Attachment E-1

Waste Documentation
(on CD included with this document)

Environmental Programs (EP)
Document Signature Form

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Document Catalog Number EP2007-0349

Waste Characterization Strategy Form

Project Title	Bayo Canyon Aggregate Investigation
Solid Waste Management Unit or Area of Concern	Technical Area 10, Bayo Canyon
Activity Type	Drilling and Sampling
Field Team Leader	Becky Coel-Roback
Waste Management Coordinator	Mike Le Scouarnec
Completed by	Jeff Lee
Date	6/27/07

Description of activities:

The waste-generating activities addressed in this waste characterization strategy form (WCSF) consist of hollow stem borehole drilling and sampling, collecting surface and shallow subsurface samples. Test pits will be installed to verify that construction debris was buried during D&D activities at SWMU 10-007. These pits will only be used to evaluate the physical extent and type of material disposed at Technical Area (TA)-10). A total of 53 boreholes are planned to characterize these sites within TA-10.

Borehole locations have been proposed in accordance with the data evaluation discussed in Section 2.6, the Consent Order, and the New Mexico Environment Department (NMED) Notice of Disapproval (NOD) comments dated October 20, 2005. One borehole will be drilled at the previously sampled borehole 10-02220 within Array 3 in the Central Area. The state-planar coordinates for this borehole location will be established at the field using geodetic survey methods and the existing survey data for this point. Other borehole locations will be established in the field using geodetic survey methods and approximate state-planer coordinates derived from the borehole sampling location maps. In addition, boreholes planned to target the footprints of solid waste management units (SWMUs), such as at SWMUs 10-002 (b), 10-003(n), 10-003(h), and 10-004(b), will be located in accordance with geophysical survey results. Each proposed borehole location will be thoroughly examined to identify potential hazards for subsurface drilling; the exact location of some boreholes may require adjustment in accordance with utility surveys conducted as part of the excavation permitting process or the identification of other hazards.

Bayo Canyon Aggregate Investigation waste management will be conducted in accordance with the following documents.

1. SOP-01.06, R2 Management of ER Project Waste

2. SOP-01.10, R2 Waste Characterization

Site History and Description:

TA-10 is located in the bottom of the central portion of Bayo Canyon, between Kwage Mesa to the south and Otowi Mesa to the north, approximately 0.5 mi. west of the Los Alamos County Sewage Treatment Plant (Fig 1-1). Bayo Canyon is located at an elevation of approximately 6000 to 6740 ft above sea level and slopes to the southeast at an approximate 3% grade. The TA-10 area is at an elevation of approximately 6600 to 6700 ft above sea level; the elevation of adjacent mesa tops range from about 7000 to 7100 ft above sea level. The upper portions of the canyon walls are vertical or near-vertical cliffs cut into the upper Tshirege Member of Bandelier Tuff. The canyon floor is mainly cut into the lower Otowi Member of Bandelier Tuff and is overlain with 1 to 6 ft of colluvium on which a sandy soil has developed. A narrow, braided stream channel with low banks runs through the center of the canyon and is underlain with Quaternary stream alluvium. According to findings during a 1994 drilling operation in Bayo Canyon, the alluvium ranges from approximately 30 to 45 ft below ground surface (bgs). In many areas, the upper 5 to 15 ft of alluvium has been reworked, displaced, backfilled, and mixed with construction debris during the construction, decontamination, and decommissioning activities that took place while the site was operational. Vegetation is a mix of grass, sagebrush, chamisa, and pine trees. TA-10 was used as a firing test site from 1943 through 1961, and the area and all related structures were constructed to test assemblies that contained conventional HE, including components made from depleted or natural uranium. The principal structures associated with TA-10 were a radiochemistry laboratory (TA-01-1), two assembly buildings (TA-10-10 and TA-10-12), an inspection building (TA-10-8), a personnel building (TA-10-21), and structures at two detonation control complexes (TA-10-12 and TA-10-15) and adjacent firing pads (Figures 2.1-2 and 2.1-3). Formerly, TA-10 also included various ancillary facilities associated with waste disposal, particularly for the radiochemistry laboratory. Associated facilities included sanitary and radioactive liquid waste sewage lines, manholes, septic tanks, seepage pits, and solid radioactive waste disposal pits.

Characterization Strategy:

The following waste streams are anticipated:

- 1-Investigation-Derived Waste (IDW) Solids (Core and Drill cuttings)
- 2-Contact Waste (PPE, Decon wipes, gloves, etc)
- 3-Decontamination Fluids (Potential)
- 4- Petroleum-Contaminated Soil (PCS) (potential)
- 5- Municipal Solid Waste (MSW)
- 6- Drain Line Pipe
- 7- Vegetation (Trees, Cactus, Brush) (potential)
- 8- Absorbent Padding (Potential) and PPE

Waste # 1: IDW Solids (Core and Drill Cuttings)

Waste type: Core and drill cuttings generated during drilling through geologic media from surface to total depth. The drill cuttings and construction debris are expected to be contaminated by radionuclides, metals or chemicals.

Anticipated Regulatory Status:

Based on Bayo Canyon history Strontium-90 is the main hazard of concern at TA-10. Pending analysis all wastes will be managed in accordance with applicable federal, state, DOE, and Laboratory requirements. The anticipated Regulatory status includes:

- Non-hazardous, non-radioactive waste
- Low-level radioactive waste
- Hazardous waste
- Mixed low-level waste (MLLW)

Characterization Approach:

The IDW solids will be characterized from site characterization data, and from direct waste sampling if needed. The specific requirements for characterization of the cuttings are provided in Table 1, Waste Characterization Table. If direct waste sampling is needed to augment the site characterization information, a sampling plan for obtaining representative samples of the cuttings will be developed in consultation with ENV-RCRA.Two samples, or the number specified in the Department-approved work plan shall be selected from each boring for submittal to a laboratory for analysis of VOCs, SVOCs, explosive compounds, perchlorate, TAL metals, and cyanide.
If potential listed hazardous waste constituents are detected, the Laboratory will conduct a review of historical records and data to determine whether the source of each constituent was a listed hazardous waste at its point of generation. If the source is determined to be a listed hazardous waste, the cuttings will be managed as a hazardous or mixed waste (depending on the levels of radioactivity). Total concentrations of toxicity characteristic procedure (TCLP) constituents will be compared with 20 times the TCLP regulatory level. If total concentrations are less than 20 times the TCLP regulatory level, the cuttings will be designated nonhazardous by characteristic. If total concentrations exceed 20 times the TCLP regulatory level, the waste cuttings will be sampled and analyzed using the TCLP to determine if it is hazardous by characteristic. LANL RCTs will perform radiological screening on all surface and core samples collected.

Storage and Disposal Method:

IDW solids will initially be contained in lined roll-offs, Drums or Wrangler bags and managed as hazardous waste pending analytical data review (from site characterization sampling). Cuttings will be stored in a <90 Day Hazardous Waste Storage Area within the project controlled area pending review of analytical results to determine final waste characterization. Drill cuttings will be

segregated by Consolidated Unit and/or SWMU and/or AOC as appropriate. The Laboratory expects these wastes to be designated as LLW that will be disposed of at TA-54 or at an off-site LLW disposal facility. If Waste is not LLW as expected it will be managed appropriately and disposed of at an approved Industrial or Hazardous waste facility.

Waste # 2: Contact Waste

Waste type: Includes but is not limited to spent PPE (gloves, coveralls, etc.), sampling supplies (plastic baggies, and sampling jars), (paper towels, plastic sheeting, brushes, etc.), plastic sheeting from secondary containment that contacts potentially contaminated environmental media or equipment. This waste stream will be segregated based on what process generates the contact waste (e.g., drilling and core sampling or decontamination activities).

Anticipated Regulatory Status:

The possible classifications of this solid waste stream and the anticipated regulatory status includes:

- Non-hazardous, non-radioactive waste
- Low-level radioactive waste
- Hazardous waste
- Mixed low-level waste (MLLW)

Characterization Approach

Characterization of this waste stream will be performed through acceptable knowledge of the waste materials, the methods of generation, and the analytical results from sampling of the environmental media with which the materials were in contact. Decontamination activities will be characterized by AK from the direct sampling of Waste #3 (decontamination fluids).

Storage and Disposal Method:

Contact Waste will be containerized in 30 or 55 gallon drums and managed as Hazardous waste pending analysis. This waste will be stored in either a Satellite Accumulation Area (SAA) or a <90- day Hazardous Waste Accumulation Area, depending on waste volume. The Laboratory expects these wastes to be designated as LLW that will be disposed of at TA-54 or at an off-site LLW disposal facility. If Waste is not LLW as expected it will be managed appropriately and disposed of at an approved Industrial or Hazardous waste facility.

Waste # 3: Decontamination fluids (Potential)

Waste Type: Decontamination fluids from cleaning drilling and sampling equipment and other materials associated with site activities.

Anticipated Regulatory Status:

The possible classifications of this liquid waste stream and the anticipated regulatory status include:

- Non-hazardous, non-radioactive waste
- Low-level radioactive waste
- Hazardous waste
- Mixed low-level waste (MLLW)

Characterization Approach:

All fluids that are used during decontamination of drilling equipment and materials used down hole will be containerized, sampled, and evaluated for compliance with the appropriate standards. The decontamination fluids will be characterized by direct sampling of the containerized fluids. Representative waste characterization samples will be collected with as short of a turn around time as possible to minimize storage time.

Storage and Disposal Method:

Potential decontamination fluid will be managed as hazardous waste pending analysis (in a <90 Hazardous Waste Accumulation Area or SAA) until a final determination can be made from review of the analytical data. These liquids will be stored in 55-gallon poly drums or poly tanks if needed. The Laboratory expects these wastes to be designated as liquid LLW that will be sent to the Radioactive Liquid Waste Treatment Facility at TA-50 for disposal. If Waste is not LLW as expected it will be managed appropriately and disposed of at an approved Industrial or Hazardous waste facility.

Waste # 4: Drain Line Pipe

Waste Type: Drain line pipe removed during site investigation.

Anticipated Regulatory Status:

The possible classifications of this waste stream and the anticipated regulatory status include:

- Non-hazardous, non-radioactive waste

- Low-level radioactive waste
- Hazardous waste
- Mixed low-level waste (MLLW)

Characterization Approach:

The drain line pipe will be characterized by direct waste sampling and field radiation screening. Representative waste characterization samples will be collected with as short of a turn around time as possible to minimize storage time.

Storage and Disposal Method:

Drain line pipe will be managed as hazardous waste pending analysis (in a <90 Hazardous Waste Accumulation Area or SAA) until a final determination can be made from review of the analytical data. This waste will be stored in lined roll-offs or drums if needed. The Laboratory expects these wastes to be designated as LLW that will be disposed of at TA-54 or at an off-site LLW disposal facility. If Waste is not LLW as expected it will be managed appropriately and disposed of at an approved Industrial or Hazardous waste facility.

Waste # 5: Vegetation (i.e., trees, cactus, brush) (potential)

Waste Type: Vegetation (removed from drilling and sampling locations)

Anticipated Regulatory Status:

The possible classifications of this waste stream and the anticipated regulatory status include:

- Non-hazardous, non-radioactive waste
- Low-level radioactive waste

Characterization Approach:

Vegetation removed from drilling sites will be screened by LANL RCTs for radiological hazards. If necessary, direct sampling of the debris can be done to determine the level of radiological concern.

Storage and Disposal Method:

Vegetation debris will be managed as a low-level radioactive waste pending RCT screening or analytical data review and stored in a (designated area) until a final waste determination can be made. This waste will be stored in lined roll-offs or drums if needed. The Laboratory expects these

wastes to be designated as LLW that will be disposed of at TA-54 or at an off-site LLW disposal facility. If Waste is not LLW as expected it will be managed appropriately and disposed of at an approved Industrial or Hazardous waste facility.

Waste # 6: Petroleum-Contaminated Soil (PCS) (Potential)

Waste Type: PCS from the release of commercial products such as hydraulic fluid, motor oil, unleaded gasoline, or diesel fuel. This waste stream would only be generated in the event of an accidental release, such as the rupture of a hydraulic or fuel hose.

Anticipated Regulatory Status:

New Mexico Special Waste (NMSW) based on the Material Safety Data Sheet (MSDS) for the released product.

Characterization Approach:

The PCS will be characterized based on the MSDS for the product and direct waste characterization sampling. LANL RCTs will conduct radiological surveys on all PCS.

Storage and Disposal Method:

This waste stream will be stored in containers approved for Petroleum waste, staged in a designated NMSW storage area, and disposed of offsite at an NMSW-permitted facility.

Waste # 7: Municipal Solid Waste (MSW)

Waste type: MSW will consist of non-contact waste.

Anticipated Regulatory Status:

Municipal solid waste.

Characterization Approach:

MSW will be characterized based on acceptable knowledge. MSW will be segregated from all other waste streams.

Storage and Disposal Method:

This waste stream will be stored in a plastic-lined trash container, and then disposed of at a New Mexico solid waste landfill.

Waste # 8: Absorbent Padding Material (Potential) and PPE

Waste Type: Absorbent padding material includes pads, paper towels, or other material used to contain released commercial products considered to be New Mexico Special Waste (NMSW). This waste stream would only be generated in the event of an accidental release, such as the rupture of a hydraulic hose or spill of drilling additives. A spill kit with absorbent materials will be on site at all times.

Anticipated Regulatory Status:

NMSW based on the MSDS for the released product.

Characterization Approach:

The absorbent material will be characterized based on the MSDS for the released product and direct waste characterization sampling. LANL RCTs will conduct radiological surveys on all absorbent material.

Storage and Disposal Method:

This waste stream will be stored in 55-gallon drums in a designated NMSW storage area, and disposed of offsite at a NMSW-permitted facility.

Table 1. Waste Characterization Table

Waste Description	Waste # 1 **Investigation Derived Waste Solids**	Waste # 2 **Contact Waste**	Waste # 3 **Decon fluids**	Waste # 4 **Drain line pipe**
Volume	**150 cubic yards**	**20 cubic yards**	**200 gallons**	**4 cubic yards**
Packaging	**Lined Roll-off bins, Drums or Wrangler Bags**	**Drums or Roll-off bins**	**Poly Tanks or Drums**	**Roll-off bins or Drums**
Regulatory Classification				
Radioactive	X	X	X	X
Solid	X	X	X	X
Hazardous	X	X	X	X
Mixed (hazardous and radioactive)	X	X	X	X
Toxic Substances Control Act (TSCA)				
New Mexico Special Waste				
Industrial				
Characterization Method				
AK: existing data/documentation		X		
AK: from site characterization (S)	X	X		
Direct sampling of containerized waste (W)	X		X	X
Analytical Testing				

Volatile Organic Compounds (EPA 8260-B)	X		X	X
Semivolatile Organic Compounds (EPA 8270-C)	X		X	X
Organic Pesticides (EPA 8081-A)				
Organic Herbicides (EPA 8151-A)	X			
PCBs (EPA 8082)	X		X	X
Total Metals (EPA 6010-B/7471-A)	X		X	X
Total Cyanide (EPA 9012-A)	X		X	X
High Explosives Constituents (EPA 8330/8321-A)	X		X	X
Asbestos				X
Total petroleum hydrocarbon (TPH)-GRO (EPA 8015-M)	X			
TPH-DRO (EPA 8015-M)	X		X	X
Toxicity characteristic leaching procedure (TCLP) Metals (EPA 1311/6010-B)	X		X	X
TCLP Organics (EPA 1311/8260-B & 1311/8270-C)				
TCLP Pest. & Herb. (EPA 1311/8081-A/1311/8151-A				
Gross Alpha (alpha counting) (EPA 900)	X		X	X
Gross Beta (beta counting) (EPA 900)	X		X	X
Tritium (liquid scintillation) (EPA 906.0)			X	X
Gamma spectroscopy (EPA 901.1)	X		X	X
Isotopic plutonium (Chem. Separation/alpha spec.) (HASL-300)	X		X	X
Isotopic uranium (Chem. Separation/alpha spec.) (HASL-300)	X		X	X
Total uranium (6020 inductively coupled plasma mass spectroscopy [ICPMS])				
Strontium-90 (EPA 905)	X		X	X
Americium-241 (Chem. Separation/alpha spec.) (HASL-300)	X		X	X
Waste Profile Form #	TBD	**TBD**	**TBD**	**TBD**

Waste Description	Waste # 5 **Vegetation** (Potential)	Waste # 6 **PCS**	Waste # 7 **MSW**	Waste # 8 **Absorbant Padding**
Volume	**10 cubic yards**	**20 cubic yards**	**400 gallons**	**< 1 cubic yard**
Packaging	**Lined Roll-off bins or Drums**	**Steel Drums**	**Plastic-lined Garbage Can**	**Steel Drums**
Regulatory Classification				
Radioactive	X			
Solid	X		X	
Hazardous				
Mixed (hazardous and radioactive)				
Toxic Substances Control Act (TSCA)				
New Mexico Special Waste		X		X
Industrial		X	X	
Characterization Method				

AK: existing data/documentation	X	X	X	X
AK: from site characterization (S)	X			
Direct sampling of containerized waste (W)	X	X		
Analytical Testing				
Volatile Organic Compounds (EPA 8260-B)				
Semivolatile Organic Compounds (EPA 8270-C)				
Organic Pesticides (EPA 8081-A)				
Organic Herbicides (EPA 8151-A)				
PCBs (EPA 8082)				
Total Metals (EPA 6010-B/7471-A)		X		
Total Cyanide (EPA 9012-A)				
High Explosives Constituents (EPA 8330/8321-A)				
Asbestos				
Total petroleum hydrocarbon (TPH)-GRO (EPA 8015-M)		X		
TPH-DRO (EPA 8015-M)		X		
Toxicity characteristic leaching procedure (TCLP) Metals (EPA 1311/6010-B)				
TCLP Organics (EPA 1311/8260-B & 1311/8270-C)				
TCLP Pest. & Herb. (EPA 1311/8081-A/1311/8151-A)				
Gross Alpha (alpha counting) (EPA 900)	X			
Gross Beta (beta counting) (EPA 900)	X			
Tritium (liquid scintillation) (EPA 906.0)	X			
Gamma spectroscopy (EPA 901.1)	X			
Isotopic plutonium (Chem. Separation/alpha spec.) (HASL-300)	X			
Isotopic uranium (Chem. Separation/alpha spec.) (HASL-300)	X			
Total uranium (6020 inductively coupled plasma mass spectroscopy [ICPMS])				
Strontium-90 (EPA 905)	X			
Americium-241 (Chem. Separation/alpha spec.) (HASL-300)	X			
Waste Profile Form #	TBD	TBD	TBD	TBD

Roles and Responsibilities Table

Roles	TPMC	Generator	ENV-RCRA	Field WMC	WMC	Waste Services	Comments
Review & Approve Analytical Suite for Completeness	X	X	X		X	X	
Prepares WCSF					X		
Approves WCSF		X	X		X	X	
Collects Characterization Samples	X						
Requests Data	X						Data will be received and tracked by the Sample Management Office
Reviews Data for Waste Determination	X	X	X		X	X	
Prepares Summary Tables	X				X		
Approves Disposal Path		X	X		X	X	
Provides Materials for Waste Storage Areas	X						
Sets up Waste Storage Areas	X						
Registers and Decommissions Waste Storage Areas with ENV-RCRA					X		
Performs <90 Day Hazardous Waste Storage Area Inspections				X	X		<90 Inspections need to be performed by personnel with appropriate training

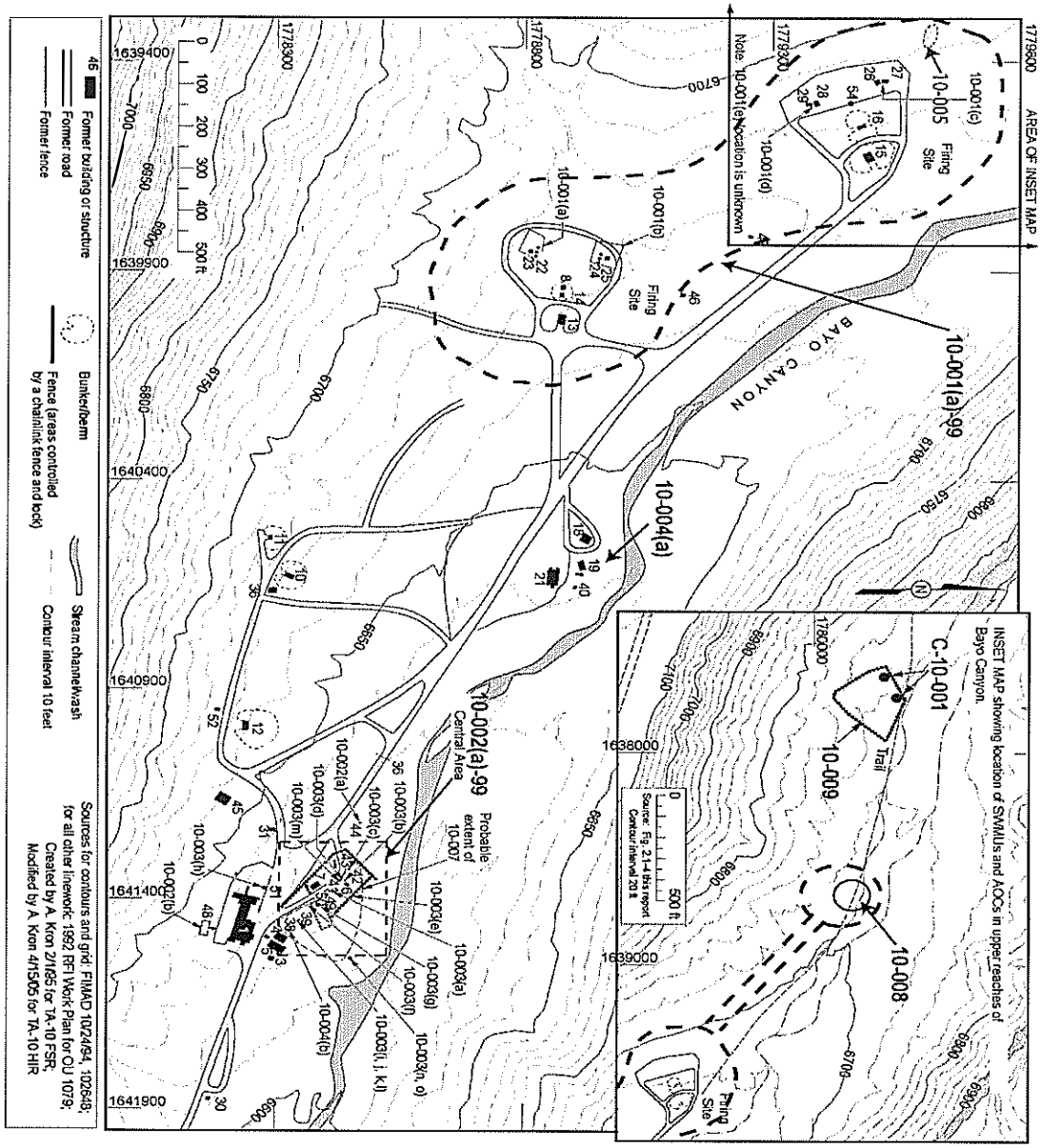


Figure 2-2 Location of CUs, SWMUs, and AOCs associated with former TA-10 located in Bayo Canyon

FIG for Bayo Canyon Aggregate Investigation

Figure 1-1 Location of CU's, SWMU's, and AOC's associated with former TA-10 located in Bayo Canyon

Waste Characterization Strategy Form (continued)

SIGNATURES	DATE
Project Leader (Print name and then sign below.) Becky Coel-Roback	6/27/07
EP-ERSS Waste Management Coordinator (Print name and then sign below.) Mike Le Scouarnec	6/27/07
SWRC Representative (Print name and then sign below.) Kelly VanDerpoel	7/10/07
NWIS-SWO Representative (Print name and then sign below.) Andy U. Elicio	6/28/07

SOP-01.10, R2	**Los Alamos National Laboratory** ***ENV-ECR***

Amendment #1
Waste Characterization Strategy Form
Bayo Canyon Aggregate Area

INTRODUCTION

This is Amendment 1 to the waste characterization and strategy for WCSF (EP2007-0349) dated 7/10/2007 for hollow stem borehole drilling and sampling, collecting surface and shallow subsurface samples. Test pits will be excavated to verify that construction debris was buried during D&D activities at SWMU 10-007 and AOC 10-009. These pits will only be used to evaluate the physical extent and type of material disposed at Technical Area 10 solid waste management unit (SWMU) 10-009, but if the extent of debris is found to be very limited at area of concern (AOC) 10-009, a good-stewardship removal may be conducted. The purpose of Amendment 111 is to expand the description of waste streams to include soil and debris including shrapnel from firing site operations and miscellaneous debris and soil from AOC 10-009.

BACKGROUND

TA-10 was used as a firing test site from 1943 through 1961, and the area and all related structures were constructed to test assemblies which contained conventional high explosives, including components made from depleted or natural uranium.

WASTE DESCRIPTION

All generated waste streams are expected to be the same as stated in the original WCSF, with the following exception:

- A ninth waste stream will be added which consists of soil and debris including shrapnel from firing site operations, limited hot spot removal, broken cast-iron pipe, and debris from the potential excavation of AOC 10-009.

CHARACTERIZATION, MANAGEMENT, AND DISPOSAL

Waste #1: the definition of IDW solids is expanded to include returned bore hole samples from RAD VAN, in plastic bags and trenched material ONLY IF elevated screening results are encountered and removed during excavation. Currently, it is anticipated that excavated fill material will be placed back in the trenches. If elevated screening levels are encountered, the trench will be abandoned without further removal of material.

Waste #2: Contact Waste, Storage and Disposal Method will be containerized in 30 or 55 gallon drums and/or roll off bins as indicated in Table 1. Waste Characterization Table. Contact waste will include radioactively contaminated concrete/cement, PPE including leather gloves, plastic including bags , buckets and sheeting, snow fence and other access control materials, and contaminated metal augers from drilling operations.

Waste # 9-Soil and Debris
This waste stream will have the anticipated regulatory status of low level or mixed low-level waste (MLLW). The characterization approach, storage and disposal methods will be the same as Waste #2. The anticipated maximum volume for this waste stream is 50 cu yds.

Table 1, Waste Characterization Table, of the original WCSF will be modified as shown in Attachment 1 of this amendment. The analytical testing for Waste #1 will be clarified as that testing which will be conducted if direct sampling is needed. This will be above and beyond the characterization suite, which includes total VOCs, total SVOCs, explosive compounds, perchlorate, TAL metals, and cyanide. Table 1 will also be modified to include Waste #9.

Waste streams # 6 and # 8 on Table 1, Waste Characterization Table should be identified as (Potential) waste streams.

SIGNATURES (Print name and then sign.)	**DATE**
Project Leader: Becky Coel-Roback	10/22/07
ERSS Waste Management Coordinator: Gordon Jio	10/22/07
ENV-RCRA Representative: John Tymkowych	10/22/07
NWIS-SWO Representative: Andy Elicio	10/29/07

Waste Description	Waste # 1 **Investigation Derived Waste Solids**	Waste # 9 **Soil and Debris from Limited Removal**
Volume	**150 cubic yards**	**50 cubic yards**
Packaging	**Lined Roll-off bins or Drums**	**Lined Drums or Roll-off bins**
Analytical Testing (continued)		
TPH-DRO (EPA 8015-M)	X	
Toxicity characteristic leaching procedure (TCLP) Metals (EPA 1311/6010-B)	X	
TCLP Organics (EPA 1311/8260-B & 1311/8270-C)	X	
TCLP Pest. & Herb. (EPA 1311/8081-A/1311/8151-A)	X	
Gross Alpha (alpha counting) (EPA 900)[b]	X	
Gross Beta (beta counting) (EPA 900)[b]	X	
Tritium (liquid scintillation) (EPA 906.0)		
Gamma spectroscopy (EPA 901.1)	X	
Isotopic plutonium (Chem. Separation/alpha spec.) (HASL-300)	X	
Isotopic uranium (Chem. Separation/alpha spec.) (HASL-300)	X	
Total uranium (6020 inductively coupled plasma mass spectroscopy [ICPMS])		
Strontium-90 (EPA 905)	X	
Americium-241 (Chem. Separation/alpha spec.) (HASL-300)	X	
Waste Profile Form #	TBD	**TBD**

[a] If direct sampling is indicated. The marked analyses are to be used in addition to site characterization data, if necessary.
[b] Gross alpha and gross beta information is from on-site screening by certified Radiation Control Technician (RCT).

Attachment 1. Amendment to Table 1, Waste Characterization Table

Waste Description	Waste # 1 **Investigation Derived Waste Solids**	Waste # 9 **Soil and Debris from Limited Removal**
Volume	**150 cubic yards**	**50 cubic yards**
Packaging	**Lined Roll-off bins or Drums**	**Lined Drums or Roll-off bins**
Regulatory Classification		
Radioactive	X	X
Solid	X	X
Hazardous	X	X
Mixed (hazardous and radioactive)	X	X
Toxic Substances Control Act (TSCA)		
New Mexico Special Waste		
Industrial		
Characterization Method		
AK: existing data/documentation	X	X
AK: from site characterization (S)	X	X
Direct sampling of containerized waste (W)	X	
Analytical Testing[a]		
Volatile Organic Compounds (EPA 8260-B)		
Semivolatile Organic Compounds (EPA 8270-C)		
Organic Pesticides (EPA 8081-A)		
Organic Herbicides (EPA 8151-A)		
PCBs (EPA 8082)	X	
Total Metals (EPA 6010-B/7471-A)		
Total Cyanide (EPA 9012-A)		
High Explosives Constituents (EPA 8330/8321-A)		
Asbestos		
Total petroleum hydrocarbon (TPH)-GRO (EPA 8015-M)	X	

LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM

WPF #: 40450

14-Nov-2007 08:29 AM (Version: 0) p.1

Generator :	**COEL-ROBACK, BECKY**	MS :	**M992**	PH :	**6655011**	Z#:	**146032**
WMC :	**JIO, GORDON**	MS :	**M992**	PH :	**5056674325**	Z#:	**093700**
Contact :							
RCRA Rev :	**ELICIO ANDY U**	MS :	**J599**	PH :	**5056676956**	Z#:	**118692**
Status :	**ACTIVE**	Activation Date :	**11/13/2007**		Expiration Date:		**11/13/2008**
Group :	**ERSS-RS**	TA :	**10**	Bldg :	**000000**	Room :	**N/A**

You are required to keep a copy of the WPF(s) in your files for at least three years. This WPF(s) is valid for one year or as long as the composition of the waste you have characterized remains the same. Should your waste change, please submit a new WPF to Waste Acceptance Group.

Waste Accumu : **Less-than-90-days Storage Area Site ID# 3707**
ER Waste PRS# SEE ADD. INFO

Method of Char : Chemical/Physical Analysis Number: SEE ATTACHMENT #1
Radiological Analysis Number: SEE ATTACHMENT #1

Waste Type : **Process Waste/Spent Chemical/Other**

Waste Classes: RCA Waste - **Not RCA Waste**
RAD Waste - **Radioactive-LL**

Waste Category: **Other**

Waste Sources : **Investigative Derived**

Waste Matrix : **Solid**

Matrix Type : **Homogeneous**

Process Desc :

DRILLING PROJECT AT TA-10, BAYO CANYON.

Waste Desc : INVESTIGATION DERIVED DRILL CUTTING (SOIL).

Ignitability : **Not ignitable**

Corrosivity : **Non-aqueous**

Reactivity : **Non-reactive**

Boiling Point : **Not applicable**

Toxicity Characteristic Metals:

Contaminant	Method	Limit	Min	Max	Unit
ARSENIC	**TCLP**		**0.001**	**0.015**	**PPM**
CADMIUM	**TCLP**		**0.001**	**0.0099**	**PPM**
BARIUM	**TCLP**		**0.001**	**0.5**	**PPM**

Toxicity Characteristic Organic Compounds: N/A

Additional Chemical Constituents and Contaminants:

CAS NO	Constituent	MIN	MAX	UOM
	POLY SHEETING	**1**	**2**	**%**
	SOIL	**95**	**98**	**%**

Additional Information: THIS WPF IS FOR THE DISPOSAL OF WASTE STREAM #1 ON WCSF BAYO CANYON AGGREGATE AREA EP2007-0349 AND AMENDMENT #1, EP BAYO CANYON AGGREGATE AREA, EP2007-0611. SWMU/AOC# 10-002(A), (B), 10-003, 10-004, 10-005, 10-007 AND 10-009. THIS WASTE STREAM HAS LOW LEVEL OF RADIOACTIVE ISOPTOPES. SAMPLE NUMBER RE10-07-7000, RE10-07-7006 AND RE-10-07-7004. SAMPLE RE10-07-5603 SHOWS ACETONE AT 4.6 UG/KG (PPB). SAMPLE RE-10-07-5432 SHOWS TOLUENE AT 0.52 UG/KG (PPB). SAMPLE NUMBER RE-10-07-5599 SHOWS 1,1,1-TRICHLOROETHANE AT 3.2 UG/KG (PPB). A DUE DILIGENCE (SEE ATTACHED) WAS CONDUCTED SHOWING THE F-LISTING DOES NOT APPLY TO THESE THREE ORGANIC CONSTITUENTS. SECTION 6- INSIDE A CONTROLLED AREA WITH LIMITED ACCESS TO THE STORAGE AREA.

WASTE CHARACTERIZATION INFORMATION

Radioactivity Category : **RADIOACTIVE-LL**

RCRA Category : **NON HAZARDOUS**

Secondary Info : N/A

Waste Classification : **LOW-LEVEL WASTE**

Waste Acceptances :

EPA Hazardous Waste Code : N/A

GWCP Information

Section 1 - Waste Prevention/Minimization (answer all questions)

Can hazard segregation, elimination, or material substitution be used?	☐ Yes*	☒ No	
Can any of the materials in the waste stream be recycled or reused	☐ Yes*	☒ No	
Has waste minimization been incorporated into procedures or other process controls?	☒ Yes	☐ No	
Can this waste be generated outside a RCA?	☐ Yes*	☐ No	☐ N/A

*Provide Comment

Section 6 - Work Control Documentation (answer all questions)

Do the procedures for this process cover how to manage this waste? ☒ Yes ☐ No (Provide comments)

Do the procedures for this process cover controls to prevent changes to waste constituents and concentrations or addition or removal of waste? ☒ Yes ☐ No (Provide comments)

Section 7 - Package and Storage Control

Describe how the waste will be packaged in according to the applicable WAC:

WASTE IS PACAGED IN DOT APPROVED ROLL OFF BINS, DRUMS AND WRANGLER BAGS.

Identify the storage management controls that will be used for this waste stream: (check all that apply)

- ☐ Tamper indication devices:
- ☐ Limited use locks with log-in for waste
- ☐ Locked cabinet or building
- ☒ Other (describe)

Section 8 - Waste Certification Statements (check only one)

- ☒ Waste appears to meet WAC chapter for:
  CHAPTER 3.0 SOLID LOW LEVEL WASTE.
- ☐ Waste needs exception/exemption for treatment, storage, or disposal at:
- ☐ Waste does not meet the criteria for any known TSDF, (DOE approval is required. Contact the Waste Management Program Office for assistance.)

Estimated Annual Volume (m3): 60

LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM

WPF #: 40450

14-Nov-2007 08:29 AM (Version: 0) p.1

Generator :	**COEL-ROBACK, BECKY**	MS :	**M992**	PH :	**6655011**	Z#:	**146032**
WMC :	**JIO, GORDON**	MS :	**M992**	PH :	**5056674325**	Z#:	**093700**
Contact :							
RCRA Rev :	**ELICIO ANDY U**	MS :	**J599**	PH :	**5056676956**	Z#:	**118692**
Status :	**ACTIVE**	Activation Date :	**11/13/2007**		Expiration Date:		**11/13/2008**
Group :	**ERSS-RS**	TA :	**10**	Bldg :	**000000**	Room :	**N/A**

You are required to keep a copy of the WPF(s) in your files for at least three years. This WPF(s) is valid for one year or as long as the composition of the waste you have characterized remains the same. Should your waste change, please submit a new WPF to Waste Acceptance Group.

Waste Accumu : **Less-than-90-days Storage Area Site ID# 3707**
ER Waste PRS# SEE ADD. INFO

Method of Char : Chemical/Physical Analysis Number: SEE ATTACHMENT #1
Radiological Analysis Number: SEE ATTACHMENT #1

Waste Type : **Process Waste/Spent Chemical/Other**

Waste Classes: RCA Waste - **Not RCA Waste**
RAD Waste - **Radioactive-LL**

Waste Category: **Other**

Waste Sources : **Investigative Derived**

Waste Matrix : **Solid**

Matrix Type : **Homogeneous**

Process Desc :

DRILLING PROJECT AT TA-10, BAYO CANYON.

Waste Desc : INVESTIGATION DERIVED DRILL CUTTING (SOIL).

Ignitability : **Not ignitable**

Corrosivity : **Non-aqueous**

Reactivity : **Non-reactive**

Boiling Point : **Not applicable**

Toxicity Characteristic Metals:

Contaminant	Method	Limit	Min	Max	Unit
ARSENIC	**TCLP**		**0.001**	**0.015**	**PPM**
CADMIUM	**TCLP**		**0.001**	**0.0099**	**PPM**
BARIUM	**TCLP**		**0.001**	**0.5**	**PPM**

Toxicity Characteristic Organic Compounds: N/A

Additional Chemical Constituents and Contaminants:

CAS NO	Constituent	MIN	MAX	UOM
	POLY SHEETING	**1**	**2**	**%**
	SOIL	**95**	**98**	**%**

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm)											
					Alpha	Beta-Gamma										
10054599	V	NC	<0.1	<0.1	MDA	MDA	Bi-214	4.05	E	-	6	C	4.05	E	-	7
10054690	V	NC	<0.1	<0.1	MDA	MDA	Pb-212	5.31	E	-	6	C	5.31	E	-	7
10054675	V	NC	<0.1	<0.1	MDA	MDA	Pb-214	4.49	E	-	6	C	4.49	E	-	7
	V	C	<0.1	<0.1	MDA	MDA	K-40	7.71	E	-	7	C	7.71	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	Ra-226	4.05	E	-	6	C	4.05	E	-	7
	V	C	<0.1	<0.1	MDA	MDA	Ra-228	5.37	E	-	6	C	5.37	E	-	7
	V	C	<0.1	<0.1	MDA	MDA	Sr-90	7.27	E	-	6	C	7.27	E	-	7
	V	C	<0.1	<0.1	MDA	MDA	Th-208	1.57	E	-	6	C	1.57	E	-	7
	V	C	<0.1	<0.1	MDA	MDA	U-234	4.23	E	-	6	C	4.23	E	-	7
	V	C	<0.1	<0.1	MDA	MDA	U-235	5.97	E	-	5	C	5.97	E	-	6
	V	C	<0.1	<0.1	MDA	MDA	U-238	4.34	E	-	6	C	4.34	E	-	7

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity **C** – curies **M** – grams **L** - curies/liter

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)			Unit	Uncertainty		
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm) Alpha	Beta-Gamma								
10054676	V	NC	<0.1	<0.1	MDA	MDA	Bi-214	8.11	E	6	C	8.11	E	7
	V	NC	<0.1	<0.1	MDA	MDA	Pb-212	1.06	E	7	C	1.06	E	8
	V	NC	<0.1	<0.1	MDA	MDA	Pb-214	8.99	E	6	C	8.99	E	7
	V	C	<0.1	<0.1	MDA	MDA	K-40	1.54	E	8	C	1.54	E	9
	V	C	<0.1	<0.1	MDA	MDA	Ra-226	8.11	E	6	C	8.11	E	7
	V	C	<0.1	<0.1	MDA	MDA	Ra-228	1.07	E	7	C	1.07	E	8
	V	C	<0.1	<0.1	MDA	MDA	Sr-90	1.45	E	7	C	1.45	E	8
	V	C	<0.1	<0.1	MDA	MDA	Th-208	3.14	E	6	C	3.14	E	7
	V	C	<0.1	<0.1	MDA	MDA	U-234	8.46	E	6	C	8.46	E	7
	V	C	<0.1	<0.1	MDA	MDA	U-235	1.19	E	6	C	1.19	E	7
	V	C	<0.1	<0.1	MDA	MDA	U-238	8.68	E	6	C	8.68	E	7

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity C – curies M – grams L - curies/liter

LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM

WPF #: 40451

27-Nov-2007 08:50 AM (Version: 0)

Generator :	**COEL-ROBACK, BECKY**	MS :	**M992**	PH :	**6655011**	Z#:	**146032**
WMC :	**JIO, GORDON**	MS :	**M992**	PH :	**5056674325**	Z#:	**093700**
Contact :							
RCRA Rev :	**ELICIO ANDY U**	MS :	**J599**	PH :	**5056676956**	Z#:	**118692**
Status :	**ACTIVE**	Activation Date :	**11/26/2007**		Expiration Date:		**11/26/2008**
Group :	**ERSS-RS**	TA :	**10**	Bldg :	**000000**	Room :	**N/A**

You are required to keep a copy of the WPF(s) in your files for at least three years. This WPF(s) is valid for one year or as long as the composition of the waste you have characterized remains the same. Should your waste change, please submit a new WPF to Waste Acceptance Group.

Waste Accumu : **Less-than-90-days Storage Area Site ID# 3707**
ER Waste PRS# SEE ADD. INFO.

Method of Char : Chemical/Physical Analysis Number: SEE ATTACHMENT #1
Radiological Analysis Number: SEE ATTACHMENT #2

Waste Type : **Process Waste/Spent Chemical/Other**

Waste Classes: RCA Waste - **Not RCA Waste**
RAD Waste - **Radioactive-LL**

Waste Category: **Other**

Waste Sources : **Investigative Derived**

Waste Matrix : **Solid**

Matrix Type : **Heterogeneous**

Process Desc :
DRILLING PROJECT AT TA-10, BAYO CANYON.

Waste Desc : INVESTIGATION DERIVED CONTACT WASTE.

Ignitability : **Not ignitable**

Corrosivity : **Non-aqueous**

Reactivity : **Non-reactive**

Boiling Point : **Not applicable**

Toxicity Characteristic Metals:

Contaminant	Method	Limit	Min	Max	Unit
ARSENIC	**TCLP**		**0.001**	**0.015**	**PPM**
CADMIUM	**TCLP**		**0.001**	**0.0099**	**PPM**
BARIUM	**TCLP**		**0.001**	**0.5**	**PPM**

Toxicity Characteristic Organic Compounds: N/A

Additional Chemical Constituents and Contaminants:

CAS NO	Constituent	MIN	MAX	UOM
	SAMPLING WIPES AND SWIPES	**0.1**	**1**	**%**
	PLASTIC INCLUDING PPE, GLOVES, BOOTIES, SHEETING	**98**	**99**	**%**

Additional Information: THIS WPF IS FOR THE DISPOSAL OF WASTE STREAM #2 ON WCSF BAYO CANYON AGGREGATE AREA EP2007-0349 AND AMENDMENT #1, EP BAYO CANYON AGGREGATE AREA, EP2007-0611. SWMU/AOC# 10-002(A), (B), 10-003, 10-004, 10-005, 10-007 AND 10-009. THIS WASTE STREAM HAS LOW LEVEL OF RADIOACTIVE ISOPTOPES. SAMPLE NUMBER RE 10-07-7000, RE10-07-7006 AND RE-10-07-7004. SAMPLE RE 10-07-5603 SHOWS ACETONE AT 4.6 UG/KG (PPB). SAMPLE RE-10-07-5432 SHOWS TOLUENE AT 0.52 UG/KG (PPB). SAMPLE NUMBER RE-10-07-5599 SHOWS 1,1,1-TRICHLOROETHANE AT 3.2 UG/KG (PPB). A DUE DILIGENCE (SEE ATTACHED) WAS CONDUCTED SHOWING THE F-LISTING DOES NOT APPLY TO THESE THREE ORGANIC CONSTITUENTS. SECTION 6- INSIDE A CONTROLLED AREA WITH LIMITED ACCESS TO THE STORAGE AREA.

WASTE CHARACTERIZATION INFORMATION

Radioactivity Category : **RADIOACTIVE-LL**

RCRA Category : **NON HAZARDOUS**

Secondary Info : N/A

Waste Classification : **LOW-LEVEL WASTE**

Waste Acceptances :

EPA Hazardous Waste Code : N/A

GWCP Information

Section 1 - Waste Prevention/Minimization (answer all questions)

Can hazard segregation, elimination, or material substitution be used?	☐ Yes*	☒ No	
Can any of the materials in the waste stream be recycled or reused	☐ Yes*	☒ No	
Has waste minimization been incorporated into procedures or other process controls?	☒ Yes	☐ No	
Can this waste be generated outside a RCA?	☐ Yes*	☐ No	☐ N/A

*Provide Comment

Section 6 - Work Control Documentation (answer all questions)

Do the procedures for this process cover how to manage this waste?	☒ Yes	☐ No (Provide comments)
Do the procedures for this process cover controls to prevent changes to waste constituents and concentrations or addition or removal of waste?	☒ Yes	☐ No (Provide comments)

Section 7 - Package and Storage Control

Describe how the waste will be packaged in according to the applicable WAC:

WASTE PACKAGED IN DOT APPROVED DRUMS.

Identify the storage management controls that will be used for this waste stream: (check all that apply)

- ☐ Tamper indication devices:
- ☐ Limited use locks with log-in for waste
- ☐ Locked cabinet or building
- ☒ Other (describe)

Section 8 - Waste Certification Statements (check only one)

- ☒ Waste appears to meet WAC chapter for:
  CHAPTER 4.0 COMPACTIBLE SOLID LOW LEVEL WASTE.
- ☐ Waste needs exception/exemption for treatment, storage, or disposal at:
- ☐ Waste does not meet the criteria for any known TSDF, (DOE approval is required. Contact the Waste Management Program Office for assistance.)

Estimated Annual Volume (m3): 6

LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM

WPF #: 40450

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Generator :	**COEL-ROBACK, BECKY**	MS :	**M992**	PH :	**6655011**	Z#:	**146032**
WMC :	**JIO, GORDON**	MS :	**M992**	PH :	**5056674325**	Z#:	**093700**
Contact :							
RCRA Rev :	**ELICIO ANDY U**	MS :	**J599**	PH :	**5056676956**	Z#:	**118692**
Status :	**ACTIVE**	Activation Date :	**11/13/2007**		Expiration Date:		**11/13/2008**
Group :	**ERSS-RS**	TA :	**10**	Bldg :	**000000**	Room :	**N/A**

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Waste Accumu : **Less-than-90-days Storage Area Site ID# 3707**
ER Waste PRS# SEE ADD. INFO

Method of Char : Chemical/Physical Analysis Number: SEE ATTACHMENT #1
Radiological Analysis Number: SEE ATTACHMENT #1

Waste Type : **Process Waste/Spent Chemical/Other**

Waste Classes: RCA Waste - **Not RCA Waste**
RAD Waste - **Radioactive-LL**

Waste Category: **Other**

Waste Sources : **Investigative Derived**

Waste Matrix : **Solid**

Matrix Type : **Homogeneous**

Process Desc :
DRILLING PROJECT AT TA-10, BAYO CANYON.

Waste Desc : INVESTIGATION DERIVED DRILL CUTTING (SOIL).

Ignitability : **Not ignitable**

Corrosivity : **Non-aqueous**

Reactivity : **Non-reactive**

Boiling Point : **Not applicable**

Toxicity Characteristic Metals:

Contaminant	Method	Limit	Min	Max	Unit
ARSENIC	**TCLP**		**0.001**	**0.015**	**PPM**
CADMIUM	**TCLP**		**0.001**	**0.0099**	**PPM**
BARIUM	**TCLP**		**0.001**	**0.5**	**PPM**

Toxicity Characteristic Organic Compounds: N/A

Additional Chemical Constituents and Contaminants:

CAS NO	Constituent	MIN	MAX	UOM
	POLY SHEETING	**1**	**2**	**%**
	SOIL	**95**	**98**	**%**

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm)											
					Alpha	Beta-Gamma										
10054677	V	C	<0.1	<0.1	MDA	MDA	Bi-214	5.07	E	-	7	C	5.07	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	Pb-212	6.64	E	-	7	C	6.64	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	Pb-214	5.62	E	-	7	C	5.62	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	K-40	9.64	E	-	8	C	9.64	E	-	9
	V	C	<0.1	<0.1	MDA	MDA	Ra-226	5.07	E	-	7	C	5.07	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	Ra-228	6.72	E	-	7	C	6.72	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	Sr-90	9.09	E	-	7	C	9.09	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	Th-208	1.96	E	-	7	C	1.96	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	U-234	5,29	E	-	7	C	5.29	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	U-235	7.46	E	-	6	C	7.46	E	-	7
	V	C	<0.1	<0.1	MDA	MDA	U-238	5.42	E	-	7	C	5.42	E	-	8

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity C – curies M – grams L - curies/liter

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm) Alpha	Beta-Gamma										
10054678	V	C	<0.1	<0.1	MDA	MDA	Bi-214	2.70	E	-	8	C	2.70	E	-	9
	V	C	<0.1	<0.1	MDA	MDA	Pb-212	3.54	E	-	8	C	3.54	E	-	9
	V	C	<0.1	<0.1	MDA	MDA	Pb-214	3.00	E	-	8	C	3.00	E	-	9
	V	C	<0.1	<0.1	MDA	MDA	K-40	5.14	E	-	9	C	5.14	E	-	10
	V	C	<0.1	<0.1	MDA	MDA	Ra-226	2.70	E	-	8	C	2.70	E	-	9
	V	C	<0.1	<0.1	MDA	MDA	Ra-228	3.58	E	-	8	C	3.58	E	-	9
	V	C	<0.1	<0.1	MDA	MDA	Sr-90	4.85	E	-	8	C	4.85	E	-	9
	V	C	<0.1	<0.1	MDA	MDA	Th-208	1.05	E	-	8	C	1.05	E	-	9
	V	C	<0.1	<0.1	MDA	MDA	U-234	2.82	E	-	8	C	2.82	E	-	9
	V	C	<0.1	<0.1	MDA	MDA	U-235	3.98	E	-	7	C	3.98	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	U-238	2.89	E	-	8	C	2.89	E	-	9

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity **C** – curies **M** – grams **L** - curies/liter

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm) Alpha	Beta-Gamma										
10054680	V	C	<0.1	<0.1	MDA	MDA	Bi-214	6.75	E		7	C	6.75	E		8
10054689	V	C	<0.1	<0.1	MDA	MDA	Pb-212	8.85	E		7	C	8.85	E		8
	V	C	<0.1	<0.1	MDA	MDA	Pb-214	7.49	E		7	C	7.49	E		8
	V	C	<0.1	<0.1	MDA	MDA	K-40	1.28	E		9	C	1.28	E		10
	V	C	<0.1	<0.1	MDA	MDA	Ra-226	6.75	E		7	C	6.75	E		8
	V	C	<0.1	<0.1	MDA	MDA	Ra-228	8.96	E		7	C	8.96	E		8
	V	C	<0.1	<0.1	MDA	MDA	Sr-90	1.21	E		8	C	1.21	E		9
	V	C	<0.1	<0.1	MDA	MDA	Th-208	2.62	E		7	C	2.62	E		8
	V	C	<0.1	<0.1	MDA	MDA	U-234	7.05	E		7	C	7.05	E		8
	V	C	<0.1	<0.1	MDA	MDA	U-235	9.95	E		6	C	9.95	E		7
	V	C	<0.1	<0.1	MDA	MDA	U-238	7.23	E		7	C	7.23	E		8

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity **C** – curies **M** – grams **L** - curies/liter

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)			Unit	Uncertainty		
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm)									
					Alpha	Beta-Gamma								
10054692	V	C	<0.1	<0.1	MDA	MDA	Bi-214	4.05	E	7	C	4.05	E	8
	V	C	<0.1	<0.1	MDA	MDA	Pb-212	5.30	E	7	C	5.30	E	8
	V	C	<0.1	<0.1	MDA	MDA	Pb-214	4.49	E	7	C	4.49	E	8
	V	C	<0.1	<0.1	MDA	MDA	K-40	7.71	E	8	C	7.71	E	9
	V	C	<0.1	<0.1	MDA	MDA	Ra-226	4.05	E	7	C	4.05	E	8
	V	C	<0.1	<0.1	MDA	MDA	Ra-228	5.37	E	7	C	5.37	E	8
	V	C	<0.1	<0.1	MDA	MDA	Sr-90	7.27	E	7	C	7.27	E	8
	V	C	<0.1	<0.1	MDA	MDA	Th-208	1.57	E	7	C	1.57	E	8
	V	C	<0.1	<0.1	MDA	MDA	U-234	4.23	E	7	C	4.23	E	8
	V	C	<0.1	<0.1	MDA	MDA	U-235	5.97	E	6	C	5.97	E	7
	V	C	<0.1	<0.1	MDA	MDA	U-238	4.34	E	7	C	4.34	E	8

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity **C** – curies **M** – grams **L** - curies/liter

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm)											
					Alpha	Beta-Gamma										
10054694	V	C	<0.1	<0.1	MDA	MDA	Bi-214	1.01	E		8	C	1.01	E		9
	V	C	<0.1	<0.1	MDA	MDA	Pb-212	1.32	E		8	C	1.32	E		9
	V	C	<0.1	<0.1	MDA	MDA	Pb-214	1.12	E		8	C	1.12	E		9
	V	C	<0.1	<0.1	MDA	MDA	K-40	1.93	E		9	C	1.92	E		10
	V	C	<0.1	<0.1	MDA	MDA	Ra-226	1.01	E		8	C	1.01	E		9
	V	C	<0.1	<0.1	MDA	MDA	Ra-228	1.34	E		8	C	1.34	E		9
	V	C	<0.1	<0.1	MDA	MDA	Sr-90	1.82	E		8	C	1.82	E		9
	V	C	<0.1	<0.1	MDA	MDA	Th-208	3.92	E		7	C	3.92	E		8
	V	C	<0.1	<0.1	MDA	MDA	U-234	1.06	E		8	C	1.06	E		9
	V	C	<0.1	<0.1	MDA	MDA	U-235	1.49	E		7	C	1.49	E		8
	V	C	<0.1	<0.1	MDA	MDA	U-238	1.08	E		8	C	1.08	E		9

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity **C** – curies **M** – grams **L** - curies/liter

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)			Unit	Uncertainty		
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm) Alpha	Package Surface Contamination (DPM/100 sq. cm) Beta-Gamma								
10054697	V	C	<0.1	<0.1	MDA	MDA	Bi-214	8.11	E	7	C	8.11	E	8
	V	C	<0.1	<0.1	MDA	MDA	Pb-212	1.06	E	8	C	1.06	E	9
	V	C	<0.1	<0.1	MDA	MDA	Pb-214	8.99	E	7	C	8.99	E	8
	V	C	<0.1	<0.1	MDA	MDA	K-40	1.54	E	9	C	1.54	E	10
	V	C	<0.1	<0.1	MDA	MDA	Ra-226	8.11	E	7	C	8.11	E	8
	V	C	<0.1	<0.1	MDA	MDA	Ra-228	1.07	E	8	C	1.07	E	9
	V	C	<0.1	<0.1	MDA	MDA	Sr-90	1.45	E	8	C	1.45	E	9
	V	C	<0.1	<0.1	MDA	MDA	Th-208	3.14	E	7	C	3.14	E	8
	V	C	<0.1	<0.1	MDA	MDA	U-234	8.46	E	7	C	8.46	E	~~9~~ 8 GJ 11/16/07
	V	C	<0.1	<0.1	MDA	MDA	U-235	1.19	E	7	C	1.19	E	8
	V	C	<0.1	<0.1	MDA	MDA	U-238	8.68	E	7	C	8.68	E	8

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity **C** – curies **M** – grams **L** - curies/liter

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm)											
					Alpha	Beta-Gamma										
10054699	V	C	<0.1	<0.1	MDA	MDA	Bi-214	2.03	E		8	C	2.03	E		9
	V	C	<0.1	<0.1	MDA	MDA	Pb-212	2.65	E		8	C	2.65	E		9
	V	C	<0.1	<0.1	MDA	MDA	Pb-214	2.25	E		8	C	2.25	E		9
	V	C	<0.1	<0.1	MDA	MDA	K-40	3.85	E		9	C	3.85	E		10
	V	C	<0.1	<0.1	MDA	MDA	Ra-226	2.03	E		8	C	2.03	E		9
	V	C	<0.1	<0.1	MDA	MDA	Ra-228	2.69	E		8	C	2.69	E		9
	V	C	<0.1	<0.1	MDA	MDA	Sr-90	3.63	E		8	C	3.63	E		9
	V	C	<0.1	<0.1	MDA	MDA	Th-208	7.85	E		7	C	7.85	E		8
	V	C	<0.1	<0.1	MDA	MDA	U-234	2.11	E		8	C	2.11	E		9
	V	C	<0.1	<0.1	MDA	MDA	U-235	2.98	E		7	C	2.98	E		8
	V	C	<0.1	<0.1	MDA	MDA	U-238	2.17	E		8	C	2.17	E		9

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity C – curies M – grams L - curies/liter

LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM

WPF #: 40518

06-Dec-2007 07:54 AM (Version: 0) p.1

Generator :	**COEL-ROBACK, BECKY**	MS :	**M992**	PH :	**6655011**	Z#:	**146032**
WMC :	**JIO, GORDON**	MS :	**M992**	PH :	**5056674325**	Z#:	**093700**
Contact :							
RCRA Rev :	**NOLL MONICA D**	MS :	**J599**	PH :	**5056675999**	Z#:	**115370**
Status :	**ACTIVE**	Activation Date :	**12/05/2007**		Expiration Date:		**12/05/2008**
Group :	**ERSS-RS**	TA :	**10**	Bldg :	**000000**	Room :	**N/A**

You are required to keep a copy of the WPF(s) in your files for at least three years. This WPF(s) is valid for one year or as long as the composition of the waste you have characterized remains the same. Should your waste change, please submit a new WPF to Waste Acceptance Group.

Waste Accumu : **Less-than-90-days Storage Area Site ID# 3707**
ER Waste PRS# SEE COMMENTS

Method of Char : Chemical/Physical Analysis Number: SEE ATTACHMENT #1
Radiological Analysis Number: SEE ATTACHMENT #2

Waste Type : **Process Waste/Spent Chemical/Other**

Waste Classes: RCA Waste - **Not RCA Waste**
RAD Waste - **Radioactive-LL**

Waste Category: **Inorganic**
Organic
Solvent
No Longer Contained-In
Other

Waste Sources : **Investigative Derived**

Waste Matrix : **Solid**

Matrix Type : **Heterogeneous**

Process Desc :
DRILLING PROJECT AT TA-10, BAYO CANYON.

Waste Desc : INVESTIGATION DERIVED CONTACT WASTE

Ignitability : **Not ignitable**

Corrosivity : **Non-aqueous**

Reactivity : **Non-reactive**

Boiling Point : **Not applicable**

Toxicity Characteristic Metals:

Contaminant	Method	Limit	Min	Max	Unit
CADMIUM	**TCLP**		**0.009**	**0.0099**	**PPM**
BARIUM	**TCLP**		**0.1**	**0.4**	**PPM**

Toxicity Characteristic Organic Compounds:

Contaminant	Method	Limit	Min	Max	Unit
CARBON TETRACHLORIDE	**TOTA**		**0.001**	**0.16**	**PPM**
CHLOROFORM	**TOTA**		**0.002**	**0.024**	**PPM**
TRICHLOROETHYLENE	**TOTA**		**0.0003**	**0.00045**	**PPM**
TETRACHLOROETHYLENE	**TOTA**		**0.0001**	**0.0008**	**PPM**

METHYL ETHYL KETONE	**TOTA**	**0.001**	**0.0029**	**PPM**

Additional Chemical Constituents and Contaminants:

CAS NO	Constituent	MIN	MAX	UOM
	PLASTIC INCLUDING PPE, GLOVES, BOOTIES, SHEETING	98	99	%
	ZINC	0.00193	0.0161	%
	ACETONE	0.0000011	0.0000375	%
	BROMOBENZENE	0	0.000000046	%
	TOLUENE	0.000000673	0.00000352	%
	TRICHLOROETHANE[1,1,1-}	0	0.00000673	%
	DICHLOROETHANE[1,1-]	0	0.0000000375	%
	TRICHLORO-1,2,2-TRIFLUOROETHANE[1,1,2-]	0	0.0000222	%
	TRIMETHYLBENZENE[1,2,4-]	0	0.0000000395	%
	ALUMINUM	0	0.458	%
	BERYLLIUM	0.0000218	0.00042	%
	CALCIUM	0.0413	0.394	%
	COBALT	0.000048	0.00051	%
	COPPER	0.00013	0.001	%
	DI-N-BUTYLPHTHALATE	0	0.00000346	%
	IRON	0	0.978	%
	MAGNESIUM	0.0423	0.443	%
	MANGANESE	0	0.0354	%
	MOLYBDENUM	0.000049	0.00013	%
	NICKEL	0.000107	0.00094	%
	POTASSIUM	0.0358	0.265	%
	SODIUM	0.00308	0.0484	%
	THALLIUM	0.0000088	0.000036	%
	VANADIUM	0.00021	0.00166	%
	SAMPLING WIPES AND SWIPE	0.1	1	%

Additional Information: THIS WPF IS FOR THE DISPOSAL OF WASTE STREAM #2 ON WCSF BAYO CANYON AGGREGATE AREA EP2007-0349 AND AMENDMENT #1, EP BAYO CANYON AGGREGATE AREA, EP2007-0611. SWMU/AOC #10-002(A), (B), 10-003, 10-004, 10-005, 10-007 AND 10-009. SAMPLE NUMBERS RE-10-07-5496, RE-10-07-5512, RE-10-07-5998, RE-10-07-5511, RE10-07-5490, RE-10-07-5513, RE-10-07-5501, RE-10-5491, RE-10-07-5492, RE-10-07-6000, RE-10-06-5506, RE-10-07-5510, AND RE-10-07-5999. THIS WASTE STREAM HAS LOW LEVEL OF RADIOACTIVE ISOTOPES. SEE ATTACHED NO LONGER CONTAINED IN LETTER.

LDR and Underlying Hazardous Constituents Information

Non-Wastewater/Wastewater Category: **Non Wastewater**

WASTE CHARACTERIZATION INFORMATION

Radioactivity Category : **RADIOACTIVE-LL**

RCRA Category : **NON HAZARDOUS**

Secondary Info : N/A

Waste Classification : **LOW-LEVEL WASTE**

Waste Acceptances :

EPA Hazardous Waste Code : N/A

Notification Of Underlying Hazardous Constituents:

Constituents
No Underlying Hazardous Constituents in this waste stream

GWCP Information

Section 1 - Waste Prevention/Minimization (answer all questions)

Can hazard segregation, elimination, or material substitution be used?	☐ Yes*	☒ No	
Can any of the materials in the waste stream be recycled or reused	☐ Yes*	☒ No	
Has waste minimization been incorporated into procedures or other process controls?	☒ Yes	☐ No	
Can this waste be generated outside a RCA?	☐ Yes*	☐ No	☐ N/A

*Provide Comment

Section 6 - Work Control Documentation (answer all questions)

Do the procedures for this process cover how to manage this waste? ☒ Yes ☐ No (Provide comments)

Do the procedures for this process cover controls to prevent changes to waste constituents and concentrations or addition or removal of waste? ☒ Yes ☐ No (Provide comments)

Section 7 - Package and Storage Control

Describe how the waste will be packaged in according to the applicable WAC:

APPROVED PLASTIC OR METAL DRUM

Identify the storage management controls that will be used for this waste stream: (check all that apply)

- ☐ Tamper indication devices:
- ☐ Limited use locks with log-in for waste
- ☐ Locked cabinet or building
- ☒ Other (describe)

Section 8 - Waste Certification Statements (check only one)

- ☒ Waste appears to meet WAC chapter for:
  SOLIDLLW
- ☐ Waste needs exception/exemption for treatment, storage, or disposal at:
- ☐ Waste does not meet the criteria for any known TSDF, (DOE approval is required. Contact the Waste Management Program Office for assistance.)

Estimated Annual Volume (m3): 0.5

LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM

WPF #: 40450

14-Nov-2007 08:29 AM (Version: 0) p.1

Generator :	**COEL-ROBACK, BECKY**	MS :	**M992**	PH :	**6655011**	Z#:	**146032**
WMC :	**JIO, GORDON**	MS :	**M992**	PH :	**5056674325**	Z#:	**093700**
Contact :							
RCRA Rev :	**ELICIO ANDY U**	MS :	**J599**	PH :	**5056676956**	Z#:	**118692**
Status :	**ACTIVE**	Activation Date :	**11/13/2007**		Expiration Date:		**11/13/2008**
Group :	**ERSS-RS**	TA :	**10**	Bldg :	**000000**	Room :	**N/A**

You are required to keep a copy of the WPF(s) in your files for at least three years. This WPF(s) is valid for one year or as long as the composition of the waste you have characterized remains the same. Should your waste change, please submit a new WPF to Waste Acceptance Group.

Waste Accumu : **Less-than-90-days Storage Area Site ID# 3707**
ER Waste PRS# SEE ADD. INFO

Method of Char : Chemical/Physical Analysis Number: SEE ATTACHMENT #1
Radiological Analysis Number: SEE ATTACHMENT #1

Waste Type : **Process Waste/Spent Chemical/Other**

Waste Classes: RCA Waste - **Not RCA Waste**
RAD Waste - **Radioactive-LL**

Waste Category: **Other**

Waste Sources : **Investigative Derived**

Waste Matrix : **Solid**

Matrix Type : **Homogeneous**

Process Desc :
DRILLING PROJECT AT TA-10, BAYO CANYON.

Waste Desc : INVESTIGATION DERIVED DRILL CUTTING (SOIL).

Ignitability : **Not ignitable**

Corrosivity : **Non-aqueous**

Reactivity : **Non-reactive**

Boiling Point : **Not applicable**

Toxicity Characteristic Metals:

Contaminant	Method	Limit	Min	Max	Unit
ARSENIC	**TCLP**		**0.001**	**0.015**	**PPM**
CADMIUM	**TCLP**		**0.001**	**0.0099**	**PPM**
BARIUM	**TCLP**		**0.001**	**0.5**	**PPM**

Toxicity Characteristic Organic Compounds: N/A

Additional Chemical Constituents and Contaminants:

CAS NO	Constituent	MIN	MAX	UOM
	POLY SHEETING	**1**	**2**	**%**
	SOIL	**95**	**98**	**%**

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm) Alpha	Package Surface Contamination (DPM/100 sq. cm) Beta-Gamma										
10054679	V	C	<0.1	<0.1	MDA	MDA	Bi-214	3.85	E	-	5	C	3.85	E	-	6
	V	C	<0.1	<0.1	MDA	MDA	Pb-212	4.68	E	-	5	C	4.68	E	-	6
	V	C	<0.1	<0.1	MDA	MDA	Pb-214	4.65	E	-	5	C	4.65	E	-	6
	V	C	<0.1	<0.1	MDA	MDA	K-40	8.53	E	-	4	C	8.53	E	-	5
	V	C	<0.1	<0.1	MDA	MDA	Ra-226	3.85	E	-	5	C	3.85	E	-	6
	V	C	<0.1	<0.1	MDA	MDA	Ra-228	4.90	E	-	5	C	4.90	E	-	6
	V	C	<0.1	<0.1	MDA	MDA	Sr-90	9.09	E	-	5	C	9.09	E	-	6
	V	C	<0.1	<0.1	MDA	MDA	Tl-208	1.96	E	-	5	C	1.96	E	-	6
	V	C	<0.1	<0.1	MDA	MDA	U-234	3.77	E	-	5	C	3.77	E	-	6
	V	C	<0.1	<0.1	MDA	MDA	U-235	2.50	E	-	6	C	2.50	E	-	7
	V	C	<0.1	<0.1	MDA	MDA	U-238	4.07	E	-	5	C	4.07	E	-	6

[1]S = Surface, V = Volume, B = Both Surface and Volume

[2]C = Compactible, NC = Non-compactible

Units for Activity C – curies M – grams L - curies/liter

LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM

WPF #: 40543

19-Dec-2007 07:18 AM (Version: 0) p.1

Generator :	**COEL-ROBACK, BECKY**	MS :	**M992**	PH :	**6655011**	Z#:	**146032**
WMC :	**JIO, GORDON**	MS :	**M992**	PH :	**5056674325**	Z#:	**093700**
Contact :							
RCRA Rev :	**ELICIO ANDY U**	MS :	**J599**	PH :	**5056676956**	Z#:	**118692**
Status :	**ACTIVE**	Activation Date :	**12/18/2007**		Expiration Date:		**12/18/2008**
Group :	**ERSS-RS**	TA :	**10**	Bldg :	**000000**	Room :	**N/A**

You are required to keep a copy of the WPF(s) in your files for at least three years. This WPF(s) is valid for one year or as long as the composition of the waste you have characterized remains the same. Should your waste change, please submit a new WPF to Waste Acceptance Group.

Waste Accumu : **None of the Above Site ID#**
ER Waste PRS# CU#10-002(A)-99

Method of Char : Chemical/Physical Analysis Number: RE 10-07-6291
Radiological Analysis Number: RE 10-07-6291

Waste Type : **Process Waste/Spent Chemical/Other**

Waste Classes: RCA Waste - **Not RCA Waste**
RAD Waste - **Radioactive-LL**

Waste Category: **Inorganic**
Other

Waste Sources : **Investigative Derived**

Waste Matrix : **Solid**

Matrix Type : **Heterogeneous**

Process Desc :
DRILLING PROJECT AT TA-10, BAYO CANYON.

Waste Desc : INVESTIGATION DERIVED SOIL AND DEBRIS FROM LIMITED HOT SPOT REMOVAL.

Ignitability : **Not ignitable**

Corrosivity : **Non-aqueous**

Reactivity : **Non-reactive**

Boiling Point : **Not applicable**

Toxicity Characteristic Metals:

Contaminant	Method	Limit	Min	Max	Unit
ARSENIC	**TOTA**		**0**	**1.91**	**PPM**
BARIUM	**TOTA**		**0**	**21.9**	**PPM**
CHROMIUM	**TOTA**		**0**	**2.97**	**PPM**
SILVER	**TOTA**		**0**	**0.116**	**PPM**
MERCURY	**TOTA**		**0**	**0.0104**	**PPM**
SELENIUM	**TOTA**		**0**	**0.716**	**PPM**
LEAD	**TOTA**		**0**	**23.9**	**PPM**

Toxicity Characteristic Organic Compounds: N/A

Additional Chemical Constituents and Contaminants:

CAS NO	Constituent	MIN	MAX	UOM
	SOIL	**95**	**99**	%
	ZINC	**0**	**0.0043**	%
	ALUMINUM	**0**	**0.435**	%
	BERYLLIUM	**0**	**0.0000469**	%
	CALCIUM	**0**	**0.0674**	%
	COBALT	**0**	**0.000123**	%
	COPPER	**0**	**0.000384**	%
	CYANIDE (TOTAL)	**0**	**0.0000223**	%
	IRON	**0**	**0.864**	%
	MAGNESIUM	**0**	**0.0656**	%
	MANGANESE	**0**	**0.0269**	%
	NICKEL	**0**	**0.000282**	%
	POTASSIUM	**0**	**0.0472**	%
	SODIUM	**0**	**0.0227**	%
	THALLIUM	**0**	**0.0000185**	%
	VANADIUM	**0**	**0.000755**	%
	XYLENE[1,3]+XYLENE[1,4-]	**0**	**0.0000000279**	%
	CONTACT WASTE INCLUDING PLASTIC SHEETING, GLOVES, WIPES AND SWIPES	**1**	**5**	%

Additional Information: THIS WPF IS FOR THE DISPOSAL OF WASTE STREAM #9 ON WCSF BAYO CANYON AGGREGATE AREA EP 2007-0349 AND AMENDMENT #1, EP BAYO CANYON AGGREGATE AREA, EP 2007-0611. THIS WASTE STREAM HAS LOW LEVELS OF RADIOACTIVE ISOTOPES. SECTION 7- INSIDE A CONTROLLED AREA WITH LIMITED ACCESS TO THE STORAGE AREA

WASTE CHARACTERIZATION INFORMATION

Radioactivity Category : **RADIOACTIVE-LL**

RCRA Category : **NON HAZARDOUS**

Secondary Info : N/A

Waste Classification : **LOW-LEVEL WASTE**

Waste Acceptances :

EPA Hazardous Waste Code : N/A

GWCP Information

Section I - Waste Prevention/Minimization (answer all questions)

Can hazard segregation, elimination, or material substitution be used?	☐ Yes*	☒ No	
Can any of the materials in the waste stream be recycled or reused	☐ Yes*	☒ No	
Has waste minimization been incorporated into procedures or other process controls?	☒ Yes	☐ No	
Can this waste be generated outside a RCA?	☐ Yes*	☐ No	☐ N/A

*Provide Comment

Section 6 - Work Control Documentation (answer all questions)

Do the procedures for this process cover how to manage this waste?	☒ Yes	☐ No (Provide comments)
Do the procedures for this process cover controls to prevent changes to waste constituents and concentrations or addition or removal of waste?	☒ Yes	☐ No (Provide comments)

Section 7 - Package and Storage Control

Describe how the waste will be packaged in according to the applicable WAC:

WASTE IS PACKAGED IN DOT APPROVED DRUMS.

Identify the storage management controls that will be used for this waste stream: (check all that apply)

- ☐ Tamper indication devices:
- ☐ Limited use locks with log-in for waste
- ☐ Locked cabinet or building
- ☒ Other (describe)

Section 8 - Waste Certification Statements (check only one)

- ☒ Waste appears to meet WAC chapter for:
  CHAPTER 3.0 SOLID LOW LEVEL WASTE.
- ☐ Waste needs exception/exemption for treatment, storage, or disposal at:
- ☐ Waste does not meet the criteria for any known TSDF, (DOE approval is required. Contact the Waste Management Program Office for assistance.)

Estimated Annual Volume (m3): 0.1

LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM

WPF #: 40544

19-Dec-2007 07:17 AM (Version: 0)

Generator :	**COEL-ROBACK, BECKY**	MS :	**M992**	PH :	**6655011**	Z#:	**146032**
WMC :	**JIO, GORDON**	MS :	**M992**	PH :	**5056674325**	Z#:	**093700**
Contact :							
RCRA Rev :	**ELICIO ANDY U**	MS :	**J599**	PH :	**5056676956**	Z#:	**118692**
Status :	**ACTIVE**	Activation Date :	**12/18/2007**		Expiration Date:		**12/18/2008**
Group :	**ERSS-RS**	TA :	**10**	Bldg :	**000000**	Room :	**NA**

You are required to keep a copy of the WPF(s) in your files for at least three years. This WPF(s) is valid for one year or as long as the composition of the waste you have characterized remains the same. Should your waste change, please submit a new WPF to Waste Acceptance Group.

Waste Accumu : **None of the Above Site ID#**
ER Waste PRS# CU#10-002(A)-99

Method of Char : Chemical/Physical Analysis Number: RE 10-07-6291
Radiological Analysis Number: RE 10-07-6291

Waste Type : **Process Waste/Spent Chemical/Other**

Waste Classes: RCA Waste - **Not RCA Waste**
RAD Waste - **Radioactive-LL**

Waste Category: **Inorganic**
Other

Waste Sources : **Investigative Derived**

Waste Matrix : **Solid**

Matrix Type : **Heterogeneous**

Process Desc :
DRILLING PROJECT AT TA-10, BAYO CANYON.

Waste Desc : INVESTIGATION DERIVED ROCK, SOIL AND DEBRIS FROM LIMITED HOT SPOT REMOVAL.

Ignitability : **Not ignitable**

Corrosivity : **Non-aqueous**

Reactivity : **Non-reactive**

Boiling Point : **Not applicable**

Toxicity Characteristic Metals:

Contaminant	Method	Limit	Min	Max	Unit
ARSENIC	**TOTA**		**0**	**1.91**	**PPM**
BARIUM	**TOTA**		**0**	**21.9**	**PPM**
CHROMIUM	**TOTA**		**0**	**2.97**	**PPM**
SILVER	**TOTA**		**0**	**0.116**	**PPM**
MERCURY	**TOTA**		**0**	**0.0104**	**PPM**
SELENIUM	**TOTA**		**0**	**0.716**	**PPM**
LEAD	**TOTA**		**0**	**23.9**	**PPM**

Toxicity Characteristic Organic Compounds: N/A

Additional Chemical Constituents and Contaminants:

CAS NO	Constituent	MIN	MAX	UOM
	ROCK	**70**	**80**	%
	ZINC	**0**	**0.0043**	%
	CONTACT WASTE INCLUDING PLASTIC SHEETING, GLOVES, WIPES AND SWIPES	**1**	**5**	%
	ALUMINUM	**0**	**0.435**	%
	BERYLLIUM	**0**	**0.0000469**	%
	CALCIUM	**0**	**0.0674**	%
	COBALT	**0**	**0.000123**	%
	COPPER	**0**	**0.000384**	%
	CYANIDE (TOTAL)	**0**	**0.0000223**	%
	IRON	**0**	**0.864**	%
	MAGNESIUM	**0**	**0.0656**	%
	MANGANESE	**0**	**0.0269**	%
	NICKEL	**0**	**0.000282**	%
	POTASSIUM	**0**	**0.0472**	%
	SODIUM	**0**	**0.0227**	%
	THALLIUM	**0**	**0.0000185**	%
	VANADIUM	**0**	**0.000755**	%
	XYLENE[1,3-]+XYLENE[1,4-]	**0**	**0.0000000279**	%
	SOIL	**10**	**20**	%

Additional Information: THIS WPF IS FOR THE DISPOSAL OF WASTE STREAM #9 ON WCSF BAYO CANYON AGGREGATE AREA EP 2007-0349 AND AMENDMENT #1, EP BAYO CANYON AGGREGATE AREA, EP 2007-0611. THIS WASTE STREAM HAS LOW LEVELS OF RADIOACTIVE ISOTOPES. SECTION 7- INSIDE A CONTROLLED AREA WITH LIMITED ACCESS TO THE STORAGE AREA.

WASTE CHARACTERIZATION INFORMATION

Radioactivity Category : **RADIOACTIVE-LL**

RCRA Category : **NON HAZARDOUS**

Secondary Info : N/A

Waste Classification : **LOW-LEVEL WASTE**

Waste Acceptances :

EPA Hazardous Waste Code : N/A

GWCP Information

Section 1 - Waste Prevention/Minimization (answer all questions)

Can hazard segregation, elimination, or material substitution be used?	☐ Yes*	☒ No	
Can any of the materials in the waste stream be recycled or reused	☐ Yes*	☒ No	
Has waste minimization been incorporated into procedures or other process controls?	☒ Yes	☐ No	
Can this waste be generated outside a RCA?	☐ Yes*	☐ No	☐ N/A

*Provide Comment

Section 6 - Work Control Documentation (answer all questions)

Do the procedures for this process cover how to manage this waste?	☒ Yes	☐ No (Provide comments)
Do the procedures for this process cover controls to prevent changes to waste constituents and concentrations or addition or removal of waste?	☒ Yes	☐ No (Provide comments)

Section 7 - Package and Storage Control

Describe how the waste will be packaged in according to the applicable WAC:

WASTE IS PACKAGED IN DOT APPROVED DRUMS.

Identify the storage management controls that will be used for this waste stream: (check all that apply)

- ☐ Tamper indication devices:
- ☐ Limited use locks with log-in for waste
- ☐ Locked cabinet or building
- ☒ Other (describe)

Section 8 - Waste Certification Statements (check only one)

- ☒ Waste appears to meet WAC chapter for:
  CHAPTER 3.0 SOLID LOW LEVEL WASTE.
- ☐ Waste needs exception/exemption for treatment, storage, or disposal at:
- ☐ Waste does not meet the criteria for any known TSDF, (DOE approval is required. Contact the Waste Management Program Office for assistance.)

Estimated Annual Volume (m3): 0.1

LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM

WPF #: 40450

14-Nov-2007 08:29 AM (Version: 0) p.1

Generator :	**COEL-ROBACK, BECKY**	MS :	**M992**	PH :	**6655011**	Z#:	**146032**
WMC :	**JIO, GORDON**	MS :	**M992**	PH :	**5056674325**	Z#:	**093700**
Contact :							
RCRA Rev :	**ELICIO ANDY U**	MS :	**J599**	PH :	**5056676956**	Z#:	**118692**
Status :	**ACTIVE**	Activation Date :	**11/13/2007**		Expiration Date:		**11/13/2008**
Group :	**ERSS-RS**	TA :	**10**	Bldg :	**000000**	Room :	**N/A**

You are required to keep a copy of the WPF(s) in your files for at least three years. This WPF(s) is valid for one year or as long as the composition of the waste you have characterized remains the same. Should your waste change, please submit a new WPF to Waste Acceptance Group.

Waste Accumu : **Less-than-90-days Storage Area Site ID# 3707**
ER Waste PRS# SEE ADD. INFO

Method of Char : Chemical/Physical Analysis Number: SEE ATTACHMENT #1
Radiological Analysis Number: SEE ATTACHMENT #1

Waste Type : **Process Waste/Spent Chemical/Other**

Waste Classes: RCA Waste - **Not RCA Waste**
RAD Waste - **Radioactive-LL**

Waste Category: **Other**

Waste Sources : **Investigative Derived**

Waste Matrix : **Solid**

Matrix Type : **Homogeneous**

Process Desc :
DRILLING PROJECT AT TA-10, BAYO CANYON.

Waste Desc : INVESTIGATION DERIVED DRILL CUTTING (SOIL).

Ignitability : **Not ignitable**

Corrosivity : **Non-aqueous**

Reactivity : **Non-reactive**

Boiling Point : **Not applicable**

Toxicity Characteristic Metals:

Contaminant	Method	Limit	Min	Max	Unit
ARSENIC	**TCLP**		**0.001**	**0.015**	**PPM**
CADMIUM	**TCLP**		**0.001**	**0.0099**	**PPM**
BARIUM	**TCLP**		**0.001**	**0.5**	**PPM**

Toxicity Characteristic Organic Compounds: N/A

Additional Chemical Constituents and Contaminants:

CAS NO	Constituent	MIN	MAX	UOM
	POLY SHEETING	**1**	**2**	**%**
	SOIL	**95**	**98**	**%**

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm) Alpha	Package Surface Contamination (DPM/100 sq. cm) Beta-Gamma										
10054303	V	NC	<0.1	<0.1	MDA	MDA	Cs-137	6.98	E	-	6	C	6.98	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	Sr-90	2.83	E	-	3	C	2.83	E	-	4
	V	NC	<0.1	<0.1	MDA	MDA	U-234	1.67	E	-	5	C	1.67	E	-	6
	V	NC	<0.1	<0.1	MDA	MDA	U-238	1.75	E	-	5	C	1.75	E	-	6
10054305	V	NC	<0.1	<0.1	MDA	MDA	Cs-137	3.49	E	-	6	C	3.49	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	Sr-90	1.42	E	-	3	C	1.42	E	-	4
	V	NC	<0.1	<0.1	MDA	MDA	U-234	8.37	E	-	6	C	8.37	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	U-238	8.74	E	-	6	C	8.74	E	-	7

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity C – curies M – grams L - curies/liter

Los Alamos
National Laboratory

Chemical Waste Disposal Request

ORIGINAL
3022238

This form is used to request disposal of chemical and low-level radioactive wastes. Fill out electronically, then print and sign. Mail completed form to Waste Services at MS J595.

Account Information	Z Number	Name (Print)	Telephone	Date
6A00A/MR3A/0222/L1TO D	093700	Gordon Jio	231-7881	12/17/07

Waste Pick-up Location and Storage Type:	TA	Building	Room	☐ Security Area	☐ Direct Off-Site Shipment
	10	outside	N/A		

☒ < 90 Day Accumulation Area
☐ Universal Waste Area
☐ TSDF (Start Date: 09/10/07)

☐ Satellite Accumulation Area (Approx. vol:)
☐ PCB Waste (Start Date:)
☐ NM Special Waste (<90 days) (Start Date:)

☐ Rad Staging Area (<90 days)
☐ Rad Storage Area (<1 year) (Start Date:)

☐ Rad Dumpster (No:)
☒ Other (describe in description)

Item Id	Waste Profile Number	Shipping Container Information: Type	Volume	Unit	Tare Weight	Unit	Waste Information: Volume	Unit	Weight	Unit	*S=Solid L=Liquid G=Gas P=Powder	Description
~~L00~~10090926	40450	13	20	M	3000	P	3	M	2500	P	S	Drill cuttings with plastic sheeting in roll off bin
roll off 01.20.12												

Container Types
01-Bulk (Unpackaged) 02-Metal Drum 03-Fiber or Plastic Drum 04-Plastic Bottle or Container 05-Glass Bottle or Container 06-Plastic Bag 07-Fiber or Plastic Box 08-Wooden Box 09-Metal Box 10-Portable Tank 11-Cylinder 12-Shield Cask 13-Other (specify in description) 14-Compactor Box 15-Aerosol Can

Units for Volume
G-Gallon M-Cubic Meters L-Liters O-Fluid Ounce F-Cubic Feet P-Pint Q-Quart

Units for Weight
P-Pound O-Ounce K-Kilograms T-Tons G-Grams

CERTIFICATION STATEMENT: To the best of my knowledge, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Printed Name	Signature	Z Number	Date
Gordon Jio	Gordon Jio	093700	12/17/07

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm) Alpha	Beta-Gamma										
10090926	V	NC	<0.1	<0.1	MDA	MDA	Bi-214	1.62	E		6	C	1.62	E		7
	V	NC	<0.1	<0.1	MDA	MDA	Pb-212	2.12	E		6	C	2.12	E		7
	V	NC	<0.1	<0.1	MDA	MDA	Pb-214	1.80	E		6	C	1.80	E		7
	V	NC	<0.1	<0.1	MDA	MDA	K-40	3.08	E		7	C	3.08	E		8
	V	NC	<0.1	<0.1	MDA	MDA	Ra-226	1.62	E		6	C	1.62	E		7
	V	NC	<0.1	<0.1	MDA	MDA	Ra-228	2.15	E		6	C	2.15	E		7
	V	NC	<0.1	<0.1	MDA	MDA	Sr-90	2.90	E		6	C	2.90	E		7
	V	NC	<0.1	<0.1	MDA	MDA	Tl-208	6.28	E		5	C	6.28	E		6
	V	NC	<0.1	<0.1	MDA	MDA	U-234	1.69	E		6	C	1.69	E		7
	V	NC	<0.1	<0.1	MDA	MDA	U-235	2.39	E		5	C	2.39	E		6
	V	NC	<0.1	<0.1	MDA	MDA	U-238	1.74	E		5	C	1.74	E		6

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity C – curies M – grams L - curies/liter

ORIGINAL

3022256

Los Alamos National Laboratory

Chemical Waste Disposal Request

This form is used to request disposal of chemical and low-level radioactive wastes. Fill out electronically, then print and sign. Mail completed form to Waste Services at MS J595.

Account Information	Z Number	Name (Print)	Telephone	Date
6A00A/MR3A/0222/L1TO	093700	Gordon Jio	231-7881	12/17/07

Waste Pick-up Location and Storage Type:	TA	Building	Room	☐ Security Area	☐ Direct Off-Site Shipment
	10	outside	N/A		

☒ < 90 Day Accumulation Area
☐ Universal Waste Area
☐ TSDF
(Start Date: 09/10/07)

☐ Satellite Accumulation Area (Approx. vol:)
☐ PCB Waste (Start Date:)
☐ NM Special Waste (<90 days) (Start Date:)

☐ Rad Staging Area (<90 days)
☐ Rad Storage Area (<1 year)
(Start Date:)

☐ Rad Dumpster (No:)
☒ Other (describe in description)

Item Id	Waste Profile Number	Shipping Container Information: Type	Volume	Unit	Tare Weight	Unit	Waste Information: Volume	Unit	Weight	Unit	*S=Solid L=Liquid G=Gas P=Powder	Description
~~10090925~~												
10090929	40450	13	20	M	3000	P	3	M	2500	P	S	Drill cuttings with plastic sheeting in roll off bin
roll off 02.09.12												

Container Types
01-Bulk (Unpackaged) 02-Metal Drum 03-Fiber or Plastic Drum 04-Plastic Bottle or Container 05-Glass Bottle or Container 06-Plastic Bag 07-Fiber or Plastic Box 08-Wooden Box 09-Metal Box 10-Portable Tank 11-Cylinder 12-Shield Cask 13-Other (specify in description) 14-Compactor Box 15-Aerosol Can

Units for Volume
G-Gallon M-Cubic Meters L-Liters O-Fluid Ounce F-Cubic Feet P-Pint Q-Quart

Units for Weight
P-Pound O-Ounce K-Kilograms T-Tons G-Grams

CERTIFICATION STATEMENT: To the best of my knowledge, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Printed Name	Signature	Z Number	Date
Gordon Jio	Gordon Jio	093700	12/17/07

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm) Alpha	Package Surface Contamination (DPM/100 sq. cm) Beta-Gamma										
10090929	V	NC	<0.1	<0.1	MDA	MDA	Bi-214	1.62	E	-	6	C	1.62	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	Pb-212	2.12	E	-	6	C	2.12	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	Pb-214	1.80	E	-	6	C	1.80	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	K-40	3.08	E	-	7	C	3.08	E	-	8
	V	NC	<0.1	<0.1	MDA	MDA	Ra-226	1.62	E	-	6	C	1.62	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	Ra-228	2.15	E	-	6	C	2.15	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	Sr-90	2.90	E	-	6	C	2.90	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	Tl-208	6.28	E	-	5	C	6.28	E	-	6
	V	NC	<0.1	<0.1	MDA	MDA	U-234	1.69	E	-	6	C	1.69	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	U-235	2.39	E	-	5	C	2.39	E	-	6
	V	NC	<0.1	<0.1	MDA	MDA	U-238	1.74	E	-	5	C	1.74	E	-	6

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity C – curies M – grams L - curies/liter

Los Alamos
National Laboratory

Chemical Waste Disposal Request

ORIGIN 3022254

This form is used to request disposal of chemical and low-level radioactive wastes. Fill out electronically, then print and sign. Mail completed form to Waste Services at MS J595.

Account Information	Z Number	Name (Print)	Telephone	Date
6A00A/MR3A/0222/L1TO	093700	Gordon Jio	231-7881	12/17/07

Waste Pick-up Location and Storage Type:	TA	Building	Room	☐ Security Area	☐ Direct Off-Site Shipment
	10	outside	N/A		

☒ < 90 Day Accumulation Area
☐ Universal Waste Area
☐ TSDF
(Start Date: 09/10/07)

☐ Satellite Accumulation Area (Approx. vol:)
☐ PCB Waste (Start Date:)
☐ NM Special Waste (<90 days) (Start Date:)

☐ Rad Staging Area (<90 days)
☐ Rad Storage Area (<1 year)
(Start Date:)

☐ Rad Dumpster (No:)
☒ Other (describe in description)

Item Id	Waste Profile Number	Shipping Container Information: Type	Volume	Unit	Tare Weight	Unit	Waste Information: Volume	Unit	Weight	Unit	*S=Solid L=Liquid G=Gas P=Powder	Description
10090927	40450	13	12	M	2000	P	3	M	2500	P	S	Drill cuttings with plastic sheeting in roll off bin
roll off 05Z6,12												

Container Types
01-Bulk (Unpackaged) 04-Plastic Bottle or Container 07-Fiber or Plastic Box 10-Portable Tank 13-Other (specify in description)
02-Metal Drum 05-Glass Bottle or Container 08-Wooden Box 11-Cylinder 14-Compactor Box
03-Fiber or Plastic Drum 06-Plastic Bag 09-Metal Box 12-Shield Cask 15-Aerosol Can

Units for Volume
G-Gallon M-Cubic Meters
L-Liters O-Fluid Ounce
F-Cubic Feet P-Pint
Q-Quart

Units for Weight
P-Pound O-Ounce
K-Kilograms T-Tons
G-Grams

CERTIFICATION STATEMENT: To the best of my knowledge, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Printed Name	Signature	Z Number	Date
Gordon Jio	Gordon Jio	093700	12/17/07

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm) Alpha	Package Surface Contamination (DPM/100 sq. cm) Beta-Gamma										
10090927	V	NC	<0.1	<0.1	MDA	MDA	Bi-214	1.62	E		6	C	1.62	E		7
	V	NC	<0.1	<0.1	MDA	MDA	Pb-212	2.12	E		6	C	2.12	E		7
	V	NC	<0.1	<0.1	MDA	MDA	Pb-214	1.80	E		6	C	1.80	E		7
	V	NC	<0.1	<0.1	MDA	MDA	K-40	3.08	E		7	C	3.08	E		8
	V	NC	<0.1	<0.1	MDA	MDA	Ra-226	1.62	E		6	C	1.62	E		7
	V	NC	<0.1	<0.1	MDA	MDA	Ra-228	2.15	E		6	C	2.15	E		7
	V	NC	<0.1	<0.1	MDA	MDA	Sr-90	2.90	E		6	C	2.90	E		7
	V	NC	<0.1	<0.1	MDA	MDA	Tl-208	6.28	E		5	C	6.28	E		6
	V	NC	<0.1	<0.1	MDA	MDA	U-234	1.69	E		6	C	1.69	E		7
	V	NC	<0.1	<0.1	MDA	MDA	U-235	2.39	E		5	C	2.39	E		6
	V	NC	<0.1	<0.1	MDA	MDA	U-238	1.74	E		5	C	1.74	E		6

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity C – curies M – grams L - curies/liter

hand carried 11/16/07

COPY

3022.142

Los Alamos National Laboratory

Chemical Waste Disposal Request

This form is used to request disposal of chemical and low-level radioactive wastes. Fill out electronically, then print and sign. Mail completed form to Waste Services at MS J595.

Account Information	Z Number	Name (Print)	Telephone	Date
6A00A/MR3A/0222/L1TO	093700	Gordon Jio	231-7881	11/16/07

Waste Pick-up Location and Storage Type:	TA	Building	Room	☐ Security Area	☐ Direct Off-Site Shipment
	10	outside	N/A		

☐ < 90 Day Accumulation Area
☐ Universal Waste Area
☐ TSDF
(Start Date:)

☐ Satellite Accumulation Area (Approx. vol:)
☐ PCB Waste (Start Date:)
☐ NM Special Waste (<90 days) (Start Date:)

☐ Rad Staging Area (<90 days)
☐ Rad Storage Area (<1 year)
(Start Date:)

☐ Rad Dumpster (No:)
☒ Other (describe in description)

Item Id	Waste Profile Number	Shipping Container Information: Type	Volume	Unit	Tare Weight	Unit	Waste Information: Volume	Unit	Weight	Unit	*S=Solid L=Liquid G=Gas P=Powder	Description
10090920 roll off 0534	40450	13	12	M	2000	P	3	M	2500	P	S	Drill cuttings with plastic sheeting in roll off bin
~~10090921~~ 10090926	40450	13	20	M	3000	P	3	M	2500	P	S	Drill cuttings with plastic sheeting in roll off bin
~~10090922~~ 10090927	40450	13	12	M	2000	P	3	M	2500	P	S	Drill cuttings with plastic sheeting in roll off bin
~~10090924~~ 10090928	40450	13	20	M	3000	P	3	M	2500	P	S	Drill cuttings with plastic sheeting in roll off bin
~~10090925~~ 10090929	40450	13	20		3000		3	M	2500	P	S	Drill cuttings with plastic sheeting in roll off bin

Container Types
01-Bulk (Unpackaged) 02-Metal Drum 03-Fiber or Plastic Drum 04-Plastic Bottle or Container 05-Glass Bottle or Container 06-Plastic Bag 07-Fiber or Plastic Box 08-Wooden Box 09-Metal Box 10-Portable Tank 11-Cylinder 12-Shield Cask 13-Other (specify in description) 14-Compactor Box 15-Aerosol Can

Units for Volume
G-Gallon M-Cubic Meters L-Liters O-Fluid Ounce F-Cubic Feet P-Pint Q-Quart

Units for Weight
P-Pound O-Ounce K-Kilograms T-Tons G-Grams

CERTIFICATION STATEMENT: To the best of my knowledge, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Printed Name	Signature	Z Number	Date
Gordon Jio	Gordon Jio	093700	11/16/07

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm)											
					Alpha	Beta-Gamma										
10090920	V	NC	<0.1	<0.1	MDA	MDA	Bi-214	1.62	E		6	C	1.62	E		7
10090921	V	NC	<0.1	<0.1	MDA	MDA	Pb-212	2.12	E		6	C	2.12	E		7
10090922	V	NC	<0.1	<0.1	MDA	MDA	Pb-214	1.80	E		6	C	1.80	E		7
10090924	V	C	<0.1	<0.1	MDA	MDA	K-40	3.08	E		7	C	3.08	E		8
10090925	V	C	<0.1	<0.1	MDA	MDA	Ra-226	1.62	E		6	C	1.62	E		7
	V	C	<0.1	<0.1	MDA	MDA	Ra-228	2.15	E		6	C	2.15	E		7
	V	C	<0.1	<0.1	MDA	MDA	Sr-90	2.90	E		6	C	2.90	E		7
	V	C	<0.1	<0.1	MDA	MDA	Th-208	6.28	E		5	C	6.28	E		6
	V	C	<0.1	<0.1	MDA	MDA	U-234	1.69	E		6	C	1.69	E		7
	V	C	<0.1	<0.1	MDA	MDA	U-235	2.39	E		5	C	2.39	E		6
	V	C	<0.1	<0.1	MDA	MDA	U-238	1.74	E		5	C	1.74	E		6

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity **C** – curies **M** – grams **L** - curies/liter

Los Alamos
National Laboratory

Chemical Waste Disposal Request

ORIGINAL

3022255

This form is used to request disposal of chemical and low-level radioactive wastes. Fill out electronically, then print and sign. Mail completed form to Waste Services at **MS J595.**

Account Information	Z Number	Name (Print)	Telephone	Date
6A00A/MR3A/0222/LITO D	093700	Gordon Jio	231-7881	12/17/07

Waste Pick-up Location and Storage Type:	TA	Building	Room	☐ Security Area	☐ Direct Off-Site Shipment
	10	outside	N/A		

☒ **< 90 Day Accumulation Area**
☐ **Universal Waste Area**
☐ **TSDF**
(Start Date: 09/10/07)

☐ **Satellite Accumulation Area** (Approx. vol:)
☐ **PCB Waste** (Start Date:)
☐ **NM Special Waste** (<90 days) (Start Date:)

☐ **Rad Staging Area** (<90 days)
☐ **Rad Storage Area** (<1 year)
(Start Date:)

☐ **Rad Dumpster** (No:)
☒ **Other** (describe in description)

Item Id	Waste Profile Number	Shipping Container Information: Type	Volume	Unit	Tare Weight	Unit	Waste Information: Volume	Unit	Weight	Unit	*S=Solid L=Liquid G=Gas P=Powder	Description
~~10090924~~												
10090928 Nat Oil 0327.12	40450	13	20	M	3000	P	3	M	2500	P	S	Drill cuttings with plastic sheeting in roll off bin

Container Types
01-Bulk (Unpackaged) 02-Metal Drum 03-Fiber or Plastic Drum 04-Plastic Bottle or Container 05-Glass Bottle or Container 06-Plastic Bag 07-Fiber or Plastic Box 08-Wooden Box 09-Metal Box 10-Portable Tank 11-Cylinder 12-Shield Cask 13-Other (specify in description) 14-Compactor Box 15-Aerosol Can

Units for Volume
G-Gallon L-Liters F-Cubic Feet Q-Quart M-Cubic Meters O-Fluid Ounce P-Pint

Units for Weight
P-Pound K-Kilograms G-Grams O-Ounce T-Tons

CERTIFICATION STATEMENT: To the best of my knowledge, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Printed Name	Signature	Z Number	Date
Gordon Jio	Gordon Jio	093700	12/17/07

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm) Alpha	Package Surface Contamination (DPM/100 sq. cm) Beta-Gamma										
10090928	V	NC	<0.1	<0.1	MDA	MDA	Bi-214	1.62	E		6	C	1.62	E		7
	V	NC	<0.1	<0.1	MDA	MDA	Pb-212	2.12	E		6	C	2.12	E		7
	V	NC	<0.1	<0.1	MDA	MDA	Pb-214	1.80	E		6	C	1.80	E		7
	V	NC	<0.1	<0.1	MDA	MDA	K-40	3.08	E		7	C	3.08	E		8
	V	NC	<0.1	<0.1	MDA	MDA	Ra-226	1.62	E		6	C	1.62	E		7
	V	NC	<0.1	<0.1	MDA	MDA	Ra-228	2.15	E		6	C	2.15	E		7
	V	NC	<0.1	<0.1	MDA	MDA	Sr-90	2.90	E		6	C	2.90	E		7
	V	NC	<0.1	<0.1	MDA	MDA	Tl-208	6.28	E		5	C	6.28	E		6
	V	NC	<0.1	<0.1	MDA	MDA	U-234	1.69	E		6	C	1.69	E		7
	V	NC	<0.1	<0.1	MDA	MDA	U-235	2.39	E		5	C	2.39	E		6
	V	NC	<0.1	<0.1	MDA	MDA	U-238	1.74	E		5	C	1.74	E		6

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity **C** – curies **M** – grams **L** - curies/liter

Los Alamos
National Laboratory

Chemical Waste Disposal Request

ORIGINAL
3022193

This form is used to request disposal of chemical and low-level radioactive wastes. Fill out electronically, then print and sign. Mail completed form to Waste Services at MS J595.

Account Information	Z Number	Name (Print)	Telephone	Date
6A00A/MR3A/0222/L1TO	093700	Gordon Jio	231-7881	11/30/07

Waste Pick-up Location and Storage Type:	TA	Building	Room	☐ Security Area	☐ Direct Off-Site Shipment
	10	outside	N/A		

☒ < 90 Day Accumulation Area
☐ Universal Waste Area
☐ TSDF (Start Date: 09/10/07)
☐ Satellite Accumulation Area (Approx. vol:)
☐ PCB Waste (Start Date:)
☐ NM Special Waste (<90 days) (Start Date:)
☐ Rad Staging Area (<90 days)
☐ Rad Storage Area (<1 year) (Start Date:)
☐ Rad Dumpster (No:)
☒ Other (describe in description)

Item Id	Waste Profile Number	Shipping Container Information					Waste Information				*S=Solid L=Liquid G=Gas P=Powder	Description
		Type	Volume	Unit	Tare Weight	Unit	Volume	Unit	Weight	Unit		
10090919	40517	13	12	M	2000	P	3	M	2500	P	S	Drill cuttings with plastic sheeting in roll off bin
Roll off 0531.12												

Container Types
01-Bulk (Unpackaged), 02-Metal Drum, 03-Fiber or Plastic Drum, 04-Plastic Bottle or Container, 05-Glass Bottle or Container, 06-Plastic Bag, 07-Fiber or Plastic Box, 08-Wooden Box, 09-Metal Box, 10-Portable Tank, 11-Cylinder, 12-Shield Cask, 13-Other (specify in description), 14-Compactor Box, 15-Aerosol Can

Units for Volume
G-Gallon, M-Cubic Meters, L-Liters, O-Fluid Ounce, F-Cubic Feet, P-Pint, Q-Quart

Units for Weight
P-Pound, O-Ounce, K-Kilograms, T-Tons, G-Grams

CERTIFICATION STATEMENT: To the best of my knowledge, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Printed Name	Signature	Z Number	Date
Gordon Jio	Gordon Jio	093700	11/30/07

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm) Alpha	Package Surface Contamination (DPM/100 sq. cm) Beta-Gamma										
10090919	V	NC	<0.1	<0.1	MDA	MDA	Bi-214	1.23	E	-	6	C	1.23	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	Pb-212	1.50	E	-	6	C	1.50	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	Pb-214	1.50	E	-	6	C	1.50	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	K-40	2.73	E	-	5	C	2.73	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	Ra-226	1.23	E	-	6	C	1.23	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	Ra-228	1.57	E	-	6	C	1.57	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	Sr-90	2.91	E	-	6	C	2.91	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	Tl-208	6.28	E	-	7	C	6.28	E	-	8
	V	NC	<0.1	<0.1	MDA	MDA	U-234	1.21	E	-	6	C	1.21	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	U-235	8.00	E	-	8	C	8.00	E	-	9
	V	NC	<0.1	<0.1	MDA	MDA	U-238	1.30	E	-	6	C	1.30	E	-	7

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity C – curies M – grams L - curies/liter

Los Alamos
National Laboratory

Chemical Waste Disposal Request

ORIGINAL
3022191

This form is used to request disposal of chemical and low-level radioactive wastes. Fill out electronically, then print and sign. Mail completed form to Waste Services at MS J595.

Account Information	Z Number	Name (Print)	Telephone	Date
6A00A/MR3A/0222/L1TO	093700	Gordon Jio	231-7881	11/30/07

Waste Pick-up Location and Storage Type:	TA	Building	Room	☐ Security Area	☐ Direct Off-Site Shipment
	10	outside	N/A		

☒ < 90 Day Accumulation Area
☐ Universal Waste Area
☐ TSDF
(Start Date: 09/10/07)

☐ Satellite Accumulation Area (Approx. vol:)
☐ PCB Waste (Start Date:)
☐ NM Special Waste (<90 days) (Start Date:)

☐ Rad Staging Area (<90 days)
☐ Rad Storage Area (<1 year)
(Start Date:)

☐ Rad Dumpster (No:)
☒ Other (describe in description)

Item Id	Waste Profile Number	Shipping Container Information					Waste Information				*S=Solid L=Liquid G=Gas P=Powder	Description
		Type	Volume	Unit	Tare Weight	Unit	Volume	Unit	Weight	Unit		
10090923	40449	13	20	M	3000	P	5	M	1200	P	S	Contact waste including wood debris, steel augers and fencing, plastic snow fencing, buckets, drums, sheeting and zip lock bags, concrete, cast iron pipe and incidental soil.

Container Types
01-Bulk (Unpackaged) 04-Plastic Bottle or Container 07-Fiber or Plastic Box 10-Portable Tank 13-Other (specify in description)
02-Metal Drum 05-Glass Bottle or Container 08-Wooden Box 11-Cylinder 14-Compactor Box
03-Fiber or Plastic Drum 06-Plastic Bag 09-Metal Box 12-Shield Cask 15-Aerosol Can

Units for Volume
G-Gallon M-Cubic Meters
L-Liters O-Fluid Ounce
F-Cubic Feet P-Pint
Q-Quart

Units for Weight
P-Pound O-Ounce
K-Kilograms T-Tons
G-Grams

CERTIFICATION STATEMENT: To the best of my knowledge, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Printed Name	Signature	Z Number	Date
Gordon Jio	Gordon Jio	093700	11/30/07

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm)											
					Alpha	Beta-Gamma										
10090919	V	NC	<0.1	<0.1	MDA	MDA	Bi-214	2.57	E	-	6	C	2.57	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	Pb-212	3.12	E	-	6	C	3.12	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	Pb-214	3.10	E	-	6	C	3.10	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	K-40	5.69	E	-	5	C	5.69	E	-	6
	V	NC	<0.1	<0.1	MDA	MDA	Ra-226	2.57	E	-	6	C	2.57	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	Ra-228	3.27	E	-	6	C	3.27	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	Sr-90	6.06	E	-	6	C	6.06	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	Tl-208	1.31	E	-	6	C	1.31	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	U-234	2.51	E	-	6	C	2.51	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	U-235	1.66	E	-	7	C	1.66	E	-	8
	V	NC	<0.1	<0.1	MDA	MDA	U-238	2.72	E	-	6	C	2.72	E	-	7

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity **C** – curies **M** – grams **L** - curies/liter

WASTE MANIFEST

64638

NM0890010515	Page 1 of 1	EMERGENCY PHONE (505) 667-6211	

Mailing Address: LANS, LLC for US DOE
P.O. Box 1663, MS J595
Los Alamos, NM 87545
(505) 665-6158

Ship From:
LANS, LLC for US DOE
Gordon Jio, TA-10, MS-C925
Los Alamos, NM 87545

Transporter 1
LANS, LLC for US DOE — NM0890010515
Transporter 2

FACILITY: LANS, LLC for US DOE
Mesita Del Buey Rd. TA-54 Area G
Los Alamos, NM 87545
(505) 665-6158 — NM0890010515

HM	DOT Shipping Description	Containers No	Type	Total Quantity	Unit Wt/V	WASTE CODES		
X	UN2910, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE-LIMITED QUANTITY OF MATERIAL, 7, U234 CS137 U238 SR90, 5.33e-05 TBq	1	DF	137	K			
X	UN2910, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE-LIMITED QUANTITY OF MATERIAL, 7, U234 CS137 U238 SR90, 1.06e-04 TBq	1	DF	69	K			

TRACKING #: HMTF #: MANIFEST: 64638

LINE 1 ERG#: 161; LINE 2 ERG#: 161;

ADDITIONAL DESCRIPTIONS FOR MATERIALS LISTED ABOVE

SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION
LIMITS WERE NOT EXCEEDED (SR 4.1.2)

THIS IS TO CERTIFY THAT THE ABOVE-NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED, LABELED, AND PLACARDED; ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION; AND MEET THE WASTE ACCEPTANCE CRITERIA OF WS-HMWO, WS-LLWD OR RLW AS APPROPRIATE.

PRINTED/TYPED NAME: GORDON JIO — SIGNATURE: X Gordon Jio — DATE: 1/17/08

TRANSPORTER ACKNOWLEDGEMENT OF RECEIPT OF MATERIALS:
PRINTED/TYPED NAME: Matt Lacy — SIGNATURE: X — DATE: 1-17-08

DESIGNATED FACILITY OWNER or OPERATOR ACKNOWLEDGEMENT OF RECEIPT OF MATERIALS:
PRINTED/TYPED NAME: R. Axtell — SIGNATURE: X — DATE: 1/17/08

COPY

CONTAINER LISTING FOR MANIFEST NO: 64638

PAGE	LINE	CONTAINERS	PAGE: 1
1	1	L08196167, 30 G	
1	2	L08196166, 30 G	

COPY

Los Alamos
National Laboratory

Chemical Waste Disposal Request

ORIGINAL
302266

This form is used to request disposal of chemical and low-level radioactive wastes. Fill out electronically, then print and sign. Mail completed form to Waste Services at MS J595.

Account Information	Z Number	Name (Print)	Telephone	Date
6A00A/MR3A/0222/L1TO	093700	Gordon Jio	231-7881	12/19/07

Waste Pick-up Location and Storage Type:	TA	Building	Room	☐ Security Area	☐ Direct Off-Site Shipment
	10	outside	N/A		

☐ < 90 Day Accumulation Area
☐ Universal Waste Area
☐ TSDF
(Start Date:)

☐ Satellite Accumulation Area (Approx. vol:)
☐ PCB Waste (Start Date:)
☐ NM Special Waste (<90 days) (Start Date:)

☐ Rad Staging Area (<90 days)
☒ Rad Storage Area (<1 year)
(Start Date 9/10/07)

☐ Rad Dumpster (No:)
☐ Other (describe in description)

Item Id	Waste Profile Number	Shipping Container Information					Waste Information				*S=Solid L=Liquid G=Gas P=Powder	Description
		Type	Volume	Unit	Tare Weight	Unit	Volume	Unit	Weight	Unit		
10054303	40543	03	30	G	18	P	30	G	150	P	S	Soil and contact waste from hot spot removal
10054305	40544	03	30	G	18	P	30	G	300	P	S	Rock, soil and contact waste from hot spot removal

Container Types
01-Bulk (Unpackaged) 04-Plastic Bottle or Container 07-Fiber or Plastic Box 10-Portable Tank 13-Other (specify in description)
02-Metal Drum 05-Glass Bottle or Container 08-Wooden Box 11-Cylinder 14-Compactor Box
03-Fiber or Plastic Drum 06-Plastic Bag 09-Metal Box 12-Shield Cask 15-Aerosol Can

Units for Volume
G-Gallon M-Cubic Meters
L-Liters O-Fluid Ounce
F-Cubic Feet P-Pint
Q-Quart

Units for Weight
P-Pound O-Ounce
K-Kilograms T-Tons
G-Grams

CERTIFICATION STATEMENT: To the best of my knowledge, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Printed Name	Signature	Z Number	Date
Gordon Jio	Gordon Jio	093700	12/19/07

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm)											
					Alpha	Beta-Gamma										
10054303	V	NC	<0.1	<0.1	MDA	MDA	Cs-137	6.98	E	-	6	C	6.98	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	Sr-90	2.83	E	-	3	C	2.83	E	-	4
	V	NC	<0.1	<0.1	MDA	MDA	U-234	1.67	E	-	5	C	1.67	E	-	6
	V	NC	<0.1	<0.1	MDA	MDA	U-238	1.75	E	-	5	C	1.75	E	-	6
10054305	V	NC	<0.1	<0.1	MDA	MDA	Cs-137	3.49	E	-	6	C	3.49	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	Sr-90	1.42	E	-	3	C	1.42	E	-	4
	V	NC	<0.1	<0.1	MDA	MDA	U-234	8.37	E	-	6	C	8.37	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	U-238	8.74	E	-	6	C	8.74	E	-	7

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity C – curies M – grams L - curies/liter

INFORMATION ONLY

WASTE MANIFEST

64488

NM0890010515	Page 1 of 1	EMERGENCY PHONE (505)667-6211	

Mailing Address: LANS, LLC for US DOE
P.O. Box 1663, MS J595
Los Alamos, NM 87545
(505) 665-6158

Ship From:
LANS, LLC for US DOE
Gordon Jio, TA-10, MS-C925
Los Alamos, NM 87545

Transporter 1
LANS, LLC for US DOE — NM0890010515
Transporter 2

FACILITY: LANS, LLC for US DOE
Mesita Del Buey Rd. TA-54 Area G
Los Alamos, NM 87545
(505) 665-6158 — NM0890010515

HM	DOT Shipping Description	Containers No	Type	Total Quantity	Unit Wt/V	WASTE CODES		
X	NON-REGULATED WASTE, SOLID, 77	1	BA	454	K			
X	NON-REGULATED WASTE, SOLID, 77	1	BA	454	K			
X	NON-REGULATED WASTE, SOLID, 77	1	BA	227	K			
X	NON-REGULATED WASTE, SOLID, 77	1	BA	454	K			

TRACKING #: HMTF #: MANIFEST: 64488
LINE 1 ERG#: ; LINE 2 ERG#: ; LINE 3 ERG#: ; LINE 4 ERG#: ;

ADDITIONAL DESCRIPTIONS FOR MATERIALS LISTED ABOVE

SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION
LIMITS WERE NOT EXCEEDED (SR 4.1.2)

THIS IS TO CERTIFY THAT THE ABOVE-NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED, LABELED, AND PLACARDED; ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION; AND MEET THE WASTE ACCEPTANCE CRITERIA OF WS-HMWO, WS-LLWD OR RLW AS APPROPRIATE.

PRINTED/TYPED NAME	SIGNATURE	DATE
GORDON JIO	X Gordon Jio	1/17/08

TRANSPORTER ACKNOWLEDGEMENT OF RECEIPT OF MATERIALS:

PRINTED/TYPED NAME	SIGNATURE	DATE
Matt Lucy	X Matt Lucy	1-17-08

DESIGNATED FACILITY OWNER or OPERATOR ACKNOWLEDGEMENT OF RECEIPT OF MATERIALS:

PRINTED/TYPED NAME	SIGNATURE	DATE
R. Axtell	X R. Axtell	1/17/08

COPY

CONTAINER LISTING FOR MANIFEST NO: 64488

PAGE	LINE	CONTAINERS	PAGE: 1
1	1	L07195959, 1 M	
1	2	L07195956, 1 M	
1	3	L07195958, 1 M	
1	4	L07195957, 1 M	

COPY

Hand carried to WS-WA 11/16/07

COPY

Los Alamos National Laboratory

Chemical Waste Disposal Request

3022147

This form is used to request disposal of chemical and low-level radioactive wastes. Fill out electronically, then print and sign. Mail completed form to Waste Services at MS J595.

Account Information	Z Number	Name (Print)	Telephone	Date
6A00A/MR3A/0222/L1TO	093700	Gordon Jio	231-7881	11/16/07

Waste Pick-up Location and Storage Type:	TA	Building	Room	☐ Security Area	☐ Direct Off-Site Shipment
	10	outside	N/A		

☐ < 90 Day Accumulation Area
☐ Universal Waste Area
☐ TSDF (Start Date:)
☐ Satellite Accumulation Area (Approx. vol:)
☐ PCB Waste (Start Date:)
☐ NM Special Waste (<90 days) (Start Date:)
☐ Rad Staging Area (<90 days)
☐ Rad Storage Area (<1 year) (Start Date:)
☐ Rad Dumpster (No:)
☒ Other (describe in description)

Item Id	Waste Profile Number	Shipping Container Information					Waste Information				*S=Solid L=Liquid G=Gas P=Powder	Description
		Type	Volume	Unit	Tare Weight	Unit	Volume	Unit	Weight	Unit		
10054599	40450	06	1	M	20	P	1	M	1000	P	S	Drill cuttings in wrangler bag
10054690	40450	06	1	M	20	P	1	M	1000	P	S	Drill cuttings in wrangler bag
10054675	40450	06	1	M	20	P	1	M	1000	P	S	Drill cuttings in wrangler bag
10054676	40450	06	1	M	20	P	1	M	500	P	S	Drill cuttings in wrangler bag

Container Types
01-Bulk (Unpackaged) 02-Metal Drum 03-Fiber or Plastic Drum 04-Plastic Bottle or Container 05-Glass Bottle or Container 06-Plastic Bag 07-Fiber or Plastic Box 08-Wooden Box 09-Metal Box 10-Portable Tank 11-Cylinder 12-Shield Cask 13-Other (specify in description) 14-Compactor Box 15-Aerosol Can

Units for Volume
G-Gallon L-Liters F-Cubic Feet Q-Quart M-Cubic Meters O-Fluid Ounce P-Pint

Units for Weight
P-Pound K-Kilograms G-Grams O-Ounce T-Tons

CERTIFICATION STATEMENT: To the best of my knowledge, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Printed Name	Signature	Z Number	Date
Gordon Jio	Gordon Jio	093700	11/16/07

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm)											
					Alpha	Beta-Gamma										
10054599	V	NC	<0.1	<0.1	MDA	MDA	Bi-214	4.05	E	-	6	C	4.05	E	-	7
10054690	V	NC	<0.1	<0.1	MDA	MDA	Pb-212	5.31	E	-	6	C	5.31	E	-	7
10054675	V	NC	<0.1	<0.1	MDA	MDA	Pb-214	4.49	E	-	6	C	4.49	E	-	7
	V	C	<0.1	<0.1	MDA	MDA	K-40	7.71	E	-	7	C	7.71	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	Ra-226	4.05	E	-	6	C	4.05	E	-	7
	V	C	<0.1	<0.1	MDA	MDA	Ra-228	5.37	E	-	6	C	5.37	E	-	7
	V	C	<0.1	<0.1	MDA	MDA	Sr-90	7.27	E	-	6	C	7.27	E	-	7
	V	C	<0.1	<0.1	MDA	MDA	Th-208	1.57	E	-	6	C	1.57	E	-	7
	V	C	<0.1	<0.1	MDA	MDA	U-234	4.23	E	-	6	C	4.23	E	-	7
	V	C	<0.1	<0.1	MDA	MDA	U-235	5.97	E	-	5	C	5.97	E	-	6
	V	C	<0.1	<0.1	MDA	MDA	U-238	4.34	E	-	6	C	4.34	E	-	7

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity C – curies M – grams L - curies/liter

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm) Alpha	Package Surface Contamination (DPM/100 sq. cm) Beta-Gamma										
10054676	V	NC	<0.1	<0.1	MDA	MDA	Bi-214	8.11	E	-	6	C	8.11	E	-	7
	V	NC	<0.1	<0.1	MDA	MDA	Pb-212	1.06	E	-	7	C	1.06	E	-	8
	V	NC	<0.1	<0.1	MDA	MDA	Pb-214	8.99	E	-	6	C	8.99	E	-	7
	V	C	<0.1	<0.1	MDA	MDA	K-40	1.54	E	-	8	C	1.54	E	-	9
	V	C	<0.1	<0.1	MDA	MDA	Ra-226	8.11	E	-	6	C	8.11	E	-	7
	V	C	<0.1	<0.1	MDA	MDA	Ra-228	1.07	E	-	7	C	1.07	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	Sr-90	1.45	E	-	7	C	1.45	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	Th-208	3.14	E	-	6	C	3.14	E	-	7
	V	C	<0.1	<0.1	MDA	MDA	U-234	8.46	E	-	6	C	8.46	E	-	7
	V	C	<0.1	<0.1	MDA	MDA	U-235	1.19	E	-	6	C	1.19	E	-	7
	V	C	<0.1	<0.1	MDA	MDA	U-238	8.68	E	-	6	C	8.68	E	-	7

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity C – curies M – grams L - curies/liter

WASTE MANIFEST

64498

NM0890010515	Page 1 of 2	EMERGENCY PHONE (505)667-6211	

Mailing Address: LANS, LLC for US DOE
P.O. Box 1663, MS J595
Los Alamos, NM 87545
(505) 665-6158

Ship From:
LANS, LLC for US DOE
Gordon Jio, TA-10, MS-C925
Los Alamos, NM 87545

Transporter 1
LANS, LLC for US DOE | NM0890010515

Transporter 2

FACILITY: LANS, LLC for US DOE
Mesita Del Buey Rd. TA-54 Area G
Los Alamos, NM 87545
(505) 665-6158 | NM0890010515

HM	DOT Shipping Description	Containers No	Type	Total Quantity	Unit Wt/V	WASTE CODES		
X	NON-REGULATED WASTE, SOLID, 77	1	DM	28	K			
X	NON-REGULATED WASTE, SOLID, 77	1	DM	19	K			
X	NON-REGULATED WASTE, SOLID, 77	1	DM	7	K			
X	NON-REGULATED WASTE, SOLID, 77	1	DM	10	K			

TRACKING #: HMTF #: MANIFEST: 64498
LINE 1 ERG#: ; LINE 2 ERG#: ; LINE 3 ERG#: ; LINE 4 ERG#: ;

ADDITIONAL DESCRIPTIONS FOR MATERIALS LISTED ABOVE

SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION
LIMITS WERE NOT EXCEEDED (SR 4.1.2)

THIS IS TO CERTIFY THAT THE ABOVE-NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED, LABELED, AND PLACARDED; ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION; AND MEET THE WASTE ACCEPTANCE CRITERIA OF WS-HMWO, WS-LLWD OR RLW AS APPROPRIATE.

PRINTED/TYPED NAME: Gordon Jio | SIGNATURE: X Gordon Jio | DATE: 1/17/08

TRANSPORTER ACKNOWLEDGEMENT OF RECEIPT OF MATERIALS:
PRINTED/TYPED NAME: Matt Lang | SIGNATURE: X Matt Lang | DATE: 1-17-08

DESIGNATED FACILITY OWNER or OPERATOR ACKNOWLEDGEMENT OF RECEIPT OF MATERIALS:
PRINTED/TYPED NAME: L. Axtell | SIGNATURE: X L Axtell | DATE: 1/17/08

COPY

64498

Generator ID Number: NM0890010515	Page: 2	
LANS, LLC for US DOE P.O. Box 1663, MS J595 Los Alamos, NM 87545		

HM	DOT Shipping Description	Containers No	Containers Type	Total Quantity	Unit Wt/V	WASTE CODES		
X	NON-REGULATED WASTE, SOLID, 77	1	DM	23	K			
X	NON-REGULATED WASTE, SOLID, 77	1	DM	46	K			
X	NON-REGULATED WASTE, SOLID, 77	1	DM	37	K			
X	NON-REGULATED WASTE, SOLID, 77	1	DM	28	K			

TRACKING #: HMTF #: MANIFEST: 64498

LINE 1 ERG#: ; LINE 2 ERG#: ; LINE 3 ERG#: ; LINE 4 ERG#: ;

COPY

CONTAINER LISTING FOR MANIFEST NO: 64498

PAGE	LINE	CONTAINERS
1	1	L07195985, ~~55 G~~ 30 gal
1	2	L07195986, ~~55 G~~ 30 gal
1	3	L07195984, ~~55 G~~ 30 gal
1	4	L07195987, ~~55 G~~ 30 gal
2	1	L07195991, 55 G
2	2	L07195990, 55 G
2	3	L07195988, 55 G
2	4	L07195989, 55 G

MPN 1/17/08

COPY

hand carried to WS-WA 11/16/07

Los Alamos National Laboratory

Chemical Waste Disposal Request

COPY

302269

This form is used to request disposal of chemical and low-level radioactive wastes. Fill out electronically, then print and sign. Mail completed form to Waste Services at MS J595.

Account Information	Z Number	Name (Print)	Telephone	Date
6A00A/MR3A/0222/L1TO	093700	Gordon Jio	231-7881	11/15/07

Waste Pick-up Location and Storage Type:	TA	Building	Room	☐ Security Area	☐ Direct Off-Site Shipment
	10	outside	N/A		

☐ < 90 Day Accumulation Area
☐ Universal Waste Area
☐ TSDF
(Start Date:)

☐ Satellite Accumulation Area (Approx. vol:)
☐ PCB Waste (Start Date:)
☐ NM Special Waste (<90 days) (Start Date:)

☐ Rad Staging Area (<90 days)
☐ Rad Storage Area (<1 year)
(Start Date:)

☐ Rad Dumpster (No:)
☒ Other (describe in description)

Item Id	Waste Profile Number	Shipping Container Information					Waste Information				*S=Solid L=Liquid G=Gas P=Powder	Description
		Type	Volume	Unit	Tare Weight	Unit	Volume	Unit	Weight	Unit		
10054677	40451	02	55	G	50	P	50	G	80	P	S	Contact Waste including plastic PPE, gloves, booties, sheeting and sampling wipes and swipes
10054678	40451	03	30	G	18	P	10	G	15	P	S	Contact Waste including plastic PPE, gloves, booties, sheeting and sampling wipes and swipes
10054680	40451	03	30	G	18	P	30	G	60	P	S	Contact Waste including plastic PPE, gloves, booties, sheeting and sampling wipes and swipes
10054689	40451	02	55	G	50	P	50	G	60	P	S	Contact Waste including plastic PPE, gloves, booties, sheeting and sampling wipes and swipes
10054692	40451	02	55	G	50	P	50	G	100	P	S	Contact Waste including plastic PPE, gloves, booties, sheeting and sampling wipes and swipes
10054694	40451	03	30	G	18	P	20	G	40	P	S	Contact Waste including plastic PPE, gloves, booties, sheeting and sampling wipes and swipes
10054697	40451	02	55	G	50	P	50	G	50	P	S	Contact Waste including plastic PPE, gloves, booties, sheeting and sampling wipes and swipes
10054699	40451	03	30	G	18	P	30	G	20	P	S	Contact Waste including plastic PPE, gloves, booties, sheeting and sampling wipes and swipes

Container Types
01-Bulk (Unpackaged) 04-Plastic Bottle or Container 07-Fiber or Plastic Box 10-Portable Tank 13-Other (specify in description)
02-Metal Drum 05-Glass Bottle or Container 08-Wooden Box 11-Cylinder 14-Compactor Box
03-Fiber or Plastic Drum 06-Plastic Bag 09-Metal Box 12-Shield Cask 15-Aerosol Can

Units for Volume
G-Gallon M-Cubic Meters
L-Liters O-Fluid Ounce
F-Cubic Feet P-Pint
Q-Quart

Units for Weight
P-Pound O-Ounce
K-Kilograms T-Tons
G-Grams

CERTIFICATION STATEMENT: To the best of my knowledge, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Printed Name	Signature	Z Number	Date
Gordon Jio	Gordon Jio	093700	11/15/07

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm)											
					Alpha	Beta-Gamma										
10054677	V	C	<0.1	<0.1	MDA	MDA	Bi-214	5.07	E	-	7	C	5.07	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	Pb-212	6.64	E	-	7	C	6.64	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	Pb-214	5.62	E	-	7	C	5.62	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	K-40	9.64	E	-	8	C	9.64	E	-	9
	V	C	<0.1	<0.1	MDA	MDA	Ra-226	5.07	E	-	7	C	5.07	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	Ra-228	6.72	E	-	7	C	6.72	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	Sr-90	9.09	E	-	7	C	9.09	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	Th-208	1.96	E	-	7	C	1.96	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	U-234	5,29	E	-	7	C	5.29	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	U-235	7.46	E	-	6	C	7.46	E	-	7
	V	C	<0.1	<0.1	MDA	MDA	U-238	5.42	E	-	7	C	5,42	E	-	8

[1] S = Surface, V = Volume, B = Both Surface and Volume [2] C = Compactible, NC = Non-compactible

Units for Activity C – curies M – grams L - curies/liter

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm)											
					Alpha	Beta-Gamma										
10054678	V	C	<0.1	<0.1	MDA	MDA	Bi-214	2.70	E		8	C	2.70	E		9
	V	C	<0.1	<0.1	MDA	MDA	Pb-212	3.54	E		8	C	3.54	E		9
	V	C	<0.1	<0.1	MDA	MDA	Pb-214	3.00	E		8	C	3.00	E		9
	V	C	<0.1	<0.1	MDA	MDA	K-40	5.14	E		9	C	5.14	E		10
	V	C	<0.1	<0.1	MDA	MDA	Ra-226	2.70	E		8	C	2.70	E		9
	V	C	<0.1	<0.1	MDA	MDA	Ra-228	3.58	E		8	C	3.58	E		9
	V	C	<0.1	<0.1	MDA	MDA	Sr-90	4.85	E		8	C	4.85	E		9
	V	C	<0.1	<0.1	MDA	MDA	Th-208	1.05	E		8	C	1.05	E		9
	V	C	<0.1	<0.1	MDA	MDA	U-234	2.82	E		8	C	2.82	E		9
	V	C	<0.1	<0.1	MDA	MDA	U-235	3.98	E		7	C	3.98	E		8
	V	C	<0.1	<0.1	MDA	MDA	U-238	2.89	E		8	C	2.89	E		9

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity C – curies M – grams L - curies/liter

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)			Unit	Uncertainty		
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm) Alpha	Beta-Gamma								
10054680	V	C	<0.1	<0.1	MDA	MDA	Bi-214	6.75	E	7	C	6.75	E	8
10054689	V	C	<0.1	<0.1	MDA	MDA	Pb-212	8.85	E	7	C	8.85	E	8
	V	C	<0.1	<0.1	MDA	MDA	Pb-214	7.49	E	7	C	7.49	E	8
	V	C	<0.1	<0.1	MDA	MDA	K-40	1.28	E	9	C	1.28	E	10
	V	C	<0.1	<0.1	MDA	MDA	Ra-226	6.75	E	7	C	6.75	E	8
	V	C	<0.1	<0.1	MDA	MDA	Ra-228	8.96	E	7	C	8.96	E	8
	V	C	<0.1	<0.1	MDA	MDA	Sr-90	1.21	E	8	C	1.21	E	9
	V	C	<0.1	<0.1	MDA	MDA	Th-208	2.62	E	7	C	2.62	E	8
	V	C	<0.1	<0.1	MDA	MDA	U-234	7.05	E	7	C	7.05	E	8
	V	C	<0.1	<0.1	MDA	MDA	U-235	9.95	E	6	C	9.95	E	7
	V	C	<0.1	<0.1	MDA	MDA	U-238	7.23	E	7	C	7.23	E	8

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity C – curies M – grams L - curies/liter

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm)											
					Alpha	Beta-Gamma										
10054692	V	C	<0.1	<0.1	MDA	MDA	Bi-214	4.05	E	-	7	C	4.05	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	Pb-212	5.30	E	-	7	C	5.30	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	Pb-214	4.49	E	-	7	C	4.49	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	K-40	7.71	E	-	8	C	7.71	E	-	9
	V	C	<0.1	<0.1	MDA	MDA	Ra-226	4.05	E	-	7	C	4.05	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	Ra-228	5.37	E	-	7	C	5.37	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	Sr-90	7.27	E	-	7	C	7.27	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	Th-208	1.57	E	-	7	C	1.57	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	U-234	4.23	E	-	7	C	4.23	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	U-235	5.97	E	-	6	C	5.97	E	-	7
	V	C	<0.1	<0.1	MDA	MDA	U-238	4.34	E	-	7	C	4.34	E	-	8

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity C – curies M – grams L - curies/liter

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm) Alpha	Beta-Gamma										
10054694	V	C	<0.1	<0.1	MDA	MDA	Bi-214	1.01	E	-	8	C	1.01	E	-	9
	V	C	<0.1	<0.1	MDA	MDA	Pb-212	1.32	E	-	8	C	1.32	E	-	9
	V	C	<0.1	<0.1	MDA	MDA	Pb-214	1.12	E	-	8	C	1.12	E	-	9
	V	C	<0.1	<0.1	MDA	MDA	K-40	1.93	E	-	9	C	1.92	E	-	10
	V	C	<0.1	<0.1	MDA	MDA	Ra-226	1.01	E	-	8	C	1.01	E	-	9
	V	C	<0.1	<0.1	MDA	MDA	Ra-228	1.34	E	-	8	C	1.34	E	-	9
	V	C	<0.1	<0.1	MDA	MDA	Sr-90	1.82	E	-	8	C	1.82	E	-	9
	V	C	<0.1	<0.1	MDA	MDA	Th-208	3.92	E	-	7	C	3.92	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	U-234	1.06	E	-	8	C	1.06	E	-	9
	V	C	<0.1	<0.1	MDA	MDA	U-235	1.49	E	-	7	C	1.49	E	-	8
	V	C	<0.1	<0.1	MDA	MDA	U-238	1.08	E	-	8	C	1.08	E	-	9

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity C – curies M – grams L - curies/liter

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm)											
					Alpha	Beta-Gamma										
10054697	V	C	<0.1	<0.1	MDA	MDA	Bi-214	8.11	E		7	C	8.11	E		8
	V	C	<0.1	<0.1	MDA	MDA	Pb-212	1.06	E		8	C	1.06	E		9
	V	C	<0.1	<0.1	MDA	MDA	Pb-214	8.99	E		7	C	8.99	E		8
	V	C	<0.1	<0.1	MDA	MDA	K-40	1.54	E		9	C	1.54	E		10
	V	C	<0.1	<0.1	MDA	MDA	Ra-226	8.11	E		7	C	8.11	E		8
	V	C	<0.1	<0.1	MDA	MDA	Ra-228	1.07	E		8	C	1.07	E		9
	V	C	<0.1	<0.1	MDA	MDA	Sr-90	1.45	E		8	C	1.45	E		9
	V	C	<0.1	<0.1	MDA	MDA	Th-208	3.14	E		7	C	3.14	E		8
	V	C	<0.1	<0.1	MDA	MDA	U-234	8.46	E		7	C	8.46	E		~~9~~ 8
	V	C	<0.1	<0.1	MDA	MDA	U-235	1.19	E		7	C	1.19	E		8
	V	C	<0.1	<0.1	MDA	MDA	U-238	8.68	E		7	C	8.68	E		8

GJ 11/16/07

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity C – curies M – grams L - curies/liter

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm)											
					Alpha	Beta-Gamma										
10054699	V	C	<0.1	<0.1	MDA	MDA	Bi-214	2.03	E		8	C	2.03	E		9
	V	C	<0.1	<0.1	MDA	MDA	Pb-212	2.65	E		8	C	2.65	E		9
	V	C	<0.1	<0.1	MDA	MDA	Pb-214	2.25	E		8	C	2.25	E		9
	V	C	<0.1	<0.1	MDA	MDA	K-40	3.85	E		9	C	3.85	E		10
	V	C	<0.1	<0.1	MDA	MDA	Ra-226	2.03	E		8	C	2.03	E		9
	V	C	<0.1	<0.1	MDA	MDA	Ra-228	2.69	E		8	C	2.69	E		9
	V	C	<0.1	<0.1	MDA	MDA	Sr-90	3.63	E		8	C	3.63	E		9
	V	C	<0.1	<0.1	MDA	MDA	Th-208	7.85	E		7	C	7.85	E		8
	V	C	<0.1	<0.1	MDA	MDA	U-234	2.11	E		8	C	2.11	E		9
	V	C	<0.1	<0.1	MDA	MDA	U-235	2.98	E		7	C	2.98	E		8
	V	C	<0.1	<0.1	MDA	MDA	U-238	2.17	E		8	C	2.17	E		9

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity C – curies M – grams L - curies/liter

WASTE MANIFEST

64497

NM0890010515	Page 1 of 1	EMERGENCY PHONE (505)667-6211	

Mailing Address: LANS, LLC for US DOE
P.O. Box 1663, MS J595
Los Alamos, NM 87545
(505) 665-6158

Ship From:
LANS, LLC for US DOE
Gordon Jio, TA-10, MS-C925
Los Alamos, NM 87545

Transporter 1
LANS, LLC for US DOE — NM0890010515
Transporter 2

FACILITY: LANS, LLC for US DOE
Mesita Del Buey Rd. TA-54 Area G
Los Alamos, NM 87545
(505) 665-6158 — NM0890010515

HM	DOT Shipping Description	Containers No	Containers Type	Total Quantity	Unit Wt/V	WASTE CODES
X	UN3321, RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVIT LSA-II FISSILE-EXCEPTED, 7, SOLID ELEMENTAL, PB212 RA226 TL208 U234 K40 RA228 U235 BI214 U238 PB214 SR90, 4.68e-05 TBq	1	DM	37	K	

TRACKING #: HMTF #: 2007 0~~339~~ 359 MANIFEST: 64497

LINE 1 ERG#: 162;

ADDITION L DESCRIPTIONS FOR MATERIALS LISTED ABOVE

COPY

SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION
LIMITS WERE NOT EXCEEDED (SR 4.1.2)

THIS IS TO CERTIFY THAT THE ABOVE-NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED, LABELED, AND PLACARDED; ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION; AND MEET THE WASTE ACCEPTANCE CRITERIA OF WS-HMWO, WS-LLWD OR RLW AS APPROPRIATE.

PRINTED/TYPED NAME	SIGNATURE	DATE
Gordon N Jio	X Gordon Jio	1/17/08

TRANSPORTER ACKNOWLEDGEMENT OF RECEIPT OF MATERIALS:

PRINTED/TYPED NAME	SIGNATURE	DATE
Matt Lang	X Matt Lang	1-17-08

DESIGNATED FACILITY OWNER or OPERATOR ACKNOWLEDGEMENT OF RECEIPT OF MATERIALS:

PRINTED/TYPED NAME	SIGNATURE	DATE
K. Axtell	X K Axtell	1/17/08

COPY

CONTAINER LISTING FOR MANIFEST NO: 64497

PAGE	LINE	CONTAINERS	PAGE: 1
1	1	L07195981, 55 G	

COPY

Los Alamos
National Laboratory

Chemical Waste Disposal Request

ORIGINAL
3022192

This form is used to request disposal of chemical and low-level radioactive wastes. Fill out electronically, then print and sign. Mail completed form to Waste Services at **MS J595.**

Account Information	Z Number	Name (Print)	Telephone	Date
6A00A/MR3A/0222/L1TO	093700	Gordon Jio	231-7881	11/30/07

Waste Pick-up Location and Storage Type:	TA	Building	Room	Security Area	Direct Off-Site Shipment
	10	outside	N/A	☐	☐

☒ **< 90 Day Accumulation Area**
☐ **Universal Waste Area**
☐ **TSDF**
(Start Date: 09/10/07)

☐ **Satellite Accumulation Area** (Approx. vol:)
☐ **PCB Waste** (Start Date:)
☐ **NM Special Waste** (<90 days) (Start Date:)

☐ **Rad Staging Area** (<90 days)
☐ **Rad Storage Area** (<1 year)
(Start Date:)

☐ **Rad Dumpster** (No:)
☒ **Other** (describe in description)

Item Id	Waste Profile Number	Shipping Container Information					Waste Information				*S=Solid L=Liquid G=Gas P=Powder	Description
		Type	Volume	Unit	Tare Weight	Unit	Volume	Unit	Weight	Unit		
10054679	40518	02	55	G	50	P	50	G	80	P	S	Contact waste

Container Types
01-Bulk (Unpackaged) 04-Plastic Bottle or Container 07-Fiber or Plastic Box 10-Portable Tank 13-Other **(specify in description)**
02-Metal Drum 05-Glass Bottle or Container 08-Wooden Box 11-Cylinder 14-Compactor Box
03-Fiber or Plastic Drum 06-Plastic Bag 09-Metal Box 12-Shield Cask 15-Aerosol Can

Units for Volume
G-Gallon M-Cubic Meters
L-Liters O-Fluid Ounce
F-Cubic Feet P-Pint
Q-Quart

Units for Weight
P-Pound O-Ounce
K-Kilograms T-Tons
G-Grams

CERTIFICATION STATEMENT: To the best of my knowledge, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Printed Name	Signature	Z Number	Date
Gordon Jio	Gordon Jio	093700	11/30/07

Low- level Radiological Information

Item ID	S/V/B[1]	C/NC[2]	Health Physics Container/Package Information				Radionuclide	Amount (Double Click +/- column to activate selection box)				Unit	Uncertainty			
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm)											
					Alpha	Beta-Gamma										
10054679	V	C	<0.1	<0.1	MDA	MDA	Bi-214	3.85	E	-	5	C	3.85	E	-	6
	V	C	<0.1	<0.1	MDA	MDA	Pb-212	4.68	E	-	5	C	4.68	E	-	6
	V	C	<0.1	<0.1	MDA	MDA	Pb-214	4.65	E	-	5	C	4.65	E	-	6
	V	C	<0.1	<0.1	MDA	MDA	K-40	8.53	E	-	4	C	8.53	E	-	5
	V	C	<0.1	<0.1	MDA	MDA	Ra-226	3.85	E	-	5	C	3.85	E	-	6
	V	C	<0.1	<0.1	MDA	MDA	Ra-228	4.90	E	-	5	C	4.90	E	-	6
	V	C	<0.1	<0.1	MDA	MDA	Sr-90	9.09	E	-	5	C	9.09	E	-	6
	V	C	<0.1	<0.1	MDA	MDA	Tl-208	1.96	E	-	5	C	1.96	E	-	6
	V	C	<0.1	<0.1	MDA	MDA	U-234	3.77	E	-	5	C	3.77	E	-	6
	V	C	<0.1	<0.1	MDA	MDA	U-235	2.50	E	-	6	C	2.50	E	-	7
	V	C	<0.1	<0.1	MDA	MDA	U-238	4.07	E	-	5	C	4.07	E	-	6

[1] S = Surface, V = Volume, B = Both Surface and Volume

[2] C = Compactible, NC = Non-compactible

Units for Activity C – curies M – grams L - curies/liter