002	1x15 GAL		19		
3	22	807053	CORROSIVE LIQUID, ACIDIC, INORGANIC, n.o.s.	HENTWIAJ2774IAC	L/C	D002, D007	1x3 GAL		11		
3	23	807053	CORROSIVE LIQUIDS, TOXIC, n.o.s.	HENTWIAJ2769BA	L/-	NONE	1x5 GAL		20		

Veolia ES, Technical Solutions L.L.C.

ADDENDUM TO MANIFEST TRACKING NUMBER:

000144420VES

GENERATOR : 566183 - ATK LAUNCH SYSTEMS INC. EPA ID : UTP000001381 GEN DOC NUM : DATE SHIPPED: 12/08/2009

Manifest Pg/Ln		WIP #	WIP Description	Approval #	Physical State / Hazard Codes	Waste Codes	Container count & size	Generator Drum ID	Veolia Drum #	PCB Container Number	OOSD
3	24	803784	CORROSIVE SOLID, ACIDIC, ORGANIC,n.o.s.	HENTWIAJ2774OS A	S/-	NONE	1x1 GAL		16		
4	25	807053	LAB PACK	HENSAL8519(UW)	L/-	NONE	1x1 GAL		8		
4	26	807053	CORROSIVE SOLID, ACIDIC, INORGANIC, n.o.s.	HENTWIAJ2774IAC	L/-	NONE	1x3 GAL		12		
4	27	807053	HAZARDOUS WASTE, LIQUID, n.o.s.	HENTWIAJ2769REA	L/R	NONE, D003	1x30 GAL		18		

Land Disposal Restriction Certification Form - Exempt Lab Pack

Generator Name **ATK LAUNCH SYSTEMS INC.**

EPA ID Number **UTP000001381** Manifest **000144420VES**

This notice is being provided in accordance with 40 CFR 268.7(a)(9) to inform you that this shipment contains waste restricted from land disposal by the USEPA under the land disposal restriction program. This shipment contains lab packs that do not carry waste codes listed in 40 CFR part 268 Appendix IV. The method of treatment for these wastes is incineration. The container numbers corresponding to the individual lab packs are listed below along with the associated hazardous waste codes.

Container Number: **QK-1132780000-001 (1/ 4)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (WATER REACTIVES PER 261.23(a)(2-4))

Container Number: **QK-1132780000-002 (1/ 3)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **QK-1132780000-003 (2/ 8)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (WATER REACTIVES PER 261.23(a)(2-4))

Container Number: **QK-1132780000-004 (2/ 6)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (WATER REACTIVES PER 261.23(a)(2-4))

Container Number: **QK-1132780000-007 (1/ 2)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS))

Container Number: **QK-1132780000-010 (3/ 16)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D007**

Container Number: **QK-1132780000-011 (3/ 22)**

Waste Codes: **D002, D007**

Container Number: **QK-1132780000-013 (2/ 13)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **QK-1132780000-014 (3/ 15)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **QK-1132780000-015 (2/ 12)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D007**, **D008**, **D008** (NONE)

Container Number: **QK-1132780000-017 (2/ 7)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (WATER REACTIVES PER 261.23(a)(2-4))

Container Number: **QK-1132780000-018 (4/ 27)**

Waste Codes: **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **QK-1132780000-019 (3/ 21)**

Waste Codes: **D002**

Container Number: **QK-1132780000-021 (1/ 1)**

Waste Codes: **D001**

Container Number: **QK-1132780000-022 (3/ 19)**

Waste Codes: **D007**

Container Number: **QK-1132780000-024 (3/ 17)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D008** (NONE)

Container Number: **QK-1132780000-025 (2/ 10)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **QK-1132780000-026 (2/ 9)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **QK-1132780000-027 (2/ 9)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **QK-1132780000-028 (2/ 10)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **QK-1132780000-029 (2/ 10)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10%

TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **QK-1132780000-030 (2/ 10)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **QK-1132780000-031 (2/ 14)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **QK-1132780000-032 (2/ 11)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D005**

Phase II Certification: I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack does not contain any of the waste identified under 40 CFR part 268 Appendix IV. I am aware that there are significant penalties for submitting false certifications, including the possibility of fine or imprisonment.

Phase IV Certification: I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only wastes that have not been excluded under Appendix IV to 40 CFR part 268 and that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at 40 CFR 268.42(c). I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

Signature _____

Title ENVIRONMENTAL ENGINEER Date 12/09/2009

Land Disposal Restriction Notification Form

Generator Name **ATK LAUNCH SYSTEMS INC.**

EPA ID Number **UTP000001381** Manifest **000144420VES**

This notice is being provided in accordance with 40 CFR 268.7 to inform you that this shipment contains waste restricted from land disposal by the USEPA under the land disposal restriction program. Identified below for each container is the designation of the waste as a wastewater or non-wastewater, the Clean Water Act (CWA) permit status associated with the treatment/disposal facility, applicable waste codes and any corresponding subcategories, list of any F001-F005 solvent constituents that are present in the waste, and any underlying hazardous constituents (UHC) that are present.

Container Number: **QK-1132780000-005 (2/ 5)**

WIP / Approval Code:	**808162 / HEN**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001, D003**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **QK-1132780000-006 (2/ 5)**

WIP / Approval Code:	**808162 / HEN**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001, D003**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **QK-1132780000-009 (3/ 18)**

WIP / Approval Code:	**807053 / HENSAL8521SLV**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D009 (INORGANIC MERCURY >=260MG/KG TOTAL HG THAT INCLUDES INCINERA TOR & RMERC RESIDUES)**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **QK-1132780000-023 (3/ 20)**

WIP / Approval Code:	**959990 / HENLSPKREC-TCA**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**U226**
Constituents (F001 - F005):	**None**
UHCs Present:	**Not Applicable**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

I hearby certify that all information in this and associated land disposal restriction documents is complete and accurate to the best of my knowledge and information.

Signature _____

Title ENVIRONMENTAL ENGINEER Date 12/09/2009

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number
2. Page 1 of
3. Emergency Response Phone
4. Manifest Tracking Number: 000144421 VES

GENERATOR

5. Generator's Name and Mailing Address

Generator's Site Address (if different than mailing address)

Generator's Phone:

6. Transporter 1 Company Name — U.S. EPA ID Number

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1.					
	2.					
X	3.					
	4.					

14. Special Handling Instructions and Additional Information

Contacted by VESTA
VELLA POW
CTIS REQUIRED

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: ROBERT M. YARZOSK JR. — Signature — Month 12 Day 09 Year 09

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: CHRIS FRANCEY — Signature — Month 12 Day 09 Year 09

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month Day Year

Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number

22. Page

23. Manifest Tracking Number

24. Generator's Name

25. Transporter _____ Company Name

U.S. EPA ID Number

26. Transporter _____ Company Name

U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		

GENERATOR

32. Special Handling Instructions and Additional Information

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Veolia ES, Technical Solutions L.L.C.

ADDENDUM TO MANIFEST TRACKING NUMBER:

000144421VES

GENERATOR : 566183 - ATK LAUNCH SYSTEMS INC. EPA ID : UTP000001381 GEN DOC NUM : DATE SHIPPED: 12/08/2009

Manifest Pg/Ln		WIP #	WIP Description	Approval #	Physical State / Hazard Codes	Waste Codes	Container count & size	Generator Drum ID	Veolia Drum #	PCB Container Number	OOSD
1	1	808462	ISOCYANATES	USI-15989	L/-	NONE	4x30 GAL		1		
1	3	808462	ISOCYANATES	USI-15989	L/-	NONE	2x55 GAL		3, 4		
2	5	808855	SODIUM HYDROXIDE SOLUTION	USI-19510	L/C	D002	3x55 GAL		2, 5, 6		
2	6	960497	ASBESTOS - NON FRIABLE (ATK LOOSEPACK)	USI-18141	S/E	D007	3x55 GAL		19		
2	7	960497	ASBESTOS - NON FRIABLE (ATK LOOSEPACK)	USI-18141	S/-	NONE	1x55 GAL		8		
2	8	959814	NON REG LIQUIDS	USI-18062	S/-	NONE	1x30 GAL, 15x55 GAL		9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25		

Land Disposal Restriction Notification Form

Generator Name **ATK LAUNCH SYSTEMS INC.**

EPA ID Number **UTP000001381** Manifest **000144421VES**

This notice is being provided in accordance with 40 CFR 268.7 to inform you that this shipment contains waste restricted from land disposal by the USEPA under the land disposal restriction program. Identified below for each container is the designation of the waste as a wastewater or non-wastewater, the Clean Water Act (CWA) permit status associated with the treatment/disposal facility, applicable waste codes and any corresponding subcategories, list of any F001-F005 solvent constituents that are present in the waste, and any underlying hazardous constituents (UHC) that are present.

Container Number: **QK-1132780999-002 (2/ 5)**

WIP / Approval Code:	**808855 / USI-19510**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D002**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **QK-1132780999-005 (2/ 5)**

WIP / Approval Code:	**808855 / USI-19510**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D002**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **QK-1132780999-006 (2/ 5)**

WIP / Approval Code:	**808855 / USI-19510**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D002**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

I hearby certify that all information in this and associated land disposal restriction documents is complete and accurate to the best of my knowledge and information.

Signature [signature]

Title ENVIRONMENTAL ENGINEER Date 12/09/2009

Shipment Date: 12/8/2009
Shipped From: EZ Access
Manifest Numbers: 000144407VES;

Waste Stream	# of Containers	Waste Codes D	U	P	Initial Destination	Projected Final Destination
Cylinder (LP)	6	--			HEN	TWI
Flammable (Loose)	1	001 007 035			HEN	PTA
Fuel Treatment	1	001	359		HEN	HEN
Ammonium Perchlorate (LP)	4	001 003			HEN	TWI
Potassium Perchlorate	1	001 003			HEN	TWI
Toxic (Loose)	7	007 008 011			HEN	PTA
DOT Amines (Loose)	13	--			HEN	PTA
Aerosols	1	001 035 039 040	226		HEN	PTA
Non-regulated (Loose),box	7	--			HEN	PTA
	41					

HEN = Veolia, Henderson, Colorado
TWI = Violia, Sauget, Illinois
PTA = Violia, Port Arthur, Texas
USI = US Ecology, Grandview, Idaho

Loose = Loose Pack Contained
LP = Lab Pack
box = 1 cubic yard cardboard box

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: UTP000001381
2. Page 1 of 2
3. Emergency Response Phone: (877) 818-0087
4. Manifest Tracking Number: 000144407 VES

5. Generator's Name and Mailing Address: ATK LAUNCH SYSTEMS INC. PO BOX 98, M/S F1EV ATTN:ROB YAROSIK MAGNA, UT 84044-0098

Generator's Site Address (if different than mailing address): ATK LAUNCH SYSTEMS INC. EZ ACCESS STORAGE 8823 HIGHWAY 89 WILLARD, UT 84340

Generator's Phone:

6. Transporter 1 Company Name: VEOLIA ES TECHNICAL SOLUTIONS — U.S. EPA ID Number: NJD080631369

7. Transporter 2 Company Name: TRIAD TRANSPORT, INC. — U.S. EPA ID Number: OKD981588791

8. Designated Facility Name and Site Address: VEOLIA ES TECHNICAL SOLUTIONS, LLC 9131 EAST 96TH AVE. HENDERSON, CO 80640 — U.S. EPA ID Number: COD980591184

Facility's Phone: 303 289-4827

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1956, COMPRESSED GAS, n.o.s., (BREATHING AIR), 2.2	006	CY	00006	P	~~[illegible]~~ None		
X	2. ~~UN1993~~, WASTE FLAMMABLE LIQUIDS, n.o.s., (METHYL ETHYL KETONE, ACETONE), 3, II, RQ (D001) UN1171	001	DM	00400	P	D001 D007	D035	
X	3. ~~UN1172~~, WASTE ETHYLENE GLYCOL MONOETHYL ETHER ~~ACETATE~~, 3, III COM	001	DM	00450	P	U359 D001		
X	4. UN1442, WASTE AMMONIUM PERCHLORATE, 5.1, II, RQ (D001) (D003)	002	DF	00349	P	D001 D003		

14. Special Handling Instructions and Additional Information 1) ERG:126 W:808629 2) ERG:128 W:803778 3) ERG:129 W:808628 4) ERG:143 W:
969813 -|- ER Service Contracted by VESTS

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: ROBERT M YAROSIK JR. — Signature: [signature] — Month 12 Day 09 Year 09

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Date leaving U.S.:
Transporter signature (for exports only):

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Brandon Christensen — Signature: [signature] — Month 12 Day 09 Year 09
Transporter 2 Printed/Typed Name: Pete Caldwell — Signature: [signature] — Month 12 Day 17 Year 09

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H141 2. H111 3. H141 4. H141

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: [illegible] — Signature: [signature] — Month 12 Day 22 Year 09

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: UTP000001381

22. Page: 2 of 2

23. Manifest Tracking Number: 000144407VES

24. Generator's Name: ATK LAUNCH SYSTEMS INC.

25. Transporter 3 Company Name: VEOLIA ES TECHNICAL SOLUTIONS — U.S. EPA ID Number: NJD020631369

26. Transporter _____ Company Name — U.S. EPA ID Number:

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5. UN1442, WASTE AMMONIUM PERCHLORATE, 5.1, II, RQ (D001) (D003)	010 ~~011~~ (BS)	DM	03019 ~~03141~~ (BS)	P	D001 / D003		
X	6. UN1489, WASTE POTASSIUM PERCHLORATE, 5.1, II, RQ (D001)	001	DM	00260	P	D001		
X	7. UN2810, WASTE TOXIC LIQUIDS, ORGANIC, n.o.s., (CHROMIUM, ISOPHORONE DIISOCYANATE), 6.1, II	007	DM	01616	P	D007 / D008	D011	
X	8. UN2735, POLYAMINES, LIQUID, CORROSIVE, n.o.s., (TETRAETHYLENEPENTAMINE, 4,4-METHYLENEDIANILINE), 8, III, RQ	013	DM	02813	P	NONE		
X	9. WASTE CONSUMER COMMODITY, ORMD	001	DM	00139	P	D226 / D001	D035 / D039	D040
	10. NON REGULATED MATERIAL, (LOOSEPACK)	007	CF	07000	P	NONE		
X	11. UN1396, Waste Aluminum Powder, Uncoated, 4.3, II	001	DM	00122	P	D001 / D003		

32. Special Handling Instructions and Additional Information 5) ERG:143 W:059813 6) ERG:140 W:059181 7) ERG:153 W:803780 8) ERG:153 W: 803782 9) W:803785 10) W:803783 ACTUAL WEIGHT# 4844 LBS., 11) W:808162 ERG: 138

Clicker II 12 17 07

GENERATOR

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name: VICKI K PENNEY — Signature: Vicki K Penney — Month 12 Day 18 Year 07

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name: — Signature: — Month Day Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

8. H141 8. H111 9. 10.

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Veolia ES, Technical Solutions L.L.C.

ADDENDUM TO MANIFEST TRACKING NUMBER:

000144407VES

GENERATOR : 566183 - ATK LAUNCH SYSTEMS INC. **EPA ID :** UTP000001381 **GEN DOC NUM :** **DATE SHIPPED:** 12/08/2009

Manifest Pg/Ln		WIP #	WIP Description	Approval #	Physical State / Hazard Codes	Waste Codes	Container count & size	Generator Drum ID	Veolia Drum #	PCB Container Number	OOSD
1	1	808629	CYLINDER LAB PACK	HENTWICYG001	L/-	NONE	6xCYLIN	.	23		
1	2	803778	CAN-DRUM FLAMMABLE (LOOSEPACK)	HENPTA884369	L/I	D001, D007, D035	1x55 GAL	.	22		
1	3	808628	FUEL TREATMENT	HENFLS	L/T	U359, D001	1x55 GAL	5DR019	15		
1	4	959813	AMMONIUM PERCHLORATE	HENTWI	S/R	D003, D001	1x30 GAL, 1x10 GAL	45DR19, 14DR28	13, 14		
2	5	959813	AMMONIUM PERCHLORATE	HENTWI	S/R	D003, D001	10x30 GAL, 1x55 GAL	45DR007, 45DR018, 45DR004, 45DR005, 45DR009, 45DR010, 45DR016, 45DR15, 45DR020, 45DR011, 45DR19	1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12		
2	6	959181	POTASSIUM PERCHLORATE	HENTWI802578	S/I	D001	1x30 GAL	45DR006	5		
2	7	803780	CAN-DRUM, TOXIC (LOOSEPACK) MISC.	HENPTA884371	S/E	D007, D008, D011	7x55 GAL	.	16, 17, 21, 25		
2	8	803782	CAN-DRUM, AMINES, DOT ONLY (LOOSEPACK)	HENPTA594360	S/-	NONE	13x55 GAL	.	20, 24		
2	9	803785	AEROSOLS-MIXED FLAMMABLE	HENRPKAER001PTA	G/T	U226, D001, D035, D039, D040	1x55 GAL	.	18		
2	10	803783	NON REGULATED MATERIAL LOOSEPACK	HENPTAVES039	S/-	NONE	7xCYDBOX	.	26		

U T P 0 0 0 0 0 1 3 8 1 2 (877) 818-0087

ATK LAUNCH SYSTEMS INC.
PO BOX 98, M/S F1EV
ATTN:ROB YAROSIK
MAGNA, UT 84044-0098

ATK LAUNCH SYSTEMS INC.
EZ ACCESS STORAGE
8823 HIGHWAY 89
WILLARD, UT 84340

VEOLIA ES TECHNICAL SOLUTIONS N J D 0 8 0 6 3 1 3 6 9

TRIAD TRANSPORT, INC. O K D 9 8 1 5 8 8 7 9 1

VEOLIA ES TECHNICAL SOLUTIONS,
L.L.C.
9131 EAST 96TH AVE.
303 289-4827 HENDERSON, CO 80640 C O D 9 8 0 5 9 1 1 8 4

X	UN1956, COMPRESSED GAS, n.o.s., (BREATHING AIR), 2.2						NONE	
		0 0 6	C Y	00006	P			
X	UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (METHYL ETHYL KETONE, ACETONE), 3, II, RQ (D001)						D001	D035
		0 0 1	D M	00400	P		D007	
X	UN1172, WASTE ETHYLENE GLYCOL MONOETHYL ETHER ACETATE, 3, III						U359	
		0 0 1	D M	00450	P		D001	
X	UN1442, WASTE AMMONIUM PERCHLORATE, 5.1, II, RQ (D001)						D003	
		0 0 2	D F	00349	P		D001	

1) ERG:126 W:808629 2) ERG:128 W:803778 3) ERG:129 W:808628 4) ERG:143 W:

959813 -|- ER Service Contracted by VESTS
CD'S REQUIRED

X	5. UN1442, WASTE AMMONIUM PERCHLORATE, 5.1, II, RQ (D001)	011	DM	03141	P	D003 D001		
X	6. UN1489, WASTE POTASSIUM PERCHLORATE, 5.1, II, RQ (D001)	001	DM	00260	P	D001		
X	7. UN2810, WASTE TOXIC LIQUIDS, ORGANIC, n.o.s., (CHROMIUM, ISOPHORONE DIISOCYANATE), 6.1, II	007	DM	01616	P	D007 D008	D011	
X	8. UN2735, POLYAMINES, LIQUID, CORROSIVE, n.o.s., (TETRAETHYLENEPENTAMINE, 4,4-METHYLENEDIANILINE), 8, III, RQ	013	DM	02813	P	NONE		
X	9. WASTE CONSUMER COMMODITY, ORMD	001	DM	00139	P	U226 D001	D035 D039	D040
	10. NON REGULATED MATERIAL, (LOOSEPACK)	007	CF	07000	P	NONE		

5) ERG:143 W:959813 6) ERG:140 W:959181 7) ERG:153 W:803780 8) ERG:153 W: 803782 9) W:803785 10) W:803783 ACTUAL WEIGHT#4841

5. 6. 7. 8. 9.

10.

Land Disposal Restriction Notification Form

Generator Name **ATK LAUNCH SYSTEMS INC.**

EPA ID Number **UTP000001381** Manifest **000144407VES**

This notice is being provided in accordance with 40 CFR 268.7 to inform you that this shipment contains waste restricted from land disposal by the USEPA under the land disposal restriction program. Identified below for each container is the designation of the waste as a wastewater or non-wastewater, the Clean Water Act (CWA) permit status associated with the treatment/disposal facility, applicable waste codes and any corresponding subcategories, list of any F001-F005 solvent constituents that are present in the waste, and any underlying hazardous constituents (UHC) that are present.

Container Number: **JD-1144687000-022 (1/ 2)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D007, D035**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O- XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **JD-1144687000-015 (1/ 3)**

WIP / Approval Code:	**808628 / HENFLS**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), U359**
Constituents (F001 - F005):	**None**
UHCs Present:	**Not Applicable**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **JD-1144687000-013 (1/ 4)**

WIP / Approval Code:	**959813 / HENTWI**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), D003 (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **JD-1144687000-014 (1/ 4)**

WIP / Approval Code:	**959813 / HENTWI**

Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), D003 (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **JD-1144687000-001 (2/ 5)**

WIP / Approval Code:	**959813 / HENTWI**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), D003 (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **JD-1144687000-002 (2/ 5)**

WIP / Approval Code:	**959813 / HENTWI**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), D003 (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **JD-1144687000-003 (2/ 5)**

WIP / Approval Code:	**959813 / HENTWI**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), D003 (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **JD-1144687000-004 (2/ 5)**

WIP / Approval Code:	**959813 / HENTWI**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES,**

	FLAMMABLE SOLIDS & OXIDIZERS)), D003 (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **JD-1144687000-006 (2/ 5)**

WIP / Approval Code:	**959813 / HENTWI**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), D003 (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **JD-1144687000-007 (2/ 5)**

WIP / Approval Code:	**959813 / HENTWI**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), D003 (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **JD-1144687000-008 (2/ 5)**

WIP / Approval Code:	**959813 / HENTWI**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), D003 (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **JD-1144687000-009 (2/ 5)**

WIP / Approval Code:	**959813 / HENTWI**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), D003 (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)**

Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **JD-1144687000-010 (2/ 5)**

WIP / Approval Code:	**959813 / HENTWI**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), D003 (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **JD-1144687000-011 (2/ 5)**

WIP / Approval Code:	**959813 / HENTWI**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), D003 (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **JD-1144687000-012 (2/ 5)**

WIP / Approval Code:	**959813 / HENTWI**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), D003 (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **JD-1144687000-005 (2/ 6)**

WIP / Approval Code:	**959181 / HENTWI802578**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS))**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **JD-1144687000-016 (2/ 7)**

WIP / Approval Code:	**803780 / HENPTA884371**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D007, D008 (NONE), D011**
Constituents (F001 - F005):	**None**
UHCs Present:	**ARSENIC, BARIUM (ELEMENT), N- BUTYL PHTHALATE, METHYLENE CHLORIDE, CADMIUM (METAL), 1,1,1 TRICHLOROETHANE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **JD-1144687000-017 (2/ 7)**

WIP / Approval Code:	**803780 / HENPTA884371**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D007, D008 (NONE), D011**
Constituents (F001 - F005):	**None**
UHCs Present:	**ARSENIC, BARIUM (ELEMENT), N- BUTYL PHTHALATE, METHYLENE CHLORIDE, CADMIUM (METAL), 1,1,1 TRICHLOROETHANE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **JD-1144687000-021 (2/ 7)**

WIP / Approval Code:	**803780 / HENPTA884371**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D007, D008 (NONE), D011**
Constituents (F001 - F005):	**None**
UHCs Present:	**ARSENIC, BARIUM (ELEMENT), N- BUTYL PHTHALATE, METHYLENE CHLORIDE, CADMIUM (METAL), 1,1,1 TRICHLOROETHANE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **JD-1144687000-025 (2/ 7)**

WIP / Approval Code:	**803780 / HENPTA884371**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D007, D008 (NONE), D011**
Constituents (F001 - F005):	**None**
UHCs Present:	**ARSENIC, BARIUM (ELEMENT), N- BUTYL PHTHALATE, METHYLENE CHLORIDE, CADMIUM (METAL), 1,1,1 TRICHLOROETHANE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **JD-1144687000-018 (2/ 9)**

WIP / Approval Code:	**803785 / HENRPKAER001PTA**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), D035, D039, D040, U226**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**

Additional Notices:

I hearby certify that all information in this and associated land disposal restriction documents is complete and accurate to the best of my knowledge and information.

Signature _____

Title _____ Date _____

Shipment Date: 12/7/2009
Shipped From: EZ Access
Manifest Numbers: 000143377VES

Waste Stream	# of Containers	Waste Codes D	Waste Codes U	Waste Codes P	Initial Destination	Projected Final Destination
Flammable (Loose)	37	001 007 008 019 035 039 040	112 154 159		HEN	PTA
Toxic (LP)	5	006 007 008 035			HEN	PTA
TCA (Loose)	1		226		HEN	TWI
DOT Amines (LP)	22	--			HEN	PTA
Aerosols	3	001 035			HEN	PTA
Non-regulated (Loose)	6	--			HEN	PTA
	74					

HEN = Veolia, Henderson, Colorado
TWI = Violia, Sauget, Illinois
PTA = Violia, Port Arthur, Texas
USI = US Ecology, Grandview, Idaho

Loose = Loose Pack Contained
LP = Lab Pack
box = 1 cubic yard cardboard box

Veolia ES, Technical Solutions L.L.C.

ADDENDUM TO MANIFEST TRACKING NUMBER:

000143377VES

GENERATOR : 566183 - ATK LAUNCH SYSTEMS INC. **EPA ID :** UTP000001381 **GEN DOC NUM :** **DATE SHIPPED:** 12/07/2009

Manifest Pg/Ln		WIP #	WIP Description	Approval #	Physical State / Hazard Codes	Waste Codes	Container count & size	Generator Drum ID	Veolia Drum #	PCB Container Number	OOSD
1	1	803778	CAN-DRUM FLAMMABLE (LOOSEPACK)	HENPTA884369	L/I	D001, D007, D008	2x55 GAL		58, 59		
1	2	803778	CAN-DRUM FLAMMABLE (LOOSEPACK)	HENPTA884369	L/I	D001, D007, D008, D018, D019, D035	1x55 GAL		24		
1	3	803778	CAN-DRUM FLAMMABLE (LOOSEPACK)	HENPTA884369	L/I	D001, D007, D008, D019, D035, D039, D040	1x55 GAL		68		
1	4	803778	CAN-DRUM FLAMMABLE (LOOSEPACK)	HENPTA884369	L/I	D001, D007, D008, D035	1x55 GAL		62		
2	5	803778	CAN-DRUM FLAMMABLE (LOOSEPACK)	HENPTA884369	L/I	D001, D007, D008, D035, D039	1x55 GAL		61		
2	6	803778	CAN-DRUM FLAMMABLE (LOOSEPACK)	HENPTA884369	L/I	D001, D008, D035, D039	4x55 GAL		48, 49, 51, 54		
2	7	803778	CAN-DRUM FLAMMABLE (LOOSEPACK)	HENPTA884369	L/I	D001, D008, D035, D039, D040	2x55 GAL		45, 46		
2	8	803778	CAN-DRUM FLAMMABLE (LOOSEPACK)	HENPTA884369	L/I	D001, D019, D035, D039, D040	1x55 GAL		39		
2	9	803778	CAN-DRUM FLAMMABLE (LOOSEPACK)	HENPTA884369	L/I	D001, D019, D035, D039, D040	2x55 GAL		20, 23		
2	10	803778	CAN-DRUM FLAMMABLE (LOOSEPACK)	HENPTA884369	L/I	D001, D019, D035, D040	2x55 GAL		8, 19		
2	11	803778	CAN-DRUM FLAMMABLE (LOOSEPACK)	HENPTA884369	L/I	D001, D035	6x55 GAL		29, 35, 36, 38, 40, 43		
2	12	803778	CAN-DRUM FLAMMABLE (LOOSEPACK)	HENPTA884369	L/I	U112, D001, D007, D019, D035, D040	1x55 GAL		17		
2	13	803778	CAN-DRUM FLAMMABLE (LOOSEPACK)	HENPTA884369	L/I	U112, D001, D019, D035, D040	2x55 GAL		13, 16		
2	14	803778	CAN-DRUM FLAMMABLE (LOOSEPACK)	HENPTA884369	L/I	U112, D001, D035	9x55 GAL		1, 2, 3, 4, 6, 9, 10, 12, 15		
3	15	803778	CAN-DRUM FLAMMABLE (LOOSEPACK)	HENPTA884369	L/I	U154, D001, D007, D008, D019, D040	1x55 GAL		5		
3	16	803778	CAN-DRUM FLAMMABLE (LOOSEPACK)	HENPTA884369	L/I,T	U159, D001, D008, D019, D035, D039, D040	1x55 GAL		21		
3	17	803780	CAN-DRUM, TOXIC (LOOSEPACK) MISC.	HENPTA884371	S/E	D006, D007	1x55 GAL		72		
3	18	803780	CAN-DRUM, TOXIC (LOOSEPACK) MISC.	HENPTA884371	S/E	D007, D008	1x55 GAL		73		
3	19	803780	CAN-DRUM, TOXIC (LOOSEPACK) MISC.	HENPTA884371	S/E	D007, D008, D035	3x55 GAL		25, 32, 53		
3	20	959990	TCA LOOSEPACK	HENSPKREC-TCA	L/T	U226	1x55 GAL		30		
3	21	803782	CAN-DRUM, AMINES, DOT ONLY	HENPTA594360	S/-	NONE	22x55 GAL		11, 18,		

37

5

Veolia ES, Technical Solutions L.L.C.

ADDENDUM TO MANIFEST TRACKING NUMBER:

000143377VES

GENERATOR : 566183 - ATK LAUNCH SYSTEMS INC. **EPA ID :** UTP000001381 **GEN DOC NUM :** **DATE SHIPPED:** 12/07/2009

Manifest Pg/Ln		WIP #	WIP Description	Approval #	Physical State / Hazard Codes	Waste Codes	Container count & size	Generator Drum ID	Veolia Drum #	PCB Container Number	OOSD
			(LOOSEPACK)						26, 27, 28, 31, 33, 34, 37, 44, 47, 50, 55, 56, 57, 60, 65, 66, 67, 69, 70, 71		
3	22	803785	AEROSOLS-MIXED FLAMMABLE	HENRPKAER001PTA	G/I	D001, D035	3x55 GAL		52, 63, 64		
3	23	803783	NON REGULATED MATERIAL LOOSEPACK	HENPTAVES039	S/-	NONE	5xCYDBOX		7, 14, 41, 42, 74		
3	24	803783	NON REGULATED MATERIAL LOOSEPACK	HENPTAVES039	S/-	NONE	1xCYDBOX		22		

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: UTP000001381
2. Page 1 of 3
3. Emergency Response Phone: (877) 818-0087
4. Manifest Tracking Number: 000143377 VES

5. Generator's Name and Mailing Address: ATK LAUNCH SYSTEMS INC. PO BOX 98, M/S F1EV ATTN: ROB YAROSIK MAGNA, UT 84044-0098

Generator's Site Address (if different than mailing address): ATK LAUNCH SYSTEMS INC. EZ ACCESS STORAGE 8823 HIGHWAY 89 WILLARD, UT 84340

Generator's Phone: 801 250-5911

6. Transporter 1 Company Name: VEOLIA ES TECHNICAL SOLUTIONS — U.S. EPA ID Number: NJD083136 9

7. Transporter 2 Company Name: TRIAD TRANSPORT, INC. — U.S. EPA ID Number: OKD981588791

8. Designated Facility Name and Site Address: VEOLIA ES TECHNICAL SOLUTIONS, L.L.C. 9131 EAST 96TH AVE. HENDERSON, CO 80640 — U.S. EPA ID Number: COD980591184

Facility's Phone: 303 289-4827

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (METHYL ETHYL KETONE, XYLENE), 3, II, RQ (D001) RY	002	DM	00620	P	D001 D008 D007
X	2UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (TOLUENE, METHYL ETHYL KETONE), 3, II, RQ (D001)	001	DM	00341	P	D001 D008 D019 D007 D018 D035
X	3UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (METHYL ETHYL KETONE, XYLENE), 3, II, RQ (D001) RY	001	DM	00271	P	D001 D008 D035 D007 D019 D039
X	4UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (METHYL ETHYL KETONE, XYLENE), 3, II, RQ (D001) RY	001	DM	00321	P	D001 D008 D007 D035

14. Special Handling Instructions and Additional Information: 1) ERG:128 W:803778 2) ERG:128 W:803778 3) ERG:128 W:803778 4) ERG:128 W:803778 -|- ER Service Contracted by VESTS CD' S REQUESTED PER GENERATOR

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: ROBERT M YAROSIK JR. — Signature: [signature] — Month 12 Day 07 Year 09

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Brandon Christensen — Signature: [signature] — Month 12 Day 07 Year 09

Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month Day Year

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	UTP000001381	2 of 3	000143377VES

24. Generator's Name ATK LAUNCH SYSTEMS INC.

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5. UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (METHYL ETHYL~~E~~ KETONE, XYLENE), 3, II, RQ (D001) RY	001	DM	00293	P	D001	D009	D039
						D007	D035	
X	6. UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (METHYL ETHYL~~E~~ KETONE, XYLENE), 3, II, RQ (D001) RY	004	DM	01379	P	D001	D035	
						D008	D039	
X	7. UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (METHYL ETHYL~~E~~ KETONE, XYLENE), 3, II, RQ (D001) RY	002	DM	00668	P	D001	D035	D040
						D008	D039	
X	8. UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (METHYL ETHYL~~E~~ KETONE, XYLENE), 3, II, RQ (D001) RY	001	DM	00316	P	D001	D035	D040
						D019	D039	
X	9. UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (TOLUENE, METHYL ETHYL KETONE), 3, II, RQ (D001)	002	DM	00815	P	D001	D035	D040
						D019	D039	
X	10. UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (METHYL ETHYL KETONE, ACETONE), 3, II, RQ (D001)	002	DM	00616	P	D001	D035	
						D019	D040	
X	11. UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (METHYL ETHYLE KETONE, XYLENE), 3, II, RQ (D001)	006	DM	02040	P	D001		
						D035		
X	12. UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (METHYL ETHYL KETONE, ACETONE), 3, II, RQ (D001)	001	DM	00262	P	U112	D007	D035
						D001	D019	D040
X	13. UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (METHYL ETHYL KETONE, ACETONE), 3, II, RQ (D001)	002	DM	00590	P	U112	D019	D040
						D001	D035	
X	14. UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (TOLUENE, METHYL ETHYL KETONE), 3, II, RQ (D001)	009	DM	02432	P	U112	D035	
						D001		

32. Special Handling Instructions and Additional Information 5) ERG:128 W:803778 6) ERG:128 W:803778 7) ERG:128 W:803778 8) ERG:128 W:803778 9) ERG:128 W:803778 10) ERG:128 W:803778 11) ERG:128 W:803778 12) ERG:128 W:803778 13) ERG:128 W:803778 14) ERG:128 W:803778

GENERATOR

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

5	6	7	8	9
10.	11.	12.	13.	14.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: UTP000001381

22. Page: 3 of 3

23. Manifest Tracking Number: 000143377VES

24. Generator's Name: ATK LAUNCH SYSTEMS INC.

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	15 UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (ACETONE, METHYL ALCOHOL), 3, II, RQ (D001)	001	DM	00328	P	~~U154~~ ~~D001~~	~~D007~~ ~~D009~~	~~D010~~ ~~D040~~
X	16 UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (TOLUENE, METHYL ETHYL KETONE), 3, II, RQ (D001)	001	DM	00275	P	~~U159~~ ~~D001~~	~~D009~~ ~~D019~~	~~D035~~ ~~D039~~
X	17 UN2810, WASTE TOXIC LIQUIDS, ORGANIC, n.o.s., (CHROMIUM, ISOPHORONE DIISOCYANATE), 6.1, II, ~~RQ~~ RY	001	DM	00272	P	~~D008~~ ~~D007~~		
X	18 UN2810, WASTE TOXIC LIQUIDS, ORGANIC, n.o.s., (CHROMIUM, ISOPHORONE DIISOCYANATE), 6.1, II, ~~RQ~~ RY	001	DM	00346	P	~~D007~~ ~~D008~~		
X	19 UN2810, WASTE TOXIC LIQUIDS, ORGANIC, n.o.s., (CHROMIUM, ISOPHORONE DIISOCYANATE), 6.1, II, ~~RQ~~ RY	003	DM	00495	P	~~D007~~ ~~D008~~	~~D035~~	
X	20 UN2831, WASTE 1,1,1-TRICHLOROETHANE, 6.1, III	001	DM	00211	P	~~U226~~		
X	21 UN2735, POLYAMINES, LIQUID, CORROSIVE, n.o.s., (TETRAETHYLENEPENTAMINE, 4,4-METHYLENEDIANILINE), 8, III, RQ	022	DM	05714	P	NONE		
X	22 WASTE CONSUMER COMMODITY, ORMD	003	DM	00472	P	D001 D035		
	23 NON REGULATED MATERIAL, (LOOSEPACK)	005	CF	05000	P	NONE		
	24 NON REGULATED MATERIAL, (LOOSEPACK)	001	CF	02000	P	NONE		

32. Special Handling Instructions and Additional Information

15) ERG:128 W:803778 16) ERG:128 W:803778 17) ERG:153 W:803780 18) ERG:153 W:803780 19) ERG:153 W:803780 20) ERG:160 W:959990 21) ERG:153 W:803782 22) W:803785 23) W:803783 24) W:803783

ACTUAL WEIGHT# _____ LBS

ACTUAL WEIGHT _____ LBS

GENERATOR

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

TRANSPORTER

35. Discrepancy

DESIGNATED FACILITY

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

15.	16.	17.	18.	19.
20.	21.	22.	23.	24.

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Land Disposal Restriction Notification Form

Generator Name **ATK LAUNCH SYSTEMS INC.**

EPA ID Number **UTP000001381** Manifest **000143377VES**

This notice is being provided in accordance with 40 CFR 268.7 to inform you that this shipment contains waste restricted from land disposal by the USEPA under the land disposal restriction program. Identified below for each container is the designation of the waste as a wastewater or non-wastewater, the Clean Water Act (CWA) permit status associated with the treatment/disposal facility, applicable waste codes and any corresponding subcategories, list of any F001-F005 solvent constituents that are present in the waste, and any underlying hazardous constituents (UHC) that are present.

Container Number: **SM-1117273000-058 (1/ 1)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D007, D008 (NONE)**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, METHYL ALCOHOL, METHYL ETHYL KETONE (MEK), METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O-XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-059 (1/ 1)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D007, D008 (NONE)**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, METHYL ALCOHOL, METHYL ETHYL KETONE (MEK), METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O-XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-024 (1/ 2)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D007, D008, D018, D019, D035**
Constituents (F001 - F005):	**None**

UHCs Present:	**ACETONE, BARIUM (ELEMENT), CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CYCLOHEXANONE, 1,1-DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O-XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-068 (1/ 3)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D007, D008 (NONE), D019, D035, D039, D040**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TOLUENE, 1,1,1 TRICHLOROETHANE, SILVER, O-XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-062 (1/ 4)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D007, D008 (NONE), D035**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O-XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-061 (2/ 5)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D007, D008 (NONE), D035, D039**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM**

	(METAL), TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O- XYLENE
Treatment Requirements:	Restricted waste requires treatment to applicable standards.
Additional Notices:	

Container Number: **SM-1117273000-048 (2/ 6)**

WIP / Approval Code:	803778 / HENPTA884369
Form Designation / CWA Status:	Non-Wastewater / Non-CWA
Waste Codes (Subcategories):	D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D008 (NONE), D035, D039
Constituents (F001 - F005):	None
UHCs Present:	ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O-XYLENE
Treatment Requirements:	Restricted waste requires treatment to applicable standards.
Additional Notices:	

Container Number: **SM-1117273000-049 (2/ 6)**

WIP / Approval Code:	803778 / HENPTA884369
Form Designation / CWA Status:	Non-Wastewater / Non-CWA
Waste Codes (Subcategories):	D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D008 (NONE), D035, D039
Constituents (F001 - F005):	None
UHCs Present:	ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O-XYLENE
Treatment Requirements:	Restricted waste requires treatment to applicable standards.
Additional Notices:	

Container Number: **SM-1117273000-051 (2/ 6)**

WIP / Approval Code:	803778 / HENPTA884369
Form Designation / CWA Status:	Non-Wastewater / Non-CWA
Waste Codes (Subcategories):	D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D008 (NONE), D035, D039
Constituents (F001 - F005):	None
UHCs Present:	ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O-XYLENE
Treatment Requirements:	Restricted waste requires treatment to applicable standards.
Additional Notices:	

Container Number: **SM-1117273000-054 (2/ 6)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D008 (NONE), D035, D039**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O-XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-045 (2/ 7)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D008 (NONE), D035, D039, D040**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TOLUENE, 1,1,1 TRICHLOROETHANE, SILVER, O- XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-046 (2/ 7)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D008 (NONE), D035, D039, D040**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TOLUENE, 1,1,1 TRICHLOROETHANE, SILVER, O- XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-039 (2/ 8)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D019, D035, D039, D040**
Constituents (F001 - F005):	**None**

UHCs Present: **ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TOLUENE, 1,1,1 TRICHLOROETHANE, SILVER, O- XYLENE**

Treatment Requirements: **Restricted waste requires treatment to applicable standards.**

Additional Notices:

Container Number: **SM-1117273000-020 (2/ 9)**

WIP / Approval Code: **803778 / HENPTA884369**

Form Designation / CWA Status: **Non-Wastewater / Non-CWA**

Waste Codes (Subcategories): **D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D019, D035, D039, D040**

Constituents (F001 - F005): **None**

UHCs Present: **ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TOLUENE, 1,1,1 TRICHLOROETHANE, SILVER, O- XYLENE**

Treatment Requirements: **Restricted waste requires treatment to applicable standards.**

Additional Notices:

Container Number: **SM-1117273000-023 (2/ 9)**

WIP / Approval Code: **803778 / HENPTA884369**

Form Designation / CWA Status: **Non-Wastewater / Non-CWA**

Waste Codes (Subcategories): **D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D019, D035, D039, D040**

Constituents (F001 - F005): **None**

UHCs Present: **ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TOLUENE, 1,1,1 TRICHLOROETHANE, SILVER, O- XYLENE**

Treatment Requirements: **Restricted waste requires treatment to applicable standards.**

Additional Notices:

Container Number: **SM-1117273000-008 (2/ 10)**

WIP / Approval Code: **803778 / HENPTA884369**

Form Designation / CWA Status: **Non-Wastewater / Non-CWA**

Waste Codes (Subcategories): **D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D019, D035, D040**

Constituents (F001 - F005): **None**

UHCs Present: **ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, SILVER, O- XYLENE**

Treatment Requirements: **Restricted waste requires treatment to applicable standards.**

Additional Notices:

Container Number: **SM-1117273000-019 (2/ 10)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D019, D035, D040**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, SILVER, O- XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-029 (2/ 11)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D035**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O- XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-035 (2/ 11)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D035**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O- XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-036 (2/ 11)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >=**

	10% TOC PER 261.2 1(a)(1)), D035
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O- XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-038 (2/ 11)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D035**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O- XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-040 (2/ 11)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D035**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O- XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-043 (2/ 11)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D035**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE,**

	METHYLENE CHLORIDE, ETHYL ACETATE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O- XYLENE
Treatment Requirements:	Restricted waste requires treatment to applicable standards.
Additional Notices:	

Container Number: **SM-1117273000-017 (2/ 12)**

WIP / Approval Code:	803778 / HENPTA884369
Form Designation / CWA Status:	Non-Wastewater / Non-CWA
Waste Codes (Subcategories):	D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D007, D019, D035, D040, U112
Constituents (F001 - F005):	None
UHCs Present:	ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, SILVER, O- XYLENE
Treatment Requirements:	Restricted waste requires treatment to applicable standards.
Additional Notices:	

Container Number: **SM-1117273000-013 (2/ 13)**

WIP / Approval Code:	803778 / HENPTA884369
Form Designation / CWA Status:	Non-Wastewater / Non-CWA
Waste Codes (Subcategories):	D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D019, D035, D040, U112
Constituents (F001 - F005):	None
UHCs Present:	ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, SILVER, O- XYLENE
Treatment Requirements:	Restricted waste requires treatment to applicable standards.
Additional Notices:	

Container Number: **SM-1117273000-016 (2/ 13)**

WIP / Approval Code:	803778 / HENPTA884369
Form Designation / CWA Status:	Non-Wastewater / Non-CWA
Waste Codes (Subcategories):	D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D019, D035, D040, U112
Constituents (F001 - F005):	None
UHCs Present:	ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, SILVER, O- XYLENE
Treatment Requirements:	Restricted waste requires treatment to applicable standards.
Additional Notices:	

Container Number: **SM-1117273000-001 (2/ 14)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D035, U112**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O- XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-002 (2/ 14)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D035, U112**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O- XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-003 (2/ 14)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D035, U112**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O- XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-004 (2/ 14)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D035, U112**

Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O- XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-006 (2/ 14)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D035, U112**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O- XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-009 (2/ 14)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D035, U112**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O- XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-010 (2/ 14)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D035, U112**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, LEAD, METHYL ALCOHOL,**

	METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O- XYLENE
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-012 (2/ 14)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D035, U112**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O- XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-015 (2/ 14)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D035, U112**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O- XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-005 (3/ 15)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D007, D008 (NONE), D019, D040, U154**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, METHYL ETHYL KETONE (MEK), METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, SILVER, O- XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**

Additional Notices:

Container Number: **SM-1117273000-021 (3/ 16)**

WIP / Approval Code:	**803778 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D008 (NONE), D019, D035, D039, D040, U159**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TOLUENE, 1,1,1 TRICHLOROETHANE, SILVER, O- XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-072 (3/ 17)**

WIP / Approval Code:	**803780 / HENPTA884371**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D006, D007**
Constituents (F001 - F005):	**None**
UHCs Present:	**ARSENIC, BARIUM (ELEMENT), N- BUTYL PHTHALATE, METHYLENE CHLORIDE, LEAD, 1,1,1 TRICHLOROETHANE, SILVER**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-073 (3/ 18)**

WIP / Approval Code:	**803780 / HENPTA884371**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D007, D008**
Constituents (F001 - F005):	**None**
UHCs Present:	**ARSENIC, BARIUM (ELEMENT), N- BUTYL PHTHALATE, METHYLENE CHLORIDE, CADMIUM (METAL), 1,1,1 TRICHLOROETHANE, SILVER**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-025 (3/ 19)**

WIP / Approval Code:	**803780 / HENPTA884371**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D007, D008 (NONE), D035**
Constituents (F001 - F005):	**None**
UHCs Present:	**ARSENIC, BARIUM (ELEMENT), N- BUTYL PHTHALATE, METHYLENE CHLORIDE, CADMIUM (METAL), 1,1,1 TRICHLOROETHANE, SILVER**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-032 (3/ 19)**

WIP / Approval Code:	**803780 / HENPTA884371**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**

Waste Codes (Subcategories):	**D007, D008 (NONE), D035**
Constituents (F001 - F005):	**None**
UHCs Present:	**ARSENIC, BARIUM (ELEMENT), N- BUTYL PHTHALATE, METHYLENE CHLORIDE, CADMIUM (METAL), 1,1,1 TRICHLOROETHANE, SILVER**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-053 (3/ 19)**

WIP / Approval Code:	**803780 / HENPTA884371**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D007, D008 (NONE), D035**
Constituents (F001 - F005):	**None**
UHCs Present:	**ARSENIC, BARIUM (ELEMENT), N- BUTYL PHTHALATE, METHYLENE CHLORIDE, CADMIUM (METAL), 1,1,1 TRICHLOROETHANE, SILVER**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-030 (3/ 20)**

WIP / Approval Code:	**959990 / HENSPKREC-TCA**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**U226**
Constituents (F001 - F005):	**None**
UHCs Present:	**Not Applicable**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-052 (3/ 22)**

WIP / Approval Code:	**803785 / HENRPKAER001PTA**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), D035**
Constituents (F001 - F005):	**None**
UHCs Present:	**1,1,1 TRICHLOROETHANE, 1,1,2,2-TETRACHLOROETHYLENE (NON F-LISTED), 1,1,2-TRICHLOROETHENE (NON F-LISTED)**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-063 (3/ 22)**

WIP / Approval Code:	**803785 / HENRPKAER001PTA**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), D035**
Constituents (F001 - F005):	**None**
UHCs Present:	**1,1,1 TRICHLOROETHANE, 1,1,2,2-TETRACHLOROETHYLENE (NON F-LISTED), 1,1,2-TRICHLOROETHENE (NON F-LISTED)**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273000-064 (3/ 22)**

WIP / Approval Code:	**803785 / HENRPKAER001PTA**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), D035**
Constituents (F001 - F005):	**None**
UHCs Present:	**1,1,1 TRICHLOROETHANE, 1,1,2,2-TETRACHLOROETHYLENE (NON F-LISTED), 1,1,2-TRICHLOROETHENE (NON F-LISTED)**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

I hearby certify that all information in this and associated land disposal restriction documents is complete and accurate to the best of my knowledge and information.

Signature _____

Title _____ Date _____

Shipment Date: 12/10/2009
Shipped From: EZ Access
Manifest Numbers: 000143378VES; 000143379VES

Waste Stream	# of Containers	Waste Codes D	U	P	Initial Destination	Projected Final Destination
Asbestos, non-friable (Loose)	32	--			USI	USI
Aluminum Powder	1	001 003			HEN	TWI
Ammonium Perchlorate (LP)	1	001 003			HEN	TWI
Ammonium Perchlorate	1	001 003			HEN	TWI
Barium Nitrate	1	001 005			HEN	TWI
Oxidizing Solid	1	001 003			HEN	TWI
Potassium Perchlorate	2	007 008 011			HEN	PTA
Chloroform (LP)	2	022	44		HEN	TWI
Toxic (Loose)	2	007 008 011			HEN	PTA
DOT Amines (Loose)	3	--			HEN	PTA
Non-Reg, box (Loose)	8	--			HEN	PTA
Non-Reg, (Loose)	1	--			HEN	PTA
	55					

HEN = Veolia, Henderson, Colorado
TWI = Violia, Sauget, Illinois
PTA = Violia, Port Arthur, Texas
USI = US Ecology, Grandview, Idaho

Loose = Loose Pack Contained
LP = Lab Pack
box = 1 cubic yard cardboard box

0 9/12/10

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) 091217181 44

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: UTP000001381
2. Page 1 of 1
3. Emergency Response Phone: (877) 818-0087
4. Manifest Tracking Number: 000143378 VES

5. Generator's Name and Mailing Address: ATK LAUNCH SYSTEMS INC. PO BOX 98, M/S F1EV ATTN: ROB YAROSIK MAGNA, UT 84044-0098

Generator's Phone: 801 250-5911

Generator's Site Address (if different than mailing address): ATK LAUNCH SYSTEMS INC. EZ ACCESS STORAGE 8823 HIGHWAY 89 WILLARD, UT 84340

6. Transporter 1 Company Name: TRIAD TRANSPORT, INC.
U.S. EPA ID Number: OKD981588791

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: US ECOLOGY OF IDAHO, INC 20400 LEMLEY ROAD GRAND VIEW, ID 83624

Facility's Phone: 800 274-1516

U.S. EPA ID Number: IDD073114654

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. NA2212, ASBESTOS, 9, III	024	DM	07077	P	NONE
X	2. NA2212, ASBESTOS, 9, III	008	DM	02368	P	NONE
	3.					
	4.					

14. Special Handling Instructions and Additional Information: 1) ERG:171 W:960497 USI- 18141 2) ERG:171 W:960497 VEOLIA DISPOSAL PO# 0000094638 USI-18141 USI-18141, CD' S REQUESTED PER GENERATOR -|- ER Service Contracted by VESTS

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: ROBERT M. YAROSIK JR. Signature: [signature] Month 12 Day 09 Year 09

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: CHRIS BRANCY Signature: [signature] Month 12 Day 09 Year 09

Transporter 2 Printed/Typed Name: Signature: Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. H132 2. H132 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Brenda Johnson for USEI Signature: Brenda Johnson Month 12 Day 17 Year 09

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Veolia ES, Technical Solutions L.L.C.

ADDENDUM TO MANIFEST TRACKING NUMBER:

000143378VES

GENERATOR : 566183 - ATK LAUNCH SYSTEMS INC. **EPA ID :** UTP000001381 **GEN DOC NUM :** **DATE SHIPPED:** 12/07/2009

Manifest Pg/Ln		WIP #	WIP Description	Approval #	Physical State / Hazard Codes	Waste Codes	Container count & size	Generator Drum ID	Veolia Drum #	PCB Container Number	OOSD
1	1	960497	ASBESTOS - NON FRIABLE (ATK LOOSEPACK)	USI-	S/-	NONE	24x55 GAL		2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16		
1	2	960497	ASBESTOS - NON FRIABLE (ATK LOOSEPACK)	USI-	S/-	NONE	8x55 GAL		1		

U T P 0 0 0 0 0 1 3 8 1 1 (877) 818-0087

ATK LAUNCH SYSTEMS INC.
PO BOX 98, M/S F1EV
ATTN: ROB YAROSIK
MAGNA, UT 84044-0098
801 250-5911

ATK LAUNCH SYSTEMS INC.
EZ ACCESS STORAGE
8823 HIGHWAY 89
WILLARD, UT 84340

TRIAD TRANSPORT, INC. O K D 9 8 1 5 8 8 7 9 1

US ECOLOGY OF IDAHO, INC
20400 LEMLEY ROAD
800 274-1516 GRAND VIEW, ID 83624 I D D 0 7 3 1 1 4 6 5 4

X NA2212, ASBESTOS, 9, III NONE

/0 2 4 D M 07077 P

X NA2212, ASBESTOS, 9, III NONE

/0 0 8 D M 02368 P

1) ERG:171 W:960497 USI- 2) ERG:171 W:960497 VEOLIA DISPOSAL PO#_____
_____
USI-_____, CD' S REQUESTED PER GENERATOR -|- ER Service Contracted by VESTS

Form Approved. OMB No. 2050-0039

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: UTP000001381
2. Page 1 of
3. Emergency Response Phone: (877) 918-0037
4. Manifest Tracking Number: 000143379 VES

5. Generator's Name and Mailing Address: ATK LAUNCH SYSTEMS INC, PO BOX 98, M/S F1EV, ATTN: ROB YAROSIK, MAGNA UT 84044-0098

Generator's Site Address (if different than mailing address): ATK LAUNCH SYSTEMS INC, EZ ACCESS STORAGE, 8823 HIGHWAY 89, WILLARD UT 84340

Generator's Phone: 801 250-5811

6. Transporter 1 Company Name: VEOLIA ES TECHNICAL SOLUTIONS — U.S. EPA ID Number: NJD080631369

7. Transporter 2 Company Name: TRIAD TRANSPORT, INC — U.S. EPA ID Number: OKD981598791

8. Designated Facility Name and Site Address: VEOLIA ES TECHNICAL SOLUTIONS, L.L.C., 9131 EAST 96TH AVE, HENDERSON, CO 80640 — U.S. EPA ID Number: COD980581184

Facility's Phone: 303 289-4827

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1 UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (METHYL ETHYL KETONE, TOLUENE), 3, II, RQ (D001)	001	DM	00355	P	U112, D001
X	2 UN1396, WASTE ALUMINUM POWDER, UNCOATED, 4.3, II, RQ (D001, D003) (LAB PACK)	001	DM	00325	P	D003, D001
X	3 UN1442, WASTE AMMONIUM PERCHLORATE, 5.1, II, RQ (D003) (D001) (LAB PACK)	001	DM	00171	P	D001, D003
X	4 UN1442, WASTE AMMONIUM PERCHLORATE, 5.1, II, RQ (D001) (D003)	001	DM	00214	P	D001, D003

14. Special Handling Instructions and Additional Information: 1) ERG 128 W.803778 2) ERG 138 W.806651 3) ERG 143 W.806651 4) ERG 143 W
959813 -I- ER Service Contracted by VESTS
CD' S REQUESTED PER GENERATOR

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Robert M. Yarosik Jr. — Signature: [signature] — Month 12 Day 08 Year 09

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Date leaving U.S.:
Transporter signature (for exports only):

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Brandon Christensen — Signature: [signature] — Month 12 Day 08 Year 09
Transporter 2 Printed/Typed Name: Pete Caldwell — Signature: [signature] — Month 12 Day 17 Year 09

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number: U.S. EPA ID Number

18b. Alternate Facility (or Generator)
Facility's Phone: Month Day Year
18c. Signature of Alternate Facility (or Generator)

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H141 2. H141 3. H141 4. H141

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: [illegible] — Signature: [signature] — Month 12 Day 22 Year 09

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

DESIGNATED FACILITY TO GENERAT

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: UTP000001381

22. Page: 2 of 2

23. Manifest Tracking Number: 000143379VES

24. Generator's Name: ATK LAUNCH SYSTEMS INC.

25. Transporter 3 Company Name: VEOLIA ES TECHNICAL SOLUTIONS — U.S. EPA ID Number: NJD080634369

26. Transporter _____ Company Name: _____ — U.S. EPA ID Number: _____

GENERATOR

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5. UN1446, WASTE BARIUM NITRATE, 5.1 (6.1), II, RQ (D001)	001	DM	00247	P	D001		
						D005		
X	6. UN1479, WASTE OXIDIZING SOLID, N.O.S., 5.1, II, RQ (D001) (LAB PACK)	001	DM	00194	P	D003		
						D001		
X	7. UN1489, WASTE POTASSIUM PERCHLORATE, 5.1, II, RQ (D001)	001	DF	00131	P	D001		
X	8. UN2810, WASTE TOXIC LIQUIDS, ORGANIC, n.o.s., (CHROMIUM, ISOPHORONE DIISOCYANATE), 6.1, II	002	DM	00518	P	D007	D011	
						D008		
X	9. UN1888, WASTE CHLOROFORM, 6.1, III, RQ	002	DF	00391	P	U044		
						D022		
X	10. UN2735, POLYAMINES, LIQUID, CORROSIVE, n.o.s., (TETRAETHYLENEPENTAMINE, 4,4-METHYLENEDIANILINE), 8, III, RQ	003	DM	00867	P	NONE		
	11. NON REGULATED MATERIAL, (LOOSEPACK)	001	CF	02000	P	NONE		
	12. NON REGULATED MATERIAL, (LOOSEPACK)	007	CF	14000	P	NONE		
	13. NON REGULATED MATERIAL, (LOOSEPACK)	001	DM	00153	P	NONE		

32. Special Handling Instructions and Additional Information: 5) ERG:141 W:807052 6) ERG:140 W:806651 7) ERG:140 W:806612 8) ERG:153 W:803780 9) ERG:151 W:806651 10) ERG:153 W:803782 11) W:803783 ACTUAL WEIGHT= CD'S REQUESTED PER GENERATOR 12) W:803783 ACTUAL WEIGHT= 13) W:803783 ACTUAL WEIGHT = 7895 LBS.

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name: VICKI K PENNSY — Signature: Vicki K Pennsy — Month 12 Day 18 Year 09

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name: _____ — Signature: _____ — Month ___ Day ___ Year ___

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

5. H141 | 6. H141 | 7. H141 | 8. H141 | 9. H141

10. H141 | 11. H141 | 12. H141 | 13. H141

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Veolia ES, Technical Solutions L.L.C.

ADDENDUM TO MANIFEST TRACKING NUMBER:

000143379VES

GENERATOR : 566183 - ATK LAUNCH SYSTEMS INC. **EPA ID :** UTP000001381 **GEN DOC NUM :** **DATE SHIPPED:** 12/07/2009

Manifest Pg/Ln		WIP #	WIP Description	Approval #	Physical State / Hazard Codes	Waste Codes	Container count & size	Generator Drum ID	Veolia Drum #	PCB Container Number	OOSD
1	1	803778	CAN-DRUM FLAMMABLE (LOOSEPACK)	HENPTA	L/I	U112, D001	1x55 GAL		37		
1	2	806651	ALUMINUM POWDER, UNCOATED	HENTWIAJ2769REA	L/R	D003, D001	1x55 GAL		27		
1	3	806651	AMMONIUM PERCHLORATE	HENTWIAJ2769OXN	L/R	D003, D001	1x55 GAL		7		
1	4	959813	AMMONIUM PERCHLORATE	HENTWI	S/R	D003, D001	1x30 GAL		39		
2	5	807052	BARIUM NITRATE	HENTWIOXI001	S/I	D001, D005	1x30 GAL		24		
2	6	806651	OXIDIZING SOLID, N.O.S.	HENTWIAJ2769OXN	L/R	D001, D003	1x55 GAL		6		
2	7	960612	POTASSIUM PERCHLORATE	HENTWI802578	S/I	D001	1x10 GAL		38		
2	8	803780	CAN-DRUM, TOXIC (LOOSEPACK) MISC.	HENPTA884371	S/E	D007, D008, D011	2x55 GAL		21, 23		
2	9	806651	CHLOROFORM, CHLOROFORM	HENTWIAJ2769SLV	L/T	U044, D022	1x55 GAL, 1x30 GAL		25, 26		
2	10	803782	CAN-DRUM, AMINES, DOT ONLY (LOOSEPACK)	HENPTA594360	S/-	NONE	3x55 GAL		20, 22, 40		
2	11	803783	NON REGULATED MATERIAL LOOSEPACK	HENPTAVES039	S/-	NONE	1xCYDBOX		1		
2	12	803783	NON REGULATED MATERIAL LOOSEPACK	HENPTAVES039	S/-	NONE	7xCYDBOX		2, 3, 4, 5, 17, 18, 19		
2	13	803783	NON REGULATED MATERIAL LOOSEPACK	HENPTAVES039	S/-	NONE	1x55 GAL		36		

U T P 0 0 0 0 0 1 3 8 1 2 (877) 818-0087

ATK LAUNCH SYSTEMS INC.
PO BOX 98, M/S F1EV
ATTN: ROB YAROSIK
MAGNA, UT 84044-0098
801 250-5911

ATK LAUNCH SYSTEMS INC.
EZ ACCESS STORAGE
8823 HIGHWAY 89
WILLARD, UT 84340

VEOLIA ES TECHNICAL SOLUTIONS N J D 0 8 0 6 3 1 3 6 9

TRIAD TRANSPORT, INC. O K D 9 8 1 5 8 8 7 9 1

VEOLIA ES TECHNICAL SOLUTIONS,
L.L.C.
9131 EAST 96TH AVE.
303 289-4827 HENDERSON, CO 80640 C O D 9 8 0 5 9 1 1 8 4

X	UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (METHYL ETHYL KETONE, TOLUENE), 3, II, RQ (D001)	0 0 1	D M	0 0 3 5 5	P	U112	D001
X	UN1396, WASTE ALUMINUM POWDER, UNCOATED, 4.3, II, RQ (D001, D003) (LAB PACK)	0 0 1	D M	0 0 3 2 5	P	D003	D001
X	UN1442, WASTE AMMONIUM PERCHLORATE, 5.1, II, RQ (D001,D003) (LAB PACK)	0 0 1	D M	0 0 1 7 1	P	D003	D001
X	UN1442, WASTE AMMONIUM PERCHLORATE, 5.1, II, RQ (D001,D003)	0 0 1	D M	0 0 2 1 4	P	D003	D001

1) ERG:128 W:803778 2) ERG:138 W:806651 3) ERG:143 W:806651 4) ERG:143 W:

959813 -|- ER Service Contracted by VESTS
CD' S REQUESTED PER GENERATOR

X	5. UN1446, WASTE BARIUM NITRATE, 5.1 (6.1), II, RQ (D001)	001	DM	00247	P	D001 D005	
X	6. UN1479, WASTE OXIDIZING SOLID, N.O.S., 5.1, II, RQ (D001) (LAB PACK)	001	DM	00194	P	D003 D001	
X	7. UN1489, WASTE POTASSIUM PERCHLORATE, 5.1, II, RQ (D001)	001	DF	00131	P	D001	
X	8. UN2810, WASTE TOXIC LIQUIDS, ORGANIC, n.o.s., (CHROMIUM, ISOPHORONE DIISOCYANATE), 6.1, II	002	DM	00518	P	D007 D008	D011
X	9. UN1888, WASTE CHLOROFORM, 6.1, III, RQ	002	DF	00391	P	U044 D022	
X	10.UN2735, POLYAMINES, LIQUID, CORROSIVE, n.o.s., (TETRAETHYLENEPENTAMINE, 4,4-METHYLENEDIANILINE), 8, III, RQ	003	DM	00867	P	NONE	
	11.NON REGULATED MATERIAL, (LOOSEPACK)	001	CF	02000	P	NONE	
	12.NON REGULATED MATERIAL, (LOOSEPACK)	007	CF	14000	P	NONE	
	13.NON REGULATED MATERIAL, (LOOSEPACK)	001	DM	00153	P	NONE	

5) ERG:141 W:807052 6) ERG:140 W:806651 7) ERG:140 W:960612 8) ERG:153 W:
803780 9) ERG:151 W:806651 10) ERG:153 W:803782 11) W:803783 ACTUAL WEIGHT=
CD'S REQUESTED PER GENERATOR 12) W:803783 ACTUAL WEIGHT= 13) W:803783

5. 6. 7. 8. 9.

10. 11. 12. 13.

Land Disposal Restriction Notification Form

Generator Name **ATK LAUNCH SYSTEMS INC.**

EPA ID Number **UTP000001381** Manifest **000143379VES**

This notice is being provided in accordance with 40 CFR 268.7 to inform you that this shipment contains waste restricted from land disposal by the USEPA under the land disposal restriction program. Identified below for each container is the designation of the waste as a wastewater or non-wastewater, the Clean Water Act (CWA) permit status associated with the treatment/disposal facility, applicable waste codes and any corresponding subcategories, list of any F001-F005 solvent constituents that are present in the waste, and any underlying hazardous constituents (UHC) that are present.

Container Number: **SM-1117273998-037 (1/ 1)**

WIP / Approval Code:	**803778 / HENPTA**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), U112**
Constituents (F001 - F005):	**None**
UHCs Present:	**Not Applicable**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273998-039 (1/ 4)**

WIP / Approval Code:	**959813 / HENTWI**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), D003 (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273998-024 (2/ 5)**

WIP / Approval Code:	**807052 / HENTWIOXI001**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), D005**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273998-038 (2/ 7)**

WIP / Approval Code:	**960612 / HENTWI802578**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS))**
Constituents (F001 - F005):	**None**

UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273998-021 (2/ 8)**

WIP / Approval Code:	**803780 / HENPTA884371**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D007, D008 (NONE), D011**
Constituents (F001 - F005):	**None**
UHCs Present:	**ARSENIC, BARIUM (ELEMENT), N- BUTYL PHTHALATE, METHYLENE CHLORIDE, CADMIUM (METAL), 1,1,1 TRICHLOROETHANE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **SM-1117273998-023 (2/ 8)**

WIP / Approval Code:	**803780 / HENPTA884371**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D007, D008, D011**
Constituents (F001 - F005):	**None**
UHCs Present:	**ARSENIC, BARIUM (ELEMENT), N- BUTYL PHTHALATE, METHYLENE CHLORIDE, CADMIUM (METAL), 1,1,1 TRICHLOROETHANE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

I hearby certify that all information in this and associated land disposal restriction documents is complete and accurate to the best of my knowledge and information.

Signature _____

Title _____ Date _____

Land Disposal Restriction Certification Form - Exempt Lab Pack

Generator Name **ATK LAUNCH SYSTEMS INC.**

EPA ID Number **UTP000001381** Manifest **000143379VES**

This notice is being provided in accordance with 40 CFR 268.7(a)(9) to inform you that this shipment contains waste restricted from land disposal by the USEPA under the land disposal restriction program. This shipment contains lab packs that do not carry waste codes listed in 40 CFR part 268 Appendix IV. The method of treatment for these wastes is incineration. The container numbers corresponding to the individual lab packs are listed below along with the associated hazardous waste codes.

Container Number: **SM-1117273998-006 (2/ 6)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (WATER REACTIVES PER 261.23(a)(2-4))

Container Number: **SM-1117273998-007 (1/ 3)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)

Container Number: **SM-1117273998-025 (2/ 9)**

Waste Codes: **D022, U044**

Container Number: **SM-1117273998-026 (2/ 9)**

Waste Codes: **D022, U044**

Container Number: **SM-1117273998-027 (1/ 2)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (WATER REACTIVES PER 261.23(a)(2-4))

Phase II Certification: I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack does not contain any of the waste identified under 40 CFR part 268 Appendix IV. I am aware that there are significant penalties for submitting false certifications, including the possibility of fine or imprisonment.

Phase IV Certification: I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only wastes that have not been excluded under Appendix IV to 40 CFR part 268 and that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at 40 CFR 268.42(c). I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

Signature _____

Title _____ Date _____

VEOLIA ENVIRONMENTAL SERVICES

SHIPPING DOCUMENT	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Shipping Document Tracking Number
	UTP000001381	1	801-250-5911	ZZ 00141406

5. Generator's Name and Mailing Address
ATK LAUNCH SYSTEMS INC,
PO BOX 707, ATTN: RANDY D. FULLMER
BRIGHAM CITY, UT 84302
Generator's Phone: 435-863-5277

Generator's Site Address (if different than mailing address)
ATK LAUNCH SYSTEMS INC,
EZ ACCESS STORAGE
8823 HIGHWAY 89
WILLARD, UT 84340

6. Transporter 1 Company Name: ATK LAUNCH SYSTEMS INC. - PROMONTORY
U.S. EPA ID Number: UTD009081357

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
ATK LAUNCH SYSTEMS INC. - PROMONTORY
9160 N. HIGHWAY 83 (M336)
CORINNE, UT 84307
Facility's Phone: 435-863-5277
U.S. EPA ID Number: UTD009081357

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Codes
	1. NON-REGULATED MATERIAL (INDUSTRIAL SOLIDS)	001	CM	0020	Y	NONE
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) THNH193 (SEE ATTACHED LIST WITH EPA LABEL #S)

15. **GENERATOR S/OFFEROR S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: RANDY D. FULLMER
Signature: [signature]
Month 12 Day 08 Year 09

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Shipment
Transporter 1 Printed/Typed Name: GOLDEN JENSEN
Signature: [signature]
Month 12 Day 08 Year 09
Transporter 2 Printed/Typed Name
Signature
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Shipping Document Tracking Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132			

20. Designated Facility Owner or Operator: Certification of receipt of shipment except as noted in Item 18a
Printed/Typed Name: Jed Christiansen
Signature: [signature]
Month 12 Day 08 Year 09

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

DESIGNATED FACILITY TO GENERATOR

VEOLIA ENVIRONMENTAL SERVICES

SHIPPING DOCUMENT	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Shipping Document Tracking Number
	UTP000001381	1	801-250-5911	ZZ 00141423

5. Generator's Name and Mailing Address
ATK LAUNCH SYSTEMS INC.
PO BOX 98, ATTN: ROB YAROSIK
MAGNA UT 84044-0098
Generator's Phone: 801-250-5911

Generator's Site Address (if different than mailing address)
ATK LAUNCH SYSTEMS INC.
EZ ACCESS STORAGE
8823 HIGHWAY 89
WILLARD UT 84340

6. Transporter 1 Company Name: ATK LAUNCH SYSTEMS INC.-PROMONTORY
U.S. EPA ID Number: UTD 009081357

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
ATK LAUNCH SYSTEM INC.-PROMONTORY
9160 NORTH HIGHWAY 83 (M336)
CORINNE UT 84307
Facility's Phone: 435-863-5277
U.S. EPA ID Number: UTD 009 081 357

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Codes
	1. NON REGULATED MATERIAL (INDUSTRIAL SOLIDS)	001	CM	0030	Y	NONE
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) THN#193 (CONTAINS THE FOLLOWING EPA LABEL #'S: 5PL885, 3DR020, 45DR17, 4DR0040, 3DR022, 3DR012, 3BX387, 5TL879)

15. **GENERATOR S/OFFEROR S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: ROBERT M. YAROSIK JR.
Signature: [signature]
Month 12 Day 05 Year 09

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Shipment
Transporter 1 Printed/Typed Name: Jed Christiansen
Signature: Jed Christiansen
Month 12 Day 05 Year 09
Transporter 2 Printed/Typed Name
Signature
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Shipping Document Tracking Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)
1. H132 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of shipment except as noted in Item 18a
Printed/Typed Name: RANDY D. FULLMER
Signature: [signature]
Month 12 Day 05 Year 09

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

DESIGNATED FACILITY TO GENERATOR

ATTACHMENT C

Double D Storage Activity Summaries

Shipment Date: 12/10/2009
Shipped From: Double D Storage
Manifest Numbers: 000144408VES; 000007102VES; ZZ00004495

Waste Stream	# of Containers	Waste Codes D	U	P	Initial Destination	Projected Final Destination
Aluminum Powder	1	001 003			HEN	HEN
Ammonium Perchlorate	10	001 003			HEN	TWI
Oxidizing Solid, Poison (LP)	1	001 003 005 007			HEN	TWI
DOT Amines	1	--			HEN	PTA
Non-regulated (Loose)	1	--			HEN	PTA
Flammable (Loose)	1	001 003 005			HEN	PTA
Magnesium Powder (LP)	1	001 003			HEN	TWI
Zinc Dust (LP)	1	001 003			HEN	TWI
Hydrogen Peroxide, Aqueous	1	001 002			HEN	TWI
Toxic (Loose)	1	007 008 011			HEN	PTA
Corrosive/Toxic, Liquid	1	002			HEN	TWI
Hazardous Waste, Solid	1	034	131		HEN	TWI
Combustible, Liquid	1	--			HEN	TWI
Isocyanates	2	--			USI	USI
Non-regulated, Liquids	30	--			USI	USI
	54					

HEN = Veolia, Henderson, Colorado
TWI = Violia, Sauget, Illinois
PTA = Violia, Port Arthur, Texas
USI = US Ecology, Grandview, Idaho

Loose = Loose Pack Contained
LP = Lab Pack
box = 1 cubic yard cardboard box

01/05/10

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: UTP000001381
2. Page 1 of: 2
3. Emergency Response Phone: (877) 818-0087
4. Manifest Tracking Number: 000144408 VES

5. Generator's Name and Mailing Address: ATK LAUNCH SYSTEMS INC, PO BOX 98, M/S F1EV, ATTN: ROB YAROSH, MAGNA, UT 84044-0098

Generator's Site Address (if different than mailing address): ATK LAUNCH SYSTEMS INC, DOUBLE D STORAGE, 2100 SOUTH HWY 89, PERRY, UT 84302

Generator's Phone:

6. Transporter 1 Company Name: VEOLIA ES TECHNICAL SOLUTIONS — U.S. EPA ID Number: MJD980631389

7. Transporter 2 Company Name: TRIAD TRANSPORT, INC — U.S. EPA ID Number: OKD981588791

8. Designated Facility Name and Site Address: VEOLIA ES TECHNICAL SOLUTIONS, L.L.C., 8131 EAST 96TH AVE., HENDERSON, CO 80640 — U.S. EPA ID Number: COD980501184

Facility's Phone: 303 289-4827

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1398, WASTE ALUMINUM POWDER, UNCOATED, 4.3, II, RQ (D001, D003)	001	DM	00388	P	D003 / D001		
X	2. UN1442, WASTE AMMONIUM PERCHLORATE, 5.1, II, RQ (D001, D003)	001	DM	00455	P	D003 / D001		
X	3. UN3087, WASTE OXIDIZING SOLID, POISON, n.o.s., 5.1 (6.1), II LAB PACK	001	DF	00032	P	D003 / D011	D005 / D007	
X	4. UN2735, POLYAMINES, LIQUID, CORROSIVE, n.o.s. (TETRAETHYLENEPENTAMINE, 4,4-METHYLENEDIANILINE), 8, III, RQ	001	DM	00120	P	NONE		

14. Special Handling Instructions and Additional Information: 1) ERG:138 W:967522 2) ERG:143 W:809082 3) ERG:141 W:808856 4) ERG:153 W: 009031 -I- ER Service Contracted by VESTS
CD'S REQUIRED

GENERATOR

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Randy B Gillmer — Signature: [signature] — Month 12 Day 10 Year 09

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Branden Christensen — Signature: [signature] — Month 12 Day 10 Year 09

Transporter 2 Printed/Typed Name: Bill Buchanan — Signature: Bill Buchanan — Month 12 Day 17 Year 09

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. H141 2. H141 3. H141 4. H141

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Hayes — Signature: [signature] — Month 12 Day 29 Year 09

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	UTP00000138	2 of 2	000144408VES

24. Generator's Name ATK LAUNCH SYSTEMS INC.

25. Transporter _____ Company Name U.S. EPA ID Number

26. Transporter _____ Company Name U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
	5. NON REGULATED MATERIAL (LOOSEPACK)	001	DM	00219	P	NONE		

32. Special Handling Instructions and Additional Information 5) VV809033

GENERATOR

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

5				

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Veolia ES, Technical Solutions L.L.C.

ADDENDUM TO MANIFEST TRACKING NUMBER:

000144408VES

GENERATOR : 566182 - ATK LAUNCH SYSTEMS INC. EPA ID : UTP000001381 GEN DOC NUM : DATE SHIPPED: 12/10/2009

Manifest Pg/Ln		WIP #	WIP Description	Approval #	Physical State / Hazard Codes	Waste Codes	Container count & size	Generator Drum ID	Veolia Drum #	PCB Container Number	OOSD
1	1	967522	ALUMINUM POWDER, UNCOATED	HEN	S/R	D003, D001	1x55 GAL		3		
1	2	809082	AMMONIUM PERCHLORATE	HENTWI	S/R	D003, D001	1x55 GAL		5		
1	3	808856	OXIDIZING SOLID, POISON, n.o.s.	HENTWIAJ2769OXN	L/R	D001, D005, D007, D003	1x10 GAL		4		
1	4	809031	CAN-DRUM, AMINES, DOT ONLY (LOOSEPACK)	HENPTA884370	S/-	NONE	1x55 GAL		1		
2	5	809033	NON REGULATED MATERIAL LOOSEPACK	HENPTAVES039	S/-	NONE	1x55 GAL		2		

U T P 0 0 0 0 0 1 3 8 1 2 (877) 818-0087

ATK LAUNCH SYSTEMS INC.
PO BOX 98, M/S: F1EV
ATTN: ROB YAROSIK
MAGNA, UT 84044-0098

ATK LAUNCH SYSTEMS INC.
DOUBLE D STORAGE
2100 SOUTH HWY 89
PERRY, UT 84302

VEOLIA ES TECHNICAL SOLUTIONS N J D 0 8 0 6 3 1 3 6 9

TRIAD TRANSPORT, INC. O K D 9 8 1 5 8 8 7 9 1

VEOLIA ES TECHNICAL SOLUTIONS,
L.L.C.
9131 EAST 96TH AVE.
303 289-4827 HENDERSON, CO 80640 C O D 9 8 0 5 9 1 1 8 4

X	UN1396, WASTE ALUMINUM POWDER, UNCOATED, 4.3, II, RQ (D001, D003)						D003	
		0 0 1	D M	0 0 3 8 6	P		D001	
X	UN1442, WASTE AMMONIUM PERCHLORATE, 5.1, II, RQ (D001, D003)						D003	
		0 0 1	D M	0 0 4 5 5	P		D001	
X	UN3087, WASTE OXIDIZING SOLID, POISON, n.o.s., 5.1 (6.1), II LAB PACK						D003	D005
		0 0 1	D F	0 0 0 3 2	P		D001	D007
X	UN2735, POLYAMINES, LIQUID, CORROSIVE, n.o.s., (TETRAETHYLENEPENTAMINE, 4,4-METHYLENEDIANILINE), 8, III, RQ						NONE	
		0 0 1	D M	0 0 1 2 0	P			

1) ERG:138 W:967522 2) ERG:143 W:809082 3) ERG:141 W:808856 4) ERG:153 W:
809031 -|- ER Service Contracted by VESTS
CD'S REQUIRED

1 2 1 0 0 9

Land Disposal Restriction Notification Form

Generator Name ATK LAUNCH SYSTEMS INC.

EPA ID Number UTP000001381 Manifest 000144408VES

This notice is being provided in accordance with 40 CFR 268.7 to inform you that this shipment contains waste *restricted from land disposal by the USEPA under the land disposal restriction program. Identified below for* each container is the designation of the waste as a wastewater or non-wastewater, the Clean Water Act (CWA) permit status associated with the treatment/disposal facility, applicable waste codes and any corresponding *subcategories, list of any F001-F005 solvent constituents that are present in the waste, and any underlying* hazardous constituents (UHC) that are present.

Container Number:QK-1133322000-003 (1/ 1)

WIP / Approval Code:	*967522 / HEN*
Form Designation / CWA Status:	Non-Wastewater / Non-CWA
Waste Codes (Subcategories):	D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, *FLAMMABLE SOLIDS & OXIDIZERS)), D003 (WATER* REACTIVES PER 261.23(a)(2-4))
Constituents (F001 - F005):	None
UHCs Present:	None
Treatment Requirements:	Restricted waste requires treatment to applicable standards.
Additional Notices:	

Container Number:QK-1133322000-005 (1/ 2)

WIP / Approval Code:	809082 / HENTW
Form Designation / CWA Status:	Non-Wastewater / Non-CWA
Waste Codes (Subcategories):	D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), D003 (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)
Constituents (F001 - F005):	None
UHCs Present:	None
Treatment Requirements:	Restricted waste requires treatment to applicable standards.
Additional Notices:	

I hearby certify that all information in this and associated land disposal restriction documents is complete and *accurate to the best of my knowledge and information.*

Signature [signature]

Title TTS Date 12/10/09

Land Disposal Restriction Certification Form - Exempt Lab Pack

Generator Name ATK LAUNCH SYSTEMS INC.

EPA ID Number UTP000001381 Manifest 000144408VES

This notice is being provided in accordance with 40 CFR 268.7(a)(9) to inform you that this shipment contains *waste restricted from land disposal by the USEPA under the land disposal restriction program. This shipment* contains lab packs that do not carry waste codes listed in 40 CFR part 268 Appendix IV. The method of treatment for these wastes is incineration. The container numbers corresponding to the individual lab packs are listed below *along with the associated hazardous waste codes.*

Container Number:QK-1133322000-004 (1/ 3)

Waste Codes: D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), D003 *(OTHER REACTIVES BASED ON 261.33(a)(1) INCLUDES AIR REACTIVES),* D005, D007

Phase II Certification: I certify under penalty of law that I personally have examined and am familiar with the *waste and that the lab pack does not contain any of the waste identified under 40 CFR part 268 Appendix IV. I am* aware that there are significant penalties for submitting false certifications, including the possibility of fine or imprisonment.

Phase IV Certification: I certify under penalty of law that I personally have examined and am familiar with the *waste and that the lab pack contains only wastes that have not been excluded under Appendix IV to 40 CFR part* 268 and that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at 40 CFR 268.42(c). I am aware that there are significant penalties for submitting a false *certification, including the possibility of fine or imprisonment.*

Signature [signature]

Title TT3 Date 12/10/09

Land Disposal Restriction Notification Form

Generator Name **ATK LAUNCH SYSTEMS INC.**

EPA ID Number **UTP000001381** Manifest **000007102VES**

This notice is being provided in accordance with 40 CFR 268.7 to inform you that this shipment contains waste restricted from land disposal by the USEPA under the land disposal restriction program. Identified below for each container is the designation of the waste as a wastewater or non-wastewater, the Clean Water Act (CWA) permit status associated with the treatment/disposal facility, applicable waste codes and any corresponding subcategories, list of any F001-F005 solvent constituents that are present in the waste, and any underlying hazardous constituents (UHC) that are present.

Container Number: **QK-1133890000-009 (1/ 1)**

WIP / Approval Code:	**808857 / HENPTA884369**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D035**
Constituents (F001 - F005):	**None**
UHCs Present:	**ACETONE, BARIUM (ELEMENT), BENZENE, CARBON DISULFIDE, CHLOROBENZENE, CHLOROFORM, CHROMIUM, CYCLOHEXANONE, 1,1- DICHLOROETHANE, METHYLENE CHLORIDE, ETHYL ACETATE, LEAD, METHYL ALCOHOL, METHYL ISOBUTYL KETONE, NITROBENZENE, PYRIDINE, CADMIUM (METAL), TETRACHLOROETHYLENE, TOLUENE, 1,1,1 TRICHLOROETHANE, TRICHLOROETHYLENE, SILVER, O- XYLENE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **QK-1133890000-007 (1/ 4)**

WIP / Approval Code:	**809082 / HENTWI**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), D003 (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **QK-1133890000-008 (1/ 4)**

WIP / Approval Code:	**809082 / HENTWI**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D001 (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), D003 (OTHER REACTIVES BASED ON 261.23(a)(1) INCLUDES AIR REACTIVES)**
Constituents (F001 - F005):	**None**
UHCs Present:	**None**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

Container Number: **QK-1133890000-010 (2/ 6)**

WIP / Approval Code:	**808858 / HENPTA884371**
Form Designation / CWA Status:	**Non-Wastewater / Non-CWA**
Waste Codes (Subcategories):	**D007, D008 (NONE), D011**
Constituents (F001 - F005):	**None**
UHCs Present:	**N- BUTYL PHTHALATE, METHYLENE CHLORIDE, CADMIUM (METAL), 1,1,1 TRICHLOROETHANE**
Treatment Requirements:	**Restricted waste requires treatment to applicable standards.**
Additional Notices:	

I hearby certify that all information in this and associated land disposal restriction documents is complete and accurate to the best of my knowledge and information.

Signature _____

Title _____ Date _____

5. NON REGULATED MATERIAL, (LOOSEPACK) NONE

001 DM 00219 P

5) W:809033

Veolia ES, Technical Solutions L.L.C.

ADDENDUM TO MANIFEST TRACKING NUMBER:

000007102VES

GENERATOR : 566182 - ATK LAUNCH SYSTEMS INC. EPA ID : UTP000001381 GEN DOC NUM : DATE SHIPPED: 12/10/2009

Manifest Pg/Ln		WIP #	WIP Description	Approval #	Physical State / Hazard Codes	Waste Codes	Container count & size	Generator Drum ID	Veolia Drum #	PCB Container Number	OOSD
1	1	808857	CAN-DRUM FLAMMABLE (LOOSEPACK)	HENPTA884369	L/I	D001, D035	1x55 GAL		9		
1	2	808856	MAGNESIUM POWDER	HENTWIAJ2774REA	L/R	D003, D001	1xQUART		2		
1	3	808856	ZINC DUST	HENTWIAJ2767REA	L/R	D003, D001	1xQUART		1		
1	4	809082	AMMONIUM PERCHLORATE	HENTWI	S/R	D003, D001	1x55 GAL, 8x30 GAL		7, 8		
2	5	808856	HYDROGEN PEROXIDE, AQUEOUS SOLUTIONS	HENTWIAJ2774OXA	L/I	D001, D002	1x15 GAL		5		
2	6	808858	CAN-DRUM, TOXIC (LOOSEPACK)	HENPTA884371	S/E	D007, D008, D011	1x55 GAL		10		
2	7	808856	CORROSIVE LIQUIDS, TOXIC, n.o.s.	HENTWIAJ2774OA	L/C	D002	1x1 GAL		3		
2	8	808856	HAZARDOUS WASTE, SOLID, n.o.s.	HENTWIAJ2774SLV	L/T	U131, D034	1x5 GAL		4		
2	9	808856	COMBUSTIBLE LIQUID, n.o.s.	HENTWIAJ2771REA	L/-	NONE	1x30 GAL		6		

01/05/10

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: UTP000001381
2. Page 1 of 2
3. Emergency Response Phone: (877) 818-0087
4. Manifest Tracking Number: 000007102 VES

5. Generator's Name and Mailing Address:
ATK LAUNCH SYSTEMS INC
PO BOX 98, M/S F1EV
ATTN: ROB YAROSIK
MAGNA, UT 84044-0098

Generator's Site Address (if different than mailing address):
ATK LAUNCH SYSTEMS INC
DOUBLE D STORAGE
2100 SOUTH HWY 89
PERRY, UT 84302

Generator's Phone:

6. Transporter 1 Company Name: VEOLIA ES TECHNICAL SOLUTIONS — U.S. EPA ID Number: NJD080631369

7. Transporter 2 Company Name: TRIAD TRANSPORT, INC — U.S. EPA ID Number: OKD981528791

8. Designated Facility Name and Site Address:
VEOLIA ES TECHNICAL SOLUTIONS, L.L.C.
9131 EAST 96TH AVE.
HENDERSON, CO 80640

Facility's Phone: 303 289-4827 — U.S. EPA ID Number: COD980591194

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (MEK, TOLUENE), 3, II, RQ (D001)	001	DM	00140	P	D001		
						D035		
X	2. UN1418, WASTE MAGNESIUM POWDER, 4.3 (4.2), I, DOT-SP 9168 LAB PACK	001	CF	00006	P	D003		
						D001		
X	3. UN1436, WASTE ZINC DUST, 4.3 (4.2), I, DOT-SP 9168 LAB PACK	001	CF	00010	P	D003		
						D001		
X	4. UN1442, WASTE AMMONIUM PERCHLORATE, 5.1, II, RQ (D001, D003)	008 C.O.	DM	02125	P	D003		
						D001		

14. Special Handling Instructions and Additional Information
1) ERG 128 W:808857 2) ERG 138 W:808856 3) ERG 138 W:808856 4) ERG 143 W
809082 -(- ER Service Contracted by VESTS
CD'S REQUIRED

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Randy D Fullmer — Signature: [signature] — Month 12 Day 10 Year 09

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Brundon Christenson — Signature: [signature] — Month 12 Day 10 Year 09

Transporter 2 Printed/Typed Name: Bill Buchanan — Signature: Bill Buchanan — Month 12 Day 17 Year 09

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141	H141	H141	H141

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: [signature] — Signature: [signature] — Month 12 Day 29 Year 09

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: UTP000001381

22. Page: 2 of 2

23. Manifest Tracking Number: 000007102VES

24. Generator's Name: ATK LAUNCH SYSTEMS INC.

25. Transporter _____ Company Name

U.S. EPA ID Number

26. Transporter _____ Company Name

U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5. UN2014, WASTE HYDROGEN PEROXIDE, AQUEOUS SOLUTIONS, 5.1 (8), II LAB PACK	001	DF	00052	P	D001 D002		
X	6. UN2810, WASTE TOXIC LIQUIDS, ORGANIC, n.o.s., (CHROMIUM, ISOPHORONE DIISOCYANATE), 6.1, II	001	DM	00195	P	D007 D008	D011	
X	7. UN2922, WASTE CORROSIVE LIQUIDS, TOXIC, n.o.s., 8,(6.1), II LAB PACK	001	DF	00003	P	D002		
X	8. NA3077, HAZARDOUS WASTE, SOLID, n.o.s., (D034,U131), 9, III LAB PACK	001	DF	00021	P	U131 D034		
X	9. NA1993, COMBUSTIBLE LIQUID, n.o.s., III LAB PACK	001	DF	00053	P	NONE		

32. Special Handling Instructions and Additional Information
5) ERG:140 W:808856 6) ERG:153 W:808856 7) ERG:154 W:808856 8) ERG:171 W:808856 9) ERG:128 W:808856

GENERATOR

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name 6. 7. Signature 8. 9. Month Day Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name Signature Month Day Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

6. H141 7. H141 8. H141 9. H141

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

U T P 0 0 0 0 0 1 3 8 1 2 (877) 818-0087

ATK LAUNCH SYSTEMS INC.
PO BOX 98, M/S: F1EV
ATTN: ROB YAROSIK
MAGNA, UT 84044-0098

ATK LAUNCH SYSTEMS INC.
DOUBLE D STORAGE
2100 SOUTH HWY 89
PERRY, UT 84302

VEOLIA ES TECHNICAL SOLUTIONS N J D 0 8 0 6 3 1 3 6 9

TRIAD TRANSPORT, INC. O K D 9 8 1 5 8 8 7 9 1

VEOLIA ES TECHNICAL SOLUTIONS,
L.L.C.
9131 EAST 96TH AVE.
303 289-4827 HENDERSON, CO 80640 C O D 9 8 0 5 9 1 1 8 4

X	UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (MEK, TOLUENE), 3, II, RQ (D001)						D001
		0 0 1	D M	0 0 1 4 0	P		D035
X	UN1418, WASTE MAGNESIUM POWDER, 4.3 (4.2), I, DOT-SP 9168 LAB PACK						D003
		0 0 1	C F	0 0 0 0 6	P		D001
X	UN1436, WASTE ZINC DUST, 4.3 (4.2), I, DOT-SP 9168 LAB PACK						D003
		0 0 1	C F	0 0 0 1 0	P		D001
X	UN1442, WASTE AMMONIUM PERCHLORATE, 5.1, II, RQ (D001, D003)						D003
		0 0 9	D M	0 2 1 2 5	P		D001

1) ERG:128 W:808857 2) ERG:138 W:808856 3) ERG:138 W:808856 4) ERG:143 W:
9082 -|- ER Service Contracted by VESTS
CD'S REQUIRED

1 2 1 0 0 9

X	5. UN2014, WASTE HYDROGEN PEROXIDE, AQUEOUS SOLUTIONS, 5.1 (8), II LAB PACK	001	DF	00052	P	D001 D002	
X	6. UN2810, WASTE TOXIC LIQUIDS, ORGANIC, n.o.s., (CHROMIUM, ISOPHORONE DIISOCYANATE), 6.1, II	001	DM	00195	P	D007 D008	D011
X	7. UN2922, WASTE CORROSIVE LIQUIDS, TOXIC, n.o.s., 8 (6.1), II LAB PACK	001	DF	00003	P	D002	
X	8. NA3077, HAZARDOUS WASTE, SOLID, n.o.s., (D034,U131), 9, III LAB PACK	001	DF	00021	P	U131 D034	
X	9. NA1993, COMBUSTIBLE LIQUID, n.o.s., III LAB PACK	001	DF	00053	P	NONE	

5) ERG:140 W:808856 6) ERG:153 W:808858 7) ERG:154 W:808856 8) ERG:171 W:
308856 9) ERG:128 W:808856

5. 6. 7. 8. 9.

Land Disposal Restriction Certification Form - Exempt Lab Pack

Generator Name **ATK LAUNCH SYSTEMS INC.**

EPA ID Number **UTP000001381** Manifest **000007102VES**

This notice is being provided in accordance with 40 CFR 268.7(a)(9) to inform you that this shipment contains waste restricted from land disposal by the USEPA under the land disposal restriction program. This shipment contains lab packs that do not carry waste codes listed in 40 CFR part 268 Appendix IV. The method of treatment for these wastes is incineration. The container numbers corresponding to the individual lab packs are listed below along with the associated hazardous waste codes.

Container Number: **QK-1133890000-001 (1/ 3)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (WATER REACTIVES PER 261.23(a)(2-4))

Container Number: **QK-1133890000-002 (1/ 2)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, OTHER THAN LIQUIDS >=10% TOC (INCLUDES ALL IGN. GASES, FLAMMABLE SOLIDS & OXIDIZERS)), **D003** (WATER REACTIVES PER 261.23(a)(2-4))

Container Number: **QK-1133890000-003 (2/ 7)**

Waste Codes: **D002**

Container Number: **QK-1133890000-004 (2/ 8)**

Waste Codes: **D034, U131**

Container Number: **QK-1133890000-005 (2/ 5)**

Waste Codes: **D001** (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), **D002**

Phase II Certification: I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack does not contain any of the waste identified under 40 CFR part 268 Appendix IV. I am aware that there are significant penalties for submitting false certifications, including the possibility of fine or imprisonment.

Phase IV Certification: I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only wastes that have not been excluded under Appendix IV to 40 CFR part 268 and that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at 40 CFR 268.42(c). I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

Signature _____

Title _____ Date _____

ATK LAUNCH SYSTEMS - *PROMONTORY*

LANDFILL LOG "Daily" OPERATING RECORD

Thursday, February 25, 2010

Activity Summary

Date Received: 12/11/2009

Total No. Loads: 3

Total Qty (cy): 33

EMP-ID#	Last Name	First Name	C/C	Building	Description	No. Loads	Qty	UM	Disposal Site	Cell ID
00000	Mendelkow	Joseph	6291	M422	WASTE ACTIVATED SLUDGE	1	1	CY	ASBESTOS/INDUSTRIAL TRENCH	AA-29
00000	Mendelkow	Joseph	6291	PERRY	INDUSTRAL SOLIDS	1	20	CY	ASBESTOS/INDUSTRIAL TRENCH	AA-29
00000	Mendelkow	Joseph	6291	PLANT	COMMON TRASH	1	12	CY	LANDFILL	LT-13

Cover Placement / Certification (6" Earthen Material)

EMP-ID#	Last Name	First Name	Cell ID	Area Covered	Amount Of Cover	UM
00000	Mendelkow	Joseph	AA-29	CENTER WORKING FACE	20	CY
00000	Mendelkow	Joseph	LT-13	SOUTHSIDE WORKING FACE	15	CY

Comments:

ATK LAUNCH SYSTEMS - *PROMONTORY*

LANDFILL LOG "Daily" OPERATING RECORD

Thursday, February 25, 2010

Activity Summary

Date Received: 12/5/2009

Total No. Loads: 2

Total Qty (cy): 50

EMP-ID#	Last Name	First Name	C/C	Building	Description	No. Loads	Qty	UM	Disposal Site	Cell ID
[redacted]	Christiansen	Jed	6291	WILLA	COMMON TRASH	1	20	CY	LANDFILL	LT-13
[redacted]	Christiansen	Jed	6291	WILLA	NON-HAZ. SOLID LAB WASTE	1	30	CY	ASBESTOS/INDUSTRIAL TRENCH	AA-29

Cover Placement / Certification (6" Earthen Material)

EMP-ID#	Last Name	First Name	Cell ID	Area Covered	Amount Of Cover	UM
[redacted]	Christiansen	Jed	LT-13	SOUTHSIDE WORKING FACE	25	CY

Comments:

ATK LAUNCH SYSTEMS - *PROMONTORY*

LANDFILL LOG "Daily" OPERATING RECORD

Thursday, February 25, 2010

Activity Summary

Date Received: 12/8/2009

Total No. Loads: 7

Total Qty (cy): 73

EMP-ID#	Last Name	First Name	C/C	Building	Description	No. Loads	Qty	UM	Disposal Site	Cell ID
□□□□□	Knells	Frank	6292	H007	ASBESTOS AND DEBRIS	1	3	CY	ASBESTOS/INDUSTRIAL TRENCH	AA-29
□□□□□	Knells	Frank	6292	I010	NON-HAZ. SOLID LAB WASTE	1	4	CY	ASBESTOS/INDUSTRIAL TRENCH	AA-29
□□□□□	Knells	Frank	6292	M005	PHENOLIC/CARBON	1	4	CY	ASBESTOS/INDUSTRIAL TRENCH	AA-29
□□□□□	Knells	Frank	6292	M052	SAND	1	2	CY	LANDFILL	LT-13
□□□□□	Jensen	Golden	6291	WILLA	NON-HAZ. SOLID LAB WASTE	1	30	CY	ASBESTOS/INDUSTRIAL TRENCH	AA-29
□□□□□	Mendelkow	Joseph	6291	PLANT	COMMON TRASH	2	30	CY	LANDFILL	LT-13

Cover Placement / Certification (6" Earthen Material)

EMP-ID#	Last Name	First Name	Cell ID	Area Covered	Amount Of Cover	UM
□□□□□	Mendelkow	Joseph	AA-29	CENTER WORKING FACE	30	CY
□□□□□	Mendelkow	Joseph	LT-13	NORTHSIDE WORKING FACE	45	CY

Comments:

ATK LAUNCH SYSTEMS - *PROMONTORY*

LANDFILL LOG "Daily" OPERATING RECORD

Thursday, February 25, 2010

Activity Summary

Date Received: 12/17/2009

Total No. Loads: 8

Total Qty (cy): 76

EMP-ID#	Last Name	First Name	C/C	Building	Description	No. Loads	Qty	UM	Disposal Site	Cell ID
▯▯▯▯▯	Knells	Frank	6292	H007	ASBESTOS AND DEBRIS	1	3	CY	ASBESTOS/INDUSTRIAL TRENCH	AA-29
▯▯▯▯▯	Jensen	Golden	6291	M345	COMMON TRASH	1	20	CY	LANDFILL	LT-13
▯▯▯▯▯	Jensen	Golden	6291	WILLA	COMMON TRASH	1	20	CY	LANDFILL	LT-13
▯▯▯▯▯	Mendelkow	Joseph	6291	M422	WASTE ACTIVATED SLUDGE	3	3	CY	ASBESTOS/INDUSTRIAL TRENCH	AA-29
▯▯▯▯▯	Mendelkow	Joseph	6291	PLANT	COMMON TRASH	2	30	CY	LANDFILL	LT-13

Cover Placement / Certification (6" Earthen Material)

EMP-ID#	Last Name	First Name	Cell ID	Area Covered	Amount Of Cover	UM
▯▯▯▯▯	Mendelkow	Joseph	AA-29	CENTER WORKING FACE	20	CY
▯▯▯▯▯	Mendelkow	Joseph	LT-13	NORTHSIDE WORKING FACE	45	CY

Comments:

ATK LAUNCH SYSTEMS - *PROMONTORY*

LANDFILL LOG "Daily" OPERATING RECORD

Thursday, February 25, 2010

Activity Summary

Date Received: 12/4/2009

Total No. Loads: 6

Total Qty (cy): 103

EMP-ID#	Last Name	First Name	C/C	Building	Description	No. Loads	Qty	UM	Disposal Site	Cell ID
▯▯▯▯▯	Jensen	Golden	6291	M345	COMMON TRASH	1	20	CY	LANDFILL	LT-13
▯▯▯▯▯	Jensen	Golden	6291	PLANT	COMMON TRASH	1	20	CY	LANDFILL	LT-13
▯▯▯▯▯	Jensen	Golden	6291	WILLA	COMMON TRASH	2	60	CY	LANDFILL	LT-13
▯▯▯▯▯	Price	Keven	6292	M136	BURN ASH	2	3	CY	M136 TRENCH	M136-2

Cover Placement / Certification (6" Earthen Material)

EMP-ID#	Last Name	First Name	Cell ID	Area Covered	Amount Of Cover	UM
▯▯▯▯▯	Jensen	Golden	LT-13	CENTER WORKING FACE	60	CY
▯▯▯▯▯	Price	Keven	M136-2	NORTHEAST WORKING FACE	3	CY

Comments:

VEOLIA ENVIRONMENTAL SERVICES

SHIPPING DOCUMENT	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Shipping Document Tracking Number
	UTP000001381	1	801-250-5911	ZZ 00140088

5. Generator's Name and Mailing Address
ATK LAUNCH SYSTEMS INC.
P.O BOX 707, ATTN: RANDY D. FULLMER
BRIGHAM CITY, UT 84302
Generator's Phone: 435-863-5277

Generator's Site Address (if different than mailing address)
ATK LAUNCH SYSTEMS INC.
DOUBLE D STORAGE
2100 SOUTH HIGHWAY 89
PERRY, UT 84302

6. Transporter 1 Company Name: ATK LAUNCH SYSTEMS INC. - PROMONTORY
U.S. EPA ID Number: UTD009081357

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
ATK LAUNCH SYSTEMS INC. - PROMONTORY
9160 N. HIGHWAY 83 (MM336)
CORINNE, UT 84307
Facility's Phone: 435-863-5277
U.S. EPA ID Number: UTD009081357

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Codes
	1. NON-REGULATED MATERIAL (INDUSTRIAL SOLIDS)	001	CM	0020	Y	NONE
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) THNH193 (SEE ATTACHED LIST WITH EPA LABEL #S)

15. **GENERATOR S/OFFEROR S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: RANDY D. FULLMER
Signature: [signature]
Month 12 Day 10 Year 09

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Shipment
Transporter 1 Printed/Typed Name: Jed Christiansen
Signature: Jed Christiansen
Month 12 Day 10 Year 09
Transporter 2 Printed/Typed Name
Signature
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Shipping Document Tracking Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)
1. H132 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of shipment except as noted in Item 18a
Printed/Typed Name: GOLDEN JENSEN
Signature: [signature]
Month 12 Day 10 Year 09

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

DESIGNATED FACILITY TO GENERATOR

VEOLIA ENVIRONMENTAL SERVICES 09122918474

SHIPPING DOCUMENT	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Shipping Document Tracking Number
	UTP000001381	1	(877) 818-0087	ZZ 00004495

5. Generator's Name and Mailing Address
ATK LAUNCH SYSTEMS INC.
PO BOX 98, M/S: F1EV
ATTN: ROB YAROSIK
MAGNA, UT 84044-0098

Generator's Site Address (if different than mailing address)
ATK LAUNCH SYSTEMS INC.
DOUBLE D STORAGE
2100 SOUTH HWY 89
PERRY, UT 84302

Generator's Phone:

6. Transporter 1 Company Name: VEOLIA ES TECHNICAL SOLUTIONS — U.S. EPA ID Number: NJD080631369

7. Transporter 2 Company Name: TRIAD TRANSPORT, INC. — U.S. EPA ID Number: OKD981588791

8. Designated Facility Name and Site Address: US ECOLOGY OF IDAHO, INC, 20400 LEMLEY ROAD, GRAND VIEW, ID 83624 — U.S. EPA ID Number: IDD073114654

Facility's Phone: 800 274-1516

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Codes
X	UN2206, ISOCYANATE SOLUTIONS, TOXIC, n.o.s., FLASH POINT >81 DEGREES C AND BOILING PT. <300 C, (CONTAINS DIMER DIISOCYANATE, ISOPHORONE	002	DM	00735	P	NONE
	DIISOCYANATE), 6.1, II					
	NON REGULATED LIQUID	030	DM	11743	P	NONE
	4.					

14. Special Handling Instructions and Additional Information: 1) ERG:155 W:809081 USI-15989 3) W:809083 USI-18062 -|- ER Service Contracted
by VESTS
VEOLIA DISPOSAL PO# 0000097460

15. **GENERATOR S/OFFEROR S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: RANDY D. LULLMER — Signature: [signature] — Month 12 Day 10 Year 09

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Shipment

Transporter 1 Printed/Typed Name: Brandon Christensen — Signature: [signature] — Month 12 Day 10 Year 09

Transporter 2 Printed/Typed Name: Ronald L Morris — Signature: Ronald L Morris — Month 12 Day 29 Year 09

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Shipping Document Tracking Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132		H132	

20. Designated Facility Owner or Operator: Certification of receipt of shipment except as noted in Item 18a

Printed/Typed Name: Brenda Johnson for USEI — Signature: Brenda Johnson — Month 12 Day 30 Year 09

GENERATOR — TRANSPORTER — INT'L — DESIGNATED FACILITY

DESIGNATED FACILITY TO GENERATOR

Veolia ES, Technical Solutions L.L.C.

ADDENDUM TO MANIFEST TRACKING NUMBER:

ZZ00004495

GENERATOR : 566182 - ATK LAUNCH SYSTEMS INC. EPA ID : UTP000001381 GEN DOC NUM : DATE SHIPPED: 12/10/2009

Manifest Pg/Ln		WIP #	WIP Description	Approval #	Physical State / Hazard Codes	Waste Codes	Container count & size	Generator Drum ID	Veolia Drum #	PCB Container Number	OOSD
1	1	809081	ISOCYANATES	USI-15989	L/-	NONE	2x55 GAL		1		
1	3	809083	NON REG LIQUIDS	USI-18062	S/-	NONE	30x55 GAL		2, 3, 4, 5		

U T P 0 0 0 0 0 1 3 8 1 1 (877) 818-0087

ATK LAUNCH SYSTEMS INC.
PO BOX 98, M/S: F1EV
ATTN: ROB YAROSIK
MAGNA, UT 84044-0098

ATK LAUNCH SYSTEMS INC.
DOUBLE D STORAGE
2100 SOUTH HWY 89
PERRY, UT 84302

VEOLIA ES TECHNICAL SOLUTIONS N J D 0 8 0 6 3 1 3 6 9

TRIAD TRANSPORT, INC. O K D 9 8 1 5 8 8 7 9 1

US ECOLOGY OF IDAHO, INC
20400 LEMLEY ROAD

800 274-1516 GRAND VIEW, ID 83624 I D D 0 7 3 1 1 4 6 5 4

X UN2206, ISOCYANATE SOLUTIONS, TOXIC, n.o.s., FLASH POINT >61 DEGREES C AND BOILING PT. <300 C, (CONTAINS DIMER DIISOCYANATE, ISOPHORONE DIISOCYANATE), 6.1, II NONE

0 0 2 D M 00735 P

NON REGULATED LIQUID NONE

0 3 0 D M 11743 P

1) ERG:155 W:809081 USI-15989 3) W:809083 USI-18062 -|- ER Service Contracted

by VESTS
VEOLIA DISPOSAL PO#_____

1 2 1 0 0 9

ATTACHMENT C

Laboratory Reports

Chain of Custody
Surface Contamination Sampling Form
Certificates of Analysis
Data Validation Summaries

12/18/2009

ATK Launch Systems
P.O. BOX 98 MAGNA, UTAH 84404

Environmental Lab Work Request

GENERAL INFORMATION

LAB:	M53	COLLECTED BY:	R. Bowlin S. Deppe	COMPANY:	TITLE:
P.O. NO:		COLLECTION LOCATION:	EZ Access Storage	CONTACT:	Ronald Bowlin
M-53 PROJ_ID WPKG:	988P LS333ENV	MATERIAL SAMPLED:	Wipe	EMAIL:	ronald.bowlin@atk.com

SAMPLE INFORMATION

SAMPLE NUMBER	DATE	TIME	METHOD	BOTTLE	PRESERVATIVE	ANALYSIS REQUESTED	NOTE
EZ-3-1A	12/17/09	1245	Wipe	40 ml VOA	4C: DI Water	VOC: EPA 8260B	
EZ-3-1B	12/17/09	1245	Wipe	40 ml VOA	4C: Methanol	SVOC: EPA 8270B	
EZ-3-1C	12/17/09	1245	Wipe	40 ml VOA	4C: Methanol	NG, HMX, RDX: SW-846, 8330 Modified	
EZ-3-1D	12/17/09	1245	Wipe	40 ml VOA	4C: DI Water	Aluminum, Magnesium: EPA 6010B	
EZ-3-2A	12/17/09	1250	Wipe	40 ml VOA	4C: DI Water	VOC: EPA 8260B	
EZ-3-2B	12/17/09	1250	Wipe	40 ml VOA	4C: Methanol	SVOC: EPA 8270B	
EZ-3-2C	12/17/09	1250	Wipe	40 ml VOA	4C: Methanol	NG, HMX, RDX: SW-846, 8330 Modified	
EZ-3-2D	12/17/09	1250	Wipe	40 ml VOA	4C: DI Water	Aluminum, Magnesium: EPA 6010B	

NOTE: 100 sq. cm. area

CHAIN OF CUSTODY

RELINQUISHED BY	RECEIVED BY	DATE	TIME
RABowlin	[illegible]	12/18/09	13:05

0912027

12/18/2009

ATK Launch Systems
P.O. BOX 98 MAGNA, UTAH 84404

Environmental Lab Work Request

GENERAL INFORMATION

LAB:	M53	COLLECTED BY:	R. Bowlin S. Deppe	COMPANY:	TITLE:
P.O. NO:		COLLECTION LOCATION:	EZ Access Storage	CONTACT:	Ronald Bowlin
M-53 PROJ_ID WPKG:	988P LS333ENV	MATERIAL SAMPLED:	Wipe	EMAIL:	ronald.bowlin@atk.com

SAMPLE INFORMATION

SAMPLE NUMBER	DATE	TIME	METHOD	BOTTLE	PRESERVATIVE	ANALYSIS REQUESTED	NOTE
EZ-4-1A	12/17/09	1158	Wipe	40 ml VOA	4C: DI Water	VOC: EPA 8260B	
EZ-4-1B	12/17/09	1158	Wipe	40 ml VOA	4C: Methanol	SVOC: EPA 8270B	
EZ-4-1C	12/17/09	1158	Wipe	40 ml VOA	4C: Methanol	NG, HMX, RDX: SW-846, 8330 Modified	
EZ-4-1D	12/17/09	1158	Wipe	40 ml VOA	4C: DI Water	Aluminum, Magnesium: EPA 6010B	
EZ-4-2A	12/17/09	1155	Wipe	40 ml VOA	4C: DI Water	VOC: EPA 8260B	
EZ-4-2B	12/17/09	1155	Wipe	40 ml VOA	4C: Methanol	SVOC: EPA 8270B	
EZ-4-2C	12/17/09	1155	Wipe	40 ml VOA	4C: Methanol	NG, HMX, RDX: SW-846, 8330 Modified	
EZ-4-2D	12/17/09	1155	Wipe	40 ml VOA	4C: DI Water	Aluminum, Magnesium: EPA 6010B	

NOTE: 100 sq. cm. area

CHAIN OF CUSTODY

RELINQUISHED BY	RECEIVED BY	DATE	TIME
RC Bowlin	Joanne Bz	12/18/09	13:05

0912027

12/18/2009

ATK Launch Systems
P.O. BOX 98 MAGNA, UTAH 84404

Environmental Lab Work Request

GENERAL INFORMATION

LAB:	M53	COLLECTED BY:	R. Bowlin S. Deppe	COMPANY:	TITLE:
P.O. NO:		COLLECTION LOCATION:	EZ Access Storage	CONTACT:	Ronald Bowlin
M-53 PROJ_ID WPKG:	988P LS333ENV	MATERIAL SAMPLED:	Wipe	EMAIL:	ronald.bowlin@atk.com

SAMPLE INFORMATION

SAMPLE NUMBER	DATE	TIME	METHOD	BOTTLE	PRESERVATIVE	ANALYSIS REQUESTED	NOTE
EZ-5-1A	12/17/09	1120	Wipe	40 ml VOA	4C: DI Water	VOC: EPA 8260B	
EZ-5-1B	12/17/09	1120	Wipe	40 ml VOA	4C: Methanol	SVOC: EPA 8270B	
EZ-5-1C	12/17/09	1120	Wipe	40 ml VOA	4C: Methanol	NG, HMX, RDX: SW-846, 8330 Modified	
EZ-5-1D	12/17/09	1120	Wipe	40 ml VOA	4C: DI Water	Aluminum, Magnesium: EPA 6010B	
EZ-5-2A	12/17/09	1140	Wipe	40 ml VOA	4C: DI Water	VOC: EPA 8260B	
EZ-5-2B	12/17/09	1140	Wipe	40 ml VOA	4C: Methanol	SVOC: EPA 8270B	
EZ-5-2C	12/17/09	1140	Wipe	40 ml VOA	4C: Methanol	NG, HMX, RDX: SW-846, 8330 Modified	
EZ-5-2D	12/17/09	1140	Wipe	40 ml VOA	4C: DI Water	Aluminum, Magnesium: EPA 6010B	

NOTE: 100 sq. cm. area

CHAIN OF CUSTODY

RELINQUISHED BY	RECEIVED BY	DATE	TIME
RG Bowlin	[illegible]	12/18/09	13:05

09120027

12/18/2009

ATK Launch Systems
P.O. BOX 98 MAGNA, UTAH 84404

Environmental Lab Work Request

GENERAL INFORMATION

LAB:	M53	COLLECTED BY:	R. Bowlin S. Deppe	COMPANY:	TITLE:
P.O. NO:		COLLECTION LOCATION:	EZ Access Storage	CONTACT:	Ronald Bowlin
M-53 PROJ_ID WPKG:	988P LS333ENV	MATERIAL SAMPLED:	Wipe	EMAIL:	ronald.bowlin@atk.com

SAMPLE INFORMATION

SAMPLE NUMBER	DATE	TIME	METHOD	BOTTLE	PRESERVATIVE	ANALYSIS REQUESTED	NOTE
EZ-14-1A	12/17/09	1330	Wipe	40 ml VOA	4C: DI Water	VOC: EPA 8260B	
EZ-14-1B	12/17/09	1330	Wipe	40 ml VOA	4C: Methanol	SVOC: EPA 8270B	
EZ-14-1C	12/17/09	1330	Wipe	40 ml VOA	4C: Methanol	NG, HMX, RDX: SW-846, 8330 Modified	
EZ-14-1D	12/17/09	1330	Wipe	40 ml VOA	4C: DI Water	Aluminum, Magnesium: EPA 6010B	
EZ-14-2A	12/17/09	1335	Wipe	40 ml VOA	4C: DI Water	VOC: EPA 8260B	
EZ-14-2B	12/17/09	1335	Wipe	40 ml VOA	4C: Methanol	SVOC: EPA 8270B	
EZ-14-2C	12/17/09	1335	Wipe	40 ml VOA	4C: Methanol	NG, HMX, RDX: SW-846, 8330 Modified	
EZ-14-2D	12/17/09	1335	Wipe	40 ml VOA	4C: DI Water	Aluminum, Magnesium: EPA 6010B	

NOTE: 100 sq. cm. area

CHAIN OF CUSTODY

RELINQUISHED BY	RECEIVED BY	DATE	TIME
R A Bowlin	Joanne [illegible]	12/18/09	13:05

FORM FQA-0287 (REV 1-09)

0912027

12/18/2009

ATK Launch Systems
P.O. BOX 98 MAGNA, UTAH 84404

Environmental Lab Work Request

GENERAL INFORMATION

LAB:	M53	COLLECTED BY:	R. Bowlin S. Deppe	COMPANY:	TITLE:
P.O. NO:		COLLECTION LOCATION:	EZ Access Storage	CONTACT:	Ronald Bowlin
M-53 PROJ_ID WPKG:	988P LS333ENV	MATERIAL SAMPLED:	Wipe	EMAIL:	ronald.bowlin@atk.com

SAMPLE INFORMATION

SAMPLE NUMBER	DATE	TIME	METHOD	BOTTLE	PRESERVATIVE	ANALYSIS REQUESTED	NOTE
EZ-45-1A	12/17/09	1030	Wipe	40 ml VOA	4C: DI Water	VOC: EPA 8260B	
EZ-45-1B	12/17/09	1030	Wipe	40 ml VOA	4C: Methanol	SVOC: EPA 8270B	
EZ-45-1C	12/17/09	1030	Wipe	40 ml VOA	4C: Methanol	NG, HMX, RDX: SW-846, 8330 Modified	
EZ-45-1D	12/17/09	1030	Wipe	40 ml VOA	4C: DI Water	Aluminum, Magnesium: EPA 6010B	
EZ-45-2A	12/17/09	1030	Wipe	40 ml VOA	4C: DI Water	VOC: EPA 8260B	
EZ-45-2B	12/17/09	1030	Wipe	40 ml VOA	4C: Methanol	SVOC: EPA 8270B	
EZ-45-2C	12/17/09	1030	Wipe	40 ml VOA	4C: Methanol	NG, HMX, RDX: SW-846, 8330 Modified	
EZ-45-2D	12/17/09	1030	Wipe	40 ml VOA	4C: DI Water	Aluminum, Magnesium: EPA 6010B	
EZ-45-3A	12/17/09	1030	Wipe	40 ml VOA	4C: DI Water	VOC: EPA 8260B	
EZ-45-3B	12/17/09	1030	Wipe	40 ml VOA	4C: Methanol	SVOC: EPA 8270B	
EZ-45-3C	12/17/09	1030	Wipe	40 ml VOA	4C: Methanol	NG, HMX, RDX: SW-846, 8330 Modified	
EZ-45-3D	12/17/09	1030	Wipe	40 ml VOA	4C: DI Water	Aluminum, Magnesium: EPA 6010B	

NOTE: 100 sq. cm. area

CHAIN OF CUSTODY

RELINQUISHED BY	RECEIVED BY	DATE	TIME
RCBowlin	Joanne [illegible]	12/18/09	13:05

0912027

ATK Launch Systems Inc.
Environmental Services Group

Surface Contamination Sampling Form
12/2009

Location: EZ Access, Unit 3

Notes: Area 1 lathered when sampled with both solvents

	Analyte	Method
V	VOC	8260
S	SVOC	8270
E	Energetics	8330
P	Perchlorate	314.0
M	Metals:	

	Solvent
W	DI Water
M	Methanol
I	IPA
H	Hexane
A	Acetone
O	Other

	Sample Media
C	Cotton Gauze
G	Ghost Wipe™
F	Filter Paper
P	Pre-Moistened

	Area Measurement
T	Template
M	Measured Area
E	Estimated Area
O	Other:

Sample Number			Surface Type	Photo Number		
EZ-3-1	Analyte	V S E P M	Concrete	11		1 sq. ft
	Solvent	W M I H A O			X	100 sq. cm
	Media	C G F P				
Time: 1245	Area	T M E O				
EZ-3-2	Analyte	V S E P M	Concrete	12		1 sq. ft
	Solvent	W M I H A O			X	100 sq. cm
	Media	C G F P				
Time: 1250	Area	T M E O				
EZ-3-3	Analyte	V S E P M	Duplicate of EZ-3-1	—		1 sq. ft.
	Solvent	W M I H A O				100 sq. cm
	Media	C G F P				
Time: 1255	Area	T M E O				

Sample Date: 12/17/09

Samples Collected By: Ron Bowlin
(Print Name and Signature) RBowlin

ATK Launch Systems Inc.
Environmental Services Group

Surface Contamination Sampling Form
12/2009

Location: EZ Access - Unit 4

Notes:

	Analyte	Method
V	VOC	8260
S	SVOC	8270
E	Energetics	8330
P	Perchlorate	314.0
M	Metals:	

	Solvent
W	DI Water
M	Methanol
I	IPA
H	Hexane
A	Acetone
O	Other

	Sample Media
C	Cotton Gauze
G	Ghost Wipe™
F	Filter Paper
P	Pre-Moistened

	Area Measurement
T	Template
M	Measured Area
E	Estimated Area
O	Other:

Sample Number			Surface Type	Photo Number		
EZ-4-1	Analyte	V S E P M	Concrete	8		1 sq. ft
	Solvent	W M I H A O			X	100 sq. cm
	Media	C G F P				
Time: 1158	Area	T M E O				
EZ-4-2	Analyte	V S E P M	Concrete	9, 10		1 sq. ft
	Solvent	W M I H A O			X	100 sq. cm
	Media	C G F P				
Time: 1155	Area	T M E O				
EZ-4-3	Analyte	V S E P M	Duplicate of EZ-4-2	—		1 sq. ft.
	Solvent	W M I H A O				100 sq. cm
	Media	C G F P				
Time: 1200	Area	T M E O				

Sample Date: 12/17/09

Samples Collected By: Ron Bowlin
(Print Name and Signature) R A Bowlin

ATK Launch Systems Inc.
Environmental Services Group

Surface Contamination Sampling Form
12/2009

Location: EZ Access Unit 5

Notes:

	Analyte	Method
V	VOC	8260
S	SVOC	8270
E	Energetics	8330
P	Perchlorate	314.0
M	Metals:	

	Solvent
W	DI Water
M	Methanol
I	IPA
H	Hexane
A	Acetone
O	Other

	Sample Media
C	Cotton Gauze
G	Ghost Wipe™
F	Filter Paper
P	Pre-Moistened

	Area Measurement
T	Template
M	Measured Area
E	Estimated Area
O	Other:

Sample Number			Surface Type	Photo Number		
EZ-5-1	Analyte	V S E P M	Concrete	5, 7		1 sq. ft
	Solvent	W M I H A O			X	100 sq. cm
	Media	C G F P				
Time: 1120	Area	T M E O				
EZ-5-2	Analyte	V S E P M	Concrete	6		1 sq. ft
	Solvent	W M I H A O			X	100 sq. cm
	Media	C G F P				
Time: 1140	Area	T M E O				
EZ-5-3	Analyte	V S E P M	Duplicate of EZ-5-1	—		1 sq. ft.
	Solvent	W M I H A O				100 sq. cm
	Media	C G F P				
Time: 1200	Area	T M E O				

Sample Date: 12/17/09

Samples Collected By: Ron Bowlin
(Print Name and Signature) RC Bowlin

ATK Launch Systems Inc.
Environmental Services Group

Surface Contamination Sampling Form
12/2009

Location: EZ Access - Unit 14

Notes:

	Analyte	Method
V	VOC	8260
S	SVOC	8270
E	Energetics	8330
P	Perchlorate	314.0
M	Metals:	

	Solvent
W	DI Water
M	Methanol
I	IPA
H	Hexane
A	Acetone
O	Other

	Sample Media
C	Cotton Gauze
G	Ghost Wipe™
F	Filter Paper
P	Pre-Moistened

	Area Measurement
T	Template
M	Measured Area
E	Estimated Area
O	Other:

Sample Number			Surface Type	Photo Number		
EZ-14-1	Analyte	V S E P M	Concrete	13,14		1 sq. ft
	Solvent	W M I H A O			X	100 sq. cm
	Media	C G F P				
Time: 1330	Area	T M E O				
EZ-14-2	Analyte	V S E P M	Concrete	15,16		1 sq. ft
	Solvent	W M I H A O			X	100 sq. cm
	Media	C G F P				
Time: 1335	Area	T M E O				
—	Analyte	V S E P M	—	—		1 sq. ft.
	Solvent	W M I H A O				100 sq. cm
	Media	C G F P				
Time:	Area	T M E O				

Sample Date: 12/17/09

Samples Collected By: Ron Bowlin
(Print Name and Signature) RA Bowlin

ATK Launch Systems Inc.
Environmental Services Group

Surface Contamination Sampling Form
12/2009

Location: EZ Access - Unit 45

Notes:

	Analyte	Method
V	VOC	8260
S	SVOC	8270
E	Energetics	8330
P	Perchlorate	314.0
M	Metals:	

	Solvent
W	DI Water
M	Methanol
I	IPA
H	Hexane
A	Acetone
O	Other

	Sample Media
C	Cotton Gauze
G	Ghost Wipe™
F	Filter Paper
P	Pre-Moistened

	Area Measurement
T	Template
M	Measured Area
E	Estimated Area
O	Other:

Sample Number			Surface Type	Photo Number		
EZ-45-1	Analyte	V S E P M	Concrete	001		1 sq. ft
	Solvent	W M I H A O			X	100 sq. cm
	Media	C G F P				
Time: 1030	Area	T M E O				
EZ-45-2	Analyte	V S E P M	Concrete	002		1 sq. ft
	Solvent	W M I H A O			X	100 sq. cm
	Media	C G F P				
Time: 1030	Area	T M E O				
EZ-45-3	Analyte	V S E P M	Field Blank	—		1 sq. ft.
	Solvent	W M I H A O				100 sq. cm
	Media	C G F P			X	NA
Time: 1030	Area	T M E O				

Sample Date: 12/17/09

Samples Collected By: Ron Bowlin
(Print Name and Signature)
RC Bowlin

ATK Launch Systems Inc.
Environmental Services Group

Surface Contamination Sampling Form
12/2009

Location: Double D Storage - Unit 7

Notes:

	Analyte	Method
V	VOC	8260
S	SVOC	8270
E	Energetics	8330
P	Perchlorate	314.0
M	Metals:	

	Solvent
W	DI Water
M	Methanol
I	IPA
H	Hexane
A	Acetone
O	Other

	Sample Media
C	Cotton Gauze
G	Ghost Wipe™
F	Filter Paper
P	Pre-Moistened

	Area Measurement
T	Template
M	Measured Area
E	Estimated Area
O	Other:

Sample Number			Surface Type	Photo Number		
DD-7-1	Analyte	V S E P M	Concrete	17		1 sq. ft
	Solvent	W M I H A O			X	100 sq. cm
	Media	C G F P				
Time: 1550	Area	T M E O				
DD-7-2	Analyte	V S E P M	Concrete	18		1 sq. ft
	Solvent	W M I H A O			X	100 sq. cm
	Media	C G F P				
Time: 1555	Area	T M E O				
—	Analyte	V S E P M	—	—		1 sq. ft.
	Solvent	W M I H A O				100 sq. cm
	Media	C G F P				
Time:	Area	T M E O				

Sample Date: 12/17/09

Samples Collected By: Ron Bowlin
(Print Name and Signature) RO Bowlin

ATK Launch Systems Inc.
Environmental Services Group

Surface Contamination Sampling Form
12/2009

Location: Double D Storage - Unit 13

Notes: Carbon black throughout floor

	Analyte	Method
V	VOC	8260
S	SVOC	8270
E	Energetics	8330
P	Perchlorate	314.0
M	Metals:	

	Solvent
W	DI Water
M	Methanol
I	IPA
H	Hexane
A	Acetone
O	Other

	Sample Media
C	Cotton Gauze
G	Ghost Wipe™
F	Filter Paper
P	Pre-Moistened

	Area Measurement
T	Template
M	Measured Area
E	Estimated Area
O	Other:

Sample Number			Surface Type	Photo Number		
DD-13-1	Analyte	V S E P M	Concrete	19		1 sq. ft
	Solvent	W M I H A O			X	100 sq. cm
	Media	C G F P				
Time: 1510	Area	T M E O				
DD-13-2	Analyte	V S E P M	Concrete	20		1 sq. ft
	Solvent	W M I H A O			X	100 sq. cm
	Media	C G F P				
Time: 1515	Area	T M E O				
—	Analyte	V S E P M	—	—		1 sq. ft.
	Solvent	W M I H A O				100 sq. cm
	Media	C G F P				
Time:	Area	T M E O				

Sample Date: 12/17/09

Samples Collected By: Ron Bowling
(Print Name and Signature) RA Bowling

CERTIFICATE OF ANALYSIS
Listing of Sample Information and Testing Requested

Friday, January 22, 2010

TESTED FOR:

ATK: Bacchus
Environmental Compliance M/S M7H7
Magna, UT 84044-0098

ANALYZED BY:

ATK Launch Systems
Analytical Chemistry Laboratory
P.O. Box 707, M/S 245
Brigham City, UT 84302-0707
435-863-3732
435-863-8080

Contact Name: Ron Bowlin

Project: Lab Analysis - Env Waste - Bacchus

Sample Delivery Group: 0912027

Sample Delivery Group: 0912027

Sample No.	Client No.	Received	Collect Date/Time
Test Requested	**Sample Description**	**Matrix**	
0912027-01	EZ-3-1A	12/18/09	12/17/2009 12:45:4
NA	(VOA)Miscellaneous Tests	Miscellaneous	
0912027-02	EZ-3-1B	12/18/09	12/17/2009 12:45:4
NA	(SVOA)Miscellaneous Tests	Miscellaneous	
0912027-03	EZ-3-1C	12/18/09	12/17/2009 12:45:4
NA	(EXPL)Miscellaneous Tests	Miscellaneous	
0912027-04	EZ-3-1D	12/18/09	12/17/2009 12:45:4
NA	(Metals)Miscellaneous Tests	Miscellaneous	
0912027-05	EZ-3-2A	12/18/09	12/17/2009 12:50:4
NA	(VOA)Miscellaneous Tests	Miscellaneous	
0912027-06	EZ-3-2B	12/18/09	12/17/2009 12:50:4
NA	(SVOA)Miscellaneous Tests	Miscellaneous	
0912027-07	EZ-3-2C	12/18/09	12/17/2009 12:50:4
NA	(EXPL)Miscellaneous Tests	Miscellaneous	
0912027-08	EZ-3-2D	12/18/09	12/17/2009 12:50:4
NA	(Metals)Miscellaneous Tests	Miscellaneous	
0912027-09	EZ-4-1A	12/18/09	12/17/2009 11:58:4
NA	(VOA)Miscellaneous Tests	Miscellaneous	
0912027-10	EZ-4-1B	12/18/09	12/17/2009 11:58:4
NA	(SVOA)Miscellaneous Tests	Miscellaneous	
0912027-11	EZ-4-1C	12/18/09	12/17/2009 11:58:4
NA	(EXPL)Miscellaneous Tests	Miscellaneous	
0912027-12	EZ-4-1D	12/18/09	12/17/2009 11:58:4
NA	(Metals)Miscellaneous Tests	Miscellaneous	
0912027-13	EZ-4-2A	12/18/09	12/17/2009 11:55:4
NA	(VOA)Miscellaneous Tests	Miscellaneous	

Sample Delivery Group: 0912027

Sample No.	Client No.	Sample Description	Received	Collect Date/Time
0912027-14	EZ-4-2B		12/18/09	12/17/2009 11:55:4
NA		(SVOA)Miscellaneous Tests		Miscellaneous
0912027-15	EZ-4-2C		12/18/09	12/17/2009 11:55:4
NA		(EXPL)Miscellaneous Tests		Miscellaneous
0912027-16	EZ-4-2D		12/18/09	12/17/2009 11:55:4
NA		(Metals)Miscellaneous Tests		Miscellaneous
0912027-17	EZ-5-1A		12/18/09	12/17/2009 11:20:4
NA		(VOA)Miscellaneous Tests		Miscellaneous
0912027-18	EZ-5-1B		12/18/09	12/17/2009 11:20:4
NA		(SVOA)Miscellaneous Tests		Miscellaneous
0912027-19	EZ-5-1C		12/18/09	12/17/2009 11:20:4
NA		(EXPL)Miscellaneous Tests		Miscellaneous
0912027-20	EZ-5-1D		12/18/09	12/17/2009 11:20:4
NA		(Metals)Miscellaneous Tests		Miscellaneous
0912027-21	EZ-5-2A		12/18/09	12/17/2009 11:40:4
NA		(VOA)Miscellaneous Tests		Miscellaneous
0912027-22	EZ-5-2B		12/18/09	12/17/2009 11:40:4
NA		(SVOA)Miscellaneous Tests		Miscellaneous
0912027-23	EZ-5-2C		12/18/09	12/17/2009 11:40:4
NA		(EXPL)Miscellaneous Tests		Miscellaneous
0912027-24	EZ-5-2D		12/18/09	12/17/2009 11:40:4
NA		(Metals)Miscellaneous Tests		Miscellaneous
0912027-25	EZ-14-1A		12/18/09	12/17/2009 13:30:4
NA		(VOA)Miscellaneous Tests		Miscellaneous
0912027-26	EZ-14-1B		12/18/09	12/17/2009 13:30:4
NA		(SVOA)Miscellaneous Tests		Miscellaneous

Sample Delivery Group: 0912027

Sample No.	Client No.	Sample Description	Received	Collect Date/Time
0912027-27	EZ-14-1C		12/18/09	12/17/2009 13:30:4
NA		(EXPL)Miscellaneous Tests		Miscellaneous
0912027-28	EZ-14-1D		12/18/09	12/17/2009 13:30:4
NA		(Metals)Miscellaneous Tests		Miscellaneous
0912027-29	EZ-14-2A		12/18/09	12/17/2009 13:35:4
NA		(VOA)Miscellaneous Tests		Miscellaneous
0912027-30	EZ-14-2B		12/18/09	12/17/2009 13:35:4
NA		(SVOA)Miscellaneous Tests		Miscellaneous
0912027-31	EZ-14-2C		12/18/09	12/17/2009 13:35:4
NA		(EXPL)Miscellaneous Tests		Miscellaneous
0912027-32	EZ-14-2D		12/18/09	12/17/2009 13:35:4
NA		(Metals)Miscellaneous Tests		Miscellaneous
0912027-33	EZ-45-1A		12/18/09	12/17/2009 10:30:4
NA		(VOA)Miscellaneous Tests		Miscellaneous
0912027-34	EZ-45-1B		12/18/09	12/17/2009 10:30:4
NA		(SVOA)Miscellaneous Tests		Miscellaneous
0912027-35	EZ-45-1C		12/18/09	12/17/2009 10:30:4
NA		(EXPL)Miscellaneous Tests		Miscellaneous
0912027-36	EZ-45-1D		12/18/09	12/17/2009 10:30:4
NA		(Metals)Miscellaneous Tests		Miscellaneous
0912027-37	EZ-45-2A		12/18/09	12/17/2009 10:30:4
NA		(VOA)Miscellaneous Tests		Miscellaneous
0912027-38	EZ-45-2B		12/18/09	12/17/2009 10:30:4
NA		(SVOA)Miscellaneous Tests		Miscellaneous
0912027-39	EZ-45-2C		12/18/09	12/17/2009 10:30:4
NA		(EXPL)Miscellaneous Tests		Miscellaneous

Sample Delivery Group: 0912027

Sample No.	Client No.	Sample Description	Received	Collect Date/Time
Test Requested			**Matrix**	
0912027-40	EZ-45-2D		12/18/09	12/17/2009 10:30:4
NA		(Metals)Miscellaneous Tests	Miscellaneous	
0912027-41	EZ-45-3A		12/18/09	12/17/2009 10:30:4
NA		(VOA)Miscellaneous Tests	Miscellaneous	
0912027-42	EZ-45-3B		12/18/09	12/17/2009 10:30:4
NA		(SVOA)Miscellaneous Tests	Miscellaneous	
0912027-43	EZ-45-3C		12/18/09	12/17/2009 10:30:4
NA		(EXPL)Miscellaneous Tests	Miscellaneous	
0912027-44	EZ-45-3D		12/18/09	12/17/2009 10:30:4
NA		(Metals)Miscellaneous Tests	Miscellaneous	

Certified By: W. Scott Fraser

W. Scott Fraser, Quality Assurance Officer

01/22/2010

Date

This certifies that the following data meets the requirements of the National Environmental Laboratory Accreditation Program (NELAP) unless otherwise annotated:

Listing of Results by Sample

Sample Delivery Group: 0912027

Client Sample ID: EZ-3-1A
Laboratory Sample ID: 0912027-01
Date Sampled: 12/17/09 12:45
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (VOA)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	LSH	01/06/10 00:00

Client Sample ID: EZ-3-1B
Laboratory Sample ID: 0912027-02
Date Sampled: 12/17/09 12:45
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (SVOA)Miscellaneous Tests							
MISCELLANEOUS	01/11/2010 12:00:00 am				1	QC	01/11/10 00:00

Client Sample ID: EZ-3-1C
Laboratory Sample ID: 0912027-03
Date Sampled: 12/17/09 12:45
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (EXPL)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	KMS	01/06/10 00:00

Client Sample ID: EZ-3-1D
Laboratory Sample ID: 0912027-04
Date Sampled: 12/17/09 12:45
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (Metals)Miscellaneous Tests							
MISCELLANEOUS	01/19/2010 12:00:00 am				1	MTB	01/19/10 00:00

Client Sample ID: EZ-3-2A
Laboratory Sample ID: 0912027-05
Date Sampled: 12/17/09 12:50
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (VOA)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	LSH	01/06/10 00:00

Client Sample ID: EZ-3-2B
Laboratory Sample ID: 0912027-06
Date Sampled: 12/17/09 12:50
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (SVOA)Miscellaneous Tests							
MISCELLANEOUS	01/11/2010 12:00:00 am				1	QC	01/11/10 00:00

Listing of Results by Sample

Sample Delivery Group: 0912027

Client Sample ID: EZ-3-2C
Laboratory Sample ID: 0912027-07
Date Sampled: 12/17/09 12:50
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (EXPL)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	KMS	01/06/10 00:00

Client Sample ID: EZ-3-2D
Laboratory Sample ID: 0912027-08
Date Sampled: 12/17/09 12:50
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (Metals)Miscellaneous Tests							
MISCELLANEOUS	01/19/2010 12:00:00 am				1	MTB	01/19/10 00:00

Client Sample ID: EZ-4-1A
Laboratory Sample ID: 0912027-09
Date Sampled: 12/17/09 11:58
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (VOA)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	LSH	01/06/10 00:00

Client Sample ID: EZ-4-1B
Laboratory Sample ID: 0912027-10
Date Sampled: 12/17/09 11:58
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (SVOA)Miscellaneous Tests							
MISCELLANEOUS	01/11/2010 12:00:00 am				1	QC	01/11/10 00:00

Client Sample ID: EZ-4-1C
Laboratory Sample ID: 0912027-11
Date Sampled: 12/17/09 11:58
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (EXPL)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	KMS	01/05/09 00:00

Client Sample ID: EZ-4-1D
Laboratory Sample ID: 0912027-12
Date Sampled: 12/17/09 11:58
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (Metals)Miscellaneous Tests							
MISCELLANEOUS	01/19/2010 12:00:00 am				1	MTB	01/19/10 00:00

Listing of Results by Sample

Sample Delivery Group: 0912027

Client Sample ID: EZ-4-2A
Laboratory Sample ID: 0912027-13
Date Sampled: 12/17/09 11:55
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (VOA)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	LSH	01/06/10 00:00

Client Sample ID: EZ-4-2B
Laboratory Sample ID: 0912027-14
Date Sampled: 12/17/09 11:55
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (SVOA)Miscellaneous Tests							
MISCELLANEOUS	01/11/2010 12:00:00 am				1	QC	01/11/10 00:00

Client Sample ID: EZ-4-2C
Laboratory Sample ID: 0912027-15
Date Sampled: 12/17/09 11:55
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (EXPL)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	KMS	01/06/10 00:00

Client Sample ID: EZ-4-2D
Laboratory Sample ID: 0912027-16
Date Sampled: 12/17/09 11:55
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (Metals)Miscellaneous Tests							
MISCELLANEOUS	01/19/2010 12:00:00 am				1	MTB	01/19/10 00:00

Client Sample ID: EZ-5-1A
Laboratory Sample ID: 0912027-17
Date Sampled: 12/17/09 11:20
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (VOA)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	LSH	01/06/10 00:00

Client Sample ID: EZ-5-1B
Laboratory Sample ID: 0912027-18
Date Sampled: 12/17/09 11:20
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (SVOA)Miscellaneous Tests							
MISCELLANEOUS	01/11/2010 12:00:00 am				1	QC	01/11/10 00:00

Listing of Results by Sample

Sample Delivery Group: 0912027

Client Sample ID: EZ-5-1C
Laboratory Sample ID: 0912027-19
Date Sampled: 12/17/09 11:20
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (EXPL)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	KMS	01/06/10 00:00

Client Sample ID: EZ-5-1D
Laboratory Sample ID: 0912027-20
Date Sampled: 12/17/09 11:20
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (Metals)Miscellaneous Tests							
MISCELLANEOUS	01/19/2010 12:00:00 am				1	MTB	01/19/10 00:00

Client Sample ID: EZ-5-2A
Laboratory Sample ID: 0912027-21
Date Sampled: 12/17/09 11:40
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (VOA)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	LSH	01/06/10 00:00

Client Sample ID: EZ-5-2B
Laboratory Sample ID: 0912027-22
Date Sampled: 12/17/09 11:40
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (SVOA)Miscellaneous Tests							
MISCELLANEOUS	01/11/2010 12:00:00 am				1	QC	01/11/10 00:00

Client Sample ID: EZ-5-2C
Laboratory Sample ID: 0912027-23
Date Sampled: 12/17/09 11:40
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (EXPL)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	KMS	01/06/10 00:00

Client Sample ID: EZ-5-2D
Laboratory Sample ID: 0912027-24
Date Sampled: 12/17/09 11:40
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (Metals)Miscellaneous Tests							
MISCELLANEOUS	01/19/2010 12:00:00 am				1	MTB	01/19/10 00:00

Listing of Results by Sample

Sample Delivery Group: 0912027

Client Sample ID: EZ-14-1A
Laboratory Sample ID: 0912027-25
Date Sampled: 12/17/09 13:30
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (VOA)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	LSH	01/06/10 00:00

Client Sample ID: EZ-14-1B
Laboratory Sample ID: 0912027-26
Date Sampled: 12/17/09 13:30
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (SVOA)Miscellaneous Tests							
MISCELLANEOUS	01/11/2010 12:00:00 am				1	QC	01/11/10 00:00

Client Sample ID: EZ-14-1C
Laboratory Sample ID: 0912027-27
Date Sampled: 12/17/09 13:30
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (EXPL)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	KMS	01/06/10 00:00

Client Sample ID: EZ-14-1D
Laboratory Sample ID: 0912027-28
Date Sampled: 12/17/09 13:30
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (Metals)Miscellaneous Tests							
MISCELLANEOUS	01/19/2010 12:00:00 am				1	MTB	01/19/10 00:00

Client Sample ID: EZ-14-2A
Laboratory Sample ID: 0912027-29
Date Sampled: 12/17/09 13:35
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (VOA)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	LSH	01/06/10 00:00

Client Sample ID: EZ-14-2B
Laboratory Sample ID: 0912027-30
Date Sampled: 12/17/09 13:35
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (SVOA)Miscellaneous Tests							
MISCELLANEOUS	01/11/2010 12:00:00 am				1	QC	01/11/10 00:00

Listing of Results by Sample

Sample Delivery Group: 0912027

Client Sample ID: EZ-14-2C
Laboratory Sample ID: 0912027-31
Date Sampled: 12/17/09 13:35
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (EXPL)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	KMS	01/06/10 00:00

Client Sample ID: EZ-14-2D
Laboratory Sample ID: 0912027-32
Date Sampled: 12/17/09 13:35
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (Metals)Miscellaneous Tests							
MISCELLANEOUS	01/19/2010 12:00:00 am				1	MTB	01/19/10 00:00

Client Sample ID: EZ-45-1A
Laboratory Sample ID: 0912027-33
Date Sampled: 12/17/09 10:30
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (VOA)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	LSH	01/06/10 00:00

Client Sample ID: EZ-45-1B
Laboratory Sample ID: 0912027-34
Date Sampled: 12/17/09 10:30
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (SVOA)Miscellaneous Tests							
MISCELLANEOUS	01/11/2010 12:00:00 am				1	QC	01/11/10 00:00

Client Sample ID: EZ-45-1C
Laboratory Sample ID: 0912027-35
Date Sampled: 12/17/09 10:30
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (EXPL)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	KMS	01/06/10 00:00

Client Sample ID: EZ-45-1D
Laboratory Sample ID: 0912027-36
Date Sampled: 12/17/09 10:30
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (Metals)Miscellaneous Tests							
MISCELLANEOUS	01/19/2010 12:00:00 am				1	MTB	01/19/10 00:00

Listing of Results by Sample

Sample Delivery Group: 0912027

Client Sample ID: EZ-45-2A
Laboratory Sample ID: 0912027-37
Date Sampled: 12/17/09 10:30
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (VOA)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	LSH	01/06/10 00:00

Client Sample ID: EZ-45-2B
Laboratory Sample ID: 0912027-38
Date Sampled: 12/17/09 10:30
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (SVOA)Miscellaneous Tests							
MISCELLANEOUS	01/11/2010 12:00:00 am				1	QC	01/11/10 00:00

Client Sample ID: EZ-45-2C
Laboratory Sample ID: 0912027-39
Date Sampled: 12/17/09 10:30
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (EXPL)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	KMS	01/06/10 00:00

Client Sample ID: EZ-45-2D
Laboratory Sample ID: 0912027-40
Date Sampled: 12/17/09 10:30
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (Metals)Miscellaneous Tests							
MISCELLANEOUS	01/19/2010 12:00:00 am				1	MTB	01/19/10 00:00

Client Sample ID: EZ-45-3A
Laboratory Sample ID: 0912027-41
Date Sampled: 12/17/09 10:30
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (VOA)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	LSH	01/06/10 00:00

Client Sample ID: EZ-45-3B
Laboratory Sample ID: 0912027-42
Date Sampled: 12/17/09 10:30
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (SVOA)Miscellaneous Tests							
MISCELLANEOUS	01/11/2010 12:00:00 am				1	QC	01/11/10 00:00

Listing of Results by Sample

Sample Delivery Group: 0912027

Client Sample ID: EZ-45-3C
Laboratory Sample ID: 0912027-43
Date Sampled: 12/17/09 10:30
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (EXPL)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	KMS	01/06/10 00:00

Client Sample ID: EZ-45-3D
Laboratory Sample ID: 0912027-44
Date Sampled: 12/17/09 10:30
Sample Description: ATK-Bacchus - EZ Access Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (Metals)Miscellaneous Tests							
MISCELLANEOUS	01/19/2010 12:00:00 am				1	MTB	01/19/10 00:00

Data Reporting Qualifiers

U	Indicates that the analyte concentration is less than the MDL.
B	This flag is used when an analyte is found in the blank as well as the sample.
J	Indicates an extimated value. This flag is used either when estimating a concentration for tentatively identified compounds or when the data indicated the presence of a compound that meets the identification criteria but the result is less than the EQL (e.g. 3 J with an EQL of 10).
MDL	Method Detection Limit: The minimum concentration of a substance that can be confidently measured and reported. The laboratory has demonstrated that the MDL can be achieved in a laboratory reagent blank, but does not guarantee it can be achieved in all sample matrices.
EQL	Estimated Quantitation Limit: The EQL generally is 5 to 10 times the MDL. For many analytes the EQL is selected as the value of the lowest standard in the calibration curve.
Dilution Factor	Dilution Factor: The prepared sample was diluted by this factor because the sample was too concentrated or due to other interferences in the sample matrix. Any dilution factor causes a corresponding increase in the MDL and EQL.

0912027

ATK Launch Systems
Environmental Laboratory

Sample Receipt Checklist

Client Name: ATK Launch Systems-Bacchus SDG No. 0912027

Carrier: Ron Boland Carrier Number: NA

☐ Hand delivered, no cooler ☐ Hand delivered, sample(s) taken out at receiving counter

Cooler Information:

Cooler Number/ID: Red & White

Condition of Shipping Container: ☒Good ☐Fair ☐Not Applicable ☐Damaged (explain)

Cooler Sealed (taped): ☐Yes ☒No ☐Not Applicable

Custody Seals Present: ☐Yes ☒No ☐Not Applicable

☐Intact ☐Broken Seal Number:

Coolant: ☐Ice ☒Blue Ice ☐None Other:

State of Coolant: ☐Frozen ☐Partially Frozen ☐Melted

Thermometer ID: 51397380 Reading: 4 °C CF: Corrected Temp: °C Temp Blank Included: ☐Yes ☐No

Packing Description:

Chain-Of-Custody Information:

COC Present: ☒Yes ☐No Other:

COC Number(s): None

COC signed (relinquished and received): ☒Yes ☐No ☐Not Applicable

COC or LWI agrees with sample labels: ☒Yes ☐No ☐Not Applicable

Notes:

Sample Information:

Samples included in cooler: 0912027 ; 0912028

Custody Seals Present: ☐Yes ☒No Other

☐Intact ☐Broken Seal Number(s)

Sample containers intact: ☒Yes ☐No Notes:

Samples in proper containers: ☒Yes ☐No

Sufficient sample volume: ☐Yes ☐No NA

All samples received in hold time: ☐Yes ☐No NA

Water – VOA's have zero headspace: ☐Yes ☐No ☒Not Applicable

☐Pre-preserved with HCl: ☐Pre-preserved with $Na_2S_2O_3$: ☐Non-Preserved:

Notes:

Water – pH acceptable upon receipt: ☐Yes ☐Adjusted (see comments below) ☒Not Applicable

HNO_3 = H_2SO_4 = NaOH = ZnAC /NaOH = HCL =

Water - pH adjusted: (mfg. & Lot No.)

HNO_3 H_2SO_4 NaOH ZnAC HCl

$Na_2SO_2O_3$ Other

Notes:

SOP-102 Form A

12/18/09

12/18/2009

ATK Launch Systems
P.O. BOX 98 MAGNA, UTAH 84404

Environmental Lab Work Request

GENERAL INFORMATION

LAB:	M53	COLLECTED BY:	R. Bowlin S. Deppe	COMPANY:	TITLE:
P.O. NO:		COLLECTION LOCATION:	Double D Storage	CONTACT:	Ronald Bowlin
M-53 PROJ_ID WPKG:	988P LS333ENV	MATERIAL SAMPLED:	Wipe	EMAIL:	ronald.bowlin@atk.com

SAMPLE INFORMATION

SAMPLE NUMBER	DATE	TIME	METHOD	BOTTLE	PRESERVATIVE	ANALYSIS REQUESTED	NOTE
DD-7-1A	12/17/09	1550	Wipe	40 ml VOA	4C: DI Water	VOC: EPA 8260B	
DD-7-1B	12/17/09	1550	Wipe	40 ml VOA	4C: Methanol	SVOC: EPA 8270B	
DD-7-1C	12/17/09	1550	Wipe	40 ml VOA	4C: Methanol	NG, HMX, RDX: SW-846, 8330 Modified	
DD-7-1D	12/17/09	1550	Wipe	40 ml VOA	4C: DI Water	Aluminum, Magnesium: EPA 6010B	
DD-7-2A	12/17/09	1555	Wipe	40 ml VOA	4C: DI Water	VOC: EPA 8260B	
DD-7-2B	12/17/09	1555	Wipe	40 ml VOA	4C: Methanol	SVOC: EPA 8270B	
DD-7-2C	12/17/09	1555	Wipe	40 ml VOA	4C: Methanol	NG, HMX, RDX: SW-846, 8330 Modified	
DD-7-2D	12/17/09	1555	Wipe	40 ml VOA	4C: DI Water	Aluminum, Magnesium: EPA 6010B	

NOTE: 100 sq. cm. area

CHAIN OF CUSTODY

RELINQUISHED BY	RECEIVED BY	DATE	TIME
RC Bowlin	[illegible]	12/18/09	13:05

0912028

12/18/2009

ATK Launch Systems
P.O. BOX 98 MAGNA, UTAH 84404

Environmental Lab Work Request

GENERAL INFORMATION

LAB:	M53	COLLECTED BY:	R. Bowlin S. Deppe	COMPANY:	TITLE:
P.O. NO:		COLLECTION LOCATION:	Double D Storage	CONTACT:	Ronald Bowlin
M-53 PROJ_ID WPKG:	988P LS333ENV	MATERIAL SAMPLED:	Wipe	EMAIL:	ronald.bowlin@atk.com

SAMPLE INFORMATION

SAMPLE NUMBER	DATE	TIME	METHOD	BOTTLE	PRESERVATIVE	ANALYSIS REQUESTED	NOTE
DD-13-1A	12/17/09	1510	Wipe	40 ml VOA	4C: DI Water	VOC: EPA 8260B	
DD-13-1B	12/17/09	1510	Wipe	40 ml VOA	4C: Methanol	SVOC: EPA 8270B	
DD-13-1C	12/17/09	1510	Wipe	40 ml VOA	4C: Methanol	NG, HMX, RDX: SW-846, 8330 Modified	
DD-13-1D	12/17/09	1510	Wipe	40 ml VOA	4C: DI Water	Aluminum, Magnesium: EPA 6010B	
DD-13-2A	12/17/09	1515	Wipe	40 ml VOA	4C: DI Water	VOC: EPA 8260B	
DD-13-2B	12/17/09	1515	Wipe	40 ml VOA	4C: Methanol	SVOC: EPA 8270B	
DD-13-2C	12/17/09	1515	Wipe	40 ml VOA	4C: Methanol	NG, HMX, RDX: SW-846, 8330 Modified	
DD-13-2D	12/17/09	1515	Wipe	40 ml VOA	4C: DI Water	Aluminum, Magnesium: EPA 6010B	

NOTE: 100 sq. cm. area

CHAIN OF CUSTODY

RELINQUISHED BY	RECEIVED BY	DATE	TIME
R C Bowlin	Joanne [illegible]	12/18/09	13:05

FORM FQA-0287 (REV 1-09)

0912028

CERTIFICATE OF ANALYSIS
Listing of Sample Information and Testing Requested

Friday, January 22, 2010

TESTED FOR:

ATK: Bacchus
Environmental Compliance M/S M7H7
Magna, UT 84044-0098

ANALYZED BY:

ATK Launch Systems
Analytical Chemistry Laboratory
P.O. Box 707, M/S 245
Brigham City, UT 84302-0707
435-863-3732
435-863-8080

Contact Name: Ron Bowlin

Project: Lab Analysis - Env Waste - Bacchus

Sample Delivery Group: 0912028

Sample Delivery Group: 0912028

Sample No.	Client No.	Sample Description	Received	Collect Date/Time
Test Requested			Matrix	
0912028-01	DD-7-1A		12/18/09	12/17/2009 15:50:5
NA		(VOA)Miscellaneous Tests		Miscellaneous
0912028-02	DD-7-1B		12/18/09	12/17/2009 15:50:5
NA		(SVOA)Miscellaneous Tests		Miscellaneous
0912028-03	DD-7-1C		12/18/09	12/17/2009 15:50:5
NA		(EXPL)Miscellaneous Tests		Miscellaneous
0912028-04	DD-7-1D		12/18/09	12/17/2009 15:50:5
NA		(Metals)Miscellaneous Tests		Miscellaneous
0912028-05	DD-7-2A		12/18/09	12/17/2009 15:55:5
NA		(VOA)Miscellaneous Tests		Miscellaneous
0912028-06	DD-7-2B		12/18/09	12/17/2009 15:55:5
NA		(SVOA)Miscellaneous Tests		Miscellaneous
0912028-07	DD-7-2C		12/18/09	12/17/2009 15:55:5
NA		(EXPL)Miscellaneous Tests		Miscellaneous
0912028-08	DD-7-2D		12/18/09	12/17/2009 15:55:5
NA		(Metals)Miscellaneous Tests		Miscellaneous
0912028-09	DD-13-1A		12/18/09	12/17/2009 15:10:5
NA		(VOA)Miscellaneous Tests		Miscellaneous
0912028-10	DD-13-1B		12/18/09	12/17/2009 15:10:5
NA		(SVOA)Miscellaneous Tests		Miscellaneous
0912028-11	DD-13-1C		12/18/09	12/17/2009 15:10:5
NA		(EXPL)Miscellaneous Tests		Miscellaneous
0912028-12	DD-13-1D		12/18/09	12/17/2009 15:10:5
NA		(Metals)Miscellaneous Tests		Miscellaneous
0912028-13	DD-13-2A		12/18/09	12/17/2009 15:15:5
NA		(VOA)Miscellaneous Tests		Miscellaneous

Sample Delivery Group: 0912028

Sample No.	Client No.	Sample Description	Received	Collect Date/Time
Test Requested			**Matrix**	
0912028-14	DD-13-2B		12/18/09	12/17/2009 15:15:5
NA		(SVOA)Miscellaneous Tests	Miscellaneous	
0912028-15	DD-13-2C		12/18/09	12/17/2009 15:15:5
NA		(EXPL)Miscellaneous Tests	Miscellaneous	
0912028-16	DD-13-2D		12/18/09	12/17/2009 15:15:5
NA		(Metals)Miscellaneous Tests	Miscellaneous	

Certified By: W. Scott Fraser

W. Scott Fraser, Quality Assurance Officer

01/22/2010

Date

This certifies that the following data meets the requirements of the National Environmental Laboratory Accreditation Program (NELAP) unless otherwise annotated:

Listing of Results by Sample

Sample Delivery Group: 0912028

Client Sample ID: DD-7-1A
Laboratory Sample ID: 0912028-01
Date Sampled: 12/17/09 15:50
Sample Description: ATK-Bacchus - double D Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA*	(VOA)Miscellaneous Tests						
MISCELLANEOUS	01/06/2010 12:00:00 am				1	LSH	01/06/10 00:00

Client Sample ID: DD-7-1B
Laboratory Sample ID: 0912028-02
Date Sampled: 12/17/09 15:50
Sample Description: ATK-Bacchus - double D Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA*	(SVOA)Miscellaneous Tests						
MISCELLANEOUS	01/11/2010 12:00:00 am				1	QC	01/11/10 00:00

Client Sample ID: DD-7-1C
Laboratory Sample ID: 0912028-03
Date Sampled: 12/17/09 15:50
Sample Description: ATK-Bacchus - double D Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA*	(EXPL)Miscellaneous Tests						
MISCELLANEOUS	01/06/2010 12:00:00 am				1	KMS	01/06/10 00:00

Client Sample ID: DD-7-1D
Laboratory Sample ID: 0912028-04
Date Sampled: 12/17/09 15:50
Sample Description: ATK-Bacchus - double D Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA*	(Metals)Miscellaneous Tests						
MISCELLANEOUS	01/19/2010 12:00:00 am				1	MTB	01/19/10 00:00

Client Sample ID: DD-7-2A
Laboratory Sample ID: 0912028-05
Date Sampled: 12/17/09 15:55
Sample Description: ATK-Bacchus - double D Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA*	(VOA)Miscellaneous Tests						
MISCELLANEOUS	01/06/2010 12:00:00 am				1	LSH	01/06/10 00:00

Client Sample ID: DD-7-2B
Laboratory Sample ID: 0912028-06
Date Sampled: 12/17/09 15:55
Sample Description: ATK-Bacchus - double D Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA*	(SVOA)Miscellaneous Tests						
MISCELLANEOUS	01/11/2010 12:00:00 am				1	QC	01/11/10 00:00

Listing of Results by Sample

Sample Delivery Group: 0912028

Client Sample ID: DD-7-2C
Laboratory Sample ID: 0912028-07
Date Sampled: 12/17/09 15:55
Sample Description: ATK-Bacchus - double D Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (EXPL)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	KMS	01/06/10 00:00

Client Sample ID: DD-7-2D
Laboratory Sample ID: 0912028-08
Date Sampled: 12/17/09 15:55
Sample Description: ATK-Bacchus - double D Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (Metals)Miscellaneous Tests							
MISCELLANEOUS	01/19/2010 12:00:00 am				1	MTB	01/19/10 00:00

Client Sample ID: DD-13-1A
Laboratory Sample ID: 0912028-09
Date Sampled: 12/17/09 15:10
Sample Description: ATK-Bacchus - double D Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (VOA)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	LSH	01/06/10 00:00

Client Sample ID: DD-13-1B
Laboratory Sample ID: 0912028-10
Date Sampled: 12/17/09 15:10
Sample Description: ATK-Bacchus - double D Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (SVOA)Miscellaneous Tests							
MISCELLANEOUS	01/11/2010 12:00:00 am				1	QC	01/11/10 00:00

Client Sample ID: DD-13-1C
Laboratory Sample ID: 0912028-11
Date Sampled: 12/17/09 15:10
Sample Description: ATK-Bacchus - double D Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (EXPL)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	KMS	01/06/10 00:00

Client Sample ID: DD-13-1D
Laboratory Sample ID: 0912028-12
Date Sampled: 12/17/09 15:10
Sample Description: ATK-Bacchus - double D Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (Metals)Miscellaneous Tests							
MISCELLANEOUS	01/19/2010 12:00:00 am				1	MTB	01/19/10 00:00

Listing of Results by Sample

Sample Delivery Group: 0912028

Client Sample ID: DD-13-2A
Laboratory Sample ID: 0912028-13
Date Sampled: 12/17/09 15:15
Sample Description: ATK-Bacchus - double D Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (VOA)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	LSH	01/06/10 00:00

Client Sample ID: DD-13-2B
Laboratory Sample ID: 0912028-14
Date Sampled: 12/17/09 15:15
Sample Description: ATK-Bacchus - double D Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (SVOA)Miscellaneous Tests							
MISCELLANEOUS	01/11/2010 12:00:00 am				1	QC	01/11/10 00:00

Client Sample ID: DD-13-2C
Laboratory Sample ID: 0912028-15
Date Sampled: 12/17/09 15:15
Sample Description: ATK-Bacchus - double D Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (EXPL)Miscellaneous Tests							
MISCELLANEOUS	01/06/2010 12:00:00 am				1	KMS	01/06/10 00:00

Client Sample ID: DD-13-2D
Laboratory Sample ID: 0912028-16
Date Sampled: 12/17/09 15:15
Sample Description: ATK-Bacchus - double D Storage Wipes

Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method: *NA* (Metals)Miscellaneous Tests							
MISCELLANEOUS	01/19/2010 12:00:00 am				1	MTB	01/19/10 00:00

Data Reporting Qualifiers

U	Indicates that the analyte concentration is less than the MDL.
B	This flag is used when an analyte is found in the blank as well as the sample.
J	Indicates an extimated value. This flag is used either when estimating a concentration for tentatively identified compounds or when the data indicated the presence of a compound that meets the identification criteria but the result is less than the EQL (e.g. 3 J with an EQL of 10).
MDL	Method Detection Limit: The minimum concentration of a substance that can be confidently measured and reported. The laboratory has demonstrated that the MDL can be achieved in a laboratory reagent blank, but does not guarantee it can be achieved in all sample matrices.
EQL	Estimated Quantitation Limit: The EQL generally is 5 to 10 times the MDL. For many analytes the EQL is selected as the value of the lowest standard in the calibration curve.
Dilution Factor	Dilution Factor: The prepared sample was diluted by this factor because the sample was too concentrated or due to other interferences in the sample matrix. Any dilution factor causes a corresponding increase in the MDL and EQL.

0912028

ATK Launch Systems
Environmental Laboratory

Sample Receipt Checklist

Client Name: ATK Launch Systems-Bacchus SDG No. 0912028

Carrier: Ron Boland Carrier Number: NA

☐ Hand delivered, no cooler ☐ Hand delivered, sample(s) taken out at receiving counter

Cooler Information:

Cooler Number/ID: Red & White

Condition of Shipping Container: ☒Good ☐Fair ☐Not Applicable ☐Damaged (explain)

Cooler Sealed (taped): ☐Yes ☒No ☐Not Applicable

Custody Seals Present: ☐Yes ☒No ☐Not Applicable

☐Intact ☐Broken Seal Number:

Coolant: ☐Ice ☒Blue Ice ☐None Other:

State of Coolant: ☐Frozen ☐Partially Frozen ☐Melted

Thermometer ID: 51397380 Reading: 4 °C CF: Corrected Temp: °C Temp Blank Included: ☐Yes ☐No

Packing Description:

Chain-Of-Custody Information:

COC Present: ☒Yes ☐No Other:

COC Number(s): None

COC signed (relinquished and received): ☒Yes ☐No ☐Not Applicable

COC or LWI agrees with sample labels: ☒Yes ☐No ☐Not Applicable

Notes:

Sample Information:

Samples included in cooler: 0912027 ; 0912028

Custody Seals Present: ☐Yes ☒No Other

☐Intact ☐Broken Seal Number(s)

Sample containers intact: ☒Yes ☐No Notes:

Samples in proper containers: ☒Yes ☐No

Sufficient sample volume: ☐Yes ☐No NA

All samples received in hold time: ☐Yes ☐No NA

Water – VOA's have zero headspace: ☐Yes ☐No ☒Not Applicable

☐Pre-preserved with HCl: ☐Pre-preserved with $Na_2S_2O_3$: ☐Non-Preserved:

Notes:

Water – pH acceptable upon receipt: ☐Yes ☐Adjusted (see comments below) ☒Not Applicable

HNO_3 = H_2SO_4 = NaOH = ZnAC /NaOH = HCL =

Water - pH adjusted: (mfg. & Lot No.)

HNO_3 H_2SO_4 NaOH ZnAC HCl

$Na_2SO_2O_3$ Other

Notes:

SOP-102 Form A

12/18/09

Memorandum

LWI-FY10-D1739

Launch Systems
P.O. Box 707
Brigham City, UT 84302-0707

Date:	January 6, 2010	From:	Larry Hall
Subject:	Bacchus Wipe Samples for Volatiles	Organization:	Chemical Analysis
To:	Ron Bowlin, Scott Fraser	M/S:	245
CC:	Bart Weber	Extension:	8293
LWI:		Procedure:	EPA 8260B
Proj./Task:	988P/LS333/ENV	Instrument ID:	Agilent 5975
SDG:	0912027 and 0912028	Reviewed By:	Scott Fraser

Fifteen wipe samples were analyzed for volatiles by EPA method 8260B using a modified soil method with heated purge and trap. The samples as received were essentially dry gauze so 10 mL of purified water was added to wet each sample in order to promote purging of volatiles. The entire wipe sample was analyzed and Internal Standard and Surrogates were added automatically by the instrument.

A soil Initial Calibration Curve(ICC) using points at 10, 20, 50, 100,and 200 ng was analyzed as well as a Laboratory Control Sample (LCS) and a Laboratory Reagent Blank (LRB). No Matrix Spike or Matrix Spike Duplicate was analyzed because of insufficient samples. The 50 µg/Kg standard from the curve was also used as a Continuing Calibration (CC). The ICC, CC, LCS and LRB met all criteria. A second source of 100 ng Calibration Check standard was also analyzed with acceptable recoveries.

RESULTS

0912027-01A1 (EZ-3-1A)	ng	0912027-13A1 (EZ-4-2A)	ng	0912027-21A1 (EZ-5-2A)	ng
Acrolein	19.87	Acetone	44.25	Acetone	22.72
Acetone	17.22	Carbon disulfide	0.76	2-Butanone	22.58
Carbon disulfide	0.98	Isopropyl alcohol	5344	Benzene	0.87
Isopropyl alcohol	1258	2-Butanone	41.62	1-Butanol	81.55
Benzene	13.76	Benzene	3.72	4-Methyl-2-Pentanone	5.9
Toluene	3.41	1-Butanol	246	Toluene	15.79
2-Hexanone	3.49	Toluene	4.61	2-Hexanone	11.34
m, p-Xylene	1.09	2-Hexanone	27.6	m, p-Xylene	1.82
				o-Xylene	0.68
0912027-05A1 (EZ-3-2A)		0912027-17A1 (EZ-5-1A)			
Benzene	104.5	Acetone	25.68	0912027-25A1 (EZ-14-1A)	
		Isopropyl alcohol	126.9	Acetone	20.07
0912027-09A1 (EZ-4-1A)		2-Butanone	23.19	Carbon disulfide	0.92
Acetone	64.64	Benzene	0.9	Isopropyl alcohol	25.13
2-Butanone	67.52	1-Butanol	85.84	2-Butanone	13.52
Benzene	2.63	4-Methyl-2-Pentanone	4.01	1-Butanol	52.38
1-Butanol	234.8	Toluene	10.41	Toluene	2.26
Toluene	3.68	2-Hexanone	13.89	2-Hexanone	8.83
2-Hexanone	34.82	m, p-Xylene	1.72	m, p-Xylene	1.08
m, p-Xylene	1.14	o-Xylene	0.68		
1,2,4-Trimethylbenzene	1.09	1,2,4-Trimethylbenzene	0.62		
		Napthalene	5.48		

0912027-29A1 (EZ-14-2A)	ng	0912028-01A1 (DD-7-1A)	ng
Acetone	21.56	Acetone	22.51
Carbon disulfide	1.01	2-Butanone	11.22
Acrylonitrile	9.58	Benzene	0.52
2-Butanone	14.13	Toluene	5.39
Benzene	0.53	2-Hexanone	5.72
1-Butanol	55.03	m, p-Xylene	1.89
Toluene	2.97	o-Xylene	0.82
2-Hexanone	7.03	1,2,4-Trimethylbenzene	1.00
m, p-Xylene	1.18		
		0912028-05A1 (DD-7-2A)	
0912027-33A1 (EZ-45-1A)		Acetone	16.36
2-Butanone	37.97	2-Butanone	9.22
Toluene	1.81	1-Butanol	86.82
2-Hexanone	22.32	Toluene	3.58
Napthalene	5.33	2-Hexanone	5.23
		m, p-Xylene	1.19
0912027-37A1 (EZ-45-2A)			
Acetone	20.35	0912028-09A1 (DD-13-1A)	
2-Butanone	12.45	Acetone	15.2
Toluene	2.72	2-Butanone	6.89
2-Hexanone	6.99	Toluene	3.91
m, p-Xylene	0.85	2-Hexanone	3.63
		m, p-Xylene	1.31
0912027-41A1 (EZ-45-3A)			
Acetone	15.92	0912028-13A1 (DD-13-2A)	
Toluene	3.46	Acetone	14.18
2-Hexanone	6.15	2-Butanone	8.14
m, p-Xylene	1.04	Toluene	2.10
		2-Hexanone	3.27
		m, p-Xylene	0.72

Results were reported as ng per wipe with no correction for weight. Sample number 0912027-05A1 (EZ-3-2A) contained detergent or something similar and foamed in the purge vial resulting in interference and bad recoveries for internal standards and surrogates. There may have been other contaminants besides benzene but they were not seen. Sample 0912027-33A1 (EZ-45-1A) also had lower than expected internal standard and surrogate recoveries.

If you have any questions I can be reached at 8293.

Larry Hall

DATA VALIDATION SUMMARY
ATK LAUNCH SYSTEMS-BACCHUS
#0912027 AND 0912028

DATA PACKAGE INFORMATION

Client:	**ATK Launch Systems-Bacchus**
Project:	**988P LS333ENV**
Data Package ID:	**0912027 and 0912028**
Analysis:	**Volatile Organic Compounds by GC/MS**
Matrix:	Wipe Sample
Preparation Method:	N/A
Analysis Method:	SW-846 Method 8260B
Laboratory:	ATK
Project QAP:	Highway 89 Storage Units Site Work Plan
Validation guideline:	Method Requirements
Validation level:	II
Validator:	Gloria Beilke
Date Received:	02/24/10
Date Completed:	02/25/10
Peer Reviewer:	Paul Ellingson
Date Reviewed:	2/25/10

Data Package Inventory

Run Information		QC Summaries	
X	Final Reports	X	Method Blank
X	COCs	X	LCS
	Cal. Summary		MS/MSD
	Cal. Raw Data		Sample Duplicates
	Run Summary	X	Surrogates
	Run Raw Data		Internal Stds. (GC)
	Sample Prep Logs		Tune (GC/MS)

Comments: The data submitted are suitable for use without qualifiers.

SAMPLE INFORMATION

	Sample ID	Lab Number	Sample Date	Prep Date	Analysis Date	Prep Days	Analysis Days	Total Days
1	*EZ-3-1A*	*0912027-01A1*	*12/17/2009*	*N/A*	*12/23/2009*	---	---	**6**
2	*EZ-4-2A*	*0912027-13A1*	*12/17/2009*	*N/A*	*12/23/2009*	---	---	**6**
3	*EZ-5-2A*	*0912027-21A1*	*12/17/2009*	*N/A*	*12/23/2009*	---	---	**6**
4	*EZ-3-2A*	*0912027-05A1*	*12/17/2009*	*N/A*	*12/23/2009*	---	---	**6**
5	*EZ-4-1A*	*0912027-09A1*	*12/17/2009*	*N/A*	*12/23/2009*	---	---	**6**
6	*EZ-5-1A*	*0912027-17A1*	*12/17/2009*	*N/A*	*12/23/2009*	---	---	**6**
7	*EZ-14-1A*	*0912027-25A1*	*12/17/2009*	*N/A*	*12/23/2009*	---	---	**6**
8	*EZ-14-2A*	*0912027-29A1*	*12/17/2009*	*N/A*	*12/23/2009*	---	---	**6**
9	*EZ-45-2A*	*0912027-33A1*	*12/17/2009*	*N/A*	*12/23/2009*	---	---	**6**
10	*EZ-45-3A*	*0912027-41A1*	*12/17/2009*	*N/A*	*12/23/2009*	---	---	**6**
11	*DD-7-1A*	*0912028-01A1*	*12/17/2009*	*N/A*	*12/23/2009*	---	---	**6**
12	*DD-7-2A*	*0912028-05A1*	*12/17/2009*	*N/A*	*12/23/2009*	---	---	**6**
13	*DD-13-1A*	*0912028-09A1*	*12/17/2009*	*N/A*	*12/23/2009*	---	---	**6**
14	*DD-13-2A*	*0912028-13A1*	*12/17/2009*	*N/A*	*12/23/2009*	---	---	**6**

(including duplicate, reanalysis, or dilution samples)

SUMMARY OF FINDINGS

Item	Requirements	Acceptable?	Action Recommended ?	Comments
GENERAL QC				
Chain-of-custody	COC and receiving documents properly completed (analytes, method, signatures, etc.)	Y		
Sample Receipt	Samples received in good condition, on ice, with receiving documentation, etc.	Y		
Preservatives	Evidence that the samples were correctly preserved.	N/A		Not applicable for wipe samples.
Holding Times	Samples analyzed and prepared within method-specified time limits.	Y		
Final Reports	Final reports include all required information such as preparation & analytical methods, preparation & analytical dates, corrected MDLs, signatures, etc.	Y		
Analyte List	Analytes reported consistent with the COC and project requirements.	Y		The SAP did not specify an analyte list. The laboratory reported a full VOC list.
Reporting Limits	Reported detection limits low enough for project requirements.	N/A		Reporting limits not specified in SAP.
Analyte / RL Quantitation	Sample preparation and dilution factors correctly accounted for in the final result and RL.	N/A		Not applicable for wipe samples.
BATCH/RUN QC				
Initial Calibration	Meets method-specified requirements for frequency of calibration, number of standards, r^2, etc.	N/A		Not checked on a Level II review.
Continuing Calibration	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Method Blanks	Performed at required frequency. Recoveries within method/project limits.	Y		
Laboratory Control Samples	Performed at required frequency. Recoveries within method/project limits.	Y		
Matrix Spike/ Matrix Spike Duplicates	Performed at required frequency. Recoveries within method/project limits. Spiking levels adequate. Matrix interference confirmed, if necessary.	N/A		Not applicable for wipe samples.
METHOD QC				
Surrogates (GC, GC/MS)	Performed at required frequency. Recoveries within method/project limits.	N		Surrogate recoveries were high for samples 0912027-05A1 and 0912027-33A1.
Instrument Performance Check (IPC) (GC/MS)	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Internal Standards (GC, ICP/MS)	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Target Compound Identification (GC, GC/MS)	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
FIELD QC				
Field Blanks	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.

Item	Requirements	Acceptable?	Action Recommended ?	Comments
Field Duplicates	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
OTHER QC				
Level IV Checks	Transcriptions and calculations correctly performed. (verify at least 10% using extraction logs, sample prep logs, standard prep logs, etc.). Laboratory certification and performance acceptable (verify using lab certifications and audit records, MDL studies, analyst performance studies, etc.).	N/A		Not checked on a Level II review.
Overall Assessment Of Data	The data submitted are suitable for use without qualifiers.			

RECOMMENDED ACTIONS

Sample ID	Parameter/Method	Analyte(s)	QC Problem	Recommended Action
N/A	N/A	N/A	N/A	N/A

Validation Flags

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N - The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Memorandum

LWI-FY10-D1756

Launch Systems
P.O. Box 707
Brigham City, UT 84302-0707

Date:	January 11, 2010	From:	Qing Chen
Subject:	Bacchus Wipe Samples for Semi-volatiles	Organization:	Chemical Analysis
To:	Ron Bowlin, Scott Fraser	M/S:	245
CC:	Bart Weber	Extension:	3216
LWI:		Procedure:	EPA 8270D
Proj./Task:	988P/LS333/ENV	Instrument ID:	4-HP72
SDG:	0912027 and 0912028	Reviewed By:	Bart Weber

Fifteen wipe samples were submitted to GC/MS laboratory to for analyze semivolatile organic compounds. These samples were extracted following EPA method 3535 by Bart Weber and Sheldon Mill and analyzed follow EPA method 8270D. Environmental standard solutions (8270-IS-WL, six levels) were used for peak identification and quantification. Quality control samples (LRB, CC MTS, and MTSD) were analyzed and met all criteria. GC/MS analysis results are reported in Table I and II.

Table I. Semi volatiles analysis results by GC/MS (SDG 0912027)

Compound /Samples	0912027-02A1	0912027-06A1	0912027-10A1	0912027-14A1
	µg/wipe	µg/wipe	µg/wipe	µg/wipe
Benzyl alcohol	2.09	20.36		
benzoic acid		12.01		
butylbenzylphthalate		1.36		
bis(2-ethylhexyl)phthalate	18.06	10.38	2.06	9.70
di-n- butylphthalate	15.44	24.31	17.72	19.68
di-n-octylphthalate				0.49
n-nitro-di-n-propylamine		12.10		
2-methyl phenol		14.40		
n-nitro-di-n-propylamine		12.10		
Compound /Samples	0912027-18A1	0912027-22A1	0912027-26A1	0912027-30A1
	µg/wipe	µg/wipe	µg/wipe	µg/wipe
benzoic acid		5.64		
butylbenzylphthalate		1.52		
bis(2-ethylhexyl)phthalate	1.28	18.26		
di-n- butylphthalate	15.00	19.18	18.21	18.21
dimethylphthalate			0.18	
Compound /Samples	0912027-34A1	0912027-38A1	0912027-42A1	
	µg/wipe	µg/wipe	µg/wipe	
di-n- butylphthalate	15.17	14.46	19.32	

Table II. Semi volatiles analysis results by GC/MS (SDG 0912028)

Compound /Samples	0912028-02A1	0912028-06A1	0912028-10A1	0912028-14A1
	µg/wipe	µg/wipe	µg/wipe	µg/wipe
butylbenzylphthalate	0.88	0.49	1.47	0.91
bis(2-ethylhexyl)phthalate	1.1	0.85	1.31	2.61
di-n- butylphthalate	16.51	18.47	17.42	19.28
di-n-octyltylphthalate			0.11	
dimethylphthalate	0.17			0.12

If you have any questions I can be reached at 3216.

Qing Chen

DATA VALIDATION SUMMARY
ATK LAUNCH SYSTEMS-BACCHUS
#0912027 AND 0912028

DATA PACKAGE INFORMATION

Client:	**ATK Launch Systems-Bacchus**
Project:	**988P LS333ENV**
Data Package ID:	**0912027 and 0912028**
Analysis:	**Semivolatile Organic Compounds by GC/MS**
Matrix:	Wipe Sample
Preparation Method:	Not Provided
Analysis Method:	SW-846 Method 8270C
Laboratory:	ATK
Project QAP:	Highway 89 Storage Unites Site Work Plan
Validation guideline:	Method Requirements
Validation level:	II
Validator:	Gloria Beilke
Date Received:	02/24/10
Date Completed:	02/25/10
Peer Reviewer:	Paul Ellingson
Date Reviewed:	2/25/10

Data Package Inventory

Run Information		QC Summaries	
X	Final Reports	X	Method Blank
X	COCs	X	LCS
	Cal. Summary		MS/MSD
	Cal. Raw Data		Sample Duplicates
	Run Summary	X	Surrogates
	Run Raw Data		Internal Stds. (GC)
	Sample Prep Logs		Tune (GC/MS)

Comments: The data submitted are suitable for use without qualifiers.

SAMPLE INFORMATION
(including duplicate, reanalysis, or dilution samples)

	Sample ID	Lab Number	Sample Date	Prep Date	Analysis Date	Prep Days	Analysis Days	Total Days
1	*EZ-3-1B*	*0912027-02A1*	*12/17/2009*		*1/6/2010*			**20**
2	*EZ-3-2A*	*0912027-06A1*	*12/17/2009*		*1/6/2010*			**20**
3	*EZ-4-1A*	*0912027-10A1*	*12/17/2009*		*1/6/2010*			**20**
4	*EZ-4-2B*	*0912027-14A1*	*12/17/2009*		*1/6/2010*			**20**
5	*EZ-5-1B*	*0912027-18A1*	*12/17/2009*		*1/6/2010*			**20**
6	*EZ-5-2B*	*0912027-22A1*	*12/17/2009*		*1/6/2010*			**20**
7	*EZ-14-1B*	*0912027-26A1*	*12/17/2009*		*1/6/2010*			**20**
8	*EZ14-2B*	*0912027-30A1*	*12/17/2009*		*1/6/2010*			**20**
9	*EZ-45-1B*	*0912027-34A1*	*12/17/2009*		*1/6/2010*			**20**
10	*EZ-45-2B*	*0912027-38A1*	*12/17/2009*		*1/6/2010*			**20**
11	*EZ-45-3B*	*0912027-42A1*	*12/17/2009*		*1/6/2010*			**20**
12	*DD-7-1B*	*0912028-02A1*	*12/17/2009*		*1/6/2010*			**20**
13	*DD-7-2B*	*0912028-06A1*	*12/17/2009*		*1/6/2010*			**20**
14	*DD-13-1B*	*0912028-10A1*	*12/17/2009*		*1/6/2010*			**20**
15	*DD-13-2B*	*0912028-14A1*	*12/17/2009*		*1/6/2010*			**20**
16								
17								
18								
19								
20								

SUMMARY OF FINDINGS

Item	Requirements	Acceptable?	Action Recommended ?	Comments
GENERAL QC				
Chain-of-custody	COC and receiving documents properly completed (analytes, method, signatures, etc.)	Y		
Sample Receipt	Samples received in good condition, on ice, with receiving documentation, etc.	Y		
Preservatives	Evidence that the samples were correctly preserved.	Y		
Holding Times	Samples analyzed and prepared within method-specified time limits.	Y		Prep dates were not included. Assumed to be within acceptable holding times.
Final Reports	Final reports include all required information such as preparation & analytical methods, preparation & analytical dates, corrected MDLs, signatures, etc.	Y		
Analyte List	Analytes reported consistent with the COC and project requirements.	Y		The SAP did not specify an analyte list. The laboratory reported a full SVOC list.
Reporting Limits	Reported detection limits low enough for project requirements.	N/A		Reporting limits not specified in SAP.
Analyte / RL Quantitation	Sample preparation and dilution factors correctly accounted for in the final result and RL.	N/A		Not checked on a Level II review.
BATCH/RUN QC				
Initial Calibration	Meets method-specified requirements for frequency of calibration, number of standards, r^2, etc.	N/A		Not checked on a Level II review.
Continuing Calibration	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Method Blanks	Performed at required frequency. Recoveries within method/project limits.	Y		
Laboratory Control Samples	Performed at required frequency. Recoveries within method/project limits.	N/A		No LCS was performed.
Matrix Spike/ Matrix Spike Duplicates	Performed at required frequency. Recoveries within method/project limits. Spiking levels adequate. Matrix interference confirmed, if necessary.	Y		A MS/MSD was analyzed and noted on the ATK memorandum to be within acceptable criteria.
METHOD QC				
Surrogates (GC, GC/MS)	Performed at required frequency. Recoveries within method/project limits.	Y		
Instrument Performance Check (GC/MS)	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Internal Standards (GC)	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Target Compound Identification (GC, GC/MS)	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.

Item	Requirements	Acceptable?	Action Recommended ?	Comments
FIELD QC				
Field Blanks	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Field Duplicates	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
OTHER QC				
Level IV Checks	Transcriptions and calculations correctly performed. (verify at least 10% using extraction logs, sample prep logs, standard prep logs, etc.). Laboratory certification and performance acceptable (verify using lab certifications and audit records, MDL studies, analyst performance studies, etc.).	N/A		Not checked on a Level II review.
Overall Assessment Of Data	The data submitted are suitable for use without qualifiers.			

RECOMMENDED ACTIONS

Sample ID	Parameter/Method	Analyte(s)	QC Problem	Recommended Action
N/A	N/A	N/A	N/A	N/A

Validation Flags

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N - The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Memorandum

LWI-FY10-D1735

Launch Systems
P.O. Box 707
Brigham City, UT 84302-0707

Date:	January 6, 2010	From:	Ken Spaulding
Subject:	HPLC analysis of wipe samples	Organization:	Chromatography Section, Analytical Chemistry Dept.
To:	Environmental Services	M/S:	245A
CC:	Bart Weber	Extension:	4377
LWI:	N/A	Procedure:	LTP-3330-1366-FP0127, issue 5
Proj./Task:	988P-LS333-ENV	Instrument ID:	SL200910
SDG:	0912027 & 0912028	Reviewed By:	Bart Weber

Wipe samples from environmental services were tested by HPLC for determination of the analytes listed in the table below. Samples were prepared and analyzed by Jeff Bernard. For notebook planning see electronic notebook NBK0031-000086.

Results are in units of µg/sample.

	HMX	RDX	NG
0912027-03A1	ND	ND	ND
0912027-07A1	ND	ND	ND
0912027-11A1	ND	ND	ND
0912027-15A1	ND	ND	ND
0912027-19A1	ND	ND	ND
0912027-23A1	ND	ND	ND
0912027-27A1	ND	ND	ND
0912027-31A1	ND	ND	ND
0912027-35A1	ND	ND	ND
0912027-39A1	ND	ND	ND
0912027-43A1	ND	ND	ND
0912028-03A1	ND	ND	ND
0912028-07A1	ND	ND	ND
0912028-11A1	ND	ND	ND
0912028-15A1	ND	ND	ND
limit of detection	5	5	5

ND = Not Detected, less than the limit of detection.

Ken Spaulding

DATA VALIDATION SUMMARY
ATK LAUNCH SYSTEMS-BACCHUS
0912027 & 0912028

DATA PACKAGE INFORMATION

Client:	**ATK Launch Systems-Bacchus**
Project:	**988P LS333ENV**
Data Package ID:	**0912027 & 0912028**
Analysis:	**Explosives**
Matrix:	Wipe Sample
Preparation Method:	LTP-3330-1366-FP0127, issue 5
Analysis Method:	LTP-3330-1366-FP0127, issue 5
Laboratory:	ATK
Project QAP:	Highway 89 Storage Units Site Work Plan
Validation guideline:	Method Requirements
Validation level:	II
Validator:	Gloria Beilke
Date Received:	02/24/10
Date Completed:	02/25/10
Peer Reviewer:	Paul Ellingson
Date Reviewed:	2/25/10\

Data Package Inventory

Run Information		QC Summaries	
X	Final Reports	X	Method Blank
X	COCs	X	LCS/LCSD
	Cal. Summary		MS/MSD
	Cal. Raw Data		Sample Duplicates
	Run Summary	X	Surrogates
	Run Raw Data		Internal Stds. (GC)
	Sample Prep Logs		Tune (GC/MS)

Comments: The data submitted are suitable for use without qualifiers.

SAMPLE INFORMATION
(including duplicate, reanalysis, or dilution samples)

	Sample ID	Lab Number	Sample Date	Prep Date	Analysis Date	Prep Days	Analysis Days	Total Days
1	*EZ-3-1C*	*0912027-03*	*12/17/2009*		*1/5/2010*			**19**
2	*EZ-3-2C*	*0912027-07*	*12/17/2009*		*1/5/2010*			**19**
3	*EZ-4-1C*	*0912027-11*	*12/17/2009*		*1/5/2010*			**19**
4	*EZ-4-2C*	*0912027-15*	*12/17/2009*		*1/5/2010*			**19**
5	*EZ-5-1C*	*0912027-19*	*12/17/2009*		*1/5/2010*			**19**
6	*EZ-5-2C*	*0912027-23*	*12/17/2009*		*1/5/2010*			**19**
7	*EZ-14-1C*	*0912027-27*	*12/17/2009*		*1/5/2010*			**19**
8	*EZ14-2C*	*0912027-31*	*12/17/2009*		*1/5/2010*			**19**
9	*EZ-45-1C*	*0912027-35*	*12/17/2009*		*1/5/2010*			**19**
10	*EZ-45-2C*	*0912027-39*	*12/17/2009*		*1/5/2010*			**19**
11	*EZ-45-3C*	*0912027-43*	*12/17/2009*		*1/5/2010*			**19**
12	*DD-7-1C*	*0912028-03*	*12/17/2009*		*1/5/2010*			**19**
13	*DD-7-2C*	*0912028-07*	*12/17/2009*		*1/5/2010*			**19**
14	*DD-13-1C*	*0912028-11*	*12/17/2009*		*1/5/2010*			**19**
15	*DD-13-2C*	*0912028-15*	*12/17/2009*		*1/5/2010*			**19**
16								
17								
18								
19								
20								

SUMMARY OF FINDINGS

Item	Requirements	Acceptable?	Action Recommended ?	Comments
GENERAL QC				
Chain-of-custody	COC and receiving documents properly completed (analytes, method, signatures, etc.)	Y		
Sample Receipt	Samples received in good condition, on ice, with receiving documentation, etc.	Y		
Preservatives	Evidence that the samples were correctly preserved.	N/A		Not applicable for wipe samples.
Holding Times	Samples analyzed and prepared within method-specified time limits.	Y		Prep dates were not included. Assumed to be within acceptable holding times.
Final Reports	Final reports include all required information such as preparation & analytical methods, preparation & analytical dates, corrected MDLs, signatures, etc.	Y		
Analyte List	Analytes reported consistent with the COC and project requirements.	Y		The SAP did not specify an analyte list. The laboratory reported Nitroglycerin, HMX & RDX.
Reporting Limits	Reported detection limits low enough for project requirements.	N/A		Reporting limits not specified in SAP.
Analyte / RL Quantitation	Sample preparation and dilution factors correctly accounted for in the final result and RL.	N/A		Not applicable for wipe samples.
BATCH/RUN QC				
Initial Calibration	Meets method-specified requirements for frequency of calibration, number of standards, r^2, etc.	N/A		Not checked on a Level II review.
Continuing Calibration	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Method Blanks	Performed at required frequency. Recoveries within method/project limits.	Y		
Laboratory Control Samples	Performed at required frequency. Recoveries within method/project limits.	Y		
Matrix Spike/ Matrix Spike Duplicates	Performed at required frequency. Recoveries within method/project limits. Spiking levels adequate. Matrix interference confirmed, if necessary.	N/A		Not applicable for wipe samples.
METHOD QC				
Surrogates (GC, GC/MS)	Performed at required frequency. Recoveries within method/project limits.	N		Note from lab: For the explosives testing there were no surrogates added. This was an oversight by the analysts due to the fact that these samples were not a standard analysis.
Instrument Performance Check (GC/MS)	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Internal Standards (GC)	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.

Item	Requirements	Acceptable?	Action Recommended ?	Comments
Target Compound Identification (GC, GC/MS)	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
FIELD QC				
Field Blanks	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Field Duplicates	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
OTHER QC				
Level IV Checks	Transcriptions and calculations correctly performed. (verify at least 10% using extraction logs, sample prep logs, standard prep logs, etc.). Laboratory certification and performance acceptable (verify using lab certifications and audit records, MDL studies, analyst performance studies, etc.).	N/A		Not checked on a Level II review.
Overall Assessment Of Data	The data submitted are suitable for use without qualifiers.			

RECOMMENDED ACTIONS

Sample ID	Parameter/Method	Analyte(s)	QC Problem	Recommended Action
N/A	N/A	N/A	N/A	N/A

Validation Flags

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N - The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Memorandum

LWI-FY10-D1787

Launch Systems
P.O. Box 707
Brigham City, UT 84302-0707

Date:	January 18, 2010	From:	Mike Burnett
Subject:	Aluminum & Magnesium Analysis by ICP-OES on Environmental Wipe Samples	Organization:	Chemical Analysis
To:	Scott Fraser	M/S:	245A
CC:		Extension:	2744
LWI:		Procedure:	
Proj./Task:	988P LS333 ENV	Instrument ID:	PE 4300DV ICP-OES
SDG:	SDG-0912027 & SDG-0912028	Reviewed By:	

Fifteen Rymple Cloth wipe samples were collected and submitted for aluminum and magnesium analysis using Inductively Coupled Plasma-Optical Emission Spectroscopy. The sample wipes were subjected to an acid leach process. Ninety five milliliters of water along with 5 milliliters of concentrated nitric acid were added to each sample container. The sample wipes were then placed in an Environmental Express Hot Block heating apparatus set at 100 °C for approximately 1.0 hour. Upon completion of this leaching process, the sample solutions were allowed to cool, then quantitatively diluted back to 100 milliliters with distilled water.

The following table depicts the SDG number from each sample along with the concentration of aluminum and magnesium in units of milligrams per wipe.

SDG Number	Aluminum (mg)	Magnesium (mg)
0912027-04A1	1.15	1.54
0912027-08A1	1.44	1.24
0912027-12A1	1.30	1.56
0912027-16A1	2.76	3.03
0912027-20A1	1.09	0.71
0912027-24A1	1.26	1.08
0912027-28A1	6.54	1.87
0912027-32A1	9.44	2.11
0912027-36A1	0.59	1.14
0912027-40A1	2.21	1.54
0912027-44A1	0.01	0.05
0912028-04A1	2.23	2.50
0912028-08A1	0.87	1.00
0912028-12A1	0.43	0.49
0912028-16A1	0.41	0.40

If you have any questions or concerns, please call me at ext. 2744.

Mike Burnett
Chemical Analysis

DATA VALIDATION SUMMARY
ATK LAUNCH SYSTEMS-BACCHUS
0912027 & 0912028

DATA PACKAGE INFORMATION

Client:	**ATK Launch Systems-Bacchus**
Project:	**988P LS333ENV**
Data Package ID:	**0912027 & 0912028**
Analysis:	**Metals by ICP – Al & Mg**
Matrix:	Wipe Sample
Preparation Method:	Not provided
Analysis Method:	ICP-OES
Laboratory:	ATK
Project QAP:	Highway 89 Storage Units Site Work Plan
Validation guideline:	Method Requirements
Validation level:	II
Validator:	Gloria Beilke
Date Received:	02/24/10
Date Completed:	02/24/10
Peer Reviewer:	Paul Ellingson
Date Reviewed:	2/25/10

Data Package Inventory

Run Information		QC Summaries	
X	Final Reports	X	Blank
X	COCs	X	LCS
	Cal. Summary		MS/MSD
	Cal. Raw Data		Sample Duplicates
	Run Summary		Surrogates
	Run Raw Data		Internal Stds. (GC)
	Sample Prep Logs		Tune (GC/MS)
			Interfer Chks (ICP)
			PDS (Metals)

Comments: The data submitted are suitable for use without qualifiers.

SAMPLE INFORMATION
(including duplicate, reanalysis, or dilution samples)

	Sample ID	Lab Number	Sample Date	Prep Date	Analysis Date	Prep Days	Analysis Days	Total Days
1	*EZ-3-1 D*	*0912027-04*	*12/17/2009*		*1/19/2010*			33
2	*EZ-3-2 D*	*0912027-08*	*12/17/2009*		*1/19/2010*			33
3	*EZ-4-1 D*	*0912027-12*	*12/17/2009*		*1/19/2010*			33
4	*EZ-4-2 D*	*0912027-16*	*12/17/2009*		*1/19/2010*			33
5	*EZ-5-1 D*	*0912027-20*	*12/17/2009*		*1/19/2010*			33
6	*EZ-5-2 D*	*0912027-24*	*12/17/2009*		*1/19/2010*			33
7	*EZ-14-1D*	*0912027-28*	*12/17/2009*		*1/19/2010*			33
8	*EZ14-2D*	*0912027-32*	*12/17/2009*		*1/19/2010*			33
9	*EZ-45-1D*	*0912027-36*	*12/17/2009*		*1/19/2010*			33
10	*EZ-45-2D*	*0912027-40*	*12/17/2009*		*1/19/2010*			33
11	*EZ-45-3D*	*0912027-44*	*12/17/2009*		*1/19/2010*			33
12	*DD-7-1D*	*0912028-04*	*12/17/2009*		*1/19/2010*			33
13	*DD-7-2D*	*0912028-08*	*12/17/2009*		*1/19/2010*			33
14	*DD-13-1D*	*0912028-12*	*12/17/2009*		*1/19/2010*			33
15	*DD-13-2D*	*0912028-16*	*12/17/2009*		*1/19/2010*			33
16								
17								
18								
19								
20								

SUMMARY OF FINDINGS

Item	Requirements	Acceptable?	Action Recommended ?	Comments
GENERAL QC				
Chain-of-custody	COC and receiving documents properly completed (analytes, method, signatures, etc.)	Y		
Sample Receipt	Samples received in good condition, on ice, with receiving documentation, etc.	Y		
Preservatives	Evidence that the samples were correctly preserved.	Y		
Holding Times	Samples analyzed and prepared within method-specified time limits.	Y		
Final Reports	Final reports include all required information such as preparation & analytical methods, preparation & analytical dates, corrected MDLs, signatures, etc.	Y		
Analyte List	Analytes reported consistent with the COC and project requirements.	Y		The SAP did not specify an analyte list. The laboratory reported aluminum and magnesium.
Reporting Limits	Reported detection limits low enough for project requirements.	N/A		Reporting Limits not specified in SAP
Analyte / RL Quantitation	Sample preparation and dilution factors correctly accounted for in the final result and RL.	N/A		Not applicable for wipe samples.
BATCH/RUN QC				
Initial Calibration	Meets method-specified requirements for frequency of calibration, number of standards, r^2, etc.	N/A		Not checked on a Level II review.
Continuing Calibration	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Blanks	Performed at required frequency. Recoveries within method/project limits.	Y		
Laboratory Control Samples	Performed at required frequency. Recoveries within method/project limits.	Y		
Matrix Spike/ Matrix Spike Duplicates	Performed at required frequency. Recoveries within method/project limits. Spiking levels adequate. Matrix interference confirmed, if necessary.	N/A		Not applicable for wipe samples.
METHOD QC				
Interference Checks (ICP)	Performed at required frequency. Results within method/project limits.	N/A		Not checked on a Level II review.
Post Digestion Spike (Metals)	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Analyte Confirmation (GC)	Positive GC results confirmed using a second column or second detector, if necessary	N/A		Not checked on a Level II review.
FIELD QC				
Field Blanks	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Field Duplicates	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.

Item	Requirements	Acceptable?	Action Recommended ?	Comments
OTHER QC				
Level IV Checks	Transcriptions and calculations correctly performed. (verify at least 10% using extraction logs, sample prep logs, standard prep logs, etc.). Laboratory certification and performance acceptable (verify using lab certifications and audit records, MDL studies, analyst performance studies, etc.).	N/A		Not checked on a Level II review.
Overall Assessment Of Data	The data submitted are suitable for use without qualifiers.			

RECOMMENDED ACTIONS

Sample ID	Parameter/Method	Analyte(s)	QC Problem	Recommended Action
N/A	N/A	N/A	N/A	N/A

Validation Flags

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N - The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Kevin

12/18/2009

ATK Launch Systems
P.O. BOX 98 MAGNA, UTAH 84404

Environmental Lab Work Request

GENERAL INFORMATION

LAB: ALS/DATACHEM	COLLECTED BY: R. Bowlin S. Deppe	COMPANY:	TITLE:
P.O. NO: ATK-44544	COLLECTION LOCATION: Rakonen Sites		CONTACT: Ronald Bowlin
M-53 PROJ_ID WPKG: 988P LS333ENV	MATERIAL SAMPLED: Wipe		EMAIL: ronald.bowlin@atk.com

SAMPLE INFORMATION

SAMPLE NUMBER	DATE	TIME	METHOD	BOTTLE	PRESERVATIVE	ANALYSIS REQUESTED	NOTE
EZ-5-3A	12/17/09	1200	Wipe	40 ml VOA	4C: DI Water	VOC: EPA 8260B	
EZ-5-3B	12/17/09	1200	Wipe	40 ml VOA	4C: Methanol	SVOC: EPA 8270B	
EZ-5-3C	12/17/09	1200	Wipe	40 ml VOA	4C: Methanol	NG, HMX, RDX: SW-846, 8330 Modified	
EZ-5-3D	12/17/09	1200	Wipe	40 ml VOA	4C: DI Water	Aluminum, Magnesium: EPA 6010B	
EZ-4-3A	12/17/09	1200	Wipe	40 ml VOA	4C: DI Water	VOC: EPA 8260B	
EZ-4-3B	12/17/09	1200	Wipe	40 ml VOA	4C: Methanol	SVOC: EPA 8270B	
EZ-4-3C	12/17/09	1200	Wipe	40 ml VOA	4C: Methanol	NG, HMX, RDX: SW-846, 8330 Modified	
EZ-4-3D	12/17/09	1200	Wipe	40 ml VOA	4C: DI Water	Aluminum, Magnesium: EPA 6010B	
EZ-3-3A	12/17/09	1255	Wipe	40 ml VOA	4C: DI Water	VOC: EPA 8260B	
EZ-3-3B	12/17/09	1255	Wipe	40 ml VOA	4C: Methanol	SVOC: EPA 8270B	
EZ-3-3C	12/17/09	1255	Wipe	40 ml VOA	4C: Methanol	NG, HMX, RDX: SW-846, 8330 Modified	
EZ-3-3D	12/17/09	1255	Wipe	40 ml VOA	4C: DI Water	Aluminum, Magnesium: EPA 6010B	

NOTE: 100 sq. cm.

CHAIN OF CUSTODY

RELINQUISHED BY	RECEIVED BY	DATE	TIME
RA Bowlin	[illegible]	12/18/09	11:15

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

ANALYTICAL REPORT

Report Date: January 14, 2010

Ronald Bowlin
ATK Launch Systems-Bacchus
P.O. Box 98
Ogden, UT 84404

Phone: (801) 251-4865

E-mail: ronald.bowlin@atk.com

Workorder: **9352048**
Project ID: **ATK-44544 Rakonen Sites**
Purchase Order: ATK-44544

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
EZ-5-3A	9352048001	12/17/09	12/18/09	Rakonen Sites
EZ-4-3A	9352048002	12/17/09	12/18/09	Rakonen Sites
EZ-3-3A	9352048003	12/17/09	12/18/09	Rakonen Sites
EZ-5-3B	9352048004	12/17/09	12/18/09	Rakonen Sites
EZ-4-3B	9352048005	12/17/09	12/18/09	Rakonen Sites
EZ-3-3B	9352048006	12/17/09	12/18/09	Rakonen Sites
EZ-5-3C	9352048007	12/17/09	12/18/09	Rakonen Sites
EZ-4-3C	9352048008	12/17/09	12/18/09	Rakonen Sites
EZ-3-3C	9352048009	12/17/09	12/18/09	Rakonen Sites
EZ-5-3D	9352048010	12/17/09	12/18/09	Rakonen Sites
EZ-4-3D	9352048011	12/17/09	12/18/09	Rakonen Sites
EZ-3-3D	9352048012	12/17/09	12/18/09	Rakonen Sites

ANALYTICAL REPORT

Client: ATK Launch Systems-Bacchus
Project Manager: Kevin W. Griffiths

Analytical Results

Workorder: **9352048**

Sample ID: **EZ-5-3A**
Lab ID: 9352048001
Sampling Site: Rakonen Sites

Matrix: Wipe
Media: 40 mL Amber Glass VOA Vial
Sampling Parameter: NA

Collected: 12/17/2009
Received: 12/18/2009

Analysis Method - SW 8260

Preparation: Not Applicable

Analysis: SW 8260C, Wipe
Batch: EVO/2388 (HBN: 40162)
Analyzed: 12/23/2009 12:25:00 PM

Instr ID: 5973-Z
Percent Solids: NA
Report Basis: Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
Dichlorodifluoromethane	ND	0.21	5.0	200	U
Chloromethane	ND	0.26	5.0	200	U
Vinyl chloride	ND	0.29	5.0	200	U
Bromomethane	ND	0.49	5.0	200	U
Chloroethane	ND	0.42	5.0	200	U
Dichlorofluoromethane	ND	0.48	5.0	200	U
Trichlorofluoromethane	ND	0.33	5.0	200	U
Ethyl ether	ND	0.24	5.0	200	U
1,1-Dichloroethene	ND	0.24	5.0	200	U
Freon 113	ND	0.63	5.0	200	U
Acetone	ND	2.6	5.0	200	U
Iodomethane	ND	0.31	5.0	200	U
Carbon disulfide	ND	0.30	5.0	200	U
Methyl Acetate	ND	0.37	5.0	200	U
Allyl chloride	ND	0.17	5.0	200	U
Methylene chloride	ND	0.50	5.0	200	U
trans-1,2-Dichloroethene	ND	0.19	5.0	200	U
Methyl-t-butyl ether	ND	0.16	5.0	200	U
cis-1,2-Dichloroethene	ND	0.18	5.0	200	U
1,1-Dichloroethane	ND	0.20	5.0	200	U
2,2-Dichloropropane	ND	0.21	5.0	200	U
2-Butanone	ND	1.8	5.0	200	U
Ethyl acetate	ND	2.0	5.0	200	U
Bromochloromethane	ND	0.18	5.0	200	U
Tetrahydrofuran	ND	3.2	5.0	200	U
Chloroform	ND	0.28	5.0	200	U
1,1,1-Trichloroethane	ND	0.23	5.0	200	U
Cyclohexane	ND	0.42	5.0	200	U
1,1-Dichloropropene	ND	0.23	5.0	200	U
1,2-Dichloroethane	ND	0.25	5.0	200	U
Carbon tetrachloride	ND	0.39	5.0	200	U
Benzene	ND	0.19	5.0	200	U
Trichloroethene	ND	0.16	5.0	200	U
Methylcyclohexane	ND	0.21	5.0	200	U

Results Continued on Next Page

ANALYTICAL REPORT

Client: ATK Launch Systems-Bacchus
Project Manager: Kevin W. Griffiths

Analytical Results

Workorder: **9352048**

Sample ID: **EZ-5-3A**
Lab ID: 9352048001
Sampling Site: Rakonen Sites

Matrix: Wipe
Media: 40 mL Amber Glass VOA Vial
Sampling Parameter: NA

Collected: 12/17/2009
Received: 12/18/2009

Analysis Method - SW 8260

Preparation: Not Applicable

Analysis: SW 8260C, Wipe
Batch: EVO/2388 (HBN: 40162)
Analyzed: 12/23/2009 12:25:00 PM

Instr ID: 5973-Z
Percent Solids: NA
Report Basis: Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
1,2-Dichloropropane	ND	0.21	5.0	200	U
Dibromomethane	ND	0.15	5.0	200	U
Bromodichloromethane	ND	0.22	5.0	200	U
cis-1,3-Dichloropropene	ND	0.16	5.0	200	U
4-Methyl-2-pentanone	ND	1.6	5.0	200	U
trans-1,3-Dichloropropene	ND	0.13	5.0	200	U
Ethyl methacrylate	ND	0.19	5.0	200	U
1,1,2-Trichloroethane	ND	0.23	5.0	200	U
2-Hexanone	ND	1.3	5.0	200	U
1,2-Dibromoethane	ND	0.18	5.0	200	U
Toluene	0.39	0.20	5.0	200	J
1,3-Dichloropropane	ND	0.15	5.0	200	U
Dibromochloromethane	ND	0.23	5.0	200	U
Bromoform	ND	0.34	5.0	200	U
Tetrachloroethene	ND	0.29	5.0	200	U
1-Chlorohexane	ND	0.18	5.0	200	U
Chlorobenzene	ND	0.23	5.0	200	U
1,1,1,2-Tetrachloroethane	ND	0.12	5.0	200	U
Ethylbenzene	ND	0.21	5.0	200	U
m,p-Xylene	ND	0.31	10	200	U
o-Xylene	ND	0.14	5.0	200	U
Styrene	ND	0.12	5.0	200	U
Isopropylbenzene	ND	0.17	5.0	200	U
1,1,2,2-Tetrachloroethane	ND	0.28	5.0	200	U
Bromobenzene	ND	0.23	5.0	200	U
1,2,3-Trichloropropane	ND	0.42	5.0	200	U
trans-1,4-Dichloro-2-butene	ND	0.77	5.0	200	U
Pentachloroethane	ND	0.22	5.0	200	U
n-Propylbenzene	ND	0.18	5.0	200	U
1,3,5-Trimethylbenzene	ND	0.14	5.0	200	U
2-Chlorotoluene	ND	0.18	5.0	200	U
4-Chlorotoluene	ND	0.15	5.0	200	U
tert-Butylbenzene	ND	0.20	5.0	200	U
1,2,4-Trimethylbenzene	ND	0.14	5.0	200	U

Results Continued on Next Page

ANALYTICAL REPORT

Client: ATK Launch Systems-Bacchus
Project Manager: Kevin W. Griffiths

Analytical Results

Workorder: **9352048**

Sample ID: **EZ-5-3A**
Lab ID: 9352048001
Sampling Site: Rakonen Sites

Matrix: Wipe
Media: 40 mL Amber Glass VOA Vial
Sampling Parameter: NA

Collected: 12/17/2009
Received: 12/18/2009

Analysis Method - SW 8260

Preparation: Not Applicable

Analysis: SW 8260C, Wipe
Batch: EVO/2388 (HBN: 40162)
Analyzed: 12/23/2009 12:25:00 PM

Instr ID: 5973-Z
Percent Solids: NA
Report Basis: Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
sec-Butylbenzene	ND	0.20	5.0	200	U
p-Isopropyltoluene	ND	0.15	5.0	200	U
1,3-Dichlorobenzene	ND	0.080	5.0	200	U
1,4-Dichlorobenzene	ND	0.19	5.0	200	U
n-Butylbenzene	ND	0.094	5.0	200	U
1,2-Dichlorobenzene	ND	0.13	5.0	200	U
1,2-Dibromo-3-Chloropropane	ND	2.6	5.0	200	U
1,2,4-Trichlorobenzene	ND	0.21	5.0	200	U
Hexachlorobutadiene	ND	0.33	5.0	200	U
Naphthalene	ND	0.10	5.0	200	U
1,2,3-Trichlorobenzene	ND	0.24	5.0	200	U

Analysis Method - SW 8260

Preparation: Not Applicable

Analysis: SW 8260C, Wipe
Batch: EVO/2388 (HBN: 40162)
Analyzed: 12/23/2009 12:25:00 PM

Instr ID: 5973-Z
Percent Solids: NA
Report Basis: Wet

Tentatively Identified Compound	ug/sample	Retention Time	Dilution	Qual.
Unknown Hydrocarbon	5.8	2.14	200	J

Sample ID: **EZ-4-3A**
Lab ID: 9352048002
Sampling Site: Rakonen Sites

Matrix: Wipe
Media: 40 mL Amber Glass VOA Vial
Sampling Parameter: NA

Collected: 12/17/2009
Received: 12/18/2009

Analysis Method - SW 8260

Preparation: Not Applicable

Analysis: SW 8260C, Wipe
Batch: EVO/2388 (HBN: 40162)
Analyzed: 12/23/2009 12:48:00 PM

Instr ID: 5973-Z
Percent Solids: NA
Report Basis: Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
Dichlorodifluoromethane	ND	0.21	5.0	200	U
Chloromethane	ND	0.26	5.0	200	U
Vinyl chloride	ND	0.29	5.0	200	U
Bromomethane	ND	0.49	5.0	200	U
Chloroethane	ND	0.42	5.0	200	U
Dichlorofluoromethane	ND	0.48	5.0	200	U
Trichlorofluoromethane	ND	0.33	5.0	200	U

Results Continued on Next Page

ANALYTICAL REPORT

Client: ATK Launch Systems-Bacchus
Project Manager: Kevin W. Griffiths

Analytical Results

Workorder: **9352048**

Sample ID: **EZ-4-3A**
Lab ID: 9352048002
Sampling Site: Rakonen Sites

Matrix: Wipe
Media: 40 mL Amber Glass VOA Vial
Sampling Parameter: NA

Collected: 12/17/2009
Received: 12/18/2009

Analysis Method - SW 8260

Preparation: Not Applicable

Analysis: SW 8260C, Wipe
Batch: EVO/2388 (HBN: 40162)
Analyzed: 12/23/2009 12:48:00 PM

Instr ID: 5973-Z
Percent Solids: NA
Report Basis: Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
Ethyl ether	ND	0.24	5.0	200	U
1,1-Dichloroethene	ND	0.24	5.0	200	U
Freon 113	ND	0.63	5.0	200	U
Acetone	ND	2.6	5.0	200	U
Iodomethane	ND	0.31	5.0	200	U
Carbon disulfide	ND	0.30	5.0	200	U
Methyl Acetate	ND	0.37	5.0	200	U
Allyl chloride	ND	0.17	5.0	200	U
Methylene chloride	ND	0.50	5.0	200	U
trans-1,2-Dichloroethene	ND	0.19	5.0	200	U
Methyl-t-butyl ether	ND	0.16	5.0	200	U
cis-1,2-Dichloroethene	ND	0.18	5.0	200	U
1,1-Dichloroethane	ND	0.20	5.0	200	U
2,2-Dichloropropane	ND	0.21	5.0	200	U
2-Butanone	ND	1.8	5.0	200	U
Ethyl acetate	ND	2.0	5.0	200	U
Bromochloromethane	ND	0.18	5.0	200	U
Tetrahydrofuran	ND	3.2	5.0	200	U
Chloroform	ND	0.28	5.0	200	U
1,1,1-Trichloroethane	ND	0.23	5.0	200	U
Cyclohexane	ND	0.42	5.0	200	U
1,1-Dichloropropene	ND	0.23	5.0	200	U
1,2-Dichloroethane	ND	0.25	5.0	200	U
Carbon tetrachloride	ND	0.39	5.0	200	U
Benzene	ND	0.19	5.0	200	U
Trichloroethene	ND	0.16	5.0	200	U
Methylcyclohexane	ND	0.21	5.0	200	U
1,2-Dichloropropane	ND	0.21	5.0	200	U
Dibromomethane	ND	0.15	5.0	200	U
Bromodichloromethane	ND	0.22	5.0	200	U
cis-1,3-Dichloropropene	ND	0.16	5.0	200	U
4-Methyl-2-pentanone	ND	1.6	5.0	200	U
trans-1,3-Dichloropropene	ND	0.13	5.0	200	U
Ethyl methacrylate	ND	0.19	5.0	200	U

Results Continued on Next Page

ANALYTICAL REPORT

Client: ATK Launch Systems-Bacchus
Project Manager: Kevin W. Griffiths

Analytical Results

Workorder: **9352048**

Sample ID: **EZ-4-3A**
Lab ID: 9352048002
Sampling Site: Rakonen Sites

Matrix: Wipe
Media: 40 mL Amber Glass VOA Vial
Sampling Parameter: NA

Collected: 12/17/2009
Received: 12/18/2009

Analysis Method - SW 8260

Preparation: Not Applicable

Analysis: SW 8260C, Wipe
Batch: EVO/2388 (HBN: 40162)
Analyzed: 12/23/2009 12:48:00 PM

Instr ID: 5973-Z
Percent Solids: NA
Report Basis: Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
1,1,2-Trichloroethane	ND	0.23	5.0	200	U
2-Hexanone	ND	1.3	5.0	200	U
1,2-Dibromoethane	ND	0.18	5.0	200	U
Toluene	0.24	0.20	5.0	200	J
1,3-Dichloropropane	ND	0.15	5.0	200	U
Dibromochloromethane	ND	0.23	5.0	200	U
Bromoform	ND	0.34	5.0	200	U
Tetrachloroethene	ND	0.29	5.0	200	U
1-Chlorohexane	ND	0.18	5.0	200	U
Chlorobenzene	ND	0.23	5.0	200	U
1,1,1,2-Tetrachloroethane	ND	0.12	5.0	200	U
Ethylbenzene	ND	0.21	5.0	200	U
m,p-Xylene	ND	0.31	10	200	U
o-Xylene	ND	0.14	5.0	200	U
Styrene	ND	0.12	5.0	200	U
Isopropylbenzene	ND	0.17	5.0	200	U
1,1,2,2-Tetrachloroethane	ND	0.28	5.0	200	U
Bromobenzene	ND	0.23	5.0	200	U
1,2,3-Trichloropropane	ND	0.42	5.0	200	U
trans-1,4-Dichloro-2-butene	ND	0.77	5.0	200	U
Pentachloroethane	ND	0.22	5.0	200	U
n-Propylbenzene	ND	0.18	5.0	200	U
1,3,5-Trimethylbenzene	ND	0.14	5.0	200	U
2-Chlorotoluene	ND	0.18	5.0	200	U
4-Chlorotoluene	ND	0.15	5.0	200	U
tert-Butylbenzene	ND	0.20	5.0	200	U
1,2,4-Trimethylbenzene	ND	0.14	5.0	200	U
sec-Butylbenzene	ND	0.20	5.0	200	U
p-Isopropyltoluene	ND	0.15	5.0	200	U
1,3-Dichlorobenzene	ND	0.080	5.0	200	U
1,4-Dichlorobenzene	ND	0.19	5.0	200	U
n-Butylbenzene	ND	0.094	5.0	200	U
1,2-Dichlorobenzene	ND	0.13	5.0	200	U
1,2-Dibromo-3-Chloropropane	ND	2.6	5.0	200	U

Results Continued on Next Page

ANALYTICAL REPORT

Client: ATK Launch Systems-Bacchus
Project Manager: Kevin W. Griffiths

Analytical Results

Workorder: **9352048**

Sample ID: **EZ-4-3A**
Lab ID: 9352048002
Sampling Site: Rakonen Sites
Matrix: Wipe
Media: 40 mL Amber Glass VOA Vial
Sampling Parameter: NA
Collected: 12/17/2009
Received: 12/18/2009

Analysis Method - SW 8260

Preparation: Not Applicable
Analysis: SW 8260C, Wipe
Batch: EVO/2388 (HBN: 40162)
Analyzed: 12/23/2009 12:48:00 PM
Instr ID: 5973-Z
Percent Solids: NA
Report Basis: Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
1,2,4-Trichlorobenzene	ND	0.21	5.0	200	U
Hexachlorobutadiene	ND	0.33	5.0	200	U
Naphthalene	ND	0.10	5.0	200	U
1,2,3-Trichlorobenzene	ND	0.24	5.0	200	U

Analysis Method - SW 8260

Preparation: Not Applicable
Analysis: SW 8260C, Wipe
Batch: EVO/2388 (HBN: 40162)
Analyzed: 12/23/2009 12:48:00 PM
Instr ID: 5973-Z
Percent Solids: NA
Report Basis: Wet

Tentatively Identified Compound	ug/sample	Retention Time	Dilution	Qual.
Unknown Hydrocarbon	6.8	2.15	200	J

Sample ID: **EZ-3-3A**
Lab ID: 9352048003
Sampling Site: Rakonen Sites
Matrix: Wipe
Media: 40 mL Amber Glass VOA Vial
Sampling Parameter: NA
Collected: 12/17/2009
Received: 12/18/2009

Analysis Method - SW 8260

Preparation: Not Applicable
Analysis: SW 8260C, Wipe
Batch: EVO/2388 (HBN: 40162)
Analyzed: 12/23/2009 1:11:00 PM
Instr ID: 5973-Z
Percent Solids: NA
Report Basis: Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
Dichlorodifluoromethane	ND	0.21	5.0	200	U
Chloromethane	ND	0.26	5.0	200	U
Vinyl chloride	ND	0.29	5.0	200	U
Bromomethane	ND	0.49	5.0	200	U
Chloroethane	ND	0.42	5.0	200	U
Dichlorofluoromethane	ND	0.48	5.0	200	U
Trichlorofluoromethane	ND	0.33	5.0	200	U
Ethyl ether	ND	0.24	5.0	200	U
1,1-Dichloroethene	ND	0.24	5.0	200	U
Freon 113	ND	0.63	5.0	200	U
Acetone	ND	2.6	5.0	200	U
Iodomethane	ND	0.31	5.0	200	U
Carbon disulfide	ND	0.30	5.0	200	U
Methyl Acetate	ND	0.37	5.0	200	U

Results Continued on Next Page

ANALYTICAL REPORT

Client: ATK Launch Systems-Bacchus
Project Manager: Kevin W. Griffiths

Analytical Results

Workorder: **9352048**

Sample ID: **EZ-3-3A**
Lab ID: 9352048003
Sampling Site: Rakonen Sites

Matrix: Wipe
Media: 40 mL Amber Glass VOA Vial
Sampling Parameter: NA

Collected: 12/17/2009
Received: 12/18/2009

Analysis Method - SW 8260

Preparation: Not Applicable

Analysis: SW 8260C, Wipe
Batch: EVO/2388 (HBN: 40162)
Analyzed: 12/23/2009 1:11:00 PM

Instr ID: 5973-Z
Percent Solids: NA
Report Basis: Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
Allyl chloride	ND	0.17	5.0	200	U
Methylene chloride	ND	0.50	5.0	200	U
trans-1,2-Dichloroethene	ND	0.19	5.0	200	U
Methyl-t-butyl ether	ND	0.16	5.0	200	U
cis-1,2-Dichloroethene	ND	0.18	5.0	200	U
1,1-Dichloroethane	ND	0.20	5.0	200	U
2,2-Dichloropropane	ND	0.21	5.0	200	U
2-Butanone	ND	1.8	5.0	200	U
Ethyl acetate	ND	2.0	5.0	200	U
Bromochloromethane	ND	0.18	5.0	200	U
Tetrahydrofuran	ND	3.2	5.0	200	U
Chloroform	ND	0.28	5.0	200	U
1,1,1-Trichloroethane	ND	0.23	5.0	200	U
Cyclohexane	ND	0.42	5.0	200	U
1,1-Dichloropropene	ND	0.23	5.0	200	U
1,2-Dichloroethane	ND	0.25	5.0	200	U
Carbon tetrachloride	ND	0.39	5.0	200	U
Benzene	ND	0.19	5.0	200	U
Trichloroethene	ND	0.16	5.0	200	U
Methylcyclohexane	ND	0.21	5.0	200	U
1,2-Dichloropropane	ND	0.21	5.0	200	U
Dibromomethane	ND	0.15	5.0	200	U
Bromodichloromethane	ND	0.22	5.0	200	U
cis-1,3-Dichloropropene	ND	0.16	5.0	200	U
4-Methyl-2-pentanone	ND	1.6	5.0	200	U
trans-1,3-Dichloropropene	ND	0.13	5.0	200	U
Ethyl methacrylate	ND	0.19	5.0	200	U
1,1,2-Trichloroethane	ND	0.23	5.0	200	U
2-Hexanone	ND	1.3	5.0	200	U
1,2-Dibromoethane	ND	0.18	5.0	200	U
Toluene	ND	0.20	5.0	200	U
1,3-Dichloropropane	ND	0.15	5.0	200	U
Dibromochloromethane	ND	0.23	5.0	200	U
Bromoform	ND	0.34	5.0	200	U

Results Continued on Next Page

ANALYTICAL REPORT

Client: ATK Launch Systems-Bacchus
Project Manager: Kevin W. Griffiths

Analytical Results

Workorder: **9352048**

Sample ID: **EZ-3-3A**	Matrix: Wipe	Collected: 12/17/2009
Lab ID: 9352048003	Media: 40 mL Amber Glass VOA Vial	Received: 12/18/2009
Sampling Site: Rakonen Sites	Sampling Parameter: NA	

Analysis Method - SW 8260

Preparation: Not Applicable	**Analysis:** SW 8260C, Wipe **Batch:** EVO/2388 (HBN: 40162) **Analyzed:** 12/23/2009 1:11:00 PM	**Instr ID:** 5973-Z **Percent Solids:** NA **Report Basis:** Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
Tetrachloroethene	ND	0.29	5.0	200	U
1-Chlorohexane	ND	0.18	5.0	200	U
Chlorobenzene	ND	0.23	5.0	200	U
1,1,1,2-Tetrachloroethane	ND	0.12	5.0	200	U
Ethylbenzene	ND	0.21	5.0	200	U
m,p-Xylene	ND	0.31	10	200	U
o-Xylene	ND	0.14	5.0	200	U
Styrene	ND	0.12	5.0	200	U
Isopropylbenzene	ND	0.17	5.0	200	U
1,1,2,2-Tetrachloroethane	ND	0.28	5.0	200	U
Bromobenzene	ND	0.23	5.0	200	U
1,2,3-Trichloropropane	ND	0.42	5.0	200	U
trans-1,4-Dichloro-2-butene	ND	0.77	5.0	200	U
Pentachloroethane	ND	0.22	5.0	200	U
n-Propylbenzene	ND	0.18	5.0	200	U
1,3,5-Trimethylbenzene	ND	0.14	5.0	200	U
2-Chlorotoluene	ND	0.18	5.0	200	U
4-Chlorotoluene	ND	0.15	5.0	200	U
tert-Butylbenzene	ND	0.20	5.0	200	U
1,2,4-Trimethylbenzene	ND	0.14	5.0	200	U
sec-Butylbenzene	ND	0.20	5.0	200	U
p-Isopropyltoluene	ND	0.15	5.0	200	U
1,3-Dichlorobenzene	ND	0.080	5.0	200	U
1,4-Dichlorobenzene	ND	0.19	5.0	200	U
n-Butylbenzene	ND	0.094	5.0	200	U
1,2-Dichlorobenzene	ND	0.13	5.0	200	U
1,2-Dibromo-3-Chloropropane	ND	2.6	5.0	200	U
1,2,4-Trichlorobenzene	ND	0.21	5.0	200	U
Hexachlorobutadiene	ND	0.33	5.0	200	U
Naphthalene	ND	0.10	5.0	200	U
1,2,3-Trichlorobenzene	ND	0.24	5.0	200	U

ANALYTICAL REPORT

Client: ATK Launch Systems-Bacchus
Project Manager: Kevin W. Griffiths

Analytical Results

Workorder: **9352048**

Sample ID: **EZ-5-3B**
Lab ID: 9352048004
Sampling Site: Rakonen Sites

Matrix: Wipe
Media: 40 mL Amber Glass VOA Vial
Sampling Parameter: NA

Collected: 12/17/2009
Received: 12/18/2009

Analysis Method - SW 8270

Preparation: EPA 3540 Soxhlet Ext., SVOA Wipe
Batch: ENVX/8040 (HBN: 40185)
Prepared: 12/27/2009

Weight/Volume
Initial: 1 wipe
Final: 1 mL

Analysis: SW 8270D, Wipe
Batch: ESVO/2083 (HBN: 40767)
Analyzed: 1/5/2010 11:43:00 PM

Instr ID: 5973-Y
Percent Solids: NA
Report Basis: Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
Pyridine	ND	NA	5.0	1	
Phenol	ND	NA	5.0	1	
Bis(2-chloroethyl)ether	ND	NA	5.0	1	
2-Chlorophenol	ND	NA	5.0	1	
1,3-Dichlorobenzene	ND	NA	5.0	1	
1,4-Dichlorobenzene	ND	NA	5.0	1	
Benzyl alcohol	ND	NA	5.0	1	
1,2-Dichlorobenzene	ND	NA	5.0	1	
2-Methylphenol	ND	NA	5.0	1	
bis(2-Chloroisopropyl)ether	ND	NA	5.0	1	
4-Methylphenol	ND	NA	5.0	1	
N-Nitrosodi-n-propyl amine	ND	NA	5.0	1	
Hexachloroethane	ND	NA	5.0	1	
Nitrobenzene	ND	NA	5.0	1	
Isophorone	ND	NA	5.0	1	
2-Nitrophenol	ND	NA	5.0	1	
2,4-Dimethylphenol	ND	NA	5.0	1	
Benzoic acid	ND	NA	20	1	
Bis(2-Chloroethoxy)methane	ND	NA	5.0	1	
2,4-Dichlorophenol	ND	NA	5.0	1	
1,2,4-Trichlorobenzene	ND	NA	5.0	1	
Naphthalene	ND	NA	5.0	1	
4-Chloroaniline	ND	NA	5.0	1	
Hexachlorobutadiene	ND	NA	5.0	1	
4-Chloro-3-methylphenol	ND	NA	5.0	1	
2-Methylnaphthalene	ND	NA	5.0	1	
Hexachlorocyclopentadiene	ND	NA	5.0	1	
2,4,6-Trichlorophenol	ND	NA	5.0	1	
2,4,5-Trichlorophenol	ND	NA	5.0	1	
2-Chloronaphthalene	ND	NA	5.0	1	
2-Nitroaniline	ND	NA	5.0	1	
Dimethylphthalate	ND	NA	5.0	1	
2,6-Dinitrotoluene	ND	NA	5.0	1	

Results Continued on Next Page

ANALYTICAL REPORT

Client: ATK Launch Systems-Bacchus
Project Manager: Kevin W. Griffiths

Analytical Results

Workorder: **9352048**

Sample ID: **EZ-5-3B**	Matrix: Wipe	Collected: 12/17/2009
Lab ID: 9352048004	Media: 40 mL Amber Glass VOA Vial	Received: 12/18/2009
Sampling Site: Rakonen Sites	Sampling Parameter: NA	

Analysis Method - SW 8270

Preparation: EPA 3540 Soxhlet Ext., SVOA Wipe	**Weight/Volume**	**Analysis:** SW 8270D, Wipe	**Instr ID:** 5973-Y
Batch: ENVX/8040 (HBN: 40185)	**Initial:** 1 wipe	**Batch:** ESVO/2083 (HBN: 40767)	**Percent Solids:** NA
Prepared: 12/27/2009	**Final:** 1 mL	**Analyzed:** 1/5/2010 11:43:00 PM	**Report Basis:** Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
Acenaphthylene	ND	NA	5.0	1	
3-Nitroaniline	ND	NA	5.0	1	
Acenaphthene	ND	NA	5.0	1	
2,4-Dinitrophenol	ND	NA	20	1	
4-Nitrophenol	ND	NA	20	1	
Dibenzofuran	ND	NA	5.0	1	
2,4-Dinitrotoluene	ND	NA	5.0	1	
Diethylphthalate	ND	NA	5.0	1	
4-Chlorophenyl phenyl ether	ND	NA	5.0	1	
Fluorene	ND	NA	5.0	1	
4-Nitroaniline	ND	NA	5.0	1	
4,6-Dinitro-2-methylphenol	ND	NA	20	1	
N-Nitrosodiphenylamine	ND	NA	5.0	1	
4-Bromophenyl phenyl ether	ND	NA	5.0	1	
Hexachlorobenzene	ND	NA	5.0	1	
Pentachlorophenol	ND	NA	20	1	
Phenanthrene	ND	NA	5.0	1	
Anthracene	ND	NA	5.0	1	
Carbazole	ND	NA	5.0	1	
Di-n-butylphthalate	24	NA	5.0	1	
Fluoranthene	ND	NA	5.0	1	
Pyrene	ND	NA	5.0	1	
Butylbenzylphthalate	ND	NA	5.0	1	
3,3'-Dichlorobenzidine	ND	NA	5.0	1	
Benzo(a)anthracene	ND	NA	5.0	1	
Chrysene	ND	NA	5.0	1	
Bis(2-ethylhexyl)phthalate	ND	NA	5.0	1	
Di-n-octylphthalate	ND	NA	5.0	1	
Benzo(b)fluoranthene	ND	NA	5.0	1	
Benzo(k)fluoranthene	ND	NA	5.0	1	
Benzo(a)pyrene	ND	NA	5.0	1	
Indeno(1,2,3-c,d)pyrene	ND	NA	5.0	1	
Dibenz(a,h)anthracene	ND	NA	5.0	1	

Results Continued on Next Page

ANALYTICAL REPORT

Client: ATK Launch Systems-Bacchus
Project Manager: Kevin W. Griffiths

Analytical Results

Workorder: **9352048**

Sample ID: **EZ-5-3B**
Lab ID: 9352048004
Sampling Site: Rakonen Sites

Matrix: Wipe
Media: 40 mL Amber Glass VOA Vial
Sampling Parameter: NA

Collected: 12/17/2009
Received: 12/18/2009

Analysis Method - SW 8270

Preparation: EPA 3540 Soxhlet Ext., SVOA Wipe
Batch: ENVX/8040 (HBN: 40185)
Prepared: 12/27/2009

Weight/Volume
Initial: 1 wipe
Final: 1 mL

Analysis: SW 8270D, Wipe
Batch: ESVO/2083 (HBN: 40767)
Analyzed: 1/5/2010 11:43:00 PM

Instr ID: 5973-Y
Percent Solids: NA
Report Basis: Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
Benzo(g,h,i)perylene	ND	NA	5.0	1	

Sample ID: **EZ-4-3B**
Lab ID: 9352048005
Sampling Site: Rakonen Sites

Matrix: Wipe
Media: 40 mL Amber Glass VOA Vial
Sampling Parameter: NA

Collected: 12/17/2009
Received: 12/18/2009

Analysis Method - SW 8270

Preparation: EPA 3540 Soxhlet Ext., SVOA Wipe
Batch: ENVX/8040 (HBN: 40185)
Prepared: 12/27/2009

Weight/Volume
Initial: 1 wipe
Final: 1 mL

Analysis: SW 8270D, Wipe
Batch: ESVO/2083 (HBN: 40767)
Analyzed: 1/6/2010 12:10:00 AM

Instr ID: 5973-Y
Percent Solids: NA
Report Basis: Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
Pyridine	ND	NA	5.0	1	
Phenol	ND	NA	5.0	1	
Bis(2-chloroethyl)ether	ND	NA	5.0	1	
2-Chlorophenol	ND	NA	5.0	1	
1,3-Dichlorobenzene	ND	NA	5.0	1	
1,4-Dichlorobenzene	ND	NA	5.0	1	
Benzyl alcohol	ND	NA	5.0	1	
1,2-Dichlorobenzene	ND	NA	5.0	1	
2-Methylphenol	ND	NA	5.0	1	
bis(2-Chloroisopropyl)ether	ND	NA	5.0	1	
4-Methylphenol	ND	NA	5.0	1	
N-Nitrosodi-n-propyl amine	ND	NA	5.0	1	
Hexachloroethane	ND	NA	5.0	1	
Nitrobenzene	ND	NA	5.0	1	
Isophorone	ND	NA	5.0	1	
2-Nitrophenol	ND	NA	5.0	1	
2,4-Dimethylphenol	ND	NA	5.0	1	
Benzoic acid	ND	NA	20	1	
Bis(2-Chloroethoxy)methane	ND	NA	5.0	1	
2,4-Dichlorophenol	ND	NA	5.0	1	
1,2,4-Trichlorobenzene	ND	NA	5.0	1	
Naphthalene	ND	NA	5.0	1	

Results Continued on Next Page

ANALYTICAL REPORT

Client: ATK Launch Systems-Bacchus
Project Manager: Kevin W. Griffiths

Analytical Results

Workorder: **9352048**

Sample ID: **EZ-4-3B**	Matrix: Wipe	Collected: 12/17/2009
Lab ID: 9352048005	Media: 40 mL Amber Glass VOA Vial	Received: 12/18/2009
Sampling Site: Rakonen Sites	Sampling Parameter: NA	

Analysis Method - SW 8270

Preparation: EPA 3540 Soxhlet Ext., SVOA Wipe	**Weight/Volume**	**Analysis:** SW 8270D, Wipe	**Instr ID:** 5973-Y
Batch: ENVX/8040 (HBN: 40185)	**Initial:** 1 wipe	**Batch:** ESVO/2083 (HBN: 40767)	**Percent Solids:** NA
Prepared: 12/27/2009	**Final:** 1 mL	**Analyzed:** 1/6/2010 12:10:00 AM	**Report Basis:** Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
4-Chloroaniline	ND	NA	5.0	1	
Hexachlorobutadiene	ND	NA	5.0	1	
4-Chloro-3-methylphenol	ND	NA	5.0	1	
2-Methylnaphthalene	ND	NA	5.0	1	
Hexachlorocyclopentadiene	ND	NA	5.0	1	
2,4,6-Trichlorophenol	ND	NA	5.0	1	
2,4,5-Trichlorophenol	ND	NA	5.0	1	
2-Chloronaphthalene	ND	NA	5.0	1	
2-Nitroaniline	ND	NA	5.0	1	
Dimethylphthalate	ND	NA	5.0	1	
2,6-Dinitrotoluene	ND	NA	5.0	1	
Acenaphthylene	ND	NA	5.0	1	
3-Nitroaniline	ND	NA	5.0	1	
Acenaphthene	ND	NA	5.0	1	
2,4-Dinitrophenol	ND	NA	20	1	
4-Nitrophenol	ND	NA	20	1	
Dibenzofuran	ND	NA	5.0	1	
2,4-Dinitrotoluene	ND	NA	5.0	1	
Diethylphthalate	ND	NA	5.0	1	
4-Chlorophenyl phenyl ether	ND	NA	5.0	1	
Fluorene	ND	NA	5.0	1	
4-Nitroaniline	ND	NA	5.0	1	
4,6-Dinitro-2-methylphenol	ND	NA	20	1	
N-Nitrosodiphenylamine	ND	NA	5.0	1	
4-Bromophenyl phenyl ether	ND	NA	5.0	1	
Hexachlorobenzene	ND	NA	5.0	1	
Pentachlorophenol	ND	NA	20	1	
Phenanthrene	ND	NA	5.0	1	
Anthracene	ND	NA	5.0	1	
Carbazole	ND	NA	5.0	1	
Di-n-butylphthalate	24	NA	5.0	1	
Fluoranthene	ND	NA	5.0	1	
Pyrene	ND	NA	5.0	1	

Results Continued on Next Page

ANALYTICAL REPORT

Client: ATK Launch Systems-Bacchus
Project Manager: Kevin W. Griffiths

Analytical Results

Workorder: **9352048**

Sample ID: **EZ-4-3B**
Lab ID: 9352048005
Sampling Site: Rakonen Sites

Matrix: Wipe
Media: 40 mL Amber Glass VOA Vial
Sampling Parameter: NA

Collected: 12/17/2009
Received: 12/18/2009

Analysis Method - SW 8270

Preparation: EPA 3540 Soxhlet Ext., SVOA Wipe
Batch: ENVX/8040 (HBN: 40185)
Prepared: 12/27/2009

Weight/Volume
Initial: 1 wipe
Final: 1 mL

Analysis: SW 8270D, Wipe
Batch: ESVO/2083 (HBN: 40767)
Analyzed: 1/6/2010 12:10:00 AM

Instr ID: 5973-Y
Percent Solids: NA
Report Basis: Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
Butylbenzylphthalate	ND	NA	5.0	1	
3,3'-Dichlorobenzidine	ND	NA	5.0	1	
Benzo(a)anthracene	ND	NA	5.0	1	
Chrysene	ND	NA	5.0	1	
Bis(2-ethylhexyl)phthalate	31	NA	5.0	1	
Di-n-octylphthalate	ND	NA	5.0	1	
Benzo(b)fluoranthene	ND	NA	5.0	1	
Benzo(k)fluoranthene	ND	NA	5.0	1	
Benzo(a)pyrene	ND	NA	5.0	1	
Indeno(1,2,3-c,d)pyrene	ND	NA	5.0	1	
Dibenz(a,h)anthracene	ND	NA	5.0	1	
Benzo(g,h,i)perylene	ND	NA	5.0	1	

Sample ID: **EZ-3-3B**
Lab ID: 9352048006
Sampling Site: Rakonen Sites

Matrix: Wipe
Media: 40 mL Amber Glass VOA Vial
Sampling Parameter: NA

Collected: 12/17/2009
Received: 12/18/2009

Analysis Method - SW 8270

Preparation: EPA 3540 Soxhlet Ext., SVOA Wipe
Batch: ENVX/8040 (HBN: 40185)
Prepared: 12/27/2009

Weight/Volume
Initial: 1 wipe
Final: 1 mL

Analysis: SW 8270D, Wipe
Batch: ESVO/2083 (HBN: 40767)
Analyzed: 1/6/2010 12:38:00 AM

Instr ID: 5973-Y
Percent Solids: NA
Report Basis: Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
Pyridine	ND	NA	5.0	1	
Phenol	ND	NA	5.0	1	
Bis(2-chloroethyl)ether	ND	NA	5.0	1	
2-Chlorophenol	ND	NA	5.0	1	
1,3-Dichlorobenzene	ND	NA	5.0	1	
1,4-Dichlorobenzene	ND	NA	5.0	1	
Benzyl alcohol	ND	NA	5.0	1	
1,2-Dichlorobenzene	ND	NA	5.0	1	
2-Methylphenol	ND	NA	5.0	1	
bis(2-Chloroisopropyl)ether	ND	NA	5.0	1	
4-Methylphenol	ND	NA	5.0	1	

Results Continued on Next Page

ANALYTICAL REPORT

Client: ATK Launch Systems-Bacchus
Project Manager: Kevin W. Griffiths

Analytical Results

Workorder: **9352048**

Sample ID: **EZ-3-3B**
Lab ID: 9352048006
Sampling Site: Rakonen Sites

Matrix: Wipe
Media: 40 mL Amber Glass VOA Vial
Sampling Parameter: NA

Collected: 12/17/2009
Received: 12/18/2009

Analysis Method - SW 8270

Preparation: EPA 3540 Soxhlet Ext., SVOA Wipe
Batch: ENVX/8040 (HBN: 40185)
Prepared: 12/27/2009

Weight/Volume
Initial: 1 wipe
Final: 1 mL

Analysis: SW 8270D, Wipe
Batch: ESVO/2083 (HBN: 40767)
Analyzed: 1/6/2010 12:38:00 AM

Instr ID: 5973-Y
Percent Solids: NA
Report Basis: Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
N-Nitrosodi-n-propyl amine	ND	NA	5.0	1	
Hexachloroethane	ND	NA	5.0	1	
Nitrobenzene	ND	NA	5.0	1	
Isophorone	ND	NA	5.0	1	
2-Nitrophenol	ND	NA	5.0	1	
2,4-Dimethylphenol	ND	NA	5.0	1	
Benzoic acid	ND	NA	20	1	
Bis(2-Chloroethoxy)methane	ND	NA	5.0	1	
2,4-Dichlorophenol	ND	NA	5.0	1	
1,2,4-Trichlorobenzene	ND	NA	5.0	1	
Naphthalene	ND	NA	5.0	1	
4-Chloroaniline	ND	NA	5.0	1	
Hexachlorobutadiene	ND	NA	5.0	1	
4-Chloro-3-methylphenol	ND	NA	5.0	1	
2-Methylnaphthalene	ND	NA	5.0	1	
Hexachlorocyclopentadiene	ND	NA	5.0	1	
2,4,6-Trichlorophenol	ND	NA	5.0	1	
2,4,5-Trichlorophenol	ND	NA	5.0	1	
2-Chloronaphthalene	ND	NA	5.0	1	
2-Nitroaniline	ND	NA	5.0	1	
Dimethylphthalate	ND	NA	5.0	1	
2,6-Dinitrotoluene	ND	NA	5.0	1	
Acenaphthylene	ND	NA	5.0	1	
3-Nitroaniline	ND	NA	5.0	1	
Acenaphthene	ND	NA	5.0	1	
2,4-Dinitrophenol	ND	NA	20	1	
4-Nitrophenol	ND	NA	20	1	
Dibenzofuran	ND	NA	5.0	1	
2,4-Dinitrotoluene	ND	NA	5.0	1	
Diethylphthalate	ND	NA	5.0	1	
4-Chlorophenyl phenyl ether	ND	NA	5.0	1	
Fluorene	ND	NA	5.0	1	
4-Nitroaniline	ND	NA	5.0	1	

Results Continued on Next Page

ANALYTICAL REPORT

Client: ATK Launch Systems-Bacchus
Project Manager: Kevin W. Griffiths

Analytical Results

Workorder: **9352048**

Sample ID: **EZ-3-3B**	Matrix: Wipe	Collected: 12/17/2009
Lab ID: 9352048006	Media: 40 mL Amber Glass VOA Vial	Received: 12/18/2009
Sampling Site: Rakonen Sites	Sampling Parameter: NA	

Analysis Method - SW 8270

Preparation: EPA 3540 Soxhlet Ext., SVOA Wipe	**Weight/Volume**	**Analysis:** SW 8270D, Wipe	**Instr ID:** 5973-Y
Batch: ENVX/8040 (HBN: 40185)	**Initial:** 1 wipe	**Batch:** ESVO/2083 (HBN: 40767)	**Percent Solids:** NA
Prepared: 12/27/2009	**Final:** 1 mL	**Analyzed:** 1/6/2010 12:38:00 AM	**Report Basis:** Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
4,6-Dinitro-2-methylphenol	ND	NA	20	1	
N-Nitrosodiphenylamine	ND	NA	5.0	1	
4-Bromophenyl phenyl ether	ND	NA	5.0	1	
Hexachlorobenzene	ND	NA	5.0	1	
Pentachlorophenol	ND	NA	20	1	
Phenanthrene	ND	NA	5.0	1	
Anthracene	ND	NA	5.0	1	
Carbazole	ND	NA	5.0	1	
Di-n-butylphthalate	17	NA	5.0	1	
Fluoranthene	ND	NA	5.0	1	
Pyrene	ND	NA	5.0	1	
Butylbenzylphthalate	ND	NA	5.0	1	
3,3'-Dichlorobenzidine	ND	NA	5.0	1	
Benzo(a)anthracene	ND	NA	5.0	1	
Chrysene	ND	NA	5.0	1	
Bis(2-ethylhexyl)phthalate	13	NA	5.0	1	
Di-n-octylphthalate	ND	NA	5.0	1	
Benzo(b)fluoranthene	ND	NA	5.0	1	
Benzo(k)fluoranthene	ND	NA	5.0	1	
Benzo(a)pyrene	ND	NA	5.0	1	
Indeno(1,2,3-c,d)pyrene	ND	NA	5.0	1	
Dibenz(a,h)anthracene	ND	NA	5.0	1	
Benzo(g,h,i)perylene	ND	NA	5.0	1	

ANALYTICAL REPORT

Client: ATK Launch Systems-Bacchus
Project Manager: Kevin W. Griffiths

Analytical Results

Workorder: **9352048**

Sample ID: **EZ-5-3C**
Lab ID: 9352048007
Sampling Site: Rakonen Sites
Matrix: Wipe
Media: 40 mL Clear Glass VOA Vial
Sampling Parameter: NA
Collected: 12/17/2009
Received: 12/18/2009

Analysis Method - SW 8330

Preparation: SW 8330, Wipe Prep
Batch: ENVX/8041 (HBN: 40198)
Prepared: 12/28/2009
Weight/Volume
Initial: 1 wipe
Final: 100 mL
Analysis: SW 8330, Wipe
Batch: ELC/1019 (HBN: 40422)
Analyzed: 12/31/2009 6:45:28 PM
Instr ID: HPLC08
Percent Solids: NA
Report Basis: Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
HMX	ND	NA	4.0	1	
RDX	ND	NA	4.0	1	

Analysis Method - SW 8332

Preparation: SW 8332, Wipe Prep
Batch: ENVX/8042 (HBN: 40200)
Prepared: 12/28/2009
Weight/Volume
Initial: 1 wipe
Final: 100 mL
Analysis: SW 8332, Wipe
Batch: ELC/1020 (HBN: 40423)
Analyzed: 1/2/2010 4:52:25 PM
Instr ID: HPLC08
Percent Solids: NA
Report Basis: Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
Nitroglycerin	ND	NA	15	1	

Sample ID: **EZ-4-3C**
Lab ID: 9352048008
Sampling Site: Rakonen Sites
Matrix: Wipe
Media: 40 mL Clear Glass VOA Vial
Sampling Parameter: NA
Collected: 12/17/2009
Received: 12/18/2009

Analysis Method - SW 8330

Preparation: SW 8330, Wipe Prep
Batch: ENVX/8041 (HBN: 40198)
Prepared: 12/28/2009
Weight/Volume
Initial: 1 wipe
Final: 100 mL
Analysis: SW 8330, Wipe
Batch: ELC/1019 (HBN: 40422)
Analyzed: 12/31/2009 7:29:04 PM
Instr ID: HPLC08
Percent Solids: NA
Report Basis: Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
HMX	ND	NA	4.0	1	
RDX	ND	NA	4.0	1	

Analysis Method - SW 8332

Preparation: SW 8332, Wipe Prep
Batch: ENVX/8042 (HBN: 40200)
Prepared: 12/28/2009
Weight/Volume
Initial: 1 wipe
Final: 100 mL
Analysis: SW 8332, Wipe
Batch: ELC/1020 (HBN: 40423)
Analyzed: 1/2/2010 5:40:24 PM
Instr ID: HPLC08
Percent Solids: NA
Report Basis: Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
Nitroglycerin	ND	NA	15	1	

ANALYTICAL REPORT

Client: ATK Launch Systems-Bacchus
Project Manager: Kevin W. Griffiths

Analytical Results

Workorder: **9352048**

Sample ID: **EZ-3-3C** | Matrix: Wipe | Collected: 12/17/2009
Lab ID: 9352048009 | Media: 40 mL Clear Glass VOA Vial | Received: 12/18/2009
Sampling Site: Rakonen Sites | Sampling Parameter: NA

Analysis Method - SW 8330

Preparation: SW 8330, Wipe Prep	**Weight/Volume**	**Analysis:** SW 8330, Wipe	**Instr ID:** HPLC08
Batch: ENVX/8041 (HBN: 40198)	**Initial:** 1 wipe	**Batch:** ELC/1019 (HBN: 40422)	**Percent Solids:** NA
Prepared: 12/28/2009	**Final:** 100 mL	**Analyzed:** 12/31/2009 8:12:41 PM	**Report Basis:** Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
HMX	ND	NA	4.0	1	
RDX	ND	NA	4.0	1	

Analysis Method - SW 8332

Preparation: SW 8332, Wipe Prep	**Weight/Volume**	**Analysis:** SW 8332, Wipe	**Instr ID:** HPLC08
Batch: ENVX/8042 (HBN: 40200)	**Initial:** 1 wipe	**Batch:** ELC/1020 (HBN: 40423)	**Percent Solids:** NA
Prepared: 12/28/2009	**Final:** 100 mL	**Analyzed:** 1/2/2010 6:28:24 PM	**Report Basis:** Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
Nitroglycerin	ND	NA	15	1	

Sample ID: **EZ-5-3D** | Matrix: Wipe | Collected: 12/17/2009
Lab ID: 9352048010 | Media: 40 mL Clear Glass VOA Vial | Received: 12/18/2009
Sampling Site: Rakonen Sites | Sampling Parameter: NA

Analysis Method - SW 6010

Preparation: EPA 3050, Wipe Prep	**Weight/Volume**	**Analysis:** SW 6010B w/ 3050 Prep, Wipe	**Instr ID:** ICP08
Batch: EIPX/2268 (HBN: 40556)	**Initial:** 1 wipe	**Batch:** EICP/2139 (HBN: 40833)	**Percent Solids:** NA
Prepared: 1/6/2010	**Final:** 0.1 L	**Analyzed:** 1/13/2010 4:16:12 PM	**Report Basis:** Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
Aluminum	**1260**	3.0	20	1	
Magnesium	**738**	4.7	10	1	

Sample ID: **EZ-4-3D** | Matrix: Wipe | Collected: 12/17/2009
Lab ID: 9352048011 | Media: 40 mL Clear Glass VOA Vial | Received: 12/18/2009
Sampling Site: Rakonen Sites | Sampling Parameter: NA

Analysis Method - SW 6010

Preparation: EPA 3050, Wipe Prep	**Weight/Volume**	**Analysis:** SW 6010B w/ 3050 Prep, Wipe	**Instr ID:** ICP08
Batch: EIPX/2268 (HBN: 40556)	**Initial:** 1 wipe	**Batch:** EICP/2139 (HBN: 40833)	**Percent Solids:** NA
Prepared: 1/6/2010	**Final:** 0.1 L	**Analyzed:** 1/13/2010 4:21:23 PM	**Report Basis:** Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
Aluminum	**1750**	3.0	20	1	
Magnesium	**1790**	4.7	10	1	

ANALYTICAL REPORT

Client: ATK Launch Systems-Bacchus
Project Manager: Kevin W. Griffiths

Analytical Results

Workorder: **9352048**

Sample ID: **EZ-3-3D**	Matrix: Wipe	Collected: 12/17/2009
Lab ID: 9352048012	Media: 40 mL Clear Glass VOA Vial	Received: 12/18/2009
Sampling Site: Rakonen Sites	Sampling Parameter: NA	

Analysis Method - SW 6010

Preparation: EPA 3050, Wipe Prep	**Weight/Volume**	**Analysis:** SW 6010B w/ 3050 Prep, Wipe	**Instr ID:** ICP08
Batch: EIPX/2268 (HBN: 40556)	**Initial:** 1 wipe	**Batch:** EICP/2139 (HBN: 40833)	**Percent Solids:** NA
Prepared: 1/6/2010	**Final:** 0.1 L	**Analyzed:** 1/13/2010 4:26:29 PM	**Report Basis:** Wet

Analyte	ug/sample	MDL	RL	Dilution	Qual.
Aluminum	**992**	3.0	20	**1**	
Magnesium	**1030**	4.7	10	**1**	

Workorder Comments

9352048 8260 Comments: In order to provide accurate results, it was determined that the entire contents of each sample bottle be analyzed, particularly as the wipes were present in multiple sizes throughout the samples and no representative size could be determined for an individual wipe. The volume was too great to analyze any whole bottle so it was decided to extract the samples. 20 mL of methanol was added to each sample and the bottle shaken for two minutes. A 100 uL aliquot of this extract was analyzed.

Report Authorization

Analysis Method - SW 6010

Neil A. Edwards	Kristie F. Bitner
Analyst	**Peer Review**

Analysis Method - SW 8260

Christopher Q. Coleman	Joseph Gress
Analyst	**Peer Review**

Analysis Method - SW 8270

Reed A. Hendricks	Guy Barker
Analyst	**Peer Review**

Analysis Method - SW 8330

Thomas Bosch	Thomas T. McKay
Analyst	**Peer Review**

Analysis Method - SW 8332

Thomas Bosch	Thomas T. McKay
Analyst	**Peer Review**

ANALYTICAL REPORT

Client: ATK Launch Systems-Bacchus
Project Manager: Kevin W. Griffiths

Laboratory Contact Information

Phone: (801) 266-7700
Email: lab@datachem.com
Web: www.datachem.com

ALS Laboratory Group (formerly DataChem Laboratories, Inc.)
960 W Levoy Drive
Salt Lake City, Utah 84123

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 Laboratory Group.

ALS Laboratory Group is accredited by the State of Utah, Bureau of Laboratory Improvement under NELAP for specific fields of testing as documented in its current scope of accreditation (ID# DATA1) which is available by request or on the internet at http://health.utah.gov/lab/labimp/labcert/envlabcert.html. The quality systems implemented in the laboratory apply to all methods performed by ALS Laboratory Group regardless of this current scope of accreditation which does not include performance based methods, modified methods and methods applied to matrices not listed in the methods.

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

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.

DATA VALIDATION SUMMARY
ATK LAUNCH SYSTEMS-BACCHUS
#9352048

DATA PACKAGE INFORMATION

Client:	**ATK Launch Systems-Bacchus**
Project:	**988P LS333ENV**
Data Package ID:	**9352048**
Analysis:	**Volatile Organic Compounds by GC/MS**
Matrix:	Wipe Sample
Preparation Method:	N/A
Analysis Method:	SW-846 Method 8260B
Laboratory:	ALS Laboratory Group Salt Lake City, UT
Project QAP:	Highway 89 Storage Units Site Work Plan
Validation guideline:	Method Requirements
Validation level:	II
Validator:	Gloria Beilke
Date Received:	02/09/10
Date Completed:	02/20/10
Peer Reviewer:	Paul Ellingson
Date Reviewed:	2/24/10

Data Package Inventory

Run Information		QC Summaries	
X	Final Reports	X	Method Blank
X	COCs	X	LCS
	Cal. Summary		MS/MSD
	Cal. Raw Data		Sample Duplicates
	Run Summary	X	Surrogates
	Run Raw Data		Internal Stds. (GC)
	Sample Prep Logs		Tune (GC/MS)

Comments: The data submitted are suitable for use without qualifiers. No raw QC data was included in this Level II data review. Only laboratory QC batch report results were verified.

SAMPLE INFORMATION

	Sample ID	Lab Number	Sample Date	Prep Date	Analysis Date	Prep Days	Analysis Days	Total Days
1	*EZ-5-3A*	*9352048-001*	*12/17/2009*	*N/A*	*12/23/2009*	---	---	**6**
2	*EZ-4-3A*	*9352048-002*	*12/17/2009*	*N/A*	*12/23/2009*	---	---	**6**
3	*EZ-3-3A*	*9352048-003*	*12/17/2009*	*N/A*	*12/23/2009*	---	---	**6**
4								
5								
6								
7								
8								
9								
10								

(including duplicate, reanalysis, or dilution samples)

SUMMARY OF FINDINGS

Item	Requirements	Acceptable?	Action Recommended ?	Comments
GENERAL QC				
Chain-of-custody	COC and receiving documents properly completed (analytes, method, signatures, etc.)	Y		
Sample Receipt	Samples received in good condition, on ice, with receiving documentation, etc.	N		At sample receipt, the cooler temperature was noted at 17°C. The temperature requirement of 4.0°C ± 2.0° was exceeded.
Preservatives	Evidence that the samples were correctly preserved.	N/A		Not applicable for wipe samples.
Holding Times	Samples analyzed and prepared within method-specified time limits.	Y		
Final Reports	Final reports include all required information such as preparation & analytical methods, preparation & analytical dates, corrected MDLs, signatures, etc.	Y		
Analyte List	Analytes reported consistent with the COC and project requirements.	Y		The SAP did not specify an analyte list. The laboratory reported a full VOC list and also reported tentatively identified compounds.
Reporting Limits	Reported detection limits low enough for project requirements.	N/A		Reporting limits not specified in SAP.
Analyte / RL Quantitation	Sample preparation and dilution factors correctly accounted for in the final result and RL.	N/A		Not applicable for wipe samples.
BATCH/RUN QC				
Initial Calibration	Meets method-specified requirements for frequency of calibration, number of standards, r^2, etc.	N/A		Not checked on a Level II review.
Continuing Calibration	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Method Blanks	Performed at required frequency. Recoveries within method/project limits.	Y		
Laboratory Control Samples	Performed at required frequency. Recoveries within method/project limits.	Y		
Matrix Spike/ Matrix Spike Duplicates	Performed at required frequency. Recoveries within method/project limits. Spiking levels adequate. Matrix interference confirmed, if necessary.	N/A		Not applicable for wipe samples.
METHOD QC				
Surrogates (GC, GC/MS)	Performed at required frequency. Recoveries within method/project limits.	Y		
Instrument Performance Check (IPC) (GC/MS)	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Internal Standards (GC, ICP/MS)	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Target Compound Identification (GC, GC/MS)	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.

Item	Requirements	Acceptable?	Action Recommended ?	Comments
FIELD QC				
Field Blanks	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Field Duplicates	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
OTHER QC				
Level IV Checks	Transcriptions and calculations correctly performed. (verify at least 10% using extraction logs, sample prep logs, standard prep logs, etc.). Laboratory certification and performance acceptable (verify using lab certifications and audit records, MDL studies, analyst performance studies, etc.).	N/A		Not checked on a Level II review.
Overall Assessment Of Data	No raw data was verified during this Level II data review.			

RECOMMENDED ACTIONS

Sample ID	Parameter/Method	Analyte(s)	QC Problem	Recommended Action
N/A	N/A	N/A	N/A	N/A

Validation Flags

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N - The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

DATA VALIDATION SUMMARY
ATK LAUNCH SYSTEMS-BACCHUS
#9352048

DATA PACKAGE INFORMATION

Client:	**ATK Launch Systems-Bacchus**
Project:	**988P LS333ENV**
Data Package ID:	**9352048**
Analysis:	**Semivolatile Organic Compounds by GC/MS**
Matrix:	Wipe Sample
Preparation Method:	EPA 3540
Analysis Method:	SW-846 Method 8270C
Laboratory:	ALS Laboratory Group Salt Lake City, UT
Project QAP:	Highway 89 Storage Unites Site Work Plan
Validation guideline:	Method Requirements
Validation level:	II
Validator:	Gloria Beilke
Date Received:	02/09/10
Date Completed:	02/20/10
Peer Reviewer:	Paul Ellingson
Date Reviewed:	2/24/10

Data Package Inventory

Run Information		QC Summaries	
X	Final Reports	X	Method Blank
X	COCs	X	LCS
	Cal. Summary		MS/MSD
	Cal. Raw Data		Sample Duplicates
	Run Summary	X	Surrogates
	Run Raw Data		Internal Stds. (GC)
	Sample Prep Logs		Tune (GC/MS)

Comments: The data submitted are suitable for use without qualifiers. No raw QC data was included in this Level II data review. Only laboratory QC batch report results were verified.

SAMPLE INFORMATION
(including duplicate, reanalysis, or dilution samples)

	Sample ID	Lab Number	Sample Date	Prep Date	Analysis Date	Prep Days	Analysis Days	Total Days
1	*EZ-5-3B*	*9352048-004*	*12/17/2009*	*12/27/2009*	*1/5/2010*	10	9	**19**
2	*EZ-4-3B*	*9352048-005*	*12/17/2009*	*12/27/2009*	*1/5/2010*	10	9	**19**
3	*EZ-3-3B*	*9352048-006*	*12/17/2009*	*12/27/2009*	*1/5/2010*	10	9	**19**
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

SUMMARY OF FINDINGS

Item	Requirements	Acceptable?	Action Recommended ?	Comments
GENERAL QC				
Chain-of-custody	COC and receiving documents properly completed (analytes, method, signatures, etc.)	Y		
Sample Receipt	Samples received in good condition, on ice, with receiving documentation, etc.	N		At sample receipt, the cooler temperature was noted at 17°C. The temperature requirement of 4.0°C ± 2.0° was exceeded. For semi-volatile wipe samples this is not seen as problematic due to the nature of the analytes, and matrix the samples were taken in.
Preservatives	Evidence that the samples were correctly preserved.	N/A		Not applicable for wipe samples.
Holding Times	Samples analyzed and prepared within method-specified time limits.	Y		
Final Reports	Final reports include all required information such as preparation & analytical methods, preparation & analytical dates, corrected MDLs, signatures, etc.	Y		
Analyte List	Analytes reported consistent with the COC and project requirements.	Y		The SAP did not specify an analyte list. The laboratory reported a full SVOC list.
Reporting Limits	Reported detection limits low enough for project requirements.	N/A		Reporting limits not specified in SAP.
Analyte / RL Quantitation	Sample preparation and dilution factors correctly accounted for in the final result and RL.	N/A		Not applicable for wipe samples.
BATCH/RUN QC				
Initial Calibration	Meets method-specified requirements for frequency of calibration, number of standards, r^2, etc.	N/A		Not checked on a Level II review.
Continuing Calibration	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Method Blanks	Performed at required frequency. Recoveries within method/project limits.	Y		
Laboratory Control Samples	Performed at required frequency. Recoveries within method/project limits.	N		The following analytes were outside acceptable limits for the LCS and/or LSCD: Benzoic acid Hexachlorocyclopentadiene 2,4-Dinitrophenol 4-Nitrophenol 4-Nitroaniline 4,6-Dinitro-2-methylphenol 3,3-Dichlorobenzidine

Item	Requirements	Acceptable?	Action Recommended ?	Comments
Matrix Spike/ Matrix Spike Duplicates	Performed at required frequency. Recoveries within method/project limits. Spiking levels adequate. Matrix interference confirmed, if necessary.	N/A		Not applicable for wipe samples.
METHOD QC				
Surrogates (GC, GC/MS)	Performed at required frequency. Recoveries within method/project limits.	Y		
Instrument Performance Check (GC/MS)	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Internal Standards (GC)	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Target Compound Identification (GC, GC/MS)	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
FIELD QC				
Field Blanks	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Field Duplicates	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
OTHER QC				
Level IV Checks	Transcriptions and calculations correctly performed. (verify at least 10% using extraction logs, sample prep logs, standard prep logs, etc.). Laboratory certification and performance acceptable (verify using lab certifications and audit records, MDL studies, analyst performance studies, etc.).	N/A		Not checked on a Level II review.
Overall Assessment Of Data	No raw data was verified during this Level II data review.			

RECOMMENDED ACTIONS

Sample ID	Parameter/Method	Analyte(s)	QC Problem	Recommended Action
N/A	N/A	N/A	N/A	N/A

Validation Flags

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N - The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

DATA VALIDATION SUMMARY
ATK LAUNCH SYSTEMS-BACCHUS
#9352048

DATA PACKAGE INFORMATION

Client:	**ATK Launch Systems-Bacchus**
Project:	**988P LS333ENV**
Data Package ID:	**9352048**
Analysis:	**Explosives - Nitroglycerin**
Matrix:	Wipe Sample
Preparation Method:	SW-846 Method 8332
Analysis Method:	SW-846 Method 8332
Laboratory:	ALS Laboratory Group Salt Lake City, UT
Project QAP:	Highway 89 Storage Units Site Work Plan
Validation guideline:	Method Requirements
Validation level:	II
Validator:	Gloria Beilke
Date Received:	02/23/10
Date Completed:	02/24/10
Peer Reviewer:	Paul Ellingson
Date Reviewed:	2/25/10

Data Package Inventory

Run Information		QC Summaries	
X	Final Reports	X	Method Blank
X	COCs	X	LCS/LCSD
	Cal. Summary		MS/MSD
	Cal. Raw Data		Sample Duplicates
	Run Summary	X	Surrogates
	Run Raw Data		Internal Stds. (GC)
	Sample Prep Logs		Tune (GC/MS)

Comments: The data submitted are suitable for use without qualifiers.

SAMPLE INFORMATION
(including duplicate, reanalysis, or dilution samples)

	Sample ID	Lab Number	Sample Date	Prep Date	Analysis Date	Prep Days	Analysis Days	Total Days
1	*EZ-5-3C*	*9352048-007*	*12/17/2009*	*12/28/2009*	*1/2/2010*	11	5	**16**
2	*EZ-4-3C*	*9352048-008*	*12/17/2009*	*12/28/2009*	*1/2/2010*	11	5	**16**
3	*EZ-3-3C*	*9352048-009*	*12/17/2009*	*12/28/2009*	*1/2/2010*	11	5	**16**
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

SUMMARY OF FINDINGS

Item	Requirements	Acceptable?	Action Recommended ?	Comments
GENERAL QC				
Chain-of-custody	COC and receiving documents properly completed (analytes, method, signatures, etc.)	Y		
Sample Receipt	Samples received in good condition, on ice, with receiving documentation, etc.	N		At sample receipt, the cooler temperature was noted at 17°C. The temperature requirement of 4.0°C ± 2.0° was exceeded. For explosive wipe samples this is not seen as problematic due to the nature of the analytes, and matrix the samples were taken in.
Preservatives	Evidence that the samples were correctly preserved.	N/A		Not applicable for wipe samples.
Holding Times	Samples analyzed and prepared within method-specified time limits.	Y		
Final Reports	Final reports include all required information such as preparation & analytical methods, preparation & analytical dates, corrected MDLs, signatures, etc.	Y		
Analyte List	Analytes reported consistent with the COC and project requirements.	Y		The SAP did not specify an analyte list. The laboratory reported Nitroglycerin.
Reporting Limits	Reported detection limits low enough for project requirements.	N/A		Reporting limits not specified in SAP.
Analyte / RL Quantitation	Sample preparation and dilution factors correctly accounted for in the final result and RL.	N/A		Not applicable for wipe samples.
BATCH/RUN QC				
Initial Calibration	Meets method-specified requirements for frequency of calibration, number of standards, r^2, etc.	N/A		Not checked on a Level II review.
Continuing Calibration	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Method Blanks	Performed at required frequency. Recoveries within method/project limits.	Y		
Laboratory Control Samples	Performed at required frequency. Recoveries within method/project limits.	Y		LCS/LCSD
Matrix Spike/ Matrix Spike Duplicates	Performed at required frequency. Recoveries within method/project limits. Spiking levels adequate. Matrix interference confirmed, if necessary.	N/A		Not applicable for wipe samples.
METHOD QC				
Surrogates (GC, GC/MS)	Performed at required frequency. Recoveries within method/project limits.	Y		Surrogate recoveries were within +/- 5 percent of the target for the samples except for sample #9352048-007 which was high at 139%.

Item	Requirements	Acceptable?	Action Recommended ?	Comments
Instrument Performance Check (GC/MS)	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Internal Standards (GC)	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Target Compound Identification (GC, GC/MS)	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
FIELD QC				
Field Blanks	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Field Duplicates	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
OTHER QC				
Level IV Checks	Transcriptions and calculations correctly performed. (verify at least 10% using extraction logs, sample prep logs, standard prep logs, etc.). Laboratory certification and performance acceptable (verify using lab certifications and audit records, MDL studies, analyst performance studies, etc.).	N/A		Not checked on a Level II review.
Overall Assessment Of Data	The data submitted are suitable for use without qualifiers.			

RECOMMENDED ACTIONS

Sample ID	Parameter/Method	Analyte(s)	QC Problem	Recommended Action
N/A	N/A	N/A	N/A	N/A

Validation Flags

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N - The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

DATA VALIDATION SUMMARY
ATK LAUNCH SYSTEMS-BACCHUS
#9352048

DATA PACKAGE INFORMATION

Client:	**ATK Launch Systems-Bacchus**
Project:	**988P LS333ENV**
Data Package ID:	**9352048**
Analysis:	**Explosives – HMX & RDX**
Matrix:	Wipe Sample
Preparation Method:	SW-846 Method 8330
Analysis Method:	SW-846 Method 8330
Laboratory:	ALS Laboratory Group Salt Lake City, UT
Project QAP:	Highway 89 Storage Units Site Work Plan
Validation guideline:	Method Requirements
Validation level:	II
Validator:	Gloria Beilke
Date Received:	02/23/10
Date Completed:	02/24/10
Peer Reviewer:	Paul Ellingson
Date Reviewed:	2/25/10

Data Package Inventory

Run Information		QC Summaries	
X	Final Reports	X	Method Blank
X	COCs	X	LCS/LCSD
	Cal. Summary		MS/MSD
	Cal. Raw Data		Sample Duplicates
	Run Summary	X	Surrogates
	Run Raw Data		Internal Stds. (GC)
	Sample Prep Logs		Tune (GC/MS)

Comments: The data submitted are suitable for use without qualifiers.

SAMPLE INFORMATION
(including duplicate, reanalysis, or dilution samples)

	Sample ID	Lab Number	Sample Date	Prep Date	Analysis Date	Prep Days	Analysis Days	Total Days
1	*EZ-5-3C*	*9352048-007*	*12/17/2009*	*12/28/2009*	*12/31/2009*	11	3	**14**
2	*EZ-4-3C*	*9352048-008*	*12/17/2009*	*12/28/2009*	*12/31/2009*	11	3	**14**
3	*EZ-3-3C*	*9352048-009*	*12/17/2009*	*12/28/2009*	*12/31/2009*	11	3	**14**
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

SUMMARY OF FINDINGS

Item	Requirements	Acceptable?	Action Recommended ?	Comments
GENERAL QC				
Chain-of-custody	COC and receiving documents properly completed (analytes, method, signatures, etc.)	Y		
Sample Receipt	Samples received in good condition, on ice, with receiving documentation, etc.	N		At sample receipt, the cooler temperature was noted at 17°C. The temperature requirement of 4.0°C ± 2.0° was exceeded. For explosive wipe samples this is not seen as problematic due to the nature of the analytes, and matrix the samples were taken in.
Preservatives	Evidence that the samples were correctly preserved.	N/A		Not applicable for wipe samples.
Holding Times	Samples analyzed and prepared within method-specified time limits.	Y		
Final Reports	Final reports include all required information such as preparation & analytical methods, preparation & analytical dates, corrected MDLs, signatures, etc.	Y		
Analyte List	Analytes reported consistent with the COC and project requirements.	Y		The SAP did not specify an analyte list. The laboratory reported HMX & RDX.
Reporting Limits	Reported detection limits low enough for project requirements.	N/A		Reporting limits not specified in SAP.
Analyte / RL Quantitation	Sample preparation and dilution factors correctly accounted for in the final result and RL.	N/A		Not applicable for wipe samples.
BATCH/RUN QC				
Initial Calibration	Meets method-specified requirements for frequency of calibration, number of standards, r^2, etc.	N/A		Not checked on a Level II review.
Continuing Calibration	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Method Blanks	Performed at required frequency. Recoveries within method/project limits.	Y		
Laboratory Control Samples	Performed at required frequency. Recoveries within method/project limits.	Y		LCS/LCSD
Matrix Spike/ Matrix Spike Duplicates	Performed at required frequency. Recoveries within method/project limits. Spiking levels adequate. Matrix interference confirmed, if necessary.	N/A		Not applicable for wipe samples.
METHOD QC				
Surrogates (GC, GC/MS)	Performed at required frequency. Recoveries within method/project limits.	Y		
Instrument Performance Check (GC/MS)	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.

Item	Requirements	Acceptable?	Action Recommended ?	Comments
Internal Standards (GC)	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Target Compound Identification (GC, GC/MS)	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
FIELD QC				
Field Blanks	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Field Duplicates	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
OTHER QC				
Level IV Checks	Transcriptions and calculations correctly performed. (verify at least 10% using extraction logs, sample prep logs, standard prep logs, etc.). Laboratory certification and performance acceptable (verify using lab certifications and audit records, MDL studies, analyst performance studies, etc.).	N/A		Not checked on a Level II review.
Overall Assessment Of Data	The data submitted are suitable for use without qualifiers.			

RECOMMENDED ACTIONS

Sample ID	Parameter/Method	Analyte(s)	QC Problem	Recommended Action
N/A	N/A	N/A	N/A	N/A

Validation Flags

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N - The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

DATA VALIDATION SUMMARY
ATK LAUNCH SYSTEMS-BACCHUS
#9352048

DATA PACKAGE INFORMATION

Client:	**ATK Launch Systems-Bacchus**
Project:	**988P LS333ENV**
Data Package ID:	**9352048**
Analysis:	**Metals by ICP**
Matrix:	Wipe Sample
Preparation Method:	EPA 3050
Analysis Method:	SW-846 ICP 6010B
Laboratory:	ALS Laboratory Group Salt Lake City, UT
Project QAP:	Highway 89 Storage Units Site Work Plan
Validation guideline:	Method Requirements
Validation level:	II
Validator:	Gloria Beilke
Date Received:	02/09/10
Date Completed:	02/20/10
Peer Reviewer:	Paul Ellingson
Date Reviewed:	2/24/10

Data Package Inventory

Run Information		QC Summaries	
X	Final Reports	X	Blank
X	COCs	X	LCS
	Cal. Summary		MS/MSD
	Cal. Raw Data		Sample Duplicates
	Run Summary		Surrogates
	Run Raw Data		Internal Stds. (GC)
	Sample Prep Logs		Tune (GC/MS)
			Interfer Chks (ICP)
			PDS (Metals)

Comments: The data submitted are suitable for use without qualifiers. No raw QC data was included in this Level II data review. Only laboratory QC batch report results were verified.

SAMPLE INFORMATION
(including duplicate, reanalysis, or dilution samples)

	Sample ID	Lab Number	Sample Date	Prep Date	Analysis Date	Prep Days	Analysis Days	Total Days
1	*EZ-5-3D*	*9352048-004*	*12/17/2009*	*1/6/2010*	*1/13/2010*	20	7	**27**
2	*EZ-4-3D*	*9352048-005*	*12/17/2009*	*1/6/2010*	*1/13/2010*	20	7	**27**
3	*EZ-3-3D*	*9352048-006*	*12/17/2009*	*1/6/2010*	*1/13/2010*	20	7	**27**
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

SUMMARY OF FINDINGS

Item	Requirements	Acceptable?	Action Recommended ?	Comments
GENERAL QC				
Chain-of-custody	COC and receiving documents properly completed (analytes, method, signatures, etc.)	Y		
Sample Receipt	Samples received in good condition, on ice, with receiving documentation, etc.	Y		At sample receipt, the cooler temperature was noted at 17°C. The temperature requirement of 4.0°C ± 2.0° was exceeded. Since these samples are for metals analysis, the higher cooler temperature is not considered problematic.
Preservatives	Evidence that the samples were correctly preserved.	Y		
Holding Times	Samples analyzed and prepared within method-specified time limits.	Y		
Final Reports	Final reports include all required information such as preparation & analytical methods, preparation & analytical dates, corrected MDLs, signatures, etc.	Y		
Analyte List	Analytes reported consistent with the COC and project requirements.	Y		
Reporting Limits	Reported detection limits low enough for project requirements.	N/A		Reporting Limits not specified in SAP
Analyte / RL Quantitation	Sample preparation and dilution factors correctly accounted for in the final result and RL.	N/A		Not applicable for wipe samples.
BATCH/RUN QC				
Initial Calibration	Meets method-specified requirements for frequency of calibration, number of standards, r^2, etc.	N/A		Not checked on a Level II review.
Continuing Calibration	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Blanks	Performed at required frequency. Recoveries within method/project limits.	Y		
Laboratory Control Samples	Performed at required frequency. Recoveries within method/project limits.	Y		
Matrix Spike/ Matrix Spike Duplicates	Performed at required frequency. Recoveries within method/project limits. Spiking levels adequate. Matrix interference confirmed, if necessary.	N/A		Not applicable for wipe samples.
METHOD QC				
Interference Checks (ICP)	Performed at required frequency. Results within method/project limits.	N/A		Not checked on a Level II review.
Post Digestion Spike (Metals)	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Analyte Confirmation (GC)	Positive GC results confirmed using a second column or second detector, if necessary	N/A		Not checked on a Level II review.

Item	Requirements	Acceptable?	Action Recommended ?	Comments
FIELD QC				
Field Blanks	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
Field Duplicates	Performed at required frequency. Recoveries within method/project limits.	N/A		Not checked on a Level II review.
OTHER QC				
Level IV Checks	Transcriptions and calculations correctly performed. (verify at least 10% using extraction logs, sample prep logs, standard prep logs, etc.). Laboratory certification and performance acceptable (verify using lab certifications and audit records, MDL studies, analyst performance studies, etc.).	N/A		Not checked on a Level II review.
Overall Assessment Of Data	Only summaries of reports were reviewed and no raw data was verified during this Level II data review except for the chain-of-custody.			

RECOMMENDED ACTIONS

Sample ID	Parameter/Method	Analyte(s)	QC Problem	Recommended Action
N/A	N/A	N/A	N/A	N/A

Validation Flags

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N - The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT E

Certificates of Disposal

[To Be Included Upon Receipt]

CERTIFICATE OF DISPOSAL

January 26,2010

ATK LAUNCH SYSTEMS
1620 9TH STREET
OGDEN, UT 84401

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number ZZ 00140087/ was received by U.S. Ecology, Inc., on 12/17/2009 .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by 01/19/2010 in accordance with permits and laws regulating this facility.

Reference Number: 09121718144-ZZ 00140087-1-2

Material: 1 85 GALLON DRUM (BATCH WASTE)

Process: Solidification

Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654

Waste Type: NON HAZARDOUS WASTE

Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

January 25,2010

ATK LAUNCH SYSTEMS
1620 9TH STREET
OGDEN, UT 84401

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number ZZ 00140087/ was received by U.S. Ecology, Inc., on 12/17/2009 .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by 01/19/2010 in accordance with permits and laws regulating this facility.

Reference Number: 09121718144-ZZ 00140087-1-2

Material: 1 85 GALLON DRUM (CRUSHED EMPTY CONT)

Process: Solidification

Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654

Waste Type: NON HAZARDOUS WASTE

Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

December 21,2009

ATK LAUNCH SYSTEMS
1620 9TH STREET
OGDEN, UT 84401

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **ZZ 00140087/** was received by U.S. Ecology, Inc., on **12/17/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **12/21/2009** in accordance with permits and laws regulating this facility.

Reference Number: 09121718144-ZZ 00140087-1-1
Material: 1 20 GALLON POLY
Process: Direct Landfill
Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654
Waste Type: NON HAZARDOUS WASTE
Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

February 23,2010

ATK LAUNCH SYSTEMS INC.- PERRY
DOUBLE D STORAGE 2100 SOUTH HWY 89
PERRY, UT 84302

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **ZZ 00004495/** was received by U.S. Ecology, Inc., on **12/30/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **01/18/2010** in accordance with permits and laws regulating this facility.

Reference Number: 09122918474-ZZ 00004495-1-3

Material: 1 55 GALLON DRUM (BATCH WASTE)

Process: Solidification

Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654

Waste Type: NON HAZARDOUS WASTE

Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

January 25,2010

ATK LAUNCH SYSTEMS INC.- PERRY
DOUBLE D STORAGE 2100 SOUTH HWY 89
PERRY, UT 84302

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **ZZ 00004495/** was received by U.S. Ecology, Inc., on **12/30/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **01/18/2010** in accordance with permits and laws regulating this facility.

Reference Number: 09122918474-ZZ 00004495-1-3

Material: 1 55 GALLON DRUM (CRUSHED EMPTY CONT)

Process: Solidification

Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654

Waste Type: NON HAZARDOUS WASTE

Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

February 23,2010

ATK LAUNCH SYSTEMS INC.- PERRY
DOUBLE D STORAGE 2100 SOUTH HWY 89
PERRY, UT 84302

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **ZZ 00004495/** was received by U.S. Ecology, Inc., on **12/30/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **01/18/2010** in accordance with permits and laws regulating this facility.

Reference Number: 09122918474-ZZ 00004495-1-3

Material: 29 85 GALLON DRUM (BATCH WASTE)

Process: Solidification

Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654

Waste Type: NON HAZARDOUS WASTE

Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

January 25,2010

ATK LAUNCH SYSTEMS INC.- PERRY
DOUBLE D STORAGE 2100 SOUTH HWY 89
PERRY, UT 84302

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **ZZ 00004495/** was received by U.S. Ecology, Inc., on **12/30/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **01/18/2010** in accordance with permits and laws regulating this facility.

Reference Number: 09122918474-ZZ 00004495-1-3

Material: 29 85 GALLON DRUM (CRUSHED EMPTY CONT)

Process: Solidification

Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654

Waste Type: NON HAZARDOUS WASTE

Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

January 27,2010

ATK LAUNCH SYSTEMS INC.- PERRY
DOUBLE D STORAGE 2100 SOUTH HWY 89
PERRY, UT 84302

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **ZZ 00004495/** was received by U.S. Ecology, Inc., on **12/30/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **01/20/2010** in accordance with permits and laws regulating this facility.

Reference Number: 09122918474-ZZ 00004495-1-1
Material: 2 85 GALLON DRUM (BATCH WASTE)
Process: Solidification
Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654
Waste Type: NON HAZARDOUS WASTE
Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

January 25,2010

ATK LAUNCH SYSTEMS INC.- PERRY
DOUBLE D STORAGE 2100 SOUTH HWY 89
PERRY, UT 84302

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **ZZ 00004495/** was received by U.S. Ecology, Inc., on **12/30/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **01/20/2010** in accordance with permits and laws regulating this facility.

Reference Number: 09122918474-ZZ 00004495-1-1

Material: 2 85 GALLON DRUM (CRUSHED EMPTY CONT)

Process: Solidification

Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654

Waste Type: NON HAZARDOUS WASTE

Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

December 21,2009

ATK LAUNCH SYSTEMS, INC.-WILLARD
EZ ACCESS STORAGE 8823 HIGHWAY 89
WILLARD, UT 84340

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **000143378 VES/** was received by U.S. Ecology, Inc., on **12/17/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **12/18/2009** in accordance with permits and laws regulating this facility.

Reference Number: 09121718144-000143378 VES-1-1
Material: 24 55 GALLON DRUM
Process: Direct Landfill
Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654
Waste Type: NON HAZARDOUS WASTE
Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

December 21,2009

ATK LAUNCH SYSTEMS, INC.-WILLARD
EZ ACCESS STORAGE 8823 HIGHWAY 89
WILLARD, UT 84340

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **000143378 VES/** was received by U.S. Ecology, Inc., on **12/17/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **12/18/2009** in accordance with permits and laws regulating this facility.

Reference Number: 09121718144-000143378 VES-1-2
Material: 8 55 GALLON DRUM
Process: Direct Landfill
Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654
Waste Type: NON HAZARDOUS WASTE
Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

January 26,2010

ATK LAUNCH SYSTEMS, INC.-WILLARD
EZ ACCESS STORAGE 8823 HIGHWAY 89
WILLARD, UT 84340

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **000144421 VES/** was received by U.S. Ecology, Inc., on **12/17/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **01/19/2010** in accordance with permits and laws regulating this facility.

Reference Number: 09121718144-000144421 VES-1-1
Material: 4 30 GALLON POLY DF (BATCH WASTE)
Process: Solidification
Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654
Waste Type: NON HAZARDOUS WASTE
Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

February 24,2010

ATK LAUNCH SYSTEMS, INC.-WILLARD
EZ ACCESS STORAGE 8823 HIGHWAY 89
WILLARD, UT 84340

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **000144421 VES/** was received by U.S. Ecology, Inc., on **12/17/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **01/19/2010** in accordance with permits and laws regulating this facility.

Reference Number: 09121718144-000144421 VES-1-1

Material: 4 30 GALLON POLY DF (CRUSHED EMPTY CONT)

Process: Solidification

Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654

Waste Type: NON HAZARDOUS WASTE

Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

January 26,2010

ATK LAUNCH SYSTEMS, INC.-WILLARD
EZ ACCESS STORAGE 8823 HIGHWAY 89
WILLARD, UT 84340

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **000144421 VES/** was received by U.S. Ecology, Inc., on **12/17/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **01/19/2010** in accordance with permits and laws regulating this facility.

Reference Number: 09121718144-000144421 VES-1-3
Material: 2 85 GALLON DRUM (BATCH WASTE)
Process: Solidification
Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654
Waste Type: NON HAZARDOUS WASTE
Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

February 24,2010

ATK LAUNCH SYSTEMS, INC.-WILLARD
EZ ACCESS STORAGE 8823 HIGHWAY 89
WILLARD, UT 84340

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **000144421 VES/** was received by U.S. Ecology, Inc., on **12/17/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **01/19/2010** in accordance with permits and laws regulating this facility.

Reference Number: 09121718144-000144421 VES-1-3
Material: 2 85 GALLON DRUM (CRUSHED EMPTY CONT)
Process: Solidification
Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654
Waste Type: NON HAZARDOUS WASTE
Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

February 24,2010

ATK LAUNCH SYSTEMS, INC.-WILLARD
EZ ACCESS STORAGE 8823 HIGHWAY 89
WILLARD, UT 84340

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **000144421 VES/** was received by U.S. Ecology, Inc., on **12/17/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **01/20/2010** in accordance with permits and laws regulating this facility.

Reference Number: 09121718144-000144421 VES-2-7
Material: 1 55 GALLON DRUM
Process: Direct Landfill
Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654
Waste Type: NON HAZARDOUS WASTE
Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

January 26,2010

ATK LAUNCH SYSTEMS, INC.-WILLARD
EZ ACCESS STORAGE 8823 HIGHWAY 89
WILLARD, UT 84340

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **000144421 VES/** was received by U.S. Ecology, Inc., on **12/17/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **01/19/2010** in accordance with permits and laws regulating this facility.

Reference Number: 09121718144-000144421 VES-2-5
Material: 3 85 GALLON DRUM (BATCH WASTE)
Process: Stablization
Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654
Waste Type: RCRA HAZARDOUS WASTE
Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

February 24,2010

ATK LAUNCH SYSTEMS, INC.-WILLARD
EZ ACCESS STORAGE 8823 HIGHWAY 89
WILLARD, UT 84340

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **000144421 VES/** was received by U.S. Ecology, Inc., on **12/17/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **01/19/2010** in accordance with permits and laws regulating this facility.

Reference Number: 09121718144-000144421 VES-2-5
Material: 3 85 GALLON DRUM (CRUSHED EMPTY CONT)
Process: Stablization
Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654
Waste Type: RCRA HAZARDOUS WASTE
Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

February 24,2010

ATK LAUNCH SYSTEMS, INC.-WILLARD
EZ ACCESS STORAGE 8823 HIGHWAY 89
WILLARD, UT 84340

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **000144421 VES/** was received by U.S. Ecology, Inc., on **12/17/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **02/19/2010** in accordance with permits and laws regulating this facility.

Reference Number: 09121718144-000144421 VES-2-6
Material: 3 55 GALLON DRUM (BATCH WASTE)
Process: Stablization
Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654
Waste Type: RCRA HAZARDOUS WASTE
Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

February 24,2010

ATK LAUNCH SYSTEMS, INC.-WILLARD
EZ ACCESS STORAGE 8823 HIGHWAY 89
WILLARD, UT 84340

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **000144421 VES/** was received by U.S. Ecology, Inc., on **12/17/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **02/10/2010** in accordance with permits and laws regulating this facility.

Reference Number: 09121718144-000144421 VES-2-6
Material: 3 55 GALLON DRUM (CRUSHED EMPTY CONT)
Process: Stablization
Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654
Waste Type: RCRA HAZARDOUS WASTE
Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

January 13,2010

ATK LAUNCH SYSTEMS, INC.-WILLARD
EZ ACCESS STORAGE 8823 HIGHWAY 89
WILLARD, UT 84340

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **000144421 VES/** was received by U.S. Ecology, Inc., on **12/17/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **01/12/2010** in accordance with permits and laws regulating this facility.

Reference Number: 09121718144-000144421 VES-2-8
Material: 4 55 GALLON DRUM (BATCH WASTE)
Process: Solidification
Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654
Waste Type: NON HAZARDOUS WASTE
Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

February 24,2010

ATK LAUNCH SYSTEMS, INC.-WILLARD
EZ ACCESS STORAGE 8823 HIGHWAY 89
WILLARD, UT 84340

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **000144421 VES/** was received by U.S. Ecology, Inc., on **12/17/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **01/12/2010** in accordance with permits and laws regulating this facility.

Reference Number: 09121718144-000144421 VES-2-8
Material: 4 55 GALLON DRUM (CRUSHED EMPTY CONT)
Process: Solidification
Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654
Waste Type: NON HAZARDOUS WASTE
Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

January 13,2010

ATK LAUNCH SYSTEMS, INC.-WILLARD
EZ ACCESS STORAGE 8823 HIGHWAY 89
WILLARD, UT 84340

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **000144421 VES/** was received by U.S. Ecology, Inc., on **12/17/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **01/12/2010** in accordance with permits and laws regulating this facility.

2-97.

Reference Number: 09121718144-000144421 VES-2-8
Material: 1 15 GALLON DRUM (BATCH WASTE)
Process: Solidification
Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654
Waste Type: NON HAZARDOUS WASTE
Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

February 24,2010

ATK LAUNCH SYSTEMS, INC.-WILLARD
EZ ACCESS STORAGE 8823 HIGHWAY 89
WILLARD, UT 84340

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **000144421 VES/** was received by U.S. Ecology, Inc., on **12/17/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **01/12/2010** in accordance with permits and laws regulating this facility.

Reference Number: 09121718144-000144421 VES-2-8
Material: 1 15 GALLON DRUM (CRUSHED EMPTY CONT)
Process: Solidification
Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654
Waste Type: NON HAZARDOUS WASTE
Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

January 13,2010

ATK LAUNCH SYSTEMS, INC.-WILLARD
EZ ACCESS STORAGE 8823 HIGHWAY 89
WILLARD, UT 84340

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **000144421 VES/** was received by U.S. Ecology, Inc., on **12/17/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **01/12/2010** in accordance with permits and laws regulating this facility.

Reference Number: 09121718144-000144421 VES-2-8
Material: 11 85 GALLON DRUM (BATCH WASTE)
Process: Solidification
Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654
Waste Type: NON HAZARDOUS WASTE
Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

February 24,2010

ATK LAUNCH SYSTEMS, INC.-WILLARD
EZ ACCESS STORAGE 8823 HIGHWAY 89
WILLARD, UT 84340

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **000144421 VES/** was received by U.S. Ecology, Inc., on **12/17/2009** .The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of by **01/12/2010** in accordance with permits and laws regulating this facility.

Reference Number: 09121718144-000144421 VES-2-8
Material: 11 85 GALLON DRUM (CRUSHED EMPTY CONT)
Process: Solidification
Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654
Waste Type: NON HAZARDOUS WASTE
Customer: VEOLIA ENVIRONMENTAL SERVICES

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR