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NMED
Hazardous Waste Bureau

Los Alamos
NATIONAL LABORATORY
EST 1943

Environmental Protection Division
Environmental Compliance Programs (ENV-CP)
PO Box 1663, K490
Los Alamos, New Mexico 87545
(505) 667-0666

National Nuclear Security Administration
Los Alamos Field Office, A316
3747 West Jemez Road
Los Alamos, New Mexico, 87545
(505) 667-5794/Fax (505) 667-5948

Date: **AUG 21 2014**
Symbol: ENV-DO-14-0224
LAUR: 14-26334
Locates Action No.: Not Applicable

Mr. John E. Kieling
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

Dear Mr. Kieling:

Subject: Transmittal of Remediation and Repackaging Documentation for Nitrate Salt-Bearing Waste Containers – Package 5

The purpose of this letter is to transmit remediation and repackaging documentation as requested via electronic mail (email) by the New Mexico Environment Department (NMED) on June 10, 2014. Written submissions and twice weekly technical phone calls are conducted between the NMED; Los Alamos National Security, LLC (LANS); and the U.S. Department of Energy (DOE) as stipulated by the modified Administrative Order No. 5-19001 issued by the NMED. The documentation contained within Enclosure 1 partially addresses Item # 13 of the *Summary Chart - Requested Information/Pending Issues* included as part of the written daily submissions to the NMED from the DOE and LANS, the Permittees.

The June 10, 2014, email received from Tim Hall, NMED, included a request for additional information for 267 original nitrate salt-bearing waste containers generated by the Permittees and all resulting repackaged/remediated containers. Partial fulfillment of the request was submitted to the NMED on July 9, 2014 and was corrected on July 17, 2014. This submittal includes remediation and repackaging documentation for daughter containers resulting from the repackaging and remeditation of the 267 original nitrate salt-bearing waste containers and is the fifth submittal in response to comment 5 in the June 10, 2014 email request. Because documentation to fulfill the request is still being compiled, the response to comment 5 of the email request will be transmitted in packages as they become available.

Enclosure 1 includes the pertinent documentation for six (6) of the original 267 parent waste containers and all associated daughter and granddaughter waste containers. The enclosed documentation for each

36579

parent waste container is separated by a tab and documentation for the daughter containers are highlighted within each tab by colored pages. These parent containers and their daughter and granddaughter containers were listed in the *Nitrate Salt Drums with Associated Waste Stream and Location Data for 267 Original Parent and 707 Current/Remediated Daughter Containers* table (as revised and submitted to the NMED on July 17, 2014).

If you have comments or questions regarding this submittal, please contact Mark P. Haagenstad at (505) 665-2014 or Gene E. Turner at (505) 667-5794.

Sincerely,

Alison M. Dorries
Division Leader
Environmental Protection Division
Los Alamos National Security LLC

Sincerely,

Gene E. Turner
Environmental Permitting Manager
Environmental Projects Office
Los Alamos Field Office
U.S. Department of Energy

AMD:GET:MPH:LVH/ms

Enclosures: (1) Remediation and Repacking Documentation for Nitrate Salt-Bearing Waste Containers – Package 5

Cy: Ryan Flynn, NMED, Santa Fe, NM, (E-File)
Tom Blaine, NMED, Santa Fe, NM, (E-File)
Steve Pullen, NMED/HWB, Santa Fe, NM, (E-File)
Timothy Hall, NMED/HWB, Santa Fe, NM, (E-File)
Trais Kliphuis, NMED, Santa Fe, NM, (E-File)
Peter Maggiore, NA-LA, (E-File)
Lisa Cummings, NA-LA, (E-File)
Gene E. Turner, NA-LA, (E-File)
Eric L. Trujillo, NA-LA, (E-File)
Kirsten M. Laskey, NA-LA, (E-File)
Carl A. Beard, PADOPS, (E-File to aosburn@lanl.gov)
Michael T. Brandt, ADESH, (E-File)
Racanna R. Sharp-Geiger, ADESH, (E-File)
Alison M. Dorries, ENV-DO, (E-File)
Jeffery D. Mousseau, ADEP, (E-File)
Daniel R. Cox, ADEP, (E-File)
Victoria A. George, REG-DO, (E-File)

Cy (continued):

Selena Z. Sauer, LC-ESH, (E-File)
Debra S. Nevergold, LTP, (E-File)
Mark P. Haagenstad, ENV-CP, (E-File)
Luciana Vigil-Holterman, ENV-CP, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
env-correspondence@lanl.gov, (E-File)

Remediation and Repackaging Documentation for Nitrate Salt-Bearing Waste Containers – Package 5
ENV-DO-14-0224
LA-UR-14-26334

August 2014

Los Alamos
NATIONAL LABORATORY
EST. 1943

ENCLOSURE 1

Remediation and Repacking Documentation for Nitrate Salt-Bearing Waste Containers – Package 5

ENV-DO-14-0224

LA-UR-14-26334

Date: AUG 2 1 2014

ParentID	Intermediate Daughters	PKG_ID	Overpacked Into
S822838		90801	
S822838	90803	92121	SB02012
S822838	90803	92122	
S822838	90804	92124	SB01997
S822838	90802	92126	SB02012
S822838	90802	92127	
S822838	90811	92131	SB02005
S822838	90810	92144	SB01978
S822838	90810	92145	
S822838	90806	92160	SB02006
S822838	90808	92169	SB02005
S822838	90807	92173	
S822838	90809	92555	
S822838	90805	92559	SB02051
S822838	90812	92561	
S822876		69417	
S822876		69422	SB50045
S822876		69428	SB50421
S822952		68573	
S822952		68605	
S822952		68607	
S823004		68412	
S823004		68455	
S823004		68459	
S823016		68497	SB02107
S823016		68543	SB50031
S823127		68611	
S823127		68613	

S822838

S822838

Container Profile 749818

File Options Reports Help

S822838

749818	TBD-TRU	T-TTRU-TEMP	Active	Decommissioned

- General Information
- Weights/Volumes
- Location
- Account Information
- Waste Material Parameters
- Layers of Confinement
- Prohibited Items
- EPA Codes
- UHC
- Radioassay
- Radiological Survey
- Payload Preparation
- Container Closure
- Materials Added
- TRU Information
- TRU Information (TSDF)
- Radiological Calculations
- Shipping Description
- Site Treatment Plan
- Pending Tasks
- Genealogy
- Container Tags
- Task History
- Documentation
- Comment Log
- Edit Log

Genealogy

S822838

- S822838
  - 90813 EMPTY
  - 90812
    - 92562 EMPTY
    - 92561
  - 90811
    - 92132 - EMPTY
    - 92131
      - SB02005
  - 90810
    - 92146 - EMPTY
    - 92145
    - 92144
      - SB01978
  - 90809
    - 92556 - EMPTY
    - 92555
  - 90808
    - 92169
      - SB02005
    - 92170 - EMPTY
  - 90807
    - 92174 - EMPTY
    - 92173
  - 90806
    - 92161 - EMPTY
    - 92160
      - SB02006
  - 90805
  - 90804
  - 90803
  - 90802
  - 90801

NEXT page

Container Profile 749818

ile Options Reports Help

S822838

749818	TBD-TRU	T-TTRU-TEMP	Active	Decommissioned

- eneral Information
- /eights/Volumes
- ocation
- ccount Information
- /aste Material Parameters
- ayers of Confinement
- rohibited Items
- PA Codes
- HC
- adioassay
- adiological Survey
- ayload Preparation
- ontainer Closure
- aterials Added
- RU Information
- RU Information (TSDF)
- adiological Calculations
- hipping Description
- te Treatment Plan
- ending Tasks
- enealogy
- ontainer Tags
- ask History
- ocumentation
- omment Log
- dit Log

Genealogy

- S822838
  - 92145
  - 92144
    - SB01978
  - 90809
    - 92556 - EMPTY
    - 92555
  - 90808
    - 92169
      - SB02005
    - 92170 - Empty
  - 90807
    - 92174 - Empty
    - 92173
  - 90806
    - 92161 - Empty
    - 92160
      - SB02006
  - 90805
    - 92560 - EMPTY
    - 92559
      - SB02051
  - 90804
    - 92125 - EMPTY
    - 92124
      - SB01997
  - 90803
    - 92123 - EMPTY
    - 92122
    - 92121
      - SB02012
  - 90802
    - 92127
    - 92126
      - SB02012
    - 92128 - EMPTY
  - 90801

Working Copy
Date: 1-27-12

ATTACHMENT 1
Page 1 of 3

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 822838

6.2[4] Date Processed: 1-27-12

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☑ PID ☐ Split ☐ Repack

4.1[6][B] Prohibited Items:
☑ Sealed Containers > 4L ☐ Liquids ☐ Pressurized Containers ☐ N/A

4.1[6][B] Parent Waste Container RCRA Designations: None

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☐ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 9-3-12

4.3[5][B] 3 Liters carbon spheroids or MET-L-X in WCG: ☑ YES ☐ NO

4.3[6] ($) WCG Fire Watch stationed: (> 56 PE-Ci) (AC 5.2.3)
☐ YES ☐ NO ☑ N/A

4.3[7][A] Parent Waste Container degraded. loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb: ☑ YES ☐ NO

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT

Performed By: Eddie Rios, Eddie Rios 187822 1-27-12
Waste Handling Tech (print) Signature Z # Date

5.[16] Prepared Parent Drum Weight (lb): 467.8 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 0 lb

ATTACHMENT 1
Page 2 of 3

4.1[6][B] Parent Waste Container No.: 822838

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 467.8 lb

6.2[7] ($) Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	90801			
10.1[4]	Daughter Drum Filter No.	CC-1343		N/A	
10.1[4]	Daughter Drum Bag Filter No.	WO-1575			
10.1[4]	Daughter Drum Purchase Order No.	414992			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		1 ☐ YES	2 ☐ NO	3 ☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	N/A	BOP	BOP	BOP
	Model No.		3CPVC-1.2-2SPC	3CPVC-1.5-2SPC	3CPVC-1.5-2SPC
	Serial No.		WO1619	WO1617	WO-1624
	Date of Manufacture		6/11	6/11	6/11
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description	N/A	See comments		
10.2[7][D]/10.2[8][D]	Bag-out Bag Filter No.	N/A	WO-1619	WO-1617	WO-1624
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	N/A	E.Rho 187822	E.Rho 187822	E.Rho 187822
10.2[14]	POC Assembly Gross Weight (lb)	N/A	351.0	347.2	336.4
10.2[15]	POC Rad. Survey Results (mrem/hr)	N/A	551		
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A	90802	90803	90804
10.3[7][A]	Opaque/Non-penetrable Item Description:	lead shielding in SS glove box			
10.3[5][A]	Free Liquid Volume/Units	6 gallons			
10.3[9][A]	PCB-contaminated Waste Description	N/A			
10.3[9][B]	PCB Item ID No.	N/A			
10.3[10]	Remaining Waste Description	lead shielding salts	liquid	N/A	
10.3[13]/10.4[12]/ 10.5[5]	Daughter Drum % Full (%)	90%			
10.5[4]	Description Waste Added During Processing	Cheese Plast.	Cloth		

ATTACHMENT 1
Page 2 of 3

4.1[6][B] Parent Waste Container No.: 822838

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 4678 lb

6.2[7] ($) Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

	Daughter Drums				
10.1[4]/10.2[4]	Daughter Drum No.				
10.1[4]	Daughter Drum Filter No.				
10.1[4]	Daughter Drum Bag Filter No.			N/A	
10.1[4]	Daughter Drum Purchase Order No.				
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☐ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured	1-27-12 BOP	1-27-12 E.R. BOP ☐ YES	☐ NO 1-27-12 BOP E.R.	☐ N/A 1-27-12 BOP E.R.
10.2[4]	POC bag-on bag: Manufacturer	~~3CPV1.5-2.5PVC~~	~~3CPV1.5-2.5PVC~~	~~3CPV1.5-2.5PVC~~	~~3CPV1.5-2.5PVC~~
	Model No.	3CPV1.5-2.5PVC	3CPV1.5-2.5PVC	3CPV1.5-2.5PVC	3CPV1.5-2.5PVC
	Serial No.	WO-1309	WO-1310	WO-1616	WO-1346
	Date of Manufacture	6/11	6/11	6/11	6/11
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[7][D]/10.2[8][D]	Bag-out Bag Filter No.	WO-1309	WO-1310	WO-1616	WO-1346
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	E.Rios 187822	E.Rios 187822	E.Rios 187822	E.Rios 187822
10.2[14]	POC Assembly Gross Weight (lb)	383.4 lbs	371.2 lbs	361.0 lbs	383.0 lbs
10.2[15]	POC Rad. Survey Results (mrem/hr)		90810		90812
10.3[3][A]	Approx. Containerized Liquid Vol./Units	90808	~~90806~~	~~90811~~	~~90808~~
10.3[7][A]	Opaque/Non-penetrable Item Description:	*	1-27-12 E.R.	90811 E.R. 1-27-12	E.R. 1-27-12
10.3[5][A]	Free Liquid Volume/Units	N/A			
10.3[9][A]	PCB-contaminated Waste Description		N	N/A	
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See	comments		
10.3[13]/10.4[12]/ 10.5[5]	Daughter Drum % Full (%)	90%	90%	90%	90%
10.5[4]	Description Waste Added During Processing	Cheese cloth	Cheese Cloth	Cheese Cloth	Cheese cloth

ATTACHMENT 1
Page 2 of 3

4.1[6][B] Parent Waste Container No.: 822838

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 467.8 lb

6.2[7] **($)** Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

	Daughter Drums				
10.1[4]/10.2[4]	Daughter Drum No.				
10.1[4]	Daughter Drum Filter No.				
10.1[4]	Daughter Drum Bag Filter No.				
10.1[4]	Daughter Drum Purchase Order No.				
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	BOP	BOP	BOP	BOP
	Model No.	3CAK-1.5-2SAC	3CAK-1.5-2SAC	3CAK-1.5-2SAC	3CAK-1.5-2SAC
	Serial No.	WO-1626	WO-1337	WO-1315	WO-1335
	Date of Manufacture	6/11	6/11	6/11	6/11
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description	See comments			
10.2[7][D]/10.2[8][D]	Bag-out Bag Filter No.	WO1626	WO-1337	WO-1315	WO-1335
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	C Ku 187822	C Ku 187822	C Ku 187822	C Ku 187822
10.2[14]	POC Assembly Gross Weight (lb)	349.4	348	357.4	366.6
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units	90805	90806	90807	90808
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[5][A]	Free Liquid Volume/Units				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See comments			
10.3[13]/10.4[12]/ 10.5[5]	Daughter Drum % Full (%)	90%	90%	90%	90%
10.5[4]	Description Waste Added During Processing	Cheese, Cloth, Plastic			

ATTACHMENT 1
Page 3 of 3 1-27-12

4.1[6][B] Parent Waste Container No.: ~~S843823~~ 822838

Comments: this drum was ~~and~~ full of liquid and took 11 POC's to complete. it had a poly liner and lead shielding. also took 2 full racks of absorbent to process according to procedure.

11.1[1] Performed By: [illegible] / [illegible] 118727 1-27-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Gilbert Martinez / [illegible] 1492351 1-13-12
SOS/SOM (print) Signature Z # Date

Attachment 1. Checklist for Overpacking Drums Into an 85–Gal Overpack

85-Gallon Overpack ID Number 90813

RECORD Drum Filter information:	NCCFIL
Filter ID Number:	FS-218
Date of Manufacture:	none

TORQUE WRENCH INFORMATION			
Filter Torque Wrench		**Drum Lid Ring Bolt**	
M&TE ID#	N/A	M&TE ID#	032122
Cal Expiration Date		Cal Expiration Date	9-18-12
			+-3%cw
Tolerance		Tolerance	+-6%ccw
Torque wrench is within acceptable range as displayed on Calibration Certificate	☐ Yes ☐ No ☑ N/A	Torque wrench is within acceptable range as displayed on Calibration Certificate	☑ Yes ☐ No
		Bung Torque Wrench	
		M&TE ID#	N/A
		Cal Expiration Date	
		Tolerance	
		Torque wrench is within acceptable range as displayed on Calibration Certificate	☐ Yes ☐ No ☑ N/A

Previously used 85-gallon container inspected (as applicable) ☐ SAT ☐ UNSAT N/A

Filter vent torque value: (new container only) N/A in-lb ☑ N/A

Drum lid 2-inch bung torque value: (If applicable) N/A ft-lb ☑ N/A

Drum lid ring-bolt torque value: 60 ft-lb

Drum lid ring threaded end touching jam nut: ☑ YES ☐ NO

Drum lid ring ends touching: ☑ YES ☐ NO

Technician Name (print)	Signature	Initials	Z#	Date
Eduardo Rios	Eddie Rios	R. Rios	187822	1-27-12
Alonzo Gonzalez	[illegible]	[illegible]	123878	1-27-12

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: 90801

1. Drum/Lid Assembly

- [x] Remove and discard ¾" bung from lid
- [x] Remove Lid
- [x] Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  - NOTE: Reject damaged drum/lid assembly
- [x] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:

Purchase Request #: 414992
Lot #: 217304
Date of Manufacture: 11

2. Drum Liner Bag/Filter Assembly:

- [x] Place yellow vinyl tape, with smear centered on tape, over filter
- [x] Fill bag with air from compressed air source
- [x] Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  - NOTE: Reject or repair damaged, cut, or leaking bags
- [x] Stretch bag's bungee cord
- [x] Inspect bungee cord
  - NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information:

Manufacturer: BOP
Model #: 3CPVC 1.5-2 SPVC
Serial #: W01575
Date of Manufacture: 6/11

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- [x] Inspect cardboard liner/plastic liner (circle type of liner used)
  - NOTE: Reject any damaged liners
- [x] Place cardboard/plastic liner into drum liner bag/filter assembly
- [x] Line up filter with drum seam
- [x] Place liner/bag/filter assembly into drum
- [x] Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- [x] Place lid and ring onto drum
- [x] Tighten ring sufficiently to simply hold lid in place
- [x] Torque 2" bung plug
- [x] Apply sealant to filter threads, screw in ¾" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:

Manufacturer: NuCFil
Model #: 019DS
Serial #: CL-1343
Date of Manufacture: 311

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040695	M&TE ID #:	040691
Cal Expiration Date:	9-12-12	Cal Expiration Date:	8-2-12
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
Tolerance:	±3% cw ±6% ccw	Tolerance:	±3% cw ±6% ccw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.

[x] Yes [ ] No

Print Name: Jimmy Romero Signature: [signature] Z#: 234253

5. Weigh Drum Assembly

RECORD weight information
Tare witght (lbs) 72.5
File ID #: 019065

- [x] Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- [x] Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print: Jimmy Romero Operator Sign: [signature] Z#: 234253 Date: 1-18-12

Verifier Print: Eddie Rios Verifier Sign: [signature] Z#: 187822 Date: 1-27-12

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 90801

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

☐ Mount lid with filter directly over drum seam.

☐ Install ring with bolt positioned downward and directly over drum seam.

☐ Engage bolt and nut and torque per manufactures instructions.

NOTE: Seal the ring while tightening using a rubber hammer or dead-blow mallet or a drum lid press.

☐ Tighten jam nut.

Record torque wrench information:

MT&E # : 032122

Cal expiration date: 9-10-12

Range/ Value (ft-lbs): 20-80

--- Tolerance +-3% / +-6%

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels.

☑ Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label.

☑ Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.

☑ Place one yellow radioactive waste label between the top two rolling hoops

☑ Place one yellow radioactive waste label in the center of the drum lid.

RCRA Label:

☐ Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops.

OR

☑ Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs.): 175.0

Scale ID#: 019065

☑ Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

☑ Have RCT monitor drum prior to moving to storage area.

☑ Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

☑ Complete TWSR.

Operator Print/Sign: Edelio Rios Date: 1-27-12

Verifier Print/Sign: Clayton Mullins Date: 1/27/12

SP13

ATTACHMENT 1

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S822838 Container Type: 85-GAL Gross Weight (lbs): 488
Inner Seal #: 010340 Filter Prefix: LAVC Filter Serial #: 00609; 02510
AK Waste Stream: LA-MIID01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS CAUTION-MAY BE PRES. DUE TO CO-2NO GAS GEN. NITRATE SALTS
Total PE-Ci Activity: 1.54E+01 Equivalent Combustible PE-Ci: 5.78E+00 AM-241 PE-Ci: 1.28E+00
Total Fissile Gram Equivalents: 169.2 Total Surface Dose Rate (mrem/hr): 2
EPA Code(s): None
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 1/23/2007 Comment: Liner Not Punctured,
Certified RTR Comment: None
Prohibited Items: ☐ Sealed > 4 Liters ☐ Liquid ☐ Pressurized Container ☐ Impenetrable Item ☐ Other
Security Determination: ☑ Green ☐ Yellow
Remediation Determination: ☐ VE ☐ PID ☐ Split ☑ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☐ >100 and <1,000 ☐ >1,000 and <10,000 ☐ >10,000
TRUCON Code: LA125M Production Control Comments:

Performed By: R. W. Jones (Production Control (Print)) Signature: R. W. Jones Z Number: 117434 Date: 10.6.10

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☒ No ☐ Unknown
Processing Determination: ☒ Accept ☐ Reject
WDP Engineering Comments: NITRATE SALTS. NET WASTE WT = 428 LBS IN 8 ITEMS. MAX ITEM WT = 31.14 KG (69 LBS). NO CORT RTR DATA. FAILED RTR PRE-SCREEN. MAY REQUIRE RWP FOR >1000 MREM/HR. POSSIBLE FREE LIQUID IN WASTE BAGS OR FREE IN DRUM.

Performed By: ROBERT L. GRIFFIS (WDP Engineering (Print)) Signature: Robert L. Griffis Z Number: 130352 Date: 10.29.10

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns:

Processing Determination: ☐ Accept ☐ Reject
TRU Remediation Operations Comments: reviewed by SME RL

Performed By: J. Wm Gallegos (TRU Remediation Operations (Print)) Signature: J. Wm Gallegos Z Number: 176905 Date: 11.3.10

Noncertified TRU Waste Drum Item Information

DrumID: 010340

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	IXFS-504F-1		30.670	NITRATE SALTS		13.79	52	5/11	
2	IXFS-503-F-1		24.310	NIRTRATE SALTS		0.	42	5/11	
3	IXFS-505-F-1		8.860	NITRATE SALTS		76.11	52	5/11	
4	IXFS-506-F-1		11.360	NITRATE SALTS		1.28	52	5/11	
5	IXFS-507-F-1		4.540	NITRATE SALTS		1.83	54	5/11	
6	IXFS-508-F-1		7.050	NITRATE SALTS		9.08	52	5/11	
7	IXFS-509-F-1		20.680	NITRATE SALTS		16.78	52	5/11	
8	IXFS-510-F-1		31.140	NITRATE SALTS		60.85	52	5/11	

Noncertified Waste Drum Material Summary

Gross Wt (kg):

Material Type	SNM (grams)	Items Net Wt (kg)
42	0.	24.31
52	177.89	109.76
54	1.83	4.54
Totals	179.72	138.61

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 10.5.10

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Gabe Romero	[signature]	128673	10-6-10
	/	/	/

Container No. (7.[1]):	S823001	S822838	S822591
Container Type (SWB, 110/85/55-gal) (7.[1]):	55 gal	55 gal	55 gal
Current Filter Vent No. (7.[1]):	72	72	72
New Filter Vent No.: (7.[8][A]):	72	72	72
WIPP-Approved Filter Vent (7.[8][B]):	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT
VOC	Value (ppm) (7.[10])		
Benzene	12.53	13.16	11.75
Chlorobenzene			
Cyclohexane			
1,1-Dichloroethane			
1,2-Dichloroethane			
1,1-Dichloroethylene			
cis-1,2-Dichloroethylene			
Ethyl benzene			
Ethyl ether			
Toluene			
1,2,4-Trimethylbenzene			
1,3,5-Trimethylbenzene			
m- and p-Xylene			
o-Xylene			
Acetone	29.45		24.98
1-Butanol			
Methanol			
Methyl ethyl ketone			
Methyl isobutyl ketone			
Total CCP VOC value (ppm) (7.[11]):	41.98	13.16	36.73

ATTACHMENT 1
Page 2 of 2

NOTE *Filtered vent data may be captured on a support organization data sheet.*

Container Number (7.[1]):	5823001	5822838	5822591
Hydrogen Reading (ppm) (7.[10]):	254.45 ppm	1235.85 ppm	128.27 ppm
Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
Total VOC Reading (ppm) (7.[11]):	41.98 ppm	13.16 ppm	30.73 ppm
Filter Type (7.[9][F][c]/7.[9][G][a]):	72	72	72
WIPP Approved (SAT/UNSAT) (7.[9][F][c]/7.[9][G][a]):	SAT	SAT	SAT
Torque Wrench M&TE/ID Number (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
Torque Wrench Calibration Due Date (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
Torque Wrench Tolerance (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
VERIFY Torque Wrench is within acceptable range as specified on Cal Certificate. (7.[9][F][a]/7.[9][G][b])	☐ YES ☐ NO ☑ N/A	☐ YES ☐ NO ☑ N/A	☐ YES ☐ NO ☑ N/A
Filter Torque Value (7.[9][F][a]/7.[9][G][d]) *	N/A	N/A	N/A

* No torque value required for 072 or 073 filters - Record N/A as applicable

Comments:
All 55 gallon drums were sampled from inside an 85 gallon overpack.

11.1[1] Performed By: Alicia Herrera / [signature] 198460 / 10-6-10
Waste Handling Operator (print) · Signature Z # Date

11.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).

☑ No deficiencies

11.1[7][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT

- Hydrogen – less than or equal to 32,000 ppm
- VOC – less than or equal to 7,000 ppm

11.1[7][B]/ Reviewed By: Kenny Romero Kenny Romero 1178861 10.7.10
11.1[8] Waste Handling Supervisor (print) Signature Z # Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\101005c\
Data File : S822838.D
Acq On : 5 Oct 2010 2:47 pm (#1); 05-Oct-10, 14:46:22 (#2)
Operator : SA
Sample :
Misc : 55 GALLON LFL DRUM FROM 85 OVERPACKED (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 05 14:58:49 2010
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Wed Aug 18 13:26:05 2010
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.645	96	2461536	207.75	ppmv	0.00
15) Chlorobenzene-d5	5.965	117	1790509	180.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.660	GC1	9471m	1235.85	ppmv	
12) Benzene	3.312	78	147492	13.16	ppmv	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

vocgas.m Tue Oct 05 14:58:59 2010

18308
1-27-12

PROJECT NAME _____ NOTEBOOK NO. _____

0700 Assuming WARF Operations Center - Orlando
0000 Starting inside rounds
0015 Starting outside rounds
0000 SOS conducting pre job briefing
0030 Completed inside rounds
0055 Completed outside rounds
0044 Rounds signed off by SOS
0700 Mode change performed we are now in operations.
0800 Starting to assist.
0830 Completed assisting, bagging on S822838
0910 Notified by inside operations drum on glovebox has alot of liquid will need plenty of absorbant.
1050 Operators introducing absorbant into glovebox thru introducing spout.
1058 Starting movement out of 50-69
1114 Completed movement out of 50-69
1140 Per SOS we will be staying in warm over the weekend operator and RAT will be coming in to perform rounds.
1413 Starting movement into 50-69
1430 Starting the bag off of ~~thirty~~ 3372 parent drums only, then they will continue to process and then bag off PDCs
1437 Completed movement into 50-69
1500 Starting ~~motion~~ bagging off of 11 PDCs from drum S822838
1554 Starting outside rounds.
1608 Completed outside rounds
1628 Completed bag off.
1634 Starting inside rounds.
1652 Item 11 on rounds is OOS. per ESE documentation ok to proceed.
1706 Completed inside rounds.
1715 Rounds have been signed off by SOS. and mode change has been performed.
1750 end of day WARF operations center secure. Orlando

No further entries this page

SIGNATURE _____ DATE _____ 20
READ AND UNDERSTOOD _____ DATE _____ 20

PROJECT NAME 1.27.12 NOTEBOOK NO.

0650 Reviewed Turnover from previous shift and assuming in CRR Shift position.

0700 WCRRF and TA-50-69 went from Warmstandby to Operations Mode.

0736 Notified POD that RCTs did not attend the Page Change Training and might be unissue. RR-1 Supervisor stated that Training said RCTs did have to attend.

0851 Notified SOS to inform on-coming SOS on 1.30.12 to place drums containing liquid in the building to thaw.

1030 Attended MRB for IVR page change for WCRR. One package was rejected. Procedure EP-WCRR-DOP-0233. Procedure writer will correct.

1100 Notified by SOS that they are still processing drum # S822838 which was the first drum of the day.

1215 Notified by SOS and operations that drum # S822838 ~~1.29.12~~ 1.27.12 is going to take longer to bagout due to all the VOCs. I told them to rehydrate, if it's unsafe to stop and to follow procedure. I also instructed the operators to take pictures of the drum.

1413 Moved in liquid drums to thaw out during the weekend.

1430 Notified the OM that there are VOPs and the BEP is expired. OK to proceed notify procedure writers.

1445 Per OM OK to leave the drums and the facility warmstandby throughout the weekend. On-Call personnel on watchbill will come in to perform rounds on the weekend. 1 Operator, 1 RCT, 1 SOS will come in.

1619 Notified Work Control to find out a status on the ladder maintaince. We only have 2 weeks to fix it the ladder per Air Quality.

1620 Reviewed procedure DOP-0233 to brief operators for WCRRF Page Change. ~~Had securing the watch~~

No further entries

SIGNATURE DATE 1.27. 20 12

READ AND UNDERSTOOD DATE 20

1-27-12

0600 Reviewed SOS TURNOVER And Assuming WCRR SOS position. ~~[illegible]~~

0615 Conducting Pre-Job Briefing

0635 Concluded Pre-Job Briefing

0700 Mode Change Complete from warm to operations in Yard & Building 65

1200 Still processing drum 1 due to excessive liquids and multiple POC's Also discussed staging in warm over the weekend to let liquids drain out. Discussed with operator & RCT to come and perform rounds over the weekend

1710 Reviewed ~~Inside~~ Outside Rads

1711 LATE ENTRY 1610 Reviewed Outside Rounds

1715 Mode Change Complete from operations to warm in Building and yard

1730 Securing WCRR SOS Position. ~~[illegible]~~

GW 2/10/12

No Further Entries on this Page ~~[illegible]~~

SIGNATURE _____ DATE _____ 20

READ AND UNDERSTOOD _____ DATE _____ 20

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-12-0123
Examination Date:	10/25/2012
Waste Container ID:	90801
Video/Audio Recorded Media Number:	LA-RTR2-12-0123 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 79.5 kg Tare Wt.: 33.4 kg Net Wt.: 46.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	30 %

CCP Radiography Data Sheet

Waste Container ID: 90801

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags, plastic lid

OR:

IN: Absorbent

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP):Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	36.1
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	6.0
Soils (S):	
Total WMP Weight:	46.1

CCP Radiography Data Sheet

Waste Container ID: 90801

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments:N/A

RTR Operator:

Thad Hasselstrom	Thad Hasselstrom	10/25/2012
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	90801	Count Sequence Number:	21483
Operator:	D3PW2DK1\operator		
Assay Start:	10/26/2012 11:42:45 AM		
Description 1:	1LANDA1662		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6, Not Precision		
Matrix Type:	Debris S5000		
Container Type:	55 gallon drum		
Weight:	Net: 46.1 kg	Net:	46.1 kg
Container:	Volume: 208.0 l	Full:	30.0 %
Density:	0.740 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 21483
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 14
Item ID: 90801

Batch Number: 1LANDA1662
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 10/26/2012

Net Weight	46100.0 g		
Pu mass	2.77E+001	+-	6.27E+000 g
TRU Alpha Activity	6.13E+000	+-	8.71E-001 Ci
TRU Activity Concentration	1.33E+005	+-	1.89E+004 nCi/g
Pu-239 Equivalent Activity	6.20E+000	+-	8.72E-001 Ci
Pu-239 FGE	2.61E+001	+-	5.88E+000 g
Decay heat	2.00E-001	+-	2.87E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	7.21E-002	5.15E-005	9.87E-006	2.05E-006
PU238	2.55E-003	4.41E-002	9.99E-003	3.37E-005
PU239	2.60E+001	1.63E+000	3.70E-001	1.25E-003
PU240	1.68E+000	3.86E-001	8.74E-002	2.95E-004
AM241	1.17E+000	4.07E+000	7.84E-001	3.61E-002
PU241	3.51E-002	3.65E+000	8.25E-001	2.79E-003
PU242	5.55E-003	2.20E-005	4.98E-006	0.00E+000
SR90	2.45E-008	3.39E-006	1.03E-006	0.00E+000
CS137	3.86E-008	3.39E-006	1.03E-006	7.10E-007
U233	<LLD	<LLD	0.00E+000	3.91E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.06E-006
U238	<LLD	<LLD	0.00E+000	1.99E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 10-30-12

ITR: Beverly Brown Date: 10/31/12

Automated Independent Technical Review

Count Sequence Number: 21483 Batch Number: 1LANDA1662
Counter ID: MCS HENC #1
Container ID: 90801
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 10/26/2012

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor was set to one.	Ok
Add-a-Source correction factor is less than n-sigma * the correction factor error.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings.	
- Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis	
Override enabled; Passive Neutron Pu and Gamma U data specified as input.	Passive Neutron Pu and Gamma U data specified as input.
Pu results taken from Passive Neutron data, U from Quantitative Gamma data.	
Results comparison test passed.	
Section 4 - MGA Analysis	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,54,42
Results are marked as invalid.	
Section 5 - Gamma Analysis	
Analysis Status: No errors.	Ok

Comments	Disposition
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sherri Chandler Date: 10-29-12

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **90801**

BDR Number: **LA12FG12048**

Sampling Date: ***10/31/2012***

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	8.15	U
74-82-8	Methane	9.63	U
67-56-1	Methanol	30.57	U
60-29-7	Ethyl Ether	1.77	U
75-35-4	1,1-Dichloroethylene	5.36	U
67-64-1	Acetone	11.55	U
75-34-3	1,1-Dichloroethane	2.29	U
156-59-2	cis-1,2-Dichloroethene	0.36	U
78-93-3	Methyl ethyl ketone	2.55	U
110-82-7	Cyclohexane	2.09	U
71-43-2	Benzene	0.72	
107-06-2	1,2-Dichloroethane	0.92	U
71-36-3	1-Butanol	0.54	U
108-10-1	Methyl isobutyl ketone	3.11	U
108-88-3	Toluene	2.73	U
108-90-7	Chlorobenzene	0.87	U
100-41-4	Ethylbenzene	1.15	U
108-38-3/106-42-3	m- and p-Xylene	0.59	U
95-47-6	o-Xylene	0.63	U
108-67-8	1,3,5-Trimethylbenzene	0.72	U
95-63-6	1,2,4-Trimethylbenzene	0.78	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\121031C\
Data File : 90801.D
Acq On : 31 Oct 2012 2:24 pm (#1); 31 Oct 2012 2:23 pm (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 31 14:32:40 2012
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Wed Oct 03 14:43:18 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	4.054	96	6016441	204.00	ppmv	0.00
15) Chlorobenzene-d5	6.636	117	6294477	179.25	ppmv	0.00
Target Compounds						Qvalue
12) Benzene	3.714	78	17813	0.72	ppmv	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

53

Working Copy
Date: 10-1-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90862

6.2[4] Date Processed: 10-1-12

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☐ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☐ Liquids ☐ Pressurized Containers ☑ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] (S) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 7-31-13

4.3[5][B] (S) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] (S) Stationary Fire Watch has been established:
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) N/A
(Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☐ YES ☑ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Gerald Espinoza / [signature] / [illegible] / 10-1-12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90802

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 35.0 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): Ø lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 35.0 lb

6.2[7] (S) Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

NA

EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90862

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92126			
10.1[4]	Daughter Drum Filter No.	AM752		N/A	
10.1[4]	Daughter Drum Bag Filter No.	W01784			
10.1[4]	Daughter Drum Purchase Order No.	416245			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	Bob			
	Model No.	30x15-2 3pk			
	Serial No.	W01748			
	Date of Manufacture	7-11			
10.2[5]	POC ID No	92127			
10.2[7][B]/10.2[6]	POC Item Description	Salts Kitkul. Her plastic			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	GE 231720			
10.2[14]	POC Assembly Gross Weight (lb)	309.4			
10.2[15]	POC Rad. Survey Results (mrem/hr)	275.5			
10.3[3][A]	Approx. Containerized Liquid Vol./Units			N/A	
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:	N/A			
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See Comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	85%			
10.5[3]/10.6[2]	Description Waste Added During Processing	plastic			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90802

Comments: PCC lid, plastic, GE ø fiber board, wax 1

11.1[1] Performed By: Gerardo Esparza / [signature] / [illegible] / 10-1-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jerez / [signature] / 1221452 / 10-2-12 0820
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 9-26-12

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 414945
Lot No.: 217366
Manufacture Date: 11

5.[8] Overpack filtered vent information:

Manufacturer: ovcfil
Model No.: 013
Serial No.: HL-950
Manufacture Date: 8/11

Overpack filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	020614	021151
Cal. Expiration Date:	10-14-12	6-11-13
Tolerance:	±4%cw ±6%ccw	±3%cw ±6%ccw

Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Michael Romero / Michael Romero [redacted] 5-26-12
Waste Handling Technician (print) Signature Z# Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[15] 2 in. bung plug torque value: 30 ft-lb

Comments: n/c

8.1[1] Performed By: Michael Romero / Michael Romero [redacted] 5-26-12
Waste Handling Technician (print) Signature Z# Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Jerez / Jose Jerez 122452 / 10-2-12
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 10-1-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92128

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 040329
Cal. Expiration Date: 3.15.13
Range in ft-lb: 40-80
Tolerance: ±3% OW ±6% OW

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Gerald Espinoza / [signature] / 10-1-12
Waste Handling Technician (print) Signature Z # Date

7.[28] Overpack drum closure ring torque value: 60 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 7-31-13

7.[36][D] 85-gal overpack drum gross weight (lb): 336.60 lb

Comments: N/C

8.1[1] Performed By: Gerald Espinoza / [signature] / 10-3-12
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Jerez / [signature] / 221452 / 10-3-12
Supervisor or designee (print) Signature Z # Date

Work Copy
Date: 9-27-12

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: 92124

1. Drum/Lid Assembly

- [x] Remove and discard ¾" bung from lid
- [x] Remove Lid
- [x] Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  - NOTE: Reject damaged drum/lid assembly
- [x] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:
- Purchase Request #: 416265
- Lot #: 0229225
- Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

- [x] Place yellow vinyl tape, with smear centered on tape, over filter
- [x] Fill bag with air from compressed air source
- [x] Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  - NOTE: Reject or repair damaged, cut, or leaking bags
- [x] Stretch bag's bungee cord
- [x] Inspect bungee cord
  - NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information:
- Manufacturer: Bol
- Model #: 6CPVC 1.5-2.5 SPVC
- Serial #: WO 1784
- Date of Manufacture: 7/11

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- [x] Inspect cardboard liner/plastic liner (circle type of liner used)
  - NOTE: Reject only damaged liners
- [x] Place cardboard/plastic liner into drum liner bag/filter assembly
- [x] Line up filter with drum seam
- [x] Place liner/bag/filter assembly into drum
- [x] Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- [x] Place lid and ring onto drum
- [x] Tighten ring sufficiently to simply hold lid in place
- [x] Torque 2" bung plug
- [x] Apply sealant to filter threads, screw in ¾" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:
- Manufacturer: NUCFIL
- Model #: 01985
- Serial #: Ang 782
- Date of Manufacture: 1/12

RECORD torque wrench information:

Filter torque wrench:
- M&TE ID #: 020614
- Cal Expiration-Date: 10/19/12
- Range (ft-lbs or in-lbs): 40-200
- Tolerance: +/- 3% CW, +/- 6% CCW

Jam Nut / Bung torque wrench:
- M&TE ID #: 021151
- Cal Expiration Date: 6/11/13
- Range (ft-lbs or in-lbs): 10-80
- Tolerance: +/- 3% CW, +/- 6% CCW

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
- [x] Yes [ ] No

Print Name: Gerald Espinoza Signature: [signature] ID#: 237720

5. Weigh Drum Assembly

RECORD weight information
- Tare wight (lbs): 76.8
- File ID #: 090005

- [x] Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- [x] Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print:	Eddie Rios	Operator Sign:	[signature]	ID#:	187822	Date:	9-27-12
Verifier Print:	Gerald Espinoza	Verifier Sign:	[signature]	ID#:	237720	Date:	10-1-12

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 921260

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

✓ Install ring with bolt positioned downward and directly over drum seam.

✓ Engage bolt and nut and torque per manufactures instructions.

NOTE: Seal the ring while tightening using a rubber hammer or dead-blow mallet or a drum lid press.

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 040329

Cal expiration date: 3-15-13

Range/ Value (ft-lbs): 16-80

Tolerance ±3% CW ±6% CCW

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels.

✓ Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label.

✓ Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.

✓ Place one yellow radioactive waste label between the top two rolling hoops

✓ Place one yellow radioactive waste label in the center of the drum lid.

RCRA Label:

N/A Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops.

OR

✓ Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs.): 1164.8

Scale ID#: 019065

✓ Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area.

✓ Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓ Complete TWSR.

Operator Print/Sign: Gerald Espinoza Date: 10-1-12

Verifier Print/Sign: Eddie Rios Date: 10-1-12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90802 Container Type: POC Gross Weight (lbs): 351
Container Seal #: None Filter Prefix: None Filter Serial #: EL-12, EL-57
RCRA Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: PARENT #SB02838 WTS-12STD-799
Total PE-Ci Activity: 1.28E+00 Equivalent Combustible PE-Ci: 4.81E-01 AM-241 PE-Ci: 1.06E-01
Total Fissile Gram Equivalents: 14.1 Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): D008 D007 D009 WE 9/25/12
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: None Comment: None
Certified RTR Comment: None
Prohibited Items: ■ Sealed > 4 Liters ■ Liquid ■ Pressurized Container ■ Impenetrable Item ■ Other
Security Determination: ☑ Green ☐ Yellow
Remediation Determination: ☐ VE ☐ PID ☐ Split ☑ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☑ >100 and <1,000 ☐ >1,000 and <10,000 ☐ >10,000
TRUCON Code: TBD Production Control Comments: Need to add EPA Codes D007 & D009.
Nitrate salts mixed with Waste Loc 770® from previous repack campaign. A minimum of 1.2 volumes of kitty litter/sediment must be mixed with 1.0 volume of nitrate salts.
Performed By: Susan Ramsey / Susan P. Ramsey / 100681 / 9/5/12
Production Control (Print) Signature Z Number Date

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☑ No ☐ Unknown
Processing Determination: ☒ Accept ☐ Reject
WDP Engineering Comments: Nitrate Salts – POC
Wet Wt. 4,4 lb. Parent drum (SEDS attached) was part of WCRR nitrate salt repack campaign using waste loc 770. This resulting daughter POC is being repacked to adjust admixture/nitrate salt ratio. Nitrate salts carry waste codes for chromium (D007), lead (D008), & mercury (D009). No haz chemicals present.

May require RWP for >100 and <1000 mrem/hr

Performed By: Valerie Rhodes / Valerie Rhodes / 112609 / 9/25/12
WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns:

Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments: Ensure kitty litter is bagged in.
Performed By: Gilbert Martinez / [signature] / 149235 / 9.26.12
TRU Remediation Operations (Print) Signature Z Number Date

145 Review going to Small CSP, contains Chromium, lead, and Hg
9/26/12
JJ - 9-26-12 -
221452

Noncertified TMU Waste Drum Item Information

DrumID: 010340

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	IXFS-504F-1		30.670	NITRATE SALTS		13.79	52	5/11	
2	IXFS-503-F-1		24.310	NIRTRATE SALTS		0.	42	5/11	
3	IXFS-505-F-1		8.860	NITRATE SALTS		76.11	52	5/11	
4	IXFS-506-F-1		11.360	NITRATE SALTS		1.28	52	5/11	
5	IXFS-507-F-1		4.540	NITRATE SALTS		1.83	54	5/11	
6	IXFS-508-F-1		7.050	NITRATE SALTS		9.08	52	5/11	
7	IXFS-509-F-1		20.680	NITRATE SALTS		16.78	52	5/11	
8	IXFS-510-F-1		31.140	NITRATE SALTS		60.85	52	5/11	

Noncertified Waste Drum Material Summary

Gross Wt (kg):

Material Type	SNM (grams)	Items Net Wt (kg)
42	0.	24.31
52	177.89	109.76
54	1.83	4.54
Totals	179.72	138.61

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: 9.21.12

Container No. (5.[1])	90802					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	Ø ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	Ø ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	Ø ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Sara Aragon (CCP (Print)) 237975 (Z #)

Reviewed By: Nathan Wales (CCP (Print)) 238866 (Z #)

Comments: N/A

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: Colleen Martinez (Waste Handling Operator (print)) Colleen Martinez (Signature) 190298 (Z #) 9.24.12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120921c\
Data File : 90802.D
Acq On : 21 Sep 2012 4:16 pm
Operator : SA
Sample :
InstName : Unit 8
Misc : LFL POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 21 16:24:17 2012
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.259	96	2438155	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2158529	179.50 ppm	0.00

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vocgas.m Fri Sep 21 16:24:31 2012

240 | 10-1-17
3-1-17

PROJECT NAME _____ NOTEBOOK NO. _____

JC 10-1-17

0600 Assuming WCRR operations center. - JC Deeman
0615 Pre-job being conducted by SOS.
0745 Beginning outside rounds.
0756 Beginning inside rounds.
0815 Outside rounds complete.
0835 Rounds reviewed by SOS.
0855 Permission granted to lower vehicle access gates to begin to load transfer vehicle for a shipment to Area G. All work packages have been signed off from the weekend.
0858 Mode change complete. We are now in operations.
0940 Initiating a drum movement from transportainer to 50169.
0948 Movement into the facility complete.
1014 Vehicle access gates restored. Transportainers secured.
1015 Late entry - at 1005, bagging on 61725. JC
1024 Bag on complete.
1039 Bagging off 61725, bagging on 65065. (Bagging off 1 POC as well) JJ
1112 Bag on complete
1150 Bagging off 65065 and 1 POC, bagging on 90803.
1230 Bag on complete.
1337 Bagging off 90803 and 1 POC, bagging on 90804.
1405 Bag on complete.
1418 Initiating a movement from 50169 to the transportainers.
1450 Drum movement out of facility. Initiating a drum movement from transportainers to 50169. Beginning outside rounds. Bagging off 90804 and bagging on 90802.
1515 Outside rounds complete. Movement into facility complete.
1525 Notified by tech 38 that they are in a pause due to contamination found on the slide. SOS, SOM notified.
1540 Operator 38 called to say the bag off was complete and resuming operations. RCT's recounted smears. Suspected Radon.
1551 Beginning inside rounds.
1558 RCT supervisor states the slide has been bagged up and the RCT's are saving the smears to recount in the morning.
1607 Bagging off 90802 and 1 POC, and cleaning the glovebox.
1625 Bag off complete. JC 10-1-17
1626 ~~Inside rounds com~~ Late entry - at 1608 inside rounds completed. JC
1649 Mode change complete. We are now in warm standby.
1700 End of day. Operations secure. - JC Deeman JJ

No further entries this page.

SIGNATURE _____ DATE _____ 20__
READ AND UNDERSTOOD _____ DATE _____ 20__

PROJECT NAME 10/1/12 NOTEBOOK NO.

0600 Reviewed SOM turnover checklist, Assumed SOM position.

0615 Attended prejob brief conducted by SOS. Covered POD items for day and scheduled drums to process - including starting SP # 22 drums. Work packages from maint. conducted Friday 9/28/12 require CSE signatures prior to going to operations.

0740 Released WO # 445670-01 50-69 TSR/ISI Daily & Weekly Rounds

0857 Obtained CSE signatures for all work packages.

0858 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm/Cold to Operations / Operations

1513 Submitted MOV conducted on 9/20/12 into BOS database and forwarded to Barb Trujillo to close out PFITS issue # 2011-2350.

1525 Notified by OCA that contamination was found on slide used to reseat drums. Levels w/in RWP and suspect radon.

1540 Operations resumed after smears recounted.

1545 Notified by SSW of combustible loading calculation errors noticed during review of last surveillance completed by FSE. All errors were on conservative side and FSE was contacted. Next surveillance is due on 10/22/12 and FSE will update calculation formulas.

1649 Completed mode change: WCRR Yard / Bldg 50-69 from Operations/Operations to Warm/Warm.

1700 Secured SOM position

10-4-12

No further entries this page

SIGNATURE DATE 10/1 20 12

READ AND UNDERSTOOD DATE 20

10-1-12 WCRR SOS Log Book

0600 Reviewed SOS Log Book. Assuming SOS position for the day. [illegible]

0615 Starting Pre-Job brief. RCT's reviewing quarterly RWP and Monthly RWP. Discussed processing of nitrate salt drums. SOM discussing following the procedure for receiving shipments. Going over it and make changes to procedure as needed. Key control, ensure that you're on the list prior to asking for the key. Rounds not performed yet. Waiting on work package to be released. Work packages for maintenance performed on Friday needing CSE signatures prior to facility being released.

0700 Pre-Job brief Complete

0715 Waiting on Work package to be released by SOM's so that rounds can be Completed to go into Operations Mode.

0730 Work Package for performing rounds has been signed off. Starting outside and inside rounds.

0835 Signed off on inside and outside rounds.

0858 MODE Change Complete 50-69 and Yard are in Operations

0940 Starting drum movement from Transportainer to 50-69

0948 Movement Complete into the facility

1005 Bagging on first drum

1024 Bag on Complete

1039 Bagging off first Drum Bagging on Second

1055 Late Entry at 0855 Starting drum movement of waste drums from the Transportainers to Transport Vehicle. All work packages have been signed off from Friday Maintenance. At 1015 Shipment out was completed.

1112 Bag On Complete

1150 Bagging off second drum Bagging on third drum

1230 Bag on Complete

1[illegible] Bagging off third drum and bagging on fourth drum

1405 Bag on complete

1418 Performing movement from 50-69 to Transportainer

1450 Drum movement from 50-69 to Transportainer Complete-Starting Drum movement from Transportainer to 50-69

Continued on Next Page

10-1-12 WCRR SOS Log Book

Continued from previous page.

1450 Bagging off fourth drum and bagging on the 5th drum.

1515 Movement into facility Complete

1525 Operations are on a pause do to contamination found on the slide that is used to overpack 55gal parents into 85 gallon drums.

1540 Operator 38 resuming operations. Bag was complete RCT's recounting smears from side possibility of radon

1558 RCT supervisor states that the slide was bagged up and RCT's are saving the smears to recount in the morning.

1607 Bagging off fifth drum. last one for the day.

1630 Bag off complete

1645 Signed off on rounds inside and outside.

1649 Mode Change 50-69 in WARM and Yard

1700 Securing SOS position for the Day [illegible]

No further entries on this page

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0064
Examination Date:	4/29/2013
Waste Container ID:	92126
Video/Audio Recorded Media Number:	LA-RTR2-13-0064 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 74.5 kg Tare Wt.: 33.4 kg Net Wt.: 41.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	80 %

CCP Radiography Data Sheet

Waste Container ID: 92126

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hardware, metal lid

AM:

OM:

OI:

C: Fiberboard liner sleeve

R:

XPM: Liner lid, plastic bags

OR:

IN:

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	25.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	9.0
Rubber (R):	
Plastics (waste materials) (XPM):	7.1
Organic Matrix (OR):	
Inorganic Matrix (IN):	
Soils (S):	
Total WMP Weight:	41.1

CCP Radiography Data Sheet

Waste Container ID: 92126

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: N/A	

RTR Operator:

Benito Maestas		4/29/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92126	Count Sequence Number:	22674
Operator:	D3PW2DK1\operator		
Assay Start:	5/1/2013 11:01:50 AM		
Description 1:	1LANDA1762		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Debris S5000		
Container Type:	55 gallon drum		
Weight:	Net: 41.1 kg	Net:	41.1 kg
Container:	Volume: 208.0 l	Full:	80.0 %
Density:	0.250 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	22674	Batch Number:	1LANDA1762
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92126	Analysis Date:	5/1/2013

Net Weight	41100.0 g		
Pu mass	4.22E-001	+-	8.10E-002 g
TRU Alpha Activity	5.29E-002	+-	5.64E-003 Ci
TRU Activity Concentration	1.29E+003	+-	1.37E+002 nCi/g
Pu-239 Equivalent Activity	5.38E-002	+-	5.64E-003 Ci
Pu-239 FGE	3.98E-001	+-	7.60E-002 g
Decay heat	1.70E-003	+-	1.78E-004 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	8.18E-004	5.84E-007	8.79E-008	1.86E-007
PU238	3.87E-005	6.70E-004	1.29E-004	4.84E-004
PU239	3.96E-001	2.49E-002	4.78E-003	1.80E-002
PU240	2.55E-002	5.87E-003	1.13E-003	4.24E-003
AM241	6.18E-003	2.14E-002	2.77E-003	3.50E-003
PU241	4.97E-004	5.16E-002	9.91E-003	3.73E-002
PU242	8.45E-005	3.36E-007	6.44E-008	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	5.00E-008
U233	<LLD	<LLD	0.00E+000	3.61E-004
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.01E-007
U238	<LLD	<LLD	0.00E+000	2.63E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 5-6-13

ITR: _____ Date: 5-7-13

Automated Independent Technical Review

Count Sequence Number: 22674 Batch Number: 1LANDA1762
Counter ID: MCS HENC #1
Container ID: 92126
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 5/1/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor is less than one.	Ok
Add-a-Source correction factor was set to one.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
No Warnings Reported.	
Section 3 - Data Combiner Analysis	
Override enabled; Passive Neutron Pu and Gamma U data specified as input.	Passive Neutron Pu and Gamma U data specified as input.
Pu results taken from Passive Neutron data, U from Quantitative Gamma data.	
Results comparison test failed.	
Section 4 - MGA Analysis	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,54,42
Results are marked as invalid.	
Section 5 - Gamma Analysis	
Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 5-2-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **92126**

BDR Number: **LA13FG2052**

Sampling Date: **5/9/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	90.37	U
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130509c\
Data File : 92126.D
Acq On : 9 May 2013 3:05 pm (#1); 09-May-13, 15:04:18 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 09 15:13:00 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.601	96	3793498	201.25	ppmv	0.03
15) Chlorobenzene-d5	5.923	117	3251877	177.00	ppmv	0.02

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-12-0144
Examination Date:	12/19/2012
Waste Container ID:	92127
Video/Audio Recorded Media Number:	LA-RTR2-12-0144 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA212
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 167.5 kg Tare Wt.: 145.1 kg Net Wt.: 22.4 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Punctured: [ ] No [X] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 92127

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal

AM:

OM:

OI:

C:

R:

XPM:

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	109.0
Plastics (PP): Rigid Liner/Lid Liner Bag (Inside POC)	8.1
Other: Fiberboard (CP), Liner/Sleeve(Inside POC)	28.0
Total Packaging Weight	145.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	1.5
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	20.9
Soils (S):	
Total WMP Weight:	22.4

CCP Radiography Data Sheet

Waste Container ID: 92127

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments: Standard Pipe Overpack Container (P.O.C.); There is separation between the liner and liner lid; therefore, the liner is vented.

RTR Operator:

Aaron Elliott		12/19/2012
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92127	Count Sequence Number:	21748
Operator:	D3PW2DK1\operator		
Assay Start:	12/20/2012 9:40:05 AM		
Description 1:	1LANDA1689		
Description 2:	POC, Gross Wt= 167.5		
Location:	LANL-TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 22.4 kg	Net:	22.4 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.707 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	21748	Batch Number:	1LANDA1689
Assay Instrument:	MCS HENC #1	Location:	LANL-TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92127	Analysis Date:	12/20/2012

Net Weight	22400.0 g		
Pu mass	2.44E+001	+-	4.00E+000 g
TRU Alpha Activity	3.35E+000	+-	8.53E-001 Ci
TRU Activity Concentration	1.49E+005	+-	3.81E+004 nCi/g
Pu-239 Equivalent Activity	3.42E+000	+-	8.53E-001 Ci
Pu-239 FGE	2.29E+001	+-	3.73E+000 g
Decay heat	1.08E-001	+-	2.84E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.24E-002	1.60E-005	3.03E-006	1.90E-006
PU238	2.92E-003	5.05E-002	8.27E-003	4.09E-005
PU239	2.28E+001	1.43E+000	2.35E-001	1.16E-003
PU240	1.58E+000	3.62E-001	5.93E-002	2.93E-004
AM241	4.33E-001	1.50E+000	8.18E-001	3.70E-002
PU241	3.65E-002	3.79E+000	6.22E-001	3.07E-003
PU242	9.03E-003	3.58E-005	5.87E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	4.63E-007
U233	<LLD	<LLD	0.00E+000	3.81E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.07E-006
U238	<LLD	<LLD	0.00E+000	1.74E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-3-13

ITR: _____ Date: 1-8-13

Automated Independent Technical Review

Count Sequence Number: 21748 Batch Number: 1LANDA1689
Counter ID: MCS HENC #1
Container ID: 92127
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 12/20/2012

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Ok Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,54,42
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chandler Date: 12-21-12

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **92127**

BDR Number: **LA13FG2080**

Sampling Date: **7/10/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	264.92	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130710C\
Data File : 92127.D
Acq On : 10 Jul 2013 12:20 pm (#1); 10-Jul-13, 12:20:18 (#2)
Operator : RJ
Sample :
Misc : POC Through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 10 12:29:45 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Mon Jun 24 14:13:48 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.565	96	4699395	205.75	ppmv	0.05
15) Chlorobenzene-d5	5.901	117	3794023	177.50	ppmv	0.04
Target Compounds						Qvalue
1) Hydrogen	1.605	GC1	1992	264.92	ppmv	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

2

Working Copy
Date: 10-1-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90803

6.2[4] Date Processed: 10-1-12

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☐ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☐ Liquids ☐ Pressurized Containers ☑ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] (S) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 0190605
Cal. Due Date: 7-31-13

4.3[5][B] (S) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] (S) Stationary Fire Watch has been established:
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) N/A
(Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☐ YES ☑ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Gerald Espinosa / [signature] [illegible] / 10-1-12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90803

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 362.8 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 0 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 362.8 lb

6.2[7] ($) Total Parent Drum Weight < 624 lb (SR 4.5.1): ☒ SAT ☐ UNSAT

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

EWMO-FOD (print)	Signature	Z #	Date
	N/A		

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90803

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92121			
10.1[4]	Daughter Drum Filter No.	AM886		N/A	
10.1[4]	Daughter Drum Bag Filter No.	W01700			
10.1[4]	Daughter Drum Purchase Order No.	4116265			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	BOP			
	Model No.	3psi 5.2 spvc			
	Serial No.	W.0.1762			
	Date of Manufacture	7-11			
10.2[5]	POC ID No.	9222			
10.2[7][B]/10.2[6]	POC Item Description	Kitty litter Salts			
10.2[13]	POC Assembly closed per Manufacturer's Instructions. (Initial and Z#)	GE 231720			
10.2[14]	POC Assembly Gross Weight (lb)	357.8			
10.2[15]	POC Rad. Survey Results (mrem/hr)	200.5		N/A	
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:	N/A			
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See Comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	90%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Plastic.			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90803

Comments: Plastic, Cardboard, POC lid, fiber board.

11.1[1] Performed By: Gerald Espinosa / [signature] 123TTd 10-1-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jerez / [signature] 1221452 10-2-12 0829
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 9-26-18

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 414945
Lot No.: 217366
Manufacture Date: 11

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: HL-948
Manufacture Date: 8/11

Overpack filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	020614	021151
Cal. Expiration Date:	10-19-12	6-11-13
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Michael Romero / Michael Romero / [illegible] 9-26-12
Waste Handling Technician (print) Signature Z # Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[15] 2 in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: Michael Romero / Michael Romero / [illegible] 9-26-12
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Jerez / [illegible] 221452 10-2-12
Supervisor or designee (print) Signature Z # Date

UET Working Copy

Date: 10-1-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92123

7.[25] Overpack drum closure ring torque wrench information:

M&TE No.: 040329
Cal. Expiration Date: 3-15-13
Range in ft-lb: 40-80
Tolerance: ±3% CW ±6% CCW

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Gerald Espinoza / [signature] [illegible] 10-1-12
Waste Handling Technician (print) Signature Z# Date

7.[28] Overpack drum closure ring torque value: 60 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 7-31-12

7.[36][D] 85-gal overpack drum gross weight (lb): 361.8 lb

Comments: N/C

8.1[1] Performed By: Gerald Espinoza / [signature] [illegible] 10-1-12
Waste Handling Technician (print) Signature Z# Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Perez / [signature] 221452 10-2-12
Supervisor or designee (print) Signature Z# Date

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: 92121

1. Drum/Lid Assembly

- ☑ Remove and discard ¾" bung from lid
- ☑ Remove Lid
- ☑ Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  - NOTE: Reject damaged drum/lid assembly
- ☑ Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:

Purchase Request #: 416265
Lot #: 0239225
Date of Manufacture: NA

2. Drum Liner Bag/Filter Assembly:

- ☑ Place yellow vinyl tape, with smear centered on tape, over filter
- ☑ Fill bag with air from compressed air source
- ☑ Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  - NOTE: Reject or repair damaged, cut, or leaking bags
- ☑ Stretch bag's bungee cord
- ☑ Inspect bungee cord
  - NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information:

Manufacturer: BOP
Model #: Equivent 1.5-2.5 Plus
Serial #: 2W-7700
Date of Manufacture: 6-01

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- ☐ Inspect cardboard liner/plastic liner (circle type of liner used)
  - NOTE: Reject any damaged liners
- ☑ Place cardboard/plastic liner into drum liner bag/filter assembly
- ☐ Line up filter with drum seam
- ☑ Place liner/bag/filter assembly into drum
- ☑ Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- ☑ Place lid and ring onto drum
- ☑ Tighten ring sufficiently to simply hold lid in place
- ☑ Torque 2" bung plug
- ☑ Apply sealant to filter threads, screw in ¾" bung hole, and torque
- ☑ Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:

Manufacturer: NUCFIL
Model #: 01405
Serial #: AM-4416
Date of Manufacture: 1-12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	020614	M&TE ID #:	021151
Cal Expiration Date:	10-19-12	Cal Expiration Date:	6-11-2013
Range (ft-lbs or in-lbs):	60-240	Range (ft-lbs or in-lbs):	16-80
Tolerance:	±4% cw ±6% ccw	Tolerance:	±3% cw ±6% ccw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.

☑ Yes ☐ No

Print Name: Eddie Rios Signature: [signature] ID#: 187822

5. Weigh Drum Assembly

RECORD weight information

Tare weight (lbs) 75.0
File ID #: 019065

☑ Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- ☑ Place 1 barcode drum ID label to the left of the drum seam, ~5" from drum bottom
- ☑ Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print: Eddie Rios Operator Sign: [signature] ID#: 187822 Date: 9-26-12

Verifier Print: Gerald Esparza Verifier Sign: [signature] ID#: 231120 Date: 10-1-12

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 92121

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

✓ Install ring with bolt positioned downward and directly over drum seam.

✓ Engage bolt and nut and torque per manufactures instructions.

NOTE Seal the ring while tightening using a rubber hammer or dead-blow mallet or a drum lid press.

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 040329

Cal expiration date: 3-15-13

Range/ Value (ft-lbs): 16-80

Tolerance ±3% CW ±6% CCW

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels.

✓ Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label.

✓ Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.

✓ Place one yellow radioactive waste label between the top two rolling hoops

Place one yellow radioactive waste label in the center of the drum lid.

RCRA Label:

✓ Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops.

OR

✓ Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 170.4

Scale ID#: 0190605

✓ Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area.

✓ Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓ Complete TWSR.

Operator Print/Sign: Gerald Espinoza Date: 10-1-12

Verifier Print/Sign: Gilbert Mk Date: 10-1-12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90803 Container Type: POC Gross Weight (lbs): 347
Container Seal #: None Filter Prefix: None Filter Serial #: EL-1; EL-53
RTR Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: PARENT #S822838 WTS-12STD-798
Total PE-Ci Activity: 1.28E+00 Equivalent Combustible PE-Ci: 4.81E-01 AM-241 PE-Ci: 1.06E-01
Total Fissile Gram Equivalents: 14.1 Total Surface Dose Rate (mrem/hr): ✓
EPA Code(s): D008 D007 D009 VR 9/25/12
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: None Comment: None
Certified RTR Comment: None
Prohibited Items: ■ Sealed > 4 Liters ■ Liquid ■ Pressurized Container ■ Impenetrable Item ■ Other
Security Determination: ✓ Green ☐ Yellow
Remediation Determination: ☐ VE ☐ PID ☐ Split ✓ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ✓ >100 and <1,000 ☐ >1,000 and <10,000 ☐ >10,000
TRUCON Code: TBD Production Control Comments: Need to add EPA Codes D007 & D009.
Nitrate salts mixed with Wastelock 770® from previous repack campaign. A minimum of 1:2 volumes of Nitrate salts to Wastelock must be mixed with 1 volume of nitrate salts.
Performed By: Susan Ramsey / Susan Ramsey / 100681 / 9/5/12
Production Control (Print) Signature Z Number Date

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ✓ No ☐ Unknown
Processing Determination: ✓ Accept ☐ Reject
WDP Engineering Comments: Nitrate Salts - POC
Net Wt. 37lb. Parent drum (SEDs attached) was part of WCRR nitrate salt repack campaign using Wastelock 770. This resulting daughter POC is being repacked to adjust admixture/nitrate salt ratios. Nitrate salts carry waste codes for chromium (D007), lead (D008), + mercury (D009). No haz chemicals present.
May require RWP for >100 and <1000 mrem/hr
Performed By: Valerie Rhodes / Valerie Rhodes / 112609 / 9/25/12
WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

✓ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns:
Processing Determination: ✓ Accept ☐ Reject
TRU Remediation Operations Comments: Need to add Bag, Liner
Performed By: Gilbert Martinez / G. Martinez / M225 / 9-26-12
TRU Remediation Operations (Print) Signature Z Number Date

IHS Review. [illegible] CSA, Contains Chromium, lead + Hg
9/26/12
jj-221452 - 9-26-12

Noncertified TRU Waste Drum Item Information

DrumID: 010340

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/In)	Comments
1	IXFS-504F-1		30.670	NITRATE SALTS		13.79	52	5/11	
2	IXFS-503-F-1		24.310	NIRTRATE SALTS		0.	42	5/11	
3	IXFS-505-F-1		8.860	NITRATE SALTS		76.11	52	5/11	
4	IXFS-506-F-1		11.360	NITRATE SALTS		1.28	52	5/11	
5	IXFS-507-F-1		4.540	NITRATE SALTS		1.83	54	5/11	
6	IXFS-508-F-1		7.050	NITRATE SALTS		9.08	52	5/11	
7	IXFS-509-F-1		20.680	NITRATE SALTS		16.78	52	5/11	
8	IXFS-510-F-1		31.140	NITRATE SALTS		60.85	52	5/11	

Noncertified Waste Drum Material Summary

Gross Wt (kg):

Material Type	SNM (grams)	Items Net Wt (kg)
42	0.	24.31
52	177.89	109.76
54	1.83	4.54
Totals	179.72	138.61

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: 9.21.12

Container No. (5.[1])	90803					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

N/A

5.[7] Certified CCP Technician:

Performed By: Nathan Wales (CCP (Print)) 238866 (Z #)

Reviewed By: Sara Aragon (CCP (Print)) 237975 (Z #)

Comments: N/A

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: Colleen Martinez / Colleen Martinez (Waste Handling Operator (print) / Signature) 140298 (Z #) / 9.24.12 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120921c\
Data File : 90803.D
Acq On : 21 Sep 2012 12:45 pm (#1); 21-Sep-12, 12:44:40 (#2)
Operator : NW
Sample :
Misc : LFL POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 21 12:53:09 2012
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Wed Sep 05 10:53:25 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.630	96	7627319	201.25	ppmv	0.09
15) Chlorobenzene-d5	5.943	117	6740109	177.00	ppmv	0.07

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

10-1-10

3-1-12

JC 10-1-12

0600 Assuming WCRR operations center. - JCDeeman
0615 Pre-job briefing conducted by SOS.
0745 Beginning outside rounds.
0756 Beginning inside rounds.
0815 Outside rounds complete.
0835 Rounds reviewed by SOS.
0855 Permission granted to lower vehicle access gates to begin to load transfer vehicle for a shipment to Area G. All work packages have been signed off from the weekend.
0858 Mode change complete. We are now in operations.
0940 Initiating a drum movement from transportainer to 50-69.
0948 Movement into the facility complete.
1014 Vehicle access gates restored. Transportainers secured.
1015 Late entry - at 1005, bagging on 61725. JC
1024 Bag on complete.
1039 Bagging off 61725, bagging on 65065. (Bagging off 1 POC as well)
1112 Bag on complete
1150 Bagging off 65065 and 1 POC, bagging on 90803.
1230 Bag on complete.
1337 Bagging off 90803 and 1 POC, bagging on 90804.
1405 Bag on complete.
1418 Initiating a movement from 50-69 to the transportainers.
1450 Drum movement out of facility. Initiating a drum movement from transportainers to 50-69. Beginning outside rounds. Bagging off 90804 and bagging on 90802.
1515 Outside rounds complete. Movement into facility complete.
1525 Notified by tech 38 that they are in a pause due to contamination found on the slide SOS, SOM notified.
1540 Operator 38 called to say the bag off was complete and resuming operations. RCT's recounted smears. Suspected Radon.
1551 Beginning inside rounds.
1558 RCT supervisor states the slide has been bagged up and the RCT's are saving the smears to recount in the morning.
1607 Bagging off 90802 and 1 POC, and cleaning the glovebox.
1625 Bag off complete. JC 10-1-12
1626 ~~Inside rounds com~~ Late entry - at 1608 inside rounds completed. JC
1649 Mode change complete. We are now in warm standby.
1700 End of day. Operations secure. - JCDeeman

No further entries this page.

10/1/12

0600 Reviewed SOM turnover checklist, Assumed SOM position.
0615 Attended prejob brief conducted by SOS. Covered POD items for day and scheduled drums to process - including starting SP # 22 drums. Work packages from maint. conducted Friday 9/28/12 require CSE signatures prior to going to operations.
0740 Released WO # 445670-01 50-69 TSR/ISI Daily & Weekly Rounds
0857 Obtained CSE signatures for all work packages.
0858 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm/Cold to Operations / Operations
1513 Submitted MOV conducted on 9/20/12 into BOS database and forwarded to Barb Trujillo to close out PFITS issue # 2011-2350.
1525 Notified by OCA that contamination was found on slide used to reveal drums. Levels w/in RWP and suspect radon.
1540 Operations resumed after smears recounted.
1545 Notified by SSW of combustible loading calculation errors noticed during review of last surveillance completed by FSE. All errors were on conservative side and FSE was contacted. Next surveillance is due on 10/22/12 and FSE will update calculation formulas.
1649 Completed mode change: WCRR Yard / Bldg 50-69 from Operations/Operations to Warm/Warm.
1700 Secured SOM position.

10-4-12

No Further entries this page

10/1 12

10-1-12 WCRR SOS Log Book

0600 Reviewed SOS Log Book. Assuming SOS position for the day. [illegible]

0615 Starting Pre-Job brief. RCT's reviewing quarterly RWP and Monthly RWP. Discussed processing of nitrate salt drums SOM discussing following the procedure for receiving shipments. Going over it and make changes to procedure as needed. Key Control, ensure that you're on the list prior to asking for the key. Rounds not performed yet. Waiting on work package to be released. Work packages for maintenance performed on Friday needing CSE signatures prior to facility being released.

0700 Pre-Job brief Complete

0715 Waiting on Work package to be released by SOM's so that rounds can be Completed to go into Operations Mode.

0750 Work Package for performing rounds has been signed off. Starting outside and inside rounds.

0835 Signed off on inside and outside rounds.

0858 MODE Change Complete 50-69 and Yard are in Operations

0940 Starting drum movement from Transportainer to 50-69

0948 Movement Complete into the facility

1005 Bagging on first drum

1024 Bag on Complete

1039 Bagging off first Drum Bagging on Second

1055 Late Entry at 0855 Starting drum movement of waste drums from the Transportainers to Transport Vehicle. All work packages have been signed off from Friday Maintenance. At 1015 Shipment out was completed.

1112 Bag On Complete

1150 Bagging off second drum Bagging on third drum

1230 Bag on Complete

1[illegible] Bagging off third drum and bagging on fourth drum

1405 Bag on complete

1418 Performing movement from 50-69 to Transportainer

1450 Drum movement from 50-69 to Transportainer Complete. Starting Drum movement from Transportainer to 50-69

Continued on Next Page

10-1-12 WCRR SOS Log Book

Continued from previous page.

1450 Bagging off fourth drum and bagging on the 5th drum.

1515 Movement into facility Complete

1525 Operations are on a pause do to contamination found on the slide that is used to overpack 55gal parents into 85 gallon drums

1540 Operator 38 resuming operations. Bag was complete RCT's recounting smears from side possibility of radon

1558 RCT supervisor states that the slide was bagged up and RCT's are saving the smears to recount in the morning.

1602 Bagging off fifth drum. last one for the day.

1630 Bag off complete

1645 Signed off on rounds inside and outside.

1649 Mode Change 50-69 in WARM and Yard

1700 Securing SOS position for the Day [illegible]

No further entries on this page

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0064
Examination Date:	4/29/2013
Waste Container ID:	92121
Video/Audio Recorded Media Number:	LA-RTR2-13-0064 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 77.5 kg Tare Wt.: 33.4 kg Net Wt.: 44.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 92121

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hardware, metal lid

AM:

OM:

OI:

C: Fiberboard insert sleeve, fiberboard

R:

XPM: Plastic bags, liner lid

OR:

IN:

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	25.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	10.1
Rubber (R):	
Plastics (waste materials) (XPM):	9.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	
Soils (S):	
Total WMP Weight:	44.1

CCP Radiography Data Sheet

Waste Container ID: 92121

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: N/A	

RTR Operator:

Benito Maestas		4/29/2013
Print Name	Signature	Date

```
|-----------------------------------------------------------------------|
|                          NDA 2000 Assay Report                        |
|-----------------------------------------------------------------------|

*************************    Item Information    ************************

Item ID:            92121              Count Sequence Number:  22665
Operator:           D3PW2DK1\operator
Assay Start:        4/30/2013   2:17:47 PM
Description 1:      1LANDA1761
Description 2:      N/A
Location:           LANL TA-54
Comment:            AK-6
Matrix Type:        Debris S5000
Container Type:     55 gallon drum
Weight:             Net:        44.1   kg        Net:    44.1 kg
Container:          Volume:    208.0   l        Full:    95.0 %
Density:                         0.220 kg /l


************************   System Configuration   ************************

Counter:                        MCS HENC #1
Count Type:                     Item Count
Collimator/Geometry Setting:    All Banks On (GE -  0

Errors quoted at  1.000 sigma
```

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	22665	Batch Number:	1LANDA1761
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92121	Analysis Date:	4/30/2013

Net Weight	44100.0 g		
Pu mass	2.52E-001	+-	4.65E-002 g
TRU Alpha Activity	3.40E-002	+-	3.55E-003 Ci
TRU Activity Concentration	7.71E+002	+-	8.05E+001 nCi/g
Pu-239 Equivalent Activity	3.46E-002	+-	3.55E-003 Ci
Pu-239 FGE	2.38E-001	+-	4.36E-002 g
Decay heat	1.09E-003	+-	1.13E-004 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	7.20E-004	5.14E-007	7.14E-008	1.41E-007
PU238	2.31E-005	4.00E-004	7.37E-005	3.50E-004
PU239	2.37E-001	1.49E-002	2.74E-003	1.30E-002
PU240	1.53E-002	3.51E-003	6.46E-004	3.07E-003
AM241	4.37E-003	1.52E-002	2.16E-003	4.14E-003
PU241	2.97E-004	3.09E-002	5.68E-003	2.70E-002
PU242	5.05E-005	2.00E-007	3.69E-008	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	3.95E-008
U233	<LLD	<LLD	0.00E+000	2.95E-004
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	8.19E-008
U238	<LLD	<LLD	0.00E+000	2.15E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 5-2-13

ITR: _____ Date: 5-3-13

Automated Independent Technical Review

Count Sequence Number: 22665 Batch Number: 1LANDA1761
Counter ID: MCS HENC #1
Container ID: 92121
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 4/30/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor is less than one.	Ok
Add-a-Source correction factor was set to one.	Ok
Add-a-Source correction factor is less than n-sigma * the correction factor error.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
No Warnings Reported.	
Section 3 - Data Combiner Analysis	
Override enabled; Passive Neutron Pu and Gamma U data specified as input.	Passive Neutron Pu and Gamma U data specified as input.
Pu results taken from Passive Neutron data, U from Quantitative Gamma data.	
Results comparison test passed.	
Section 4 - MGA Analysis	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,54,42
Results are marked as invalid.	
Section 5 - Gamma Analysis	
Analysis Status: No errors.	Ok

Comments	Disposition
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chandler Date: 5-1-13

Waste Container ID: **92121**

BDR Number: **LA13FG2052**

Sampling Date: **5/9/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	90.37	U
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130509c\
Data File : 92121.D
Acq On : 9 May 2013 1:33 pm (#1); 09-May-13, 13:32:45 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 09 13:44:56 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.571	96	3866811	201.25 ppmv	0.00
15) Chlorobenzene-d5	5.907	117	3334326	177.00 ppmv	0.00

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0003
Examination Date:	1/9/2013
Waste Container ID:	92122
Video/Audio Recorded Media Number:	LA-RTR2-13-0003 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [X] Yes MS 1.30.13 MS 1.30.13 MS 1.30.13 MS 1.30.13 NCR No.: ~~N/A~~ NCR-LANL-0188-13 NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA212
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 162.0 kg Tare Wt.: 145.1 kg Net Wt.: 16.9 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Punctured: [ ] No [X] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0003
Examination Date:	1/9/2013
Waste Container ID:	92122
Video/Audio Recorded Media Number:	LA-RTR2-13-0003 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA212
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 162.0 kg Tare Wt.: 145.1 kg Net Wt.: 16.9 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Punctured: [ ] No [X] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	95 %

2/6/13 Superseded 2/6/13

34A

CCP Radiography Data Sheet

Waste Container ID: 92122

Section 3: Container Inventory and Comments	Defined Codes (Options)
IM:	
AM:	
OM: Scrap lead	
OI:	
C:	
R:	
XPM: Plastic bag	
OR: ~~Vermiculite~~ ms 1.30.13	
IN: vermiculite ms 1.30.13	
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	109.0
Plastics (PP): Rigid Liner w/ Lid; Plastic Liner Bag (Inside POC)	8.1
Other: Fiberboard (CP); Fiberboard Liner Sleeve (Inside POC)	28.0
Total Packaging Weight	145.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	0.8
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	0.5
Organic Matrix (OR):	~~15.6~~ ms 1.30.13
Inorganic Matrix (IN):	15.6 ms 1.30.13
Soils (S):	
Total WMP Weight:	16.9

CCP Radiography Data Sheet

Waste Container ID: 92122

Section 5: RTR Summary	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments: Standard Pipe Overpack Container (P.O.C.); There is separation between the liner and liner lid, therefore, the liner is vented. NCN-LANL-0188-13

MS 1.30.13

RTR Operator:

Michael Simmons		1/9/2013
Print Name	Signature	Date

1.30.13

NDA 2000 Assay Report

Item Information

Item ID:	92122	Count Sequence Number:	21828
Operator:	D3PW2DK1\operator		
Assay Start:	1/11/2013 12:17:34 PM		
Description 1:	1LANDA1696		
Description 2:	POC- Gross Wt. = 162.0		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 16.9 kg	Net:	16.9 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.680 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	21828	Batch Number:	1LANDA1696
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92122	Analysis Date:	1/11/2013

Net Weight	16900.0 g		
Pu mass	2.20E+001	+-	3.45E+000 g
TRU Alpha Activity	2.75E+000	+-	6.42E-001 Ci
TRU Activity Concentration	1.63E+005	+-	3.80E+004 nCi/g
Pu-239 Equivalent Activity	2.80E+000	+-	6.42E-001 Ci
Pu-239 FGE	2.07E+001	+-	3.23E+000 g
Decay heat	8.82E-002	+-	2.13E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.86E-002	1.33E-005	2.46E-006	1.51E-006
PU238	2.02E-003	3.49E-002	5.48E-003	3.61E-005
PU239	2.06E+001	1.29E+000	2.03E-001	1.34E-003
PU240	1.33E+000	3.06E-001	4.80E-002	3.16E-004
AM241	3.22E-001	1.12E+000	6.07E-001	3.01E-002
PU241	2.62E-002	2.72E+000	4.28E-001	2.81E-003
PU242	4.40E-003	1.74E-005	2.74E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	3.68E-007
U233	<LLD	<LLD	0.00E+000	3.01E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	8.67E-007
U238	<LLD	<LLD	0.00E+000	1.07E-005

Errors quoted at 1.000 sigma

Operator: [signature] Date: 1-21-13

ITR: [signature] Date: 1/21/13

Automated Independent Technical Review

Count Sequence Number: 21828 Batch Number: 1LANDA1696
Counter ID: MCS HENC #1
Container ID: 92122
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/11/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,54,42
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chambers Date: 1-15-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **92122**

BDR Number: **LA13FG2033**

Sampling Date: **4/3/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	351.18	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130403c\
Data File : 92122.D
Acq On : 3 Apr 2013 1:16 pm (#1); 03-Apr-13, 13:15:21 (#2)
Operator : GR
Sample :
Misc : POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 03 13:25:45 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.574	96	3784767	201.25 ppmv	0.00
15) Chlorobenzene-d5	5.907	117	3270003	177.00 ppmv	0.00
Target Compounds					Qvalue
1) Hydrogen	1.607	GC1	2496m	351.18 ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Working Copy
Date: 10-1-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90801

6.2[4] Date Processed: 10-1-12

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☐ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☐ Liquids ☐ Pressurized Containers ☑ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] (S) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: D190165
Cal. Due Date: 7.31.13

4.3[5][B] (S) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] (S) Stationary Fire Watch has been established:
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) N/A
(Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☐ YES ☑ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Gerald Esparza / [signature] / 1231720 / 10-1-12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90564

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 3116 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 0 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 3116 lb

6.2[7] **(S)** Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

EWMO-FOD (print)	Signature	Z #	Date
	NA		

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90804

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92124		N/A	
10.1[4]	Daughter Drum Filter No.	AM 878			
10.1[4]	Daughter Drum Bag Filter No.	L3670			
10.1[4]	Daughter Drum Purchase Order No.	4116 2605			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	N/A			
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units			N/A	
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	90%			
10.5[3]/10.6[2]	Description Waste Added During Processing	plastic			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90804

Comments: Plastic, POC lid, fiber liner, wood.

11.1[1] Performed By: Gerald Espana / [signature] / 120720 / 10-1-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Perez / [signature] / 122452 / 10-2-12 0823
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 9-26-18

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 414545
Lot No.: 217366
Manufacture Date: 11

5.[8] Overpack filtered vent information:

Manufacturer: nucfil
Model No.: 013
Serial No.: HL-958
Manufacture Date: 8/11

Overpack filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	020614	021151
Cal. Expiration Date:	10-15-12	6-11-13
Tolerance:	±4%cw ±6%ccw	±3%cw ±6%ccw

Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Michael Romero (Michael Romero) [redacted] 9-26-12
Waste Handling Technician (print) Signature Z# Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[15] 2 in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: Michael Romero (Michael Romero) [redacted] 9-26-12
Waste Handling Technician (print) Signature Z# Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Joe Jerez (Joe Jerez) 21452 10-2-12
Supervisor or designee (print) Signature Z# Date

UET Working Copy
Date: 10-1-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92125

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 040329
Cal. Expiration Date: 3-15-13
Range in ft-lb: 16-90
Tolerance: ±3% CW ±6% CCW

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Gerald Espinoza / [signature] / 1231760 / 10-1-12
Waste Handling Technician (print) Signature Z# Date

7.[28] Overpack drum closure ring torque value: 60 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 0190605
Platform scale calibration expiration date: 7-31-13

7.[36][D] 85-gal overpack drum gross weight (lb): 338.2 lb

Comments: N/C

8.1[1] Performed By: Gerald Espinoza / [signature] / 1231760 / 10-1-12
Waste Handling Technician (print) Signature Z# Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Jerez / [signature] / 1221452 / 10-2-12
Supervisor or designee (print) Signature Z# Date

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: 92124

1. Drum/Lid Assembly

- [x] Remove and discard ¾" bung from lid
- [x] Remove Lid
- [x] Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  NOTE: Reject damaged drum/lid assembly
- [x] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:
Purchase Request #: 416265
Lot #: 0229225
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

- [x] Place yellow vinyl tape, with smear centered on tape, over filter
- [x] Fill bag with air from compressed air source
- [x] Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  NOTE: Reject or repair damaged, cut, or leaking bags
- [x] Stretch bag's bungee cord
- [x] Inspect bungee cord
  NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information:
Manufacturer: BOP
Model #: 6CPVL 1.5-2.5SPVC
Serial #: 43670
Date of Manufacture: 6/12

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- [x] Inspect cardboard liner/plastic liner (circle type of liner used)
  NOTE: Reject any damaged liners
- [x] Place cardboard/plastic liner into drum liner bag/filter assembly
- [x] Line up filter with drum seam
- [x] Place liner/bag/filter assembly into drum
- [x] Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- [x] Place lid and ring onto drum
- [x] Tighten ring sufficiently to simply hold lid in place
- [x] Torque 2" bung plug
- [x] Apply sealant to filter threads, screw in ¾" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:
Manufacturer: NUCFIL
Model #: 01505
Serial #: AM 818
Date of Manufacture: 1/12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	020614	M&TE ID #:	021151
Cal Expiration Date:	10/19/12	Cal Expiration Date:	6/11/13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
Tolerance:	+/- 3% cw +/- 6% ccw	Tolerance:	+/- 3% cw +/- 6% ccw

Torque wrenches listed above are within the acceptable range as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: Gerald Espinoza Signature: [signature] ZI: 237720

5. Weigh Drum Assembly

RECORD weight information
Tare wtght (lbs) 76.8
File ID #: 019065

- [x] Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- [x] Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print: Gilbert Martinez Operator Sign: [signature] ZI: 149235 Date: 10-1-12
Verifier Print: Gerald Espinoza Verifier Sign: [signature] ZI: 237720 Date: 10-1-11

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 92124

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions.

✓ Mount lid with filter directly over drum seam.

✓ Install ring with bolt positioned downward and directly over drum seam.

✓ Engage bolt and nut and torque per manufactures instructions.

NOTE: Seal the ring while tightening using a rubber hammer or dead-blow mallet or a drum lid press.

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 040329

Cal expiration date: 3.15.13

Range/ Value (ft-lbs): 16-80

Tolerance ±3% CW ±6% CCW

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels.

✓ Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label.

✓ Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.

✓ Place one yellow radioactive waste label between the top two rolling hoops

✓ Place one yellow radioactive waste label in the center of the drum lid.

RCRA Label:

✓ Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops.

OR

✓ Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs.): 200.8

Scale ID#: 090605

✓ Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area.

✓ Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓ Complete TWSR.

Operator Print/Sign: [illegible] Date: 10-1-12

Verifier Print/Sign: [illegible] Date: 10-1-12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90804 Container Type: POC Gross Weight (lbs): 338
Container Seal #: None Filter Prefix: None Filter Serial #: EL-224; EL-341
Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: PARENT #S822838 WTS-12STD-721
Total PE-Ci Activity: 1.28E+00 Equivalent Combustible PE-Ci: 4.81E-01 AM-241 PE-Ci: 1.06E-01
Total Fissile Gram Equivalents: 14.1 Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): D008 D007 D009 WL 9/25/12
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: None Comment: None
Certified RTR Comment: None
Prohibited Items: Sealed > 4 Liters Liquid Pressurized Container Impenetrable Item Other
Security Determination: Green Yellow
Remediation Determination: VE PID Split Repack
Estimated 30-cm Dose Rate (mrem/hr): <100 >100 and <1,000 >1,000 and <10,000 >10,000
TRUCON Code: TBD Production Control Comments: Need to add EPA codes D007 & D009.
Nitrate salts mixed with Waste Loc 770® from previous repack campaign. A minimum of 1.2 volumes of kitty litter or zeolite must be mixed with 1.0 volume of nitrate salts.
Performed By: Susan Ramsey / Production Control (Print) / Signature Sm S. Ramsey / 100681 Z Number / 9/5/12 Date

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): Yes No Unknown
Processing Determination: Accept Reject
WDP Engineering Comments: Nitrate Salts - POC
Net Wt. 258 lb. Parent drum (SEDs attached) was part of WCRR nitrate salts repack campaign using Waste Loc 770. This resulting daughter POC (s) being repacked to adjust the admixture/nitrate salt ratio. Nitrate salts carry waste codes for chromium (D007) lead (D008) and mercury (D009). No hazardous chemicals present.
Mag to zone NTP for > 100 mrem/hr < 1000 mrem/hr
Performed By: Valerie Rhodes / WDP Engineering (Print) / Valerie Rhodes / Signature / 112609 / Z Number / 9/25/12 / Date

TRU Remediation Operations

Waste Container Information Evaluated Less Than 170 lbs RTR Video Available
Other Specific Safety Concerns:
Processing Determination: Accept Reject
TRU Remediation Operations Comments: Ensure kitty litter is bagged in
Performed By: Gilbert Mtz / TRU Remediation Operations (Print) / Signature / 149235 / Z Number / 9.26.12 / Date

IHS Review. [illegible] CSP contents lead, chromium + Hg 9-26-12.

Document No: EP-DIV-AP-0107 jj - 221452 - 9-26-12

Noncertified TRU Waste Drum Item Information

DrumID: 010340

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	IXFS-504F-1		30.670	NITRATE SALTS		13.79	52	5/11	
2	IXFS-503-F-1		24.310	NIRTRATE SALTS		0.	42	5/11	
3	IXFS-505-F-1		8.860	NITRATE SALTS		76.11	52	5/11	
4	IXFS-506-F-1		11.360	NITRATE SALTS		1.28	52	5/11	
5	IXFS-507-F-1		4.540	NITRATE SALTS		1.83	54	5/11	
6	IXFS-508-F-1		7.050	NITRATE SALTS		9.08	52	5/11	
7	IXFS-509-F-1		20.680	NITRATE SALTS		16.78	52	5/11	
8	IXFS-510-F-1		31.140	NITRATE SALTS		60.85	52	5/11	

Noncertified Waste Drum Material Summary

Gross Wt (kg):

Material Type	SNM (grams)	Items Net Wt (kg)
42	0.	24.31
52	177.89	109.76
54	1.83	4.54
Totals	179.72	138.61

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: 9.21.12

Container No. (5.[1])	90804					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	1081.67 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

N/A

5.[7] Certified CCP Technician:

Performed By: Nathan Wales (CCP (Print)) 238866 (Z #)

Reviewed By: Sara Aragon (CCP (Print)) 237975 (Z #)

Comments: N/A

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: Colleen Martinez (Waste Handling Operator (print)) Colleen Martinez (Signature) 190298 (Z #) 9.24.12 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120921c\
Data File : 90804.D
Acq On : 21 Sep 2012 3:47 pm (#1); 21-Sep-12, 15:47:04 (#2)
Operator : NW
Sample :
Misc : LFL POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 21 15:55:46 2012
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Wed Sep 05 10:53:25 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.633	96	6711891	201.25 ppmv	0.09
15) Chlorobenzene-d5	5.946	117	6033222	177.00 ppmv	0.07
Target Compounds					Qvalue
1) Hydrogen	1.542	GC1	7647m	1081.67 ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

24010-1 PROJECT NAME _____ NOTEBOOK NO. _____

~~3-1-12~~

JC 10-1-12

0600 Assuming WCRR operations center. - JCDeeman
0615 Pre-job being conducted by SOS.
0745 Beginning outside rounds.
0756 Beginning inside rounds.
0815 Outside rounds complete.
0835 Rounds reviewed by SOS.
0855 Permission granted to lower vehicle access gates to begin to load transfer vehicle for a shipment to Area G. All work packages have been signed off from the weekend.
0858 Mode change complete. We are now in operations.
0940 Initiating a drum movement from transportainer to 50-69.
0948 Movement into the facility complete.
1014 Vehicle access gates restored. Transportainers secured.
1015 Late entry - at 1005, bagging on 61725. (JC)
1024 Bag on complete.
1039 Bagging off 61725, bagging on 65065. (Bagging off 1 POC as well)
1112 Bag on complete
1150 Bagging off 65065 and 1 POC, bagging on 90803.
1230 Bag on complete.
1337 Bagging off 90803 and 1 POC, bagging on 90804.
1405 Bag on complete.
1418 Initiating a movement from 50-69 to the transportainers.
1450 Drum movement out of facility. Initiating a drum movement from transportainer to 50-69. Beginning outside rounds. Bagging off 90804 and bagging on 90802.
1515 Outside rounds complete. Movement into facility complete.
1525 Notified by tech 38 that they are in a pause due to contamination found on the slide. SOS, SOM notified.
1540 Operator 38 called to say the bag off was complete and resuming operations. RCT's recounted shears. Suspected Radon.
1551 Beginning inside rounds.
1558 RCT supervisor states the slide has been bagged up and the RCT's are saving the smears to recount in the morning.
1607 Bagging off 90802 and 1 POC, and cleaning the glovebox.
1625 Bag off complete. JC 10-1-12
1626 ~~Inside rounds com~~ Late entry - at 1608 inside rounds completed. (JC)
1649 Mode change complete. We are now in warm standby.
1700 End of day. Operations secure. - JCDeeman

No further entries this page.

SIGNATURE _____ DATE _____ 20__
READ AND UNDERSTOOD _____ DATE _____ 20__

PROJECT NAME 10/1/12 NOTEBOOK NO.

0600 Reviewed SOM turnover checklist. Assumed SOM position.

0615 Attended prejob brief conducted by SOS. Covered POD items for day and scheduled drums to process - including starting SP#22 drums. Work packages from maint. conducted Friday 9/28/12 require CSE signatures prior to going to operations.

0740 Released WO # 445670-01 50-69 TSR/ISI Daily & Weekly Rounds

0857 Obtained CSE signatures for all work packages.

0858 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm/Cold to Operations / Operations

1513 Submitted MOU conducted on 9/20/12 into BOS data base and forwarded to Barb Trujillo to close out PFITS issue # 2011-2350.

1525 Notified by OCA that contamination was found on slide used to recast drums. Levels w/in RWP and suspect radon.

1540 Operations resumed after smears recounted.

1545 Notified by SSW of combustible loading calculation errors noticed during review of last surveillance completed by FSE. All errors were on conservative side and FSE was contacted. Next surveillance is due on 10/22/12 and FSE will update calculation formulas.

1649 Completed mode change: WCRR Yard / Bldg 50-69 from Operations/Operations to Warm/Warm.

1700 Secured SOM position.

10-4-12

No further entries this page

SIGNATURE DATE 10/1 20 12

READ AND UNDERSTOOD DATE 20

10-1-12 WCRR SOS Log Book

0600 Reviewed SOS Log Book. Assuming SOS position for the day. [illegible]

0615 Starting Pre-Job brief. RCT's reviewing quarterly RWP and Monthly RWP. Discussed processing of nitrate salt drums. SOM discussing following the procedure for receiving shipments. Going over it and make changes to procedure as needed. Key control, ensure that you're on the list prior to asking for the key. Rounds not performed yet. Waiting on work package to be released. Work packages for maintenance performed on Friday needing CSE signatures prior to facility being released.

0700 Pre-Job brief Complete

0715 Waiting on Work package to be released by SOM's so that rounds can be completed to go into Operations Mode.

0750 Work Package for performing rounds has been signed off. Starting outside and inside rounds.

0835 Signed off on inside and outside rounds.

0858 MODE Change Complete 50-69 and Yard are in Operations

0940 Starting drum movement from Transportainer to 50-69

0948 Movement Complete into the facility

1005 Bagging on first drum

1024 Bag on Complete

1039 Bagging off first Drum Bagging on Second

1055 Late Entry at 0855 Starting drum movement of waste drums from the Transportainers to Transport Vehicle. All work packages have been signed off from Friday Maintenance. At 1015 Shipment out was completed.

1112 Bag On Complete

1150 Bagging off second drum Bagging on third drum

1230 Bag on Complete

1237 Bagging off third drum and bagging on fourth drum

1405 Bag on complete

1418 Performing movement from 50-69 to Transportainer

1450 Drum movement from 50-69 to Transportainer Complete. Starting Drum movement from Transportainer to 50-69

Continued on Next Page

10-1-12 WCRR SOS Log Book

Continued from previous page.

1450 Bagging off fourth drum and bagging on the 5th drum.

1515 Movement into facility Complete

1525 Operations are on a pause do to contamination found on the slide that is used to overpack 55gal parents into 85 gallon drums.

1540 Operator 38 resuming operations. Bag was complete RCT's recounting smears from side possibility of radon

1558 RCT supervisor states that the slide was bagged up and RCT's are saving the smears to recount in the morning.

1607 Bagging off fifth drum. last one for the day.

1630 Bag off complete

1645 Signed off on rounds inside and outside.

1649 Mode Change 50-69 in WARM and Yard

1700 Securing SOS position for the Day [illegible]

No further entries on this page

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0060
Examination Date:	4/22/2013
Waste Container ID:	92124
Video/Audio Recorded Media Number:	LA-RTR2-13-0060 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 91.0 kg Tare Wt.: 33.4 kg Net Wt.: 57.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 92124

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal hardware, metal lid

AM:

OM:

OI:

C: Poc packing material, fiberboard sleeve

R:

XPM: Liner lid, plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	12.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	10.0
Rubber (R):	
Plastics (waste materials) (XPM):	7.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	28.6
Soils (S):	
Total WMP Weight:	57.6

CCP Radiography Data Sheet

Waste Container ID: 92124

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Mátrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments:
N/A

RTR Operator:

Aaron Elliott		4/22/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92124	Count Sequence Number:	15592
Operator:	DCLTD231\Operator		
Assay Start:	4/23/2013 10:47:02 AM		
Description 1:	2LANDA1144		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Debris S5000		
Container Type:	55 gal Drum		
Weight:	Net: 57.6 kg	Net:	57.6 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.290 kg /l		

System Configuration

Counter:	HENC #2
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks on GEO - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	15592	Batch Number:	2LANDA1144
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92124	Analysis Date:	4/23/2013

Net Weight	57600.0 g		
Pu mass	1.64E+001	+-	1.71E+000 g
TRU Alpha Activity	1.73E+000	+-	2.29E-001 Ci
TRU Activity Concentration	3.00E+004	+-	3.97E+003 nCi/g
Pu-239 Equivalent Activity	1.75E+000	+-	2.28E-001 Ci
Pu-239 FGE	1.54E+001	+-	1.60E+000 g
Decay heat	5.48E-002	+-	7.52E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	5.95E-003	4.25E-006	5.48E-007	9.43E-007
PU238	7.85E-003	1.36E-001	1.42E-002	1.73E-004
PU239	1.53E+001	9.62E-001	1.00E-001	1.23E-003
PU240	1.05E+000	2.42E-001	2.52E-002	3.08E-004
AM241	1.11E-001	3.87E-001	2.03E-001	1.60E-002
PU241	1.65E-002	1.72E+000	1.79E-001	2.19E-003
PU242	1.84E-002	7.28E-005	7.60E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.52E-007
U233	<LLD	<LLD	0.00E+000	1.96E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	5.66E-007
U238	<LLD	<LLD	0.00E+000	4.89E-006
AM243	1.50E-004	3.04E-005	3.56E-006	1.34E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 4/29/13

ITR: _____ Date: 4-30-13

Automated Independent Technical Review

Count Sequence Number: 15592 Batch Number: 2LANDA1144
Counter ID: HENC #2
Container ID: 92124
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 4/23/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor is less than one.	OK
Add-a-Source correction factor was set to one.	OK
Add-a-Source correction factor is less than n-sigma * the correction factor error.	OK
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	OK
No Warnings Reported.	
Section 3 - Data Combiner Analysis	
Override enabled; Passive Neutron Pu and Gamma U data specified as input.	Pu results taken from Passive Neutron data, U from Quantitative Gamma data.
Pu results taken from Passive Neutron data, U from Quantitative Gamma data.	
Results comparison test passed.	
Section 4 - MGA Analysis	MGA analysis failed. FRAM results applied. FRAM results attached.
Results are marked as invalid.	
Section 5 - Gamma Analysis	
Analysis Status: No errors.	OK
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: RCBarman Date: 4-29-30

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **92124**

BDR Number: **LA13FG2046**

Sampling Date: **4/30/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	90.37	U
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130430c\
Data File : 92124.D
Acq On : 30 Apr 2013 2:51 pm (#1); 30-Apr-13, 14:50:51 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 30 15:03:03 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.496	96	4193394	201.25 ppmv	-0.07
15) Chlorobenzene-d5	5.848	117	3556765	177.00 ppmv	-0.05

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Working Copy
Date: 1-12-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90805

6.2[4] Date Processed: 1-12-13

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☐ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☐ Liquids ☐ Pressurized Containers ☑ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007-D008-D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] (S) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 7-31-13

4.3[5][B] (S) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] (S) Stationary Fire Watch has been established:
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) N/A
(Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☐ YES ☑ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: BRIAN GALLEGOS / Bri Gallegos / /
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90805

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 349.4 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 0 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 349.0 lb

6.2[7] **($)** Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

EWMO-FOD (print)	Signature	Z #	Date
		/	/

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90805

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92569			
10.1[4]	Daughter Drum Filter No.	AM-1018		N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-4358			
10.1[4]	Daughter Drum Purchase Order No.	416184			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)		N/A		
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	BAG OUT STUBS			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	100%		N/A	
10.5[3]/10.6[2]	Description Waste Added During Processing	SEE COMMENTS			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90805

Comments: POC LIDS, CARDBOARD, PLASTIC, SALTS, KITTY LITTER

11.1[1] Performed By: BRIAN GALLEGOS, B. Gallegos 1267129 1-12-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: G Mt, G Mt 149235 1.13.13 0845
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 12-20-12

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 413724
Lot No.: 210114
Manufacture Date: 2010

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: 16-92
Manufacture Date: 9/11

Overpack filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	040694	021151
Cal. Expiration Date:	9-26-13	6-11-13
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: BRIAN GALLEGOS / B. Gallegos 247129 12-20-12
Waste Handling Technician (print) Signature Z # Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[15] 2 in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / B. Gallegos 247129 12-2012
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: GMK / [illegible] 149235 1-13-13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92560

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 021151
Cal. Expiration Date: 6-11-13
Range in ft-lb: 16-80
Tolerance: ±3% CW ±6% CCW

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: BRIAN GALLEGOS / [signature] 261129 1-12-13
Waste Handling Technician (print) Signature Z # Date

7.[28] Overpack drum closure ring torque value: 30 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 7-31-13

7.[36][D] 85-gal overpack drum gross weight (lb): 324.2 lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / [signature] 261129 1-12-13
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: [signature] / [signature] 14935 1-13-13
Supervisor or designee (print) Signature Z # Date

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: 92559

1. Drum/Lid Assembly

- [x] Remove and discard ¾" bung from lid
- [x] Remove Lid
- [x] Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  - NOTE: Reject damaged drum/lid assembly
- [x] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:

Purchase Request #: 4016184
Lot #: 02-92224
Date of Manufacture: 12

2. Drum Liner Bag/Filter Assembly:

- [x] Place yellow vinyl tape, with smear centered on tape, over filter
- [x] Fill bag with air from compressed air source
- [x] Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  - NOTE: Reject or repair damaged, cut, or leaking bags
- [x] Stretch bag's bungee cord
- [x] Inspect bungee cord
  - NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information:

Manufacturer: BOP
Model #: GCDVC-1.5-25PVC
Serial #: L-4339
Date of Manufacture: 7/12

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- [x] Inspect cardboard liner/plastic liner (circle type of liner used)
  - NOTE: Reject any damaged liners
- [x] Place cardboard/plastic liner into drum liner bag/filter assembly
- [x] Line up filter with drum seam
- [x] Place liner/bag/filter assembly into drum
- [x] Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- [x] Place lid and ring onto drum
- [x] Tighten ring sufficiently to simply hold lid in place
- [x] Torque 2" bung plug
- [x] Apply sealant to filter threads, screw in ¾" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:

Manufacturer: NUCFIL
Model #: D19DB
Serial #: AM-1018
Date of Manufacture: 1/12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	021131
Cal Expiration Date:	9-26-13	Cal Expiration Date:	6-11-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
Tolerance:	±4% cw ±6% ccw	Tolerance:	±3% cw ±6% ccw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.

- [x] Yes
- [ ] No

Print Name: BRIAN GALLEGOS Signature: B. Gallegos Z#: 267124

5. Weigh Drum Assembly

RECORD weight information

Tare wtight (lbs) 76.2
File ID #: 029065

- [x] Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- [x] Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print: BRIAN GALLEGOS Operator Sign: B. Gallegos Z#: 267124 Date: 12-20-12

Verifier Print: Nicole Arcbuleta Verifier Sign: Nicole Arcbuleta Z#: 190254 Date: 1-12-13

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 92559

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

✓ Install ring with bolt positioned downward and directly over drum seam.

✓ Engage bolt and nut and torque per manufactures instructions

NOTE Seal the ring while tightening using a rubber hammer or dead-blow mallet or a drum lid press.

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 021151

Cal expiration date: 6-11-13

Range/ Value (ft-lbs): 16-80

— Tolerance ±3% CW ±6% CCW

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels.

✓ Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label.

✓ Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.

✓ Place one yellow radioactive waste label between the top two rolling hoops

✓ Place one yellow radioactive waste label in the center of the drum lid.

RCRA Label:

Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops.

OR

✓ Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 203.8

Scale ID#: 019065

Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area.

✓ Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓ Complete TWSR.

Operator Print/Sign: [illegible] Date 1-12-13

Verifier Print/Sign: Nicole Schultz Date: 1-12-15

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

72

Production Control

Container ID: 90805 Container Type: POC Gross Weight (lbs): 349

Liner Seal #: None Filter Prefix: None Filter Serial #: EL-223; EL-540

RTK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: PARENT #S822838 WTS-12SPO-720

Total PE-Ci Activity: 1.28E+00 Equivalent Combustible PE-Ci: 4.81E-01 AM-241 PE-Ci: 1.06E-01

Total Fissile Gram Equivalents: 14.1 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 · WR 9/25/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: None

Prohibited Items: ■ Sealed > 4 Liters ■ Liquid ■ Pressurized Container ■ Impenetrable Item ■ Other

Security Determination: ✓ Green ☐ Yellow

Remediation Determination: ☐ VE ☐ PID ☐ Split ☑ Repack

Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☑ >100 and <1,000 ☐ >1,000 and <10,000 ☐ >10,000

TRUCON Code: TBD Production Control Comments: Need to add EPA Codes D007 & D009.

Nitrate salts mixed with WasteLoc 770® from previous repack campaign. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey / Susan Ramsey / 100681 / 9/5/12

Production Control (Print) Signature Z Number Date

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☑ No ☐ Unknown

Processing Determination: ☑ Accept ☐ Reject

WDP Engineering Comments: Nitrate Salts – POC

Net Wt: 39lb. Parent drum (SEDs attached) was part of LOC2R nitrate salt repack campaign using WasteLoc 770. This resulting daughter POC is being repacked to adjust the admixture/nitrate salt ratio. Nitrate Salts carry waste codes for chromium (D007), lead (D008), & mercury (D009). No hazardous chemicals present.

May require RWP for >100 and <1000 mrem/hr

Performed By: Valerie Rhodes / Valerie Rhodes / 112609 / 9/25/12

WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

✓ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available

Other Specific Safety Concerns: Use proper PPE for processing waste in the Glove Box. Do not push or press on waste. Utilize hexarmor gloves & tools to handle waste.

Processing Determination: ✓ Accept ☐ Reject

TRU Remediation Operations Comments: Use proper ratio of kitty litter to waste per the procedure

Performed By: Joe Jerez / Joe Jerez / 221452 / ~~10-9-10~~ 10-9-12

TRU Remediation Operations (Print) Signature Z Number Date

LL Z# 249750 10/17/12

IHS REVIEW: RS 206362 10.3.12

Noncertified TRU Waste Drum Item Information

DrumID: 010340

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	IXFS-504F-1		30.670	NITRATE SALTS		13.79	52	5/11	
2	IXFS-503-F-1		24.310	NIRTRATE SALTS		0.	42	5/11	
3	IXFS-505-F-1		8.860	NITRATE SALTS		76.11	52	5/11	
4	IXFS-506-F-1		11.360	NITRATE SALTS		1.28	52	5/11	
5	IXFS-507-F-1		4.540	NITRATE SALTS		1.83	54	5/11	
6	IXFS-508-F-1		7.050	NITRATE SALTS		9.08	52	5/11	
7	IXFS-509-F-1		20.680	NITRATE SALTS		16.78	52	5/11	
8	IXFS-510-F-1		31.140	NITRATE SALTS		60.85	52	5/11	

Noncertified Waste Drum Material Summary

Gross Wt (kg):

Material Type	SNM (grams)	Items Net Wt (kg)
42	0.	24.31
52	177.89	109.76
54	1.83	4.54
Totals	179.72	138.61

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: 10·3·12

Container No. (5.[1])	90805					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55gal					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Sara Aragon (CCP (Print)) 237975 (Z #)

Reviewed By: Nathan Wales (CCP (Print)) 238866 (Z #)

Comments: 10·4·12 Per attached email, container was verified as a PoC.

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: Colleen Martinez (Waste Handling Operator (print)) Colleen Martinez (Signature) 190298 (Z #) 10·4·12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121003c\
Data File : 90805.D
Acq On : 3 Oct 2012 1:08 pm (#1); 3 Oct 2012 1:07 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GALLON LFL DRUM THROUGH FILTER-19DS FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 03 13:16:15 2012
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.259	96	2286878	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2035295	179.50 ppm	0.00

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vocgas.m Wed Oct 03 13:16:26 2012

7-12-13
0600 Assuming WCERF operations center - Orlando.
0611 SOS performing pre job briefing.
0643 pre job has been concluded.
0650 starting inside rounds.
0708 Starting outside rounds.
0715 Item #61 is OOS, POD is in place, OK to continue.
0718 Inside rounds completed.
0736 outside rounds complete.
0738 Inventory control system is not working site wide.
0745 Inside and Outside rounds signed off by SOS.
0830 Inventory control system is back up.
0833 Mode change performed TA50-69 and WCERF yard now in operations.
0906 bagging on 90805
0918 bag on complete. PPE check is SAT
0955 Starting movement into 50-69.
1008 Completed movement into 50-69.
1012 PPE check is sat.
1019 bagging off 90805, bagging on 90812
1048 bag on, bag off is complete, PPE check is sat.
1122 starting movement out of TA50-69 to transportainer
1147 bagging off 90812 and bagging on 90823
1213 bag on, bag off complete, PPE check is sat.
1230 Operators breaking for lunch.
1339 PPE check is sat.
1433 bagging off 90823, bagging on 90819. PPE Check is sat.
1500 bag off, bag on complete.
1527 starting movement into 50-69.
1532 Starting inside rounds.
1538 completed movement out of transportainer to 50-69.
1556 starting outside rounds.
1557 Completed inside rounds, PPE check is sat.
1606 bagging off 90819, bagging on 90817.
1625 inside and outside rounds signed off by SOS.
1633 bag on, bag off complete PPE Check is sat.
Continued on next page - Orlando

92574
Int Daughter 90851

1-12-13 Continued from previous page - Cleland
1736 bagging off 90817. PPE check is out.
1758 bag off is complete.
1813 Mode change performed TA 50-69 and WCRRF
yard now on warm standby.
1-12-13
1830 ~~1000~~ hrs end of day WCRRF operations center secure Cleland
JJ

no further entries this page.

PROJECT NAME 1/12/13 NOTEBOOK NO.

0600 Reviewed WCRR SOM turnover checklist and assumed WCRR SOM position

0605 Notified by SOS that Oracle system is down and unable to print labels. Inventory control is trouble shooting.

0615 Attended pre job brief conducted by SOS. Discussed problem w/ Oracle and backup plan is to have operators complete training on-line, required reading, etc. Safety topic w/ cold weather is to dress in layers if conducting outside work and proper PPE/Operation of spotter during forklift movements.

0645 Determined Oracle is down both @ WCRR and TA-54. OM notified and contacting Waste services to bring in on call personnel to repair/reboot.

0830 Inventory control verified Oracle system back in operation

~~0833~~ ~~0835~~ 1/12/13 Completed mode change: WCRR Yard/Blds 50-69 from Warm/Warm to Operations/Operations.

0835 (Late Entry 0831) Notified OM and TA-54 SOM of WCRR Oracle status.

0905 Notified by Inventory Control that ability to print TWSR forms via SWOOSH date base is not working - verified that TA-54 is having same problem. Will not prevent WCRR from operations (processing) but cannot prepare outgoing shipments w/out capability.

0906 Bagging on first drum.

1300 Updated DDP PM of WCRR status.

1530 Toured inside WCRR yard w/ SSW to observe drum movements. While conducting tour a posting identified on door leading into respirator room had SOM signature/date faded from weather.

1813 Completed Mode Change: WCRR Yard/Blds 50-69 from Operations/Operations to Warm/Warm.

1830 Secured SOM position

1-31-13

No further entries this page

SIGNATURE DATE 1/13 20 13

READ AND UNDERSTOOD DATE 20

1.12.13 WCRR SOS LOG Book

0600 Assuming SOS Position [signature]

0610 Conducted shift brief discussed Cold weather issues

0643 Conducted shift brief

0645 Having Issues with oracle labeling system.

0647 Sum working Issue need to be fixed prior to operating

0745 Reviewed Inside and outside Rounds

0750 Unable to process due to oracle being down.

0830 Oracle system has been repaired. Operators Dressing out to enter facility

0833 Mode change Complete WCRRF in operations

0906 Bagging on First drum 90805

0918 PPE Check

1012 PPE Check

1019 Bagging off and bagging on 90812

1048 PPE Check

1147 Bagging off and bagging on 90823

1339 PPE Check SAT

1433 Bagging off and bagging on 90819 PPE Check

1606 Bagging off and bagging on 90817

1625 Inside And outside Round's Reviewed

1633 bagging off Final drum of day.

1813 Mode Change Complete WCRRF in warm

1.12.17 1830 end of shift securing Position [signature]

no further entries on this page

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0083
Examination Date:	6/18/2013
Waste Container ID:	92559
Video/Audio Recorded Media Number:	LA-RTR2-13-0083 C&D
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 92.5 kg Tare Wt.: 33.4 kg Net Wt.: 59.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	100 %

CCP Radiography Data Sheet

Waste Container ID: 92559

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal, hardware, metal lid

AM:

OM:

OI:

C: Fiberboard liner sleeve, fiberboard

R:

XPM: Liner lid, plastic bag

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	Estimated Weight (kg)
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	20.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	10.0
Rubber (R):	
Plastics (waste materials) (XPM):	3.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	26.1
Soils (S):	
Total WMP Weight:	59.1

CCP Radiography Data Sheet

Waste Container ID: 92559

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments: N/A

RTR Operator:

Thad Hasselstrom	Thad Hasselstrom	6/18/2013
Print Name	Signature	Date

```
|-----------------------------------------------------------------------|
|                          NDA 2000 Assay Report                        |
|-----------------------------------------------------------------------|

*************************    Item Information    ************************

Item ID:            92559              Count Sequence Number:  23067
Operator:           D3PW2DK1\operator
Assay Start:        6/21/2013   2:27:46 PM
Description 1:      1LANDA1795
Description 2:      N/A
Location:           LANL TA-54
Comment:            AK-6, Not Precision
Matrix Type:        Debris S5000
Container Type:     55 gallon drum
Weight:             Net:        59.1   kg        Net:    59.1 kg
Container:          Volume:    208.0   l        Full:   100.0 %
Density:                         0.280 kg /l


************************   System Configuration   ************************

Counter:                        MCS HENC #1
Count Type:                     Item Count
Collimator/Geometry Setting:    All Banks On (GE -  0

Errors quoted at  1.000 sigma
```

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 23067
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 14
Item ID: 92559

Batch Number: 1LANDA1795
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 6/21/2013

Net Weight	59100.0 g		
Pu mass	2.00E+001	+-	3.89E+000 g
TRU Alpha Activity	5.82E+000	+-	8.52E-001 Ci
TRU Activity Concentration	9.84E+004	+-	1.44E+004 nCi/g
Pu-239 Equivalent Activity	5.93E+000	+-	8.53E-001 Ci
Pu-239 FGE	1.86E+001	+-	3.59E+000 g
Decay heat	1.91E-001	+-	2.83E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	3.13E-002	2.24E-005	2.57E-006	1.32E-006
PU238	7.10E-003	1.23E-001	2.39E-002	1.05E-004
PU239	1.84E+001	1.16E+000	2.26E-001	9.95E-004
PU240	1.43E+000	3.29E-001	6.41E-002	2.83E-004
AM241	1.21E+000	4.20E+000	8.19E-001	3.61E-003
PU241	6.08E-002	6.33E+000	1.23E+000	5.43E-003
PU242	4.12E-002	1.63E-004	3.18E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	3.60E-007
U233	<LLD	<LLD	0.00E+000	2.57E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	7.09E-007
U238	<LLD	<LLD	0.00E+000	8.60E-006

Errors quoted at 1.000 sigma

Operator: D. C. R. [illegible] Date: 6-27-13

ITR: Ann Boston Date: 7/1/13

Automated Independent Technical Review

Count Sequence Number: 23067 Batch Number: 1LANDA1795
Counter ID: MCS HENC #1
Container ID: 92559
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 6/21/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor was set to one.	Ok
Add-a-Source correction factor is less than n-sigma * the correction factor error.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings.	
- Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis	
Override enabled; Passive Neutron Pu and Gamma U data specified as input.	Passive Neutron Pu and Gamma U data specified as input.
Pu results taken from Passive Neutron data, U from Quantitative Gamma data.	
Results comparison test passed.	
Section 4 - MGA Analysis	
Expert review is recommended; the following validity tests failed:	MGA valid.
Pu239 weight percent is outside limits [92.5, 95.0].	Pu239 percent consistent with AK. Mix of MT-52,54,42.

Comments	Disposition
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamber Date: 6-26-13

Waste Container ID: **92559**

BDR Number: **LA13FG8036**

Sampling Date: **6/26/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	108.99	
74-82-8	Methane	213.40	U
67-56-1	Methanol	31.40	
60-29-7	Ethyl Ether	1.25	U
75-35-4	1,1-Dichloroethylene	5.71	U
67-64-1	Acetone	16.90	U
75-34-3	1,1-Dichloroethane	4.24	U
156-59-2	cis-1,2-Dichloroethene	0.55	U
78-93-3	Methyl ethyl ketone	9.86	U
110-82-7	Cyclohexane	5.84	U
71-43-2	Benzene	0.71	U
107-06-2	1,2-Dichloroethane	1.51	U
71-36-3	1-Butanol	1.36	U
108-10-1	Methyl isobutyl ketone	9.34	U
108-88-3	Toluene	49.12	
108-90-7	Chlorobenzene	1.69	U
100-41-4	Ethylbenzene	2.62	U
108-38-3/106-42-3	m- and p-Xylene	1.48	U
95-47-6	o-Xylene	1.76	U
108-67-8	1,3,5-Trimethylbenzene	3.14	U
95-63-6	1,2,4-Trimethylbenzene	3.92	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130626C\
Data File : 92559.D
Acq On : 26 Jun 2013 10:25 am (#1); 26 Jun 2013 10:24 am (#2)
Operator : RJ
Sample :
InstName : Unit 8
Misc : 55 Gallon drum through filter. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 26 10:33:36 2013
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.256	96	1680061	203.25 ppm	0.00
15) Chlorobenzene-d5	5.939	117	1502960	176.00 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.229	GC1	28804m	108.99 ppm	
4) Methanol	0.788	31	8031	31.40 ppm	100
17) Toluene	4.779	92	207117	49.12 ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Working Copy
Date: 10-3-2012

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90806

6.2[4] Date Processed: 10-3-12

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☐ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☐ Liquids ☐ Pressurized Containers ☑ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 7-31-13

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] **($) Stationary Fire Watch has been established:**
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) N/A
(Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☐ YES ☐ NO ☑ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Edwin Rios, [signature] 167822 10-3-12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1

Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90806

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 352 4 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 0 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 352 4 lb

6.2[7] **($)** Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

EWMO-FOD (print)	Signature	Z #	Date
	AJA		

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 92B06

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92160			
10.1[4]	Daughter Drum Filter No.	AM-695			
10.1[4]	Daughter Drum Bag Filter No.	WD-1696			
10.1[4]	Daughter Drum Purchase Order No.	916265			
10.1[13][C]	WCG Fire Watch Stationed	N/A	☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)		N	A	
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:	See comments			
10.3[9][A]	PCB-contaminated Waste Description		N	A	
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See comments			
10.3[13]/10.4[10]/10.5[4]/10.6[8]	Daughter Drum % Full (%)	85%			
10.5[3]/10.6[2]	Description Waste Added During Processing	See comments			

ATTACHMENT 1
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4.1[6][B] Parent Waste Container No.: 90806

Comments: Kitty litter added to contents of liquid absorbant, plastic, 1 poc lid with 12 Bolts

11.1[1] Performed By: Eddie Rios, [signature] 187822 ~~10-3-12~~ 10-3-12 10-4-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jerez, [signature] 221452, 10-4-12 0827
SOS or designee (print) Signature Z # Date/Time

6

Working Copy
Date: 10-2-12a

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 413954
Lot No.: 211426
Manufacture Date: 2010

5.[8] Overpack filtered vent information:

Manufacturer: Nucfil
Model No.: 013
Serial No.: HL-7[illegible]
Manufacture Date: 8-11

Overpack filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	020614	021151
Cal. Expiration Date:	10-15-12	6-11-13
Tolerance:	±4%cw ±6%ccw	±3%cw ±6%ccw

Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Michael Romero [signature] [illegible] 10-2-12
Waste Handling Technician (print) Signature Z # Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[15] 2 in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: Michael Romero [signature] [illegible] 10-2-12
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Jerez [signature] 221402 10-4-12
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

Working Copy
Date: 10-3-12

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92161

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 040329
Cal. Expiration Date: 3-15-13
Range in ft-lb: 16-80
Tolerance: +3% cw / +6% ccw

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Eddie Rios [signature] 188722 10-3-12
Waste Handling Technician (print) Signature Z# Date

7.[28] Overpack drum closure ring torque value: 60 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 7-31-13

7.[36][D] 85-gal overpack drum gross weight (lb): 323.0 lb

Comments: N/A

8.1[1] Performed By: Eddie Rios [signature] 188722 10-3-12
Waste Handling Technician (print) Signature Z# Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Perez [signature] 221452 10-4-12
Supervisor or designee (print) Signature Z# Date

(6)

Best Available Copy

LET 10-3-12

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: ~~90006~~ 92160

1. Drum/Lid Assembly

- [x] Remove and discard ¾" bung from lid
- [ ] Remove Lid
- [x] Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  - NOTE: Reject damaged drum/lid assembly
- [x] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:

Purchase Request #: 416265
Lot #: 229225
Date of Manufacture: 8/11

2. Drum Liner Bag/Filter Assembly:

- [ ] Place yellow vinyl tape, with smear centered on tape, over filter
- [x] Fill bag with air from compressed air source
- [x] Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  - NOTE: Reject or repair damaged, cut, or leaking bags
- [ ] Stretch bag's bungee cord
- [x] Inspect bungee cord
  - NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information:

Manufacturer: BOP
Model #: 6CPLF-1.5-2.5 SPUC
Serial #: 0-1692
Date of Manufacture: 8/11

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- [ ] Inspect cardboard liner/plastic liner (circle type of liner used)
  - NOTE: Reject any damaged liners
- [x] Place cardboard/plastic liner into drum liner bag/filter assembly
- [x] Line up filter with drum seam
- [ ] Place liner/bag/filter assembly into drum
- [ ] Roll excess liner bag into cardboard/liner/plastic liner

4. Install Lid/Drum Filter

- [x] Place lid and ring onto drum
- [ ] Tighten ring sufficiently to simply hold lid in place
- [ ] Torque 2" bung plug
- [x] Apply sealant to filter threads, screw in ¾" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:

Manufacturer: NUCFIL
Model #: D1705
Serial #: AM-893
Date of Manufacture: 1/12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	020614	M&TE ID #:	021151
Cal Expiration Date:	10-19-12	Cal Expiration Date:	6-11-13
Range (ft-lbs or in-lbs):	40-250	Range (ft-lbs or in-lbs):	16-80
Tolerance:	±4% Rdg ±6% FS	Tolerance:	±3% Rdg ±6% FS

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.

[x] Yes [ ] No

Print Name: Eddie Rios Signature: [signature] Z#: 187822

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs): 75.6
File ID #: 019065

- [x] Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- [x] Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print: Eddie Rios Operator Sign: [signature] Z#: 187822 Date: 9-26-12

Verifier Print: Gilbert Mk Verifier Sign: [signature] Z#: 165239 Date: 10-3-12

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: ~~90886~~ 92160
2 Rigs 10-3-12

1. LID INSTALLATION

NOTE: Install lid per manufacture's instructions

✓ Mount lid with filter directly over drum seam.

✓ Install ring with bolt positioned downward and directly over drum seam.

✓ Engage bolt and nut and torque per manufactures instructions

NOTE Seal the ring while tightening using a rubber hammer or dead-blow mallet or a drum lid press.

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 040329

Cal expiration date: 3-15-13

Range/ Value (ft-lbs): 16-80

-- Tolerance +-3%cw / +-6%ccw

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels

✓ Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label.

✓ Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.

✓ Place one yellow radioactive waste label between the top two rolling hoops

✓ Place one yellow radioactive waste label in the center of the drum lid.

RCRA Label:

N/A Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops.

OR

✓ Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 204.6

Scale ID#: 019065

✓ Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area.

✓ Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓ Complete TWSR.

Operator Print/Sign: [illegible] Date: [illegible] 10-3-12

Verifier Print/Sign: [illegible] Date: 10-3-12

6

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90806 Container Type: POC Gross Weight (lbs): 348

Container Seal #: None Filter Prefix: None Filter Serial #: EL-516; EL-569

Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: PARENT #S822838 WTS-12STD-791

Total PE-Ci Activity: 1.28E+00 Equivalent Combustible PE-Ci: 4.81E-01 AM-241 PE-Ci: 1.06E-01

Total Fissile Gram Equivalents: 14.1 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 NR 9/27/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: None

Prohibited Items: Sealed > 4 Liters Liquid Pressurized Container Impenetrable Item Other

Security Determination: ✓ Green Yellow

Remediation Determination: VE PID Split ✓ Repack

Estimated 30-cm Dose Rate (mrem/hr): <100 ✓ >100 and <1,000 >1,000 and <10,000 >10,000

TRUCON Code: TBD Production Control Comments: Need to add EPA Codes D007 & D009.

Nitrate salts mixed with Waste Lock 770® from previous repack campaign. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey / Signature: Susan B Ramsey / 100681 / 9/5/12

Production Control (Print) Z Number Date

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): Yes ✓ No Unknown

Processing Determination: ✓ Accept Reject

WDP Engineering Comments: Nitrate Salts - POC

Net Wt: 138 lb Parent drum (SEDs attached) was part of WCRR nitrate salt repack campaign using Waste Lock 770. This resulting daughter, POC is being repacked to adjust admixture / nitrate salt ratio. Nitrate salts carry waste codes for chromium, lead, + mercury. No hazardous chemicals present

May require RCOP for >100 & <1000 mrem/hr

Performed By: Valerie Rhodes / Valerie Rhodes / 112509 / 9/27/12

WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

✓ Waste Container Information Evaluated Less Than 170 lbs RTR Video Available

Other Specific Safety Concerns: Use Hexarmor gloves. Do not push or press on waste. Use remote handling tools

Processing Determination: ✓ Accept Reject

TRU Remediation Operations Comments: Use kitty litter to mix in with waste per procedure.

Performed By: Gilbert Martinez / Gilbert Martinez / 199235 / 10-1-12

TRU Remediation Operations (Print) Signature Z Number Date

IHS Reviews: Johnny Armstrong / CSP. Contains lead, chromium + Hg 9-27-12

Document No: EP-DIV-AP-0107 ~~22~~ 10-1-12 221452 - 10-1-12

Noncertified TRU Waste Drum Item Information

DrumID: 010340

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	IXFS-504F-1		30.670	NITRATE SALTS		13.79	52	5/11	
2	IXFS-503-F-1		24.310	NITRATE SALTS		0.	42	5/11	
3	IXFS-505-F-1		8.860	NITRATE SALTS		76.11	52	5/11	
4	IXFS-506-F-1		11.360	NITRATE SALTS		1.28	52	5/11	
5	IXFS-507-F-1		4.540	NITRATE SALTS		1.83	54	5/11	
6	IXFS-508-F-1		7.050	NITRATE SALTS		9.08	52	5/11	
7	IXFS-509-F-1		20.680	NITRATE SALTS		16.78	52	5/11	
8	IXFS-510-F-1		31.140	NITRATE SALTS		60.85	52	5/11	

Noncertified Waste Drum Material Summary

Gross Wt (kg):

Material Type	SNM (grams)	Items Net Wt (kg)
42	0.	24.31
52	177.89	109.76
54	1.83	4.54
Totals	179.72	138.61

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: 9.21.12

Container No. (5.[1])	90806					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Sara Aragon (CCP (Print)) 237975 (Z #)

Reviewed By: Nathan Wales (CCP (Print)) 238866 (Z #)

Comments: N/A

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By Colleen Martinez (Waste Handling Operator (print)) Colleen Martinez (Signature) 190298 (Z #) 9.24.12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120921c\
Data File : 90806.D
Acq On : 21 Sep 2012 3:32 pm (#1); 21 Sep 2012 3:31 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : LFL POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 21 15:39:45 2012
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.256	96	2471134	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2181135	179.50 ppm	0.00

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vocgas.m Fri Sep 21 15:39:58 2012

PROJECT NAME NOTEBOOK NO.

10-312

0600 Assuming WCER operations center - 1Wolcman
0615 Morning stand down to address issues.
0652 All issues regarding procedural compliance, etc. have been addressed. SOS performing the pre-job for today.
0711 Beginning outside rounds.
0714 Inside rounds complete.
0742 Outside rounds complete.
0743 Rounds reviewed by SOS.
0754 Mode change complete. We are now in operations.
0803 RCT's performing a CAM check. An audible alarm will sound
0819 Bagging on 90820.
0823 Permission granted to lower vehicle access gates to perform radiological survey for the shipment to Area 4.
0831 Bag on complete.
0902 Bagging off 90820, bagging on 90966.
0903 Daily Review received an OKay from the SOM to scope the furnace.
0920 Vehicle access gates restored. Transportainers secured.
0928 Bag on complete.
0929 Initiating a drum movement from 50-69 to a transportainer
0934 Drum movement out of facility complete.
1013 Bagging off 90966, bagging on 90760.
1035 Bag on complete.
1058 Bagging off 90760, bagging on 90822
1109 Initiating a drum movement from transportainer to 50-69.
1133 Drum movement into facility complete.
1146 Late entry - 1118, bag on complete. (JC)
1150 Bagging off 90822, bagging on 90755.
1217 Bag off complete.
1352 Bagging off 90755, bagging on 90806.
1412 Bag on complete.
1436 Beginning outside rounds.
1450 Bagging off 90806, bagging on 90759.
1505 Outside rounds complete.
1506 Initiating a drum movement from transportainer to 50-69
1507 Bag on complete.
1517 Drum movement into facility complete.
1518 Late entry - at 1515, began inside rounds. (JC)
1527 Bagging off 90759.
1550 Bag off complete.
1553 Initiating a drum movement from 50-69 to a transportainer
1600 Inside rounds complete.
1601 Drum movement out of facility complete.
1607 Rounds reviewed by SOS.

Continued on next page 1Wolcman

SIGNATURE DATE
READ AND UNDERSTOOD DATE

NOTEBOOK NO.

continued from previous page

1613 Mode change complete - We are now in warm standby.

1630 End of day. Operations secure - [illegible]

No further entries this page

SIGNATURE DATE 20

READ AND UNDERSTOOD DATE 20

0600 Assumed SOM position.

0615 Attended pre job brief conducted by SOS. Conduct of Ops brief given by OM and ES Field OM to all WCRR personnel. Covered procedure compliance, complacency in operations, management expectations.

0715 Pre job brief completed - rounds and RP-1 RMI's are commencing.

0754 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm/Warm to Operations/Operations.

0827 Released W.O # 445656-01 50-54 (n) Wet Auto Sprinkler Sys.

1000 Engineering / MSS onsite to walkdown furnace replacement in Bldg 50-84.

1015 Characterization team onsite to gamma spec LLW containers. RP-1 supervision stated he cannot support due to reduced staffing. Talked w/ Characterization and scheduling and rescheduled for Wed 10/10/12.

1130 Inventory Control identified that w/ tomorrows shipment (incoming) space will be tight in the transportainers. To correct problem rescheduled tomorrows incoming to Tues 10/9/12. Will have sufficient inventory on hand to process.

1400 MSS proposed working 10/13/12 (Saturday) to perform light relamping inside 50-69. Issue is denesting area in Room 102 has 1 light out and another dim. Would like to replace these ASAP but electricians need a full day to perform. No OCO's available for that day.

1530 Discussed lighting issue w/ OM and ~~SOS and~~ 10/13/12 SOM (Gen) and since current run of SP 72 drums are 55 gal DM's (no denesting required) that maint can probably be put off until 10/26/12.

1545 Request from result of ALARA meeting was to touch up paint on floor in 50-69. Have OM permission to secure processing early tomorrow to perform.

1613 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations/Operations to Warm/Warm.

10-2-12 1630 Secured SOM position

No further entries this page

10/3 12

10-3-12 WCRR 505 Log Book

0600 Assuming 505 position for the day. Jim J
0615 Compliance Stand Down. Discussing Procedure Compliance and expectations of personnel performing job functions. 1 shipment out today. Processing Drums.
0705 Pre-Job brief Complete.
0743 Inside and outside rounds signed off.
0754 MODE Change Complete 50-69 and Yard are in Operations
0819 Bagging on first drum for the day
0823 Permission granted to lower access gates to perform radiological surveys on outgoing shipment
0831 Bag on Complete
0902 Bagging on second drum for the day
0920 Outgoing shipment completed
0928 Bag on Complete
1013 Bagging on third drum for the day.
1035 Bag on Complete
1058 Bagging off third drum, Baging on fourth drum
1118 Bag on Complete
1150 Bagging off fourth drum, Bagging on fifth drum
1217 Bag on Complete
1352 Bagging off fifth drum, Bagging on sixth
1412 Bag on Complete
1450 Bagging off sixth drum, Bagging on seventh.
1507 Bag on Complete
1527 Bagging off seventh drum. Last Drum for the day.
1607 Rounds signed off.
1613 Mode Change Complete 50-69 and Yard are in WARM
1630 Securing 505 position for the day. Jim J

No Further Entries on this Page.

CCP Radiography Data Sheet

5822838

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0007
Examination Date:	1/17/2013
Waste Container ID:	92160
Video/Audio Recorded Media Number:	LA-RTR2-13-0007 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[ ] No [X] Yes NCR No.: NCR-LANL-0030-13 NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA212
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 92.5 kg Tare Wt.: 33.4 kg Net Wt.: 59.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	90 %

CCP Radiography Data Sheet

Waste Container ID: 92160

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal hardware, metal lid

AM:

OM:

OI:

C: Fiberboard insert sleeve, fiberboard material

R:

XPM: Plastic bags, liner lid

OR: ~~Homogeneous solids~~ EL 1/21/13

EL 1/21/13

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	Estimated Weight (kg)
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	10.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	10.0
Rubber (R):	
Plastics (waste materials) (XPM):	5.0
Organic Matrix (OR):	~~34.1~~ EL 1/21/13
Inorganic Matrix (IN):	34.1 EL 1/21/13
Soils (S):	
Total WMP Weight:	59.1

CCP Radiography Data Sheet

Waste Container ID: 92160

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☒ Yes ☐ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: NCR-LANL-0030-13	

RTR Operator:

Eric Lyles / Michael Simmons		1/17/2013
Print Name Eric Lyles / Michael Simmons	Signature	Date 1/21/13 / 1/21/13

NDA 2000 Assay Report

Item Information

Item ID:	92160	Count Sequence Number:	22675
Operator:	D3PW2DK1\operator		
Assay Start:	5/1/2013 11:44:05 AM		
Description 1:	1LANDA1762		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Debris S5000		
Container Type:	55 gallon drum		
Weight:	Net: 59.1 kg	Net:	59.1 kg
Container:	Volume: 208.0 l	Full:	80.0 %
Density:	0.360 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 22675
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 14
Item ID: 92160

Batch Number: 1LANDA1762
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 5/1/2013

Net Weight	59100.0 g		
Pu mass	8.94E+000	+-	1.27E+000 g
TRU Alpha Activity	1.32E+000	+-	1.13E-001 Ci
TRU Activity Concentration	2.23E+004	+-	1.92E+003 nCi/g
Pu-239 Equivalent Activity	1.33E+000	+-	1.13E-001 Ci
Pu-239 FGE	8.24E+000	+-	1.17E+000 g
Decay heat	4.24E-002	+-	3.66E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	8.22E-003	5.87E-006	7.98E-007	8.58E-007
PU238	3.02E-003	5.22E-002	7.43E-003	9.67E-005
PU239	8.19E+000	5.15E-001	7.33E-002	9.54E-004
PU240	7.31E-001	1.68E-001	2.39E-002	3.11E-004
AM241	1.67E-001	5.81E-001	8.27E-002	1.08E-003
PU241	1.11E-002	1.15E+000	1.64E-001	2.13E-003
PU242	6.50E-003	2.58E-005	3.67E-006	0.00E+000
SR90	2.69E-009	3.71E-007	1.50E-007	0.00E+000
CS137	4.23E-009	3.71E-007	1.50E-007	2.10E-007
U233	<LLD	<LLD	0.00E+000	1.81E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	5.20E-007
U238	<LLD	<LLD	0.00E+000	7.22E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 5-6-13

ITR: _____ Date: 5-7-13

Automated Independent Technical Review

Count Sequence Number: 22675
Batch Number: 1LANDA1762
Counter ID: MCS HENC #1
Container ID: 92160
Waste Matrix Code: Debris S5000
Count Type:
Sequence Type:
Assay Date: 5/1/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Expert review is recommended; the following validity tests failed: Pu239 weight percent is outside limits [92.5, 95.0].	MGA valid. Pu239 percent consistent with AK. Mix of MT-52,54,42.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 5-2-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **92160**

BDR Number: **LA13FG2052**

Sampling Date: **5/9/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	90.37	U
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.37	
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130509c\
Data File : 92160.D
Acq On : 9 May 2013 2:42 pm (#1); 09-May-13, 14:41:48 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 09 14:50:38 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.532	96	3621678	201.25	ppmv	-0.04
15) Chlorobenzene-d5	5.868	117	3069656	177.00	ppmv	-0.03
Target Compounds						Qvalue
17) Toluene	4.831	92	91063	8.37	ppmv	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Working Copy
Date: 10-4-12

UET

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90807

6.2[4] Date Processed: 10/4/12

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☐ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☐ Liquids ☐ Pressurized Containers ☑ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 7/31/13

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] ($) Stationary Fire Watch has been established:
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) N/A (Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☐ YES ☑ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Clayton Mullins, CT 24002 10/4/12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.:	90807
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	362.2 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	0 lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	362.2 lb
6.2[7]	**($)** Total Parent Drum Weight < 624 lb (SR 4.5.1):	☑ SAT ☐ UNSAT
6.2[28]	Approval to leave a parent drum attached to the WCG overnight:	

EWMO-FOD (print)	Signature	Z #	Date
		/	/

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90807

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92173			
10.1[4]	Daughter Drum Filter No.	AM-848		N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-3661			
10.1[4]	Daughter Drum Purchase Order No.	416265			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)	N/A			
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:			N/A	
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	see comments			
10.3[13]/10.4[10]/10.5[4]/10.6[8]	Daughter Drum % Full (%)	95%			
10.5[3]/10.6[2]	Description Waste Added During Processing	bag-out stubs			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90807

Comments: stainless steel lid, cardboard, plastic, nitrate salts, kitty liter

11.1[1] Performed By: Clyta Mullins
Waste Handling Tech (print) Signature 224092 Z # 10/4/12 Date

11.1[7] Reviewed By: Jose Jerez
SOS or designee (print) Signature 221452 Z # 10-9-12 Date Time 0817

UET Working Copy
Date: 10-3-12

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 413984
Lot No.: 211426
Manufacture Date: 10

5.[8] Overpack filtered vent information:

Manufacturer: Nucfil
Model No.: 013
Serial No.: HK-727
Manufacture Date: 8-11

Overpack filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	020014	021151
Cal. Expiration Date:	10-19-12	6-11-13
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Michael Romero Michael Romero [illegible] 10-3-12
Waste Handling Technician (print) Signature Z# Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[15] 2 in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: Michael Romero Michael Romero [illegible] 10-3-12
Waste Handling Technician (print) Signature Z# Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Jerez Jose Jerez 221421 10-9-12
Supervisor or designee (print) Signature Z# Date

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92174

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 040329
Cal. Expiration Date: 3/15/13
Range in ft-lb: 16-80
Tolerance: ±3% cw / ±6% ccw

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Clayton Mullins, CM 240091, 10/4/12
Waste Handling Technician (print) Signature Z# Date

7.[28] Overpack drum closure ring torque value: 60 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 7/31/13

7.[36][D] 85-gal overpack drum gross weight (lb): 319.6 lb

Comments: N/C

8.1[1] Performed By: Clayton Mullins, CM 240091 10/4/12
Waste Handling Technician (print) Signature Z# Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Perez, [signature] 221452 10-9-12
Supervisor or designee (print) Signature Z# Date

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum [redacted]: 92173

1. Drum/Lid Assembly

- [x] Remove and discard ¾" bung from lid
- [x] Remove Lid
- [x] Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  - NOTE: Reject damaged drum/lid assembly
- [x] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:

Purchase Request #: 416265
Lot #: 829225
Date of Manufacture: 12

2. Drum Liner Bag/Filter Assembly:

- [x] Place yellow vinyl tape, with smear centered on tape, over filter
- [x] Fill bag with air from compressed air source
- [x] Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  - NOTE: Reject or repair damaged, cut, or leaking bags
- [x] Stretch bag's bungee cord
- [x] Inspect bungee cord
  - NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information:

Manufacturer: BOP
Model #: 6CPVC 1.5-2 SPVC
Serial #: L-3661
Date of Manufacture: 6.12

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- [x] Inspect cardboard liner/plastic liner (circle type of liner used)
  - NOTE: Reject any damaged liners
- [x] Place cardboard/plastic liner into drum liner bag/filter assembly
- [x] Line up filter with drum seam
- [x] Place liner/bag/filter assembly into drum
- [ ] Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- [x] Place lid and ring onto drum
- [x] Tighten ring sufficiently to simply hold lid in place
- [x] Torque 2" bung plug
- [x] Apply sealant to filter threads, screw in ¾" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:

Manufacturer: NUCFIL
Model #: 015DS
Serial #: Am-348
Date of Manufacture: 1/12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	020614 M2 / 020641 10-3-12	M&TE ID #:	021151
Cal Expiration Date:	10-15-12	Cal Expiration Date:	6-11-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
Tolerance:	±4% cw / ±6% ccw	Tolerance:	±3% cw / ±6% ccw

Torque Wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.

[x] Yes [ ] No

Print Name: Michael Romero Signature: Michael Romero ZI: 182723

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs) 76.4
File ID #: 019065

- [x] Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- [x] Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print: Michael Romero Operator Sign: Michael Romero ZI: 182723 Date: 10-3-12

Verifier Print: Clayton Mullins Verifier Sign: CM ZI: 240092 Date: 10/4/12

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 92173

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions.

✓ Mount lid with filter directly over drum seam.

✓ Install ring with bolt positioned downward and directly over drum seam.

✓ Engage bolt and nut and torque per manufactures instructions.

NOTE: Seal the ring while tightening using a rubber hammer or dead-blow mallet or a drum lid press.

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 040329

Cal expiration date: 3/15/13

Range/ Value (ft-lbs): 16-80 / 60

Tolerance ±3% cw / ±6% ccw

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels.

✓ Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label.

✓ Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.

✓ Place one yellow radioactive waste label between the top two rolling hoops

✓ Place one yellow radioactive waste label in the center of the drum lid.

RCRA Label.

N/A Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops.

OR

✓ Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs.): 240.4

Scale ID#: 019065

✓ Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area.

✓ Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓ Complete TWSR.

Operator Print/Sign: [illegible] Date: 10/4/12

Verifier Print/Sign: [illegible] Date: [illegible]

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90807 Container Type: POC Gross Weight (lbs): 357

Liner Seal #: None Filter Prefix: None Filter Serial #: EL-517; EL-568

RTR Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: PARENT #S822838 WTS-12STD-790

Total PE-Ci Activity: 1.28E+00 Equivalent Combustible PE-Ci: 4.81E-01 AM-241 PE-Ci: 1.06E-01

Total Fissile Gram Equivalents: 14.1 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 VR 9/27/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: None

Prohibited Items: ☐ Sealed > 4 Liters ☐ Liquid ☐ Pressurized Container ☐ Impenetrable Item ☐ Other

Security Determination: ☑ Green ☐ Yellow

Remediation Determination: ☐ VE ☐ PID ☐ Split ☑ Repack

Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☑ >100 and <1,000 ☐ >1,000 and <10,000 ☐ >10,000

TRUCON Code: TBD Production Control Comments: Need to add EPA Codes D007 & D009

Nitrate salts mixed with Wastelock 770® from previous repack campaign. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey (Production Control (Print)) Signature: Susan S. Ramsey Z Number: 100681 Date: 9/5/12

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☑ No ☐ Unknown

Processing Determination: ☑ Accept ☐ Reject

WDP Engineering Comments: Nitrate Salts - POC

Net Wt: 47lb Parent drum (SEDs attached) was part of WCRF Repack campaign using Wastelock 770. The resulting daughter POC is being repacked to adjust admixture/nitrate salt rate. Nitrate Salts carry waste codes for chromium, lead, + mercury. No reg chemicals present.

May require RWP for >100 + <1000 mrem/hr.

Performed By: Valerie Rhodes (WDP Engineering (Print)) Signature: Valerie Rhodes Z Number: 126091 Date: 9/27/12

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available

Other Specific Safety Concerns: Do not push on press on waste. Use Kevlar gloves. Use tools to handle waste

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: Use kitty litter to mix in waste per procedure.

Performed By: Gilbert Martinez (TRU Remediation Operations (Print)) Signature: Gilbert Martinez Z Number: 149235 Date: 10-1-12

IHS Reviews Joe [illegible] CSP, Contains, lead, Chromium, Hg 9-27-12

22145Z - 10-1-12

Noncertified TRU Waste Drum Item Information

DrumID: 010340

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	MT	Auth (Pq/In)	Comments
1	IXPG-504F-1		30.670	NITRATE SALTS		13.79	52	5/11	
2	IXPG-503-F-1		24.310	NIRTRATE SALTS		0.	42	5/11	
3	IXPG-505-F-1		8.860	NITRATE SALTS		76.11	52	5/11	
4	IXPG-506-F-1		11.360	NITRATE SALTS		1.20	52	5/11	
5	IXPG-507-F-1		4.540	NITRATE SALTS		1.83	54	5/11	
6	IXPG-508-F-1		7.050	NITRATE SALTS		9.08	52	5/11	
7	IXPG-509-F-1		20.680	NITRATE SALTS		16.78	52	5/11	
8	IXPG-510-F-1		31.140	NITRATE SALTS		60.85	52	5/11	

Noncertified Waste Drum Material Summary

Gross Wt (kg):

Material Type	SNM (grams)	Items Net Wt (kg)
42	0.	24.31
52	177.69	109.76
54	1.83	4.54
Totals	179.72	138.61

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: 9.21.12

Container No. (5.[1])	90807					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Sara Aragon (CCP (Print)) 237975 (Z #)

Reviewed By: Nathan Wales (CCP (Print)) 238866 (Z #)

Comments: N/A

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: Colleen Martinez (Waste Handling Operator (print)) Colleen Martinez (Signature) 190298 (Z #) 9.24.12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120921c\
Data File : 90807.D
Acq On : 21 Sep 2012 1:59 pm (#1); 21 Sep 2012 1:58 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : LFL POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 21 14:17:45 2012
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.259	96	2645580	206.00 ppm	0 00
15) Chlorobenzene-d5	5.936	117	2308141	179.50 ppm	0 00

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vocgas.m Fri Sep 21 14:17:58 2012

PROJECT NAME _____ NOTEBOOK NO. _____

10-4-12

0600 Assuming WCRR operations center - JCleeman
0605 Beginning outside rounds.
0606 Air quality personnel arrived to perform weekly stack monitoring
0620 Beginning inside rounds. Pre job being conducted by SOS.
0632 Outside rounds complete.
0652 Inside rounds complete.
0654 Both rounds reviewed by SOS.
0700 Mode change complete. We are now in operations.
0743 Initiating a drum movement from 50-69 to a transportainer.
0752 Drum movement out of facility complete.
0754 Bagging on 90821.
0758 Bag on complete.
0815 Bagging off 90821, bagging on 91004.
0830 Permission granted to lower vehicle access gates to begin to load transfer vehicle for a shipment to Area G.
0834 Bag on complete.
0855 Bagging off 91004, bagging on 90808.
0913 Bag on complete.
0935 Bagging off 90808, bagging on 90818.
0955 Bag on complete.
1020 Initiating a drum movement from 50-69 to a transportainer.
1023 Bagging off 90818, bagging on 90807.
1043 Bag on complete.
1053 Drum movement out of facility complete.
1112 Bagging off 90807, bagging on 91008.
1124 Bag on complete.
1209 Bagging off 91008.
1225 Bag off complete.
1335 Initiating a drum movement from 50-69 to a transportainer.
1551 Drum movement out of facility complete. All inventory has been removed from the facility.
1352 Mode change complete. We are now in COLD in 50-69 and warm standby in WCRRF yard.
1355 Beginning outside rounds.
1406 Beginning inside rounds.
1423 Inside rounds complete.
1428 Operators inside 50-69 beginning to paint where magenta is coming through.
1429 Late entry at 1422, outside rounds completed. (JC)
1517 Painting inside 50-69 completed.
1630 End of day. Operations secure. - JCleeman

No further entries this page

SIGNATURE _____ DATE _____ 20
READ AND UNDERSTOOD _____ DATE _____ 20

PROJECT NAME 10/4/12 NOTEBOOK NO.

0600 Assumed SOM position

0615 Attended pre job brief conducted by SOS. Discussed POD work items for day, requirement to be in Cold Mode in Bldg 50-69 @ COB, paint touchup on floor after processing complete, safety heading into long weekend.

0700 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm / Warm to Operations / Operations.

0930 While reviewing SOS logbook identified page missing (torn out) ~~[illegible]~~ 10/4/12. Informed OM and ES field ops manager. Neither SOS had information on when or reason for removal.

1033 Met w/ Deputy FOD and OM over work release/authorization process as part of management assessment.

1042 (Late Entry 0940) Removed Operator Aid # 50-11-07 Rev 0 Combustible Loading Quarterly Report and replaced w/ current Report under Operator Aid # 50-11-07 Rev 1.

1340 Contacted WWC to emerge printing of floor in Bldg 50-69 - for touch up of areas where magenta colored paint is starting to show thru upper grey paint.

1352 Completed Mode Change: WCRR ~~Op~~ 10/4/12 Yard / Bldg 50-69 from Operations / Operations to Warm / Cold.

1605 SOS reported all maintenance activities completed.

1615 Secured SOM position

No further entries this page

SIGNATURE DATE 10/4 20 12

READ AND UNDERSTOOD DATE 20

10-4-12 WCRR SOS Log Book

0600 Assuming SOS position for the day

0615 Pre Job brief, started. Needing to be in COLD MODE by the end of the day. Six Parent drums inside of 50-69 to process. Planning on processing those all from Solution Package #72. Once those six are processed we will change MODE so that the areas on the floor where the Magenta paint is starting to show can be painted. Also performing Glove Box maintenance, performing a good inspection on all the gloves, changing out the Tape on the bottom of the glove box and general housekeeping

0630 Pre-Job brief completed.

0654 Inside and outside rounds have been completed.

0706 MODE change from WARM MODE to Operations in 50-69 and in the Yard.

0756 Bag on complete of first drum.

0945 Late Entry. On October 1, 2012 I noticed that a page had been torn out of the WCRR SOS log book prior to entries being made on that day. [illegible]

0815 Bagging on Second drum for the day

0815 Bagging on third drum

0935 Bagging on fourth drum

1023 Bagging on fifth drum

1112 Bagging on sixth drum

1225 Bagging off last drum for the day

1352 Mode change Complete WARM in WCRR Yard, Cold in 50-69

1428 Operators inside 50-69 starting to paint areas where magenta is showing through.

1517 Painting inside 50-69 has been Completed.

1600 Securing SOS position for the day. [illegible]

No further entries on this page

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0001
Examination Date:	1/7/2013
Waste Container ID:	92173
Video/Audio Recorded Media Number:	LA-RTR2-13-0001 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA212
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 109.0 kg Tare Wt.: 33.4 kg Net Wt.: 75.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	85 %

CCP Radiography Data Sheet

Waste Container ID: 92173

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal, metal hardware, metal lid

AM:

OM:

OI:

C:

R:

XPM: Plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	8.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	63.6
Soils (S):	
Total WMP Weight:	75.6

CCP Radiography Data Sheet

Waste Container ID: 92173

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments: N/A

RTR Operator:

Benito Maestas		1/7/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92173	Count Sequence Number:	21798
Operator:	D3PW2DK1\operator		
Assay Start:	1/8/2013 1:59:37 PM		
Description 1:	1LANDA1693		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 75.6 kg	Net:	75.6 kg
Container:	Volume: 208.0 l	Full:	85.0 %
Density:	0.430 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 21798
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 14
Item ID: 92173

Batch Number: 1LANDA1693
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 1/8/2013

Net Weight	75600.0 g		
Pu mass	9.13E+000	+-	1.21E+000 g
TRU Alpha Activity	1.74E+000	+-	1.66E-001 Ci
TRU Activity Concentration	2.30E+004	+-	2.20E+003 nCi/g
Pu-239 Equivalent Activity	1.76E+000	+-	1.66E-001 Ci
Pu-239 FGE	8.45E+000	+-	1.11E+000 g
Decay heat	5.65E-002	+-	5.48E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.30E-002	1.65E-005	2.34E-006	1.25E-006
PU238	1.45E-003	2.51E-002	3.33E-003	4.75E-005
PU239	8.41E+000	5.29E-001	7.01E-002	1.00E-003
PU240	7.01E-001	1.61E-001	2.13E-002	3.05E-004
AM241	2.95E-001	1.03E+000	1.49E-001	2.81E-002
PU241	8.61E-003	8.95E-001	1.19E-001	1.69E-003
PU242	9.62E-003	3.82E-005	5.06E-006	0.00E+000
SR90	7.33E-009	1.01E-006	2.94E-007	0.00E+000
CS137	1.15E-008	1.01E-006	2.94E-007	2.83E-007
U233	<LLD	<LLD	0.00E+000	2.45E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	7.23E-007
U238	<LLD	<LLD	0.00E+000	8.90E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-14-13

ITR: _____ Date: 1-14-13

Automated Independent Technical Review

Count Sequence Number: 21798 Batch Number: 1LANDA1693
Counter ID: MCS HENC #1
Container ID: 92173
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/8/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. FRAM results applied. FRAM results attached.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sherri Chambers Date: 1-9-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **92173**

BDR Number: **LA13FG8001**

Sampling Date: **1/15/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	92.10	U
74-82-8	Methane	213.40	U
67-56-1	Methanol	27.87	U
60-29-7	Ethyl Ether	1.25	U
75-35-4	1,1-Dichloroethylene	5.71	U
67-64-1	Acetone	16.90	U
75-34-3	1,1-Dichloroethane	4.24	U
156-59-2	cis-1,2-Dichloroethene	0.55	U
78-93-3	Methyl ethyl ketone	9.86	U
110-82-7	Cyclohexane	5.84	U
71-43-2	Benzene	0.71	U
107-06-2	1,2-Dichloroethane	1.51	U
71-36-3	1-Butanol	1.36	U
108-10-1	Methyl isobutyl ketone	9.34	U
108-88-3	Toluene	3.09	U
108-90-7	Chlorobenzene	1.69	U
100-41-4	Ethylbenzene	2.62	U
108-38-3/106-42-3	m- and p-Xylene	1.48	U
95-47-6	o-Xylene	1.76	U
108-67-8	1,3,5-Trimethylbenzene	3.14	U
95-63-6	1,2,4-Trimethylbenzene	3.92	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130115c\
Data File : 92173.D
Acq On : 15 Jan 2013 3:17 pm (#1); 15 Jan 2013 3:16 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 15 15:24:42 2013
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.256	96	2389456	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2118300	179.50 ppm	0.00

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90808

6.2[4] Date Processed: 10/4/12

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☐ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☐ Liquids ☐ Pressurized Containers ☑ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale; Equipment No.: 019065
Cal. Due Date: 7/31/13

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] ($) Stationary Fire Watch has been established:
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) N/A
(Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☐ YES ☑ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Clayton Mullins, CM 240082 10/4/12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.:	90808
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	371.6 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	0 lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb):	371.6 lb
6.2[7]	**($)** Total Parent Drum Weight < 624 lb (SR 4.5.1):	☑ SAT ☐ UNSAT
6.2[28]	Approval to leave a parent drum attached to the WCG overnight:	

NH

EWMO-FOD (print) Signature / / Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90808

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92169			
10.1[4]	Daughter Drum Filter No.	AM-754			
10.1[4]	Daughter Drum Bag Filter No.	L-3717		N/A	
10.1[4]	Daughter Drum Purchase Order No.	416265			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)	N/A			
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units			N/A	
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	see comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	90%			
10.5[3]/10.6[2]	Description Waste Added During Processing	bag-out stubs			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90808

Comments: stainless steel lid, cardboard, plastic, nitrate salts, Kitty litter

11.1[1] Performed By: Clayton Miller / [signature] 274191 10/4/12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jerez / [signature] 221452 10-9-12 0812
SOS or designee (print) Signature Z # Date Time

Working Copy
Date: 10-2-12 W

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 413454
Lot No.: 211426
Manufacture Date: 2010

5.[8] Overpack filtered vent information: M 10-8-12

Manufacturer: to NUCFil
Model No.: 013
Serial No.: HL-959
Manufacture Date: 8-11

Overpack filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	020614	021151
Cal. Expiration Date:	10-19-12	6-11-13
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Michael Romero Michael Romero 182723 10-2-12
Waste Handling Technician (print) Signature Z # Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[15] 2 in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: Michael Romero Michael Romero 182723 10-2-12
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Jerez Jose Jerez 221450 10-9-12
Supervisor or Designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92170

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 040329
Cal. Expiration Date: 3/15/13
Range in ft-lb: 16-80
Tolerance: ±3% cw / ±6% ccw

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Clayton Mullins, [signature] 240092 10/4/12
Waste Handling Technician (print) Signature Z# Date

7.[28] Overpack drum closure ring torque value: 60 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 7/31/13

7.[36][D] 85-gal overpack drum gross weight (lb): 320.6 lb

Comments: N/C

8.1[1] Performed By: Clayton Mullins, [signature] 240092 10/4/12
Waste Handling Technician (print) Signature Z# Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Jerez, [signature] 221452 10-9-12
Supervisor or designee (print) Signature Z# Date

Best Available Copy

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: 92169

1. Drum/Lid Assembly

- [x] Remove and discard ¾" bung from lid
- [x] Remove Lid
- [x] Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  - NOTE: Reject damaged drum/lid assembly
- [x] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:

Purchase Request #: 416265
Lot #: 229275
Date of Manufacture: 12

2. Drum Liner Bag/Filter Assembly:

- [x] Place yellow vinyl tape, with smear centered on tape, over filter
- [x] Fill bag with air from compressed air source
- [x] Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  - NOTE: Reject or repair damaged, cut, or leaking bags
- [x] Stretch bag's bungee cord
- [x] Inspect bungee cord
  - NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information: 8.5" x 15 inches

Manufacturer: AVC-BOP
Model #: 6-PX-1.5-2.5 SPM
Serial #: L-3719
Date of Manufacture: 6/12

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- [x] Inspect cardboard liner/plastic liner (circle type of liner used)
  - NOTE: Reject any damaged liners
- [x] Place cardboard/plastic liner into drum liner bag/filter assembly
- [x] Line up filter with drum seam
- [x] Place liner/bag/filter assembly into drum
- [x] Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- [x] Place lid and ring onto drum
- [x] Tighten ring sufficiently to simply hold lid in place
- [x] Torque 2" bung plug
- [x] Apply sealant to filter threads, screw in ¾" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:

Manufacturer: NUCFIL
Model #: 01405
Serial #: 221754
Date of Manufacture: 1/12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	020614	M&TE ID #:	021151
Cal Expiration Date:	3-15-13	Cal Expiration Date:	6-11-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
Tolerance:	[illegible]	Tolerance:	± 3% of range ± 0% of range

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.

[x] Yes [ ] No

Print Name: Eddie Rios Signature: [signature] ZS: 187822

5. Weigh Drum Assembly

RECORD weight information

Tare wtght (lbs) 76.4
File ID #: 017065

- [x] Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- [x] Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print:	Eddie Rios	Operator Sign:	[signature]	ZS: 187822	Date: 10-2-12
Verifier Print:	Clayte Mullins	Verifier Sign:	[signature]	ZS: 240091	Date: 10/4/12

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 92169

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

✓ Install ring with bolt positioned downward and directly over drum seam.

✓ Engage bolt and nut and torque per manufactures instructions

NOTE Seal the ring while tightening using a rubber hammer or dead-blow mallet or a drum lid press.

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 040329

Cal expiration date: 3/15/13

Range/ Value (ft-lbs): 16-80 / 60

Tolerance ±3% cw / ±6% ccw

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels.

✓ Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label.

✓ Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.

✓ Place one yellow radioactive waste label between the top two rolling hoops

✓ Place one yellow radioactive waste label in the center of the drum lid.

RCRA Label.

N/A Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops.

OR

✓ Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 248.6

Scale ID#: 019045

✓ Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area.

✓ Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓ Complete TWSR.

Operator Print/Sign: [illegible] Date: 10/4/12

Verifier Print/Sign: JOE QUINTANA [illegible] Date: 10/4/12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90808 Container Type: POC Gross Weight (lbs): 367
Liner Seal #: None Filter Prefix: None Filter Serial #: EL-206, EL-231
WCRR Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: PARENT #S822838 WTS-12STD-746
Total PE-Ci Activity: 1.28E+00 Equivalent Combustible PE-Ci: 4.81E-01 AM-241 PE-Ci: 1.06E-01
Total Fissile Gram Equivalents: 14.1 Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): D008 D007 D009 VR 9/27/12
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: None Comment: None
Certified RTR Comment: None
Prohibited Items: ☐ Sealed > 4 Liters ☐ Liquid ☐ Pressurized Container ☐ Impenetrable Item ☐ Other
Security Determination: ☑ Green ☐ Yellow
Remediation Determination: ☐ VE ☐ PID ☐ Split ☑ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☑ >100 and <1,000 ☐ >1,000 and <10,000 ☐ >10,000
TRUCON Code: TBD Production Control Comments: Need to add EPA Codes D007 & D009
Nitrate salts mixed with Vermiculite 770 from previous repack campaign. A minimum of 1:2 volume of vermiculite/sorbent must be mixed with 1:0 volume of nitrate salts.
Performed By: Susan Rainley (Production Control (Print)) Signature: Susan B. Rainley Z Number: 100681 Date: 9/5/12

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☑ No ☐ Unknown
Processing Determination: ☑ Accept ☐ Reject
WDP Engineering Comments: Nitrate Salts - POC
Net Wt: 57lb. Parent drum (SEDs attached) was part of WCRR nitrate salt repack using Vermiculite 770. This resulting daughter POC is being repacked to adjust the admixture/nitrate salt ratio. Waste codes for chromium, lead, & mercury are assigned to nitrate salts. No haz. chemicals present.

Performed By: Valerie Rhodes (WDP Engineering (Print)) Signature: Valerie Rhodes Z Number: 112609 Date: 9/27/12

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs RTR Video Available
Other Specific Safety Concerns: Use Kevlar gloves. Use tools for handling waste. Do not push or press on waste.
Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments: Use kitty litter to mix in with waste per procedure.
Performed By: Gilbert Martinez (TRU Remediation Operations (Print)) Signature: Gilbert Martinez Z Number: 149235 Date: 10-1-12

IHS Review. Jeremy Smallard CSP Contains lead, Chromium, Hg 9-27-12.

JJ 221452 - 10-1-12

Noncertified TRU Waste Drum Item Information

DrumID: 010340

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	IXFS-504F-1		30.670	NITRATE SALTS		13.79	52	5/11	
2	IXFS-503-F-1		24.310	NIRTRATE SALTS		0.	42	5/11	
3	IXFS-505-F-1		8.860	NITRATE SALTS		76.11	52	5/11	
4	IXFS-506-F-1		11.360	NITRATE SALTS		1.28	52	5/11	
5	IXFS-507-F-1		4.540	NITRATE SALTS		1.83	54	5/11	
6	IXFS-508-F-1		7.050	NITRATE SALTS		9.08	52	5/11	
7	IXFS-509-F-1		20.680	NITRATE SALTS		16.78	52	5/11	
8	IXFS-510-F-1		31.140	NITRATE SALTS		50.85	52	5/11	

Noncertified Waste Drum Material Summary

Gross Wt (kg):

Material Type	SNM (grams)	Items Net Wt (kg)
42	0.	24.31
52	177.89	109.76
54	1.83	4.54
Totals	179.72	138.61

ATTACHMENT 1

Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: 9.21.12

Container No. (5.[1])	90808					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	Ø ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	Ø ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	Ø ppm	ppm	ppm	ppm	ppm	ppm

N/A

5.[7] Certified CCP Technician:

Performed By: Sara Aragon (CCP (Print)) 237975 (Z #)

Reviewed By: Nathan Wales (CCP (Print)) 238866 (Z #)

Comments: N/A

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: Colleen Martinez (Waste Handling Operator (print)) Colleen Martinez (Signature) 190298 (Z #) 9.24.12 (Date)

PROJECT NAME _____ NOTEBOOK NO. _____

1D442

0600 Assuming WCRR operations center - Coleman
0605 Beginning outside rounds.
0606 Air quality personnel arrived to perform weekly stack monitorin
0620 Beginning inside rounds. Pre-job being conducted by SOS.
0632 Outside rounds complete.
0652 Inside rounds complete.
0654 Both rounds reviewed by SOS.
0706 Mode change complete. We are now in operations.
0743 Initiating a drum movement from 50-69 to a transportainer.
0752 Drum movement out of facility complete.
0754 Bagging on 90821.
0758 Bag on complete.
0815 Bagging off 90821, bagging on 91004.
0830 Permission granted to lower vehicle access gates to begin to load transfer vehicle for a shipment to Area G.
0834 Bag on complete.
0855 Bagging off 91004, bagging on 90808.
0905 Bag on complete.
0935 Bagging off 90808, bagging on 90818.
0955 Bag on complete.
1020 Initiating a drum movement from 50-69 to a transportainer.
1023 Bagging off 90818, bagging on 90807.
1043 Bag on complete.
1053 Drum movement out of facility complete.
1112 Bagging off 90807, bagging on 91008.
1124 Bag on complete.
1209 Bagging off 91008.
1225 Bag off complete.
1335 Initiating a drum movement from 50-69 to a transportainer.
1551 Drum movement out of facility complete. All inventory has been removed from the facility.
1352 Mode change complete. We are now in COLD in 50-69 and warm standby in WCRRF yard.
1355 Beginning outside rounds.
1406 Beginning inside rounds.
1423 Inside rounds complete.
1428 Operators inside 50-69 beginning to paint where magenta is coming through.
1429 Late entry at 1422, outside rounds completed. (I)
1517 Painting inside 50-69 completed.
1630 End of day. Operations secure. - Coleman

No further entries this page

SIGNATURE _____ DATE _____ 20 ____
READ AND UNDERSTOOD _____ DATE _____ 20 ____

PROJECT NAME 10/4/12 NOTEBOOK NO.

0600 Assumed SOM position

0615 Attended pre job brief conducted by SOS. Discussed POD work items for day, requirement to be in Cold Mode in Bldg 50-69 @ COB, paint touchup on floor after processing complete, safety heading into long weekend.

0700 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm / Warm to Operations / Operations.

0930 While reviewing SOS logbook identified page missing (torn out) ~~of~~ 10/4/12. Informed OM and ES field ops manager. Neither SOS had information on when or reason for removal.

1033 Met w/ Deputy FOD and OM over work release/authorization process as part of management assessment.

1042 (Late Entry 0940) Removed Operator Aid # 50-11-07 Rev 0 Combustible Loading Quarterly Report and replaced w/ current Report under Operator Aid # 50-11-07 Rev 1.

1340 Contacted WWC to emerge painting of floor in Bldg 50-69 - for touch up of areas where magenta colored paint is starting to show thru upper grey paint.

1352 Completed Mode Change: WCRR ~~Op~~ 10/4/12 Yard / Bldg 50-69 from Operations / Operations to Warm / Cold.

1605 SOS reported all maintenance activities completed.

1615 Secured SOM position

No further entries this page

SIGNATURE DATE 10/4 20 12

READ AND UNDERSTOOD DATE 20

10-4-12 WCRR SOS Log Book

0600 Assuming SOS position for the day

0615 Pre Job brief, started. Needing to be in COLD MODE by the end of the day. Six Parent drums inside of 50-69 to process. Planning on processing those all from Solution Package #72. Once those six are processed we will change MODE so that the areas on the floor where the Magenta paint is starting to show can be painted. Also performing Glove Box maintenance, performing a good inspection on all the gloves, changing out the Tape on the bottom of the glove box and general housekeeping

0630 Pre-Job brief completed.

0654 Inside and outside rounds have been completed.

0706 MODE change from WARM MODE to Operations in 50-69 and in the Yard

0756 Bag on complete of first drum.

0945 Late Entry. On October 1, 2012 I noticed that a page had been torn out of the WCRR SOS log book prior to entries being made on that day. [illegible]

0815 Bagging on Second drum for the day

0815 Bagging on third drum

0935 Bagging on fourth drum

1023 Bagging on fifth drum

1112 Bagging on sixth drum

1225 Bagging off last drum for the day

1352 Mode change Complete WARM in WCRR Yard, Cold in 50-69

1428 Operators inside 50-69 starting to paint areas where magenta is showing through.

1517 Painting inside 50-69 has been Completed.

1600 Securing SOS position for the day. [illegible]

No further entries on this page

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination	[ ] RTR Replicate Scan [ ] RTR Independent Observation
Site ID:	LANL
Batch Number:	LA-RTR2-13-0064
Examination Date:	4/29/2013
Waste Container ID:	92169
Video/Audio Recorded Media Number:	LA-RTR2-13-0064 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 113.0 kg Tare Wt.: 33.4 kg Net Wt.: 79.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 92169

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hardware, metal lid

AM:

OM: Scrap lead

OI:

C: Fiberboard insert sleeve, fiberboard

R:

XPM: Liner lid, plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	20.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	2.0
Other Inorganic Materials (OI)	
Cellulosics (C):	10.0
Rubber (R):	
Plastics (waste materials) (XPM):	10.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	37.6
Soils (S):	
Total WMP Weight:	79.6

CCP Radiography Data Sheet

Waste Container ID: 92169

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: N/A	

RTR Operator:

Benito Maestas		4/29/2013
Print Name	Signature	Date

```
|-----------------------------------------------------------------------|
|                          NDA 2000 Assay Report                        |
|-----------------------------------------------------------------------|

************************    Item Information    ************************

Item ID:            92169              Count Sequence Number:  22666
Operator:           D3PW2DK1\operator
Assay Start:        4/30/2013   3:02:59 PM
Description 1:      1LANDA1761
Description 2:      N/A
Location:           LANL TA-54
Comment:            AK-6
Matrix Type:        Debris S5000
Container Type:     55 gallon drum
Weight:             Net:        79.6   kg        Net:    79.6 kg
Container:          Volume:    208.0   l        Full:    95.0 %
Density:                         0.400 kg /l

************************   System Configuration   ************************

Counter:                        MCS HENC #1
Count Type:                     Item Count
Collimator/Geometry Setting:    All Banks On (GE -  0

Errors quoted at  1.000 sigma
```

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	22666	Batch Number:	1LANDA1761
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92169	Analysis Date:	4/30/2013

Net Weight	79600.0 g		
Pu mass	1.01E+001	+- 2.26E+000	g
TRU Alpha Activity	1.95E+000	+- 2.15E-001	Ci
TRU Activity Concentration	2.44E+004	+- 2.71E+003	nCi/g
Pu-239 Equivalent Activity	1.97E+000	+- 2.15E-001	Ci
Pu-239 FGE	9.50E+000	+- 2.12E+000	g
Decay heat	6.33E-002	+- 6.99E-003	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.28E-002	1.63E-005	2.22E-006	1.14E-006
PU238	9.25E-004	1.60E-002	3.58E-003	3.47E-005
PU239	9.46E+000	5.95E-001	1.33E-001	1.29E-003
PU240	6.10E-001	1.40E-001	3.14E-002	3.04E-004
AM241	3.44E-001	1.20E+000	1.66E-001	2.41E-002
PU241	1.19E-002	1.23E+000	2.76E-001	2.67E-003
PU242	2.02E-003	8.01E-006	1.79E-006	0.00E+000
SR90	6.62E-009	9.14E-007	3.02E-007	0.00E+000
CS137	1.04E-008	9.14E-007	3.02E-007	3.21E-007
U233	<LLD	<LLD	0.00E+000	2.27E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	6.57E-007
U238	<LLD	<LLD	0.00E+000	1.16E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 5-2-13

ITR: _____ Date: 5-3-13

Automated Independent Technical Review

Count Sequence Number: 22666
Batch Number: 1LANDA1761
Counter ID: MCS HENC #1
Container ID: 92169
Waste Matrix Code: Debris S5000
Count Type:
Sequence Type:
Assay Date: 4/30/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Ok Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,54,42
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 5-1-13

Waste Container ID: **92169**

BDR Number: **LA13FG2048**

Sampling Date: **5/3/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	90.37	U
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130503c\
Data File : 92169.D
Acq On : 3 May 2013 2:28 pm (#1); 03-May-13, 14:27:30 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 14 08:34:41 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.571	96	4165460	201.25	ppmv	0.00
15) Chlorobenzene-d5	5.904	117	3547557	177.00	ppmv	0.00

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90809

6.2[4] Date Processed: 1-11-13

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☐ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☐ Liquids ☐ Pressurized Containers ☑ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 7-31-13

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] ($) Stationary Fire Watch has been established:
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) N/A
(Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☐ YES ☑ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Brian Gallegos / [signature] / 2672249 1-11-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.: 908C7	
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	3834 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	0 lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	3834 lb
6.2[7]	**($)** Total Parent Drum Weight < 624 lb (SR 4.5.1):	☑ SAT ☐ UNSAT
6.2[28]	Approval to leave a parent drum attached to the WCG overnight:	

N/A

EWMO-FOD (print) | Signature | Z # | Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90809

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92555			
10.1[4]	Daughter Drum Filter No.	JL-1376		N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-3688			
10.1[4]	Daughter Drum Purchase Order No.	416184			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)		N/A		
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	SEE COMMENTS			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)		N/A		
10.5[3]/10.6[2]	Description Waste Added During Processing	BAG OUT STUBS			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 909054

Comments: PLASTIC, CARDBOARD, SALTS, KITTY LITTER, BLUE TRASH, HCX ARMOR GLOVES, POT LIDS

11.1[1] Performed By: BRIAN GALLEGOS, [signature] 267124 1-11-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: [signature], [signature] 1145235 1.13.13 0910
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 12-20-12

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 413724
Lot No.: 210114
Manufacture Date: 10

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: IL-98
Manufacture Date: 9/11

Overpack filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	040694	021151
Cal. Expiration Date:	9-26-13	6-11-13
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: BRIAN GALLEGOS / B. Gallegos / 267129 / 12.20.12
Waste Handling Technician (print) / Signature / Z# / Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[15] 2 in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / B. Gallegos / 267129 / 12.20.12
Waste Handling Technician (print) / Signature / Z# / Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: G Mtz / G Mtz / 149255 / 1.13.13
Supervisor or designee (print) / Signature / Z# / Date

Working Copy
Date: 1-11-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 925556

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 021151
Cal. Expiration Date: 6-11-13
Range in ft-lb: 1-11-13 BG ~~±3%ecw ±6%ecw~~ 16-80
Tolerance: ±3% cw ±6% ccw

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: BRIAN GALLEGOS / [signature] 267129 1-11-13
Waste Handling Technician (print) Signature Z# Date

7.[28] Overpack drum closure ring torque value: 30 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 7-31-13

7.[36][D] 85-gal overpack drum gross weight (lb): 319.8 lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / [signature] 267129 1-11-13
Waste Handling Technician (print) Signature Z# Date

8.1[5] ☑ Deficiencies identified and submitted (e.g., PCR or FSR system).
☐ No deficiencies

8.1[7] Reviewed By: G Mtz / [signature] 149335 1-13-13
Supervisor or designee (print) Signature Z# Date

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: 92555

1. Drum/Lid Assembly

- [x] Remove and discard ¾" bung from lid
- [x] Remove Lid
- [x] Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  - NOTE: Reject damaged drum/lid assembly
- [x] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:

Purchase Request #: 416184
Lot #: 279224
Date of Manufacture: 72

2. Drum Liner Bag/Filter Assembly:

- [x] Place yellow vinyl tape, with smear centered on tape, over filter
- [x] Fill bag with air from compressed air source
- [x] Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  - NOTE: Reject or repair damaged, cut, or leaking bags
- [x] Stretch bag's bungee cord
- [x] Inspect bungee cord
  - NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information:

Manufacturer: BOP
Model #: 6CDVC1.5-25DVC
Serial #: L-31088
Date of Manufacture: 6/12

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- [x] Inspect cardboard liner/plastic liner (circle type of liner used)
  - NOTE: Reject any damaged liners
- [x] Place cardboard/plastic liner into drum liner bag/filter assembly
- [x] Line up filter with drum seam
- [x] Place liner/bag/filter assembly into drum
- [x] Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- [x] Place lid and ring onto drum
- [x] Tighten ring sufficiently to simply hold lid in place
- [x] Torque 2" bung plug
- [x] Apply sealant to filter threads, screw in ¾" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:

Manufacturer: Nucfil
Model #: 019 DS
Serial #: JL-1376
Date of Manufacture: 10/11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040654	M&TE ID #:	021151
Cal Expiration Date:	9-26-13	Cal Expiration Date:	6-11-13
Range (ft-lbs or in-lbs):	40-206	Range (ft-lbs or in-lbs):	16-80
Tolerance:	±4% cw ±6% ccw	Tolerance:	±3% cw ±6% ccw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.

[x] Yes [ ] No

Print Name: Michael Romero Signature: Michael Romero Z#: 182723

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs) 760
File ID #: 019065

- [x] Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- [x] Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print: Michael Romero Operator Sign: Michael Romero Z#: 182723 Date: 11-7-12

Verifier Print: BRIAN GALLEGOS Verifier Sign: Brian Gallegos Z#: 267129 Date: 1-11-13

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 92555

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

✓ Install ring with bolt positioned downward and directly over drum seam.

✓ Engage bolt and nut and torque per manufactures instructions.

NOTE Seal the ring while tightening using a rubber hammer or dead-blow mallet or a drum lid press.

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 021151

Cal expiration date: 6-11-13

Range/ Value (ft-lbs): 16-80

— Tolerance ±3% CW ±6% CCW

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels.

✓ Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label.

✓ Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.

✓ Place one yellow radioactive waste label between the top two rolling hoops

✓ Place one yellow radioactive waste label in the center of the drum lid.

RCRA Label:

☐ Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops.

OR

✓ Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 272.8

Scale ID#: 0190065

☐ Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area.

✓ Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓ Complete TWSR.

Operator Print/Sign: [illegible] Date: ~~1-13-BCL~~ 1-11-13 1-11-13

Verifier Print/Sign: [illegible] Date: 1-11-13

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

72

Production Control

Container ID: 90809 Container Type: POC Gross Weight (lbs): 383

Container Seal #: None Filter Prefix: None Filter Serial #: EL-209; EL-226

Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: PARENT #S822838 WTS-12STD-747

Total PE-Ci Activity: 1.28E+00 Equivalent Combustible PE-Ci: 4.81E-01 AM-241 PE-Ci: 1.06E-01

Total Fissile Gram Equivalents: 14.1 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 WL 10/3/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: None

Prohibited Items: ■ Sealed > 4 Liters ■ Liquid ■ Pressurized Container ■ Impenetrable Item ■ Other

Security Determination: ✓ Green ☐ Yellow

Remediation Determination: ☐ VE ☐ PID ☐ Split ✓ Repack

Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☑ >100 and <1,000 ☐ >1,000 and <10,000 ☐ >10,000

TRUCON Code: TBD Production Control Comments: Need to add EPA Codes D007 & D009

Nitrate salts mixed with WasteLoc 770® from previous repack campaign. A minimum of 1:2 volumes of admixture/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey / Production Control (Print) Signature Susan L. Ramsey Z Number 100681 Date 9/5/12

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☒ No ☐ Unknown

Processing Determination: ☒ Accept ☐ Reject

WDP Engineering Comments: Nitrate Salts – POC

Net Wt: 73 lb Parent drum (SEDS attached) was part of WCRR nitrate salt repack campaign using Waste Lock 770®. This resulting daughter POC is being repacked to adjust the admixture/nitrate salt ratio. Nitrate salts carry waste codes for [redacted] and mercury. No chemicals present. May require RWP for > 100 + < 1000 mrem/hr

Performed By: Valerie Rhodes / WDP Engineering (Print) Signature Valerie Rhodes Z Number 112609 Date 10/3/12

TRU Remediation Operations

✓ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available

Other Specific Safety Concerns: Use proper PPE when processing waste. Do not push or press on waste with hands.

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: Use proper ratio of kitty litter to waste in accordance with the procedure

Performed By: Joe Jerez / TRU Remediation Operations (Print) Signature Joe Jerez Z Number 221452 Date 10-9-12

OR Z# 249750 10/18/12

IHS Review: AS 206362 10.4.12

Noncertified TRU Waste Drum Item Information

DrumID: 010340

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	IXFS-504F-1		30.670	NITRATE SALTS		13.79	52	5/11	
2	IXFS-503-F-1		24.310	NIRTRATE SALTS		0.	42	5/11	
3	IXFS-505-F-1		8.860	NITRATE SALTS		76.11	52	5/11	
4	IXFS-506-F-1		11.360	NITRATE SALTS		1.28	52	5/11	
5	IXFS-507-F-1		4.540	NITRATE SALTS		1.83	54	5/11	
6	IXFS-508-F-1		7.050	NITRATE SALTS		9.08	52	5/11	
7	IXFS-509-F-1		20.680	NITRATE SALTS		16.78	52	5/11	
8	IXFS-510-F-1		31.140	NITRATE SALTS		60.85	52	5/11	

Noncertified Waste Drum Material Summary

Gross Wt (kg):

Material Type	SNM (grams)	Items Net Wt (kg)
42	0.	24.31
52	177.89	109.76
54	1.83	4.54
Totals	179.72	138.61

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: 10.3.12

Container No. (5.[1])	40809					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-gal					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	Ø ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	Ø ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	Ø ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Sara Aragon (CCP (Print)) 237975 (Z #)

Reviewed By: Nathan Wales (CCP (Print)) 238866 (Z #)

Comments: ~~None~~ CM 10.4.12 Per attached email, Container was verified as a POC.

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: Colleen Martinez (Waste Handling Operator (print)) Colleen Martinez (Signature) 190298 (Z #) 10.4.12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121003c\
Data File : 90809.D
Acq On : 3 Oct 2012 3:20 pm (#1); 3 Oct 2012 3:19 pm (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GALLON LFL DRUM THROUGH FILTER-19DS FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 03 15:34:35 2012
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.259	96	2159951	206.00	ppm	0.00
15) Chlorobenzene-d5	5.936	117	1943417	179.50	ppm	0.00

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vocgas.m Wed Oct 03 15:34:47 2012

1-11-13
0600 Assuming WCRRF operations center - Cleland.
0615 SOS performing pre job briefing.
0745 Starting inside rounds.
0752 Starting outside rounds.
0814 Completed outside rounds.
0819 Item #61 is OOS, POD in place, OK to continue.
0825 Completed inside rounds.
0838 Inside and outside rounds signed off by SOS.
0850 Mode change performed TA50-69 and WCRRF in operations
1012 Starting movement out of 50-69 to transport trailer
1129 Bagging on 90809
1136 Bag on complete
1137 PPE check is sat.
1228 bagging off 90809, bagging on 90758
1229 PPE Check is Sat.
1234 notified by WCRRF SOM that boiler ~~alarm~~ 1-11-13 has alarm notifying ~~operations~~ 1-11-13 CSE
1240 notified by CSE. Boiler issue is being worked and to keep an eye on 50-69 temperature. CSE will keep us posted.
1258 Bag on, bag off is complete. PPE check is Sat.
1310 Starting movement to transport vehicle.
1312 permission granted to lower vehicle access gates.
1328 Per CSE 2nd igniter on boiler 2 is malfunctioning SOM working on getting maintenance work package initiated.
1401 movement to transport vehicle is complete
1404 vehicle access gates have been restored.
1417 Starting inside rounds.
1421 Mode change being performed TA50-69 and WCRRF yard now in warm standby.
1426 maintenance performing pre job on WO# 00455797 01 TS & Repair boiler
1438 Item 61 is OOS, POD in place OK to continue with rounds.

Continued on next page - Cleland.

72063
- Initial Reading - 96823
92565

1-11-13 Continued from previous page Orlando
1501 Maintenance and electricians entering WCRF yard to perform work on boiler.
1530 ~~Outside~~ 1-11-13 Inside rounds signed off by SCB.
1601 Maintenance work on boiler is complete pilot valve was stuck, Boiler is back up and running.
1617 Mode change performed TA50-09 and WCRRF yard in operations.
1620 Starting outside rounds PPE Check is sat
1644 Outside rounds complete.
1708 bagging off 90258, PPE Check is sat.
1731 bag off is complete
1742 mode change being performed TA50-09 and WCRRF yard now in warm standby.
1-11-13 ~~1-12-13~~ 1830 end of day WCRRF operations center secure check
MM JJ

No further entries this page

0600 Assumed the WCRR SOM position. Conducted Shiftover
0615 Attended pre-job briefing conducted by RSS. Second crew coming on for the week discussed all safety concerns from the Friday meeting for the week. Safety topic for today high winds, be careful when performing outside work, follow OCD guidelines and instructions for suspending outside activities.
0700 Performed daily call in TA54 SOM. Status WCRR. Safety topic - high winds.
0740 Energy Solutions manager meeting with crew. Rounds or RCRA inspections haven't begun.
0750 Operators are beginning daily rounds.
0850 Mode change complete. WCRRF (TA-54) 150 lbs from WHEM/WHEM to OPERATIONS/OPERATIONS.
1045 SOM checked in with operations on status of movements out of facility and drums processed. Drum movement out successfully completed. Operators are performing glovebox maintenance per RCT recommendations. Changing out tape on ports inside glovebox and performing decontamination efforts.
1119 SiT arrived at WCRR to inspect the drums destined for Area G. The shipment will not take place until after lunch hour.
1125 Bagging on first drum of the day.
1236 SOM notified by bas page that TA-54 Critical Alarm; boiler #2 status is OFF when it should be ON.
1240 OCD and SOM called CSE C. Pitcher and he advised not to touch any controls on boiler he is working it on his end through database. He recommended we monitor temperature for today. Temperature should stay at 60°F or greater.
1245 OCD obtained temperature from inside 50-69. Temperature reading 62°F.
1305 Received another page that boiler #2 status is OFF when it should be on.
1320 SOM spoke with CSE C. Pitcher on status of boiler #2. CSE is trying to bring boiler back up he will call in 10 minutes to give an update.
1328 CSE notified SOM and OCD that after several attempts to bring boiler up he was not successfully. CSE states that secondary ignitor on boiler #2 has failed. Maintenance will have to be conducted.
1330 Notified OM
1332 Notified maintenance manager working on getting crafts a WO is already in place.

SIGNATURE _____ DATE _____ 20__
READ AND UNDERSTOOD _____ DATE _____ 20__

1358 Notified by maintenance manager that crafts are available and will be en route.
1401 SDM viewed work on the plan of the day for WO#455797-01
1421 Mode change complete. WCRR YARD/50-69 from OPERATIONS/OPERATIONS to WARM/WARM.
1430 Released WO#455797-01 signed off work package under WARM/WARM conditions. Verified building 50-69 @ 62 °F. No LCO's required to be entered. Attended pre-job briefing conducted by MSS supervisor. Made correction to Part II of IWD to reference RWP for yard-maintenance work. MSS supervisor will obtain a copy of IWD from RP-1 for work package. RWP was briefed to all workers.
1455 Maintenance crew ready to begin work on boiler #2
1545 Spoke to MSS supervisor and the starter (ignitor) was removed and reconditioned by removing the carbon. MSS is attempting to re-start and have been unsuccessful. MSS is still working on system (trouble shooting). @ 1/11/13
1550 DM was notified and did notified project manager.
1600 MSS came in and notified SDM that boiler #2 is operational. The pilot valve was stuck close and it wasn't releasing gas. MSS fixed the problem.
1610 Notified DM that boiler #2 is operational. Closing out work package with MSS and CSE.
1615 Work packages reviewed and signed off by MSS, CSE, and SDM.
1616 Temperature inside 50-69 63°F.
1617 Mode change complete. WCRR YARD/50-69 from WARM/WARM to OPERATIONS/OPERATIONS.
1742 Mode change complete. WCRR YARD/50-69 from OPERATIONS/OPERATIONS to WARM/WARM. Operators working on housekeeping inside 50-69.
1830 Securing the SDM position.

No further entries this page.

SIGNATURE DATE 1/11 20 13
READ AND UNDERSTOOD DATE 20

1.11.13 WCRR SOS LOG Book

0600 Assuming SOS Position

0610 Conducted shift brief reviewed KWP's And went over Fork lift brake. Also Reviewed All briefing needed with Personal coming From G.

0725 shift brief concluded.

0838 Reviewed Inside And outside Rounds

0850 Mode Change Complete WCRRF In operations

0851 Late entrie Round And RCRA's were not performed due to BCT shortage unable to Perform RCRA and Rounds In transportainerie due the contamination on Floor And Needing ARCT present. ~~Also had to brief~~ GM 1.11.13 0726 Operator Inside notified that Port need to be taped And WCG Wired down Per BCT's

1129 Bagging on 90809

1137 PPE check

1228 Bagging of and bagging on 90758

1299 PPE Check

1236 Boiler alarming Per Sam notified CSE

1240 CSE notified that Issues are being worked And to watch temp In 50.69

1325 Per CSE 2nd 'igniter on boiler 2 is malfunctioning' Sam Working to get maintanance to work Issue

1421 mode change complete WCRRF IS in warm maintanance crews have arrived on site.

1426 Maintanance personal briefing on boiler repairs

1505 Maintanance Personal Entering the facility to Perform work

1530 reviewed Inside Rounds

1601 Maintanance work on Pilot complete. Boiler is working Fine

1617 Mode change Complete WCRRF In operations

1651 Reviewed outside Rounds

1712 Mode change Complete WCRRF In warm

1.11.13 1630 end of shift securing Position

~~no further~~ entries on this page

1.12.13 WCRR SOS LOG Book

0600 Assuming SOS Position [signature]

0610 Conducted shift brief discussed Cold weather issues

0643 Concluded shift brief

0645 Having Issues with oracle labeling system.

0647 Some working Issue need to be fixed prior to operating

0745 Reviewed Inside And outside Rounds

0750 Unable to process due to oracle being down.

0830 Oracle System has been repaired. Operators Dressing out to enter facility

0833 Mode change Complete WCRRF in operations

0906 Bagging on First drum 90805

0918 PPE Check

1012 PPE Check

1019 Bagging off and bagging on 90812

1048 PPE Check

1147 Bagging off and bagging on 90823

1339 PPE Check shift

1433 Bagging off and bagging on 90819 PPE Check

1606 Bagging off and bagging on 90817

1625 Inside And outside Round's Reviewed

1633 bagging off Final drum of day.

1813 mode Change Complete WCRRF Dry running

1.12.17 1830 end of shift securing Position [signature]

no further entries on this Page

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination	[ ] RTR Replicate Scan [ ] RTR Independent Observation
Site ID:	LANL
Batch Number:	LA-RTR2-13-0040
Examination Date:	3/8/2013
Waste Container ID:	92555
Video/Audio Recorded Media Number:	LA-RTR2-13-0040 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 124.0 kg Tare Wt.: 33.4 kg Net Wt.: 90.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	75 %

CCP Radiography Data Sheet

Waste Container ID: 92555

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	Metal hardware, pipe component lid, scrap metal
AM:	
OM:	
OI:	
C:	Fiberboard, cloth material
R:	Rubber gloves
XPM:	90 mil plastic liner lid, plastic bags
OR:	
IN:	Homogeneous solids
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard Liner (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	19.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	12.4
Rubber (R):	3.0
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	50.2
Soils (S):	
Total WMP Weight:	90.6

CCP Radiography Data Sheet

Waste Container ID: 92555

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments: N/A

RTR Operator:

Michael Simmons		3/8/2013
Print Name	Signature	Date

```
|-----------------------------------------------------------------------|
|                          NDA 2000 Assay Report                        |
|-----------------------------------------------------------------------|

*************************    Item Information    ************************

Item ID:            92555              Count Sequence Number:  22258
Operator:           D3PW2DK1\operator
Assay Start:        3/12/2013   2:50:33 PM
Description 1:      1LANDA1729
Description 2:      N/A
Location:           LANL TA-54
Comment:            AK-6
Matrix Type:        Homo Sol. S3000
Container Type:     55 gallon drum
Weight:             Net:        90.6   kg        Net:    90.6 kg
Container:          Volume:    208.0   l        Full:    75.0 %
Density:                        0.580 kg /l

************************   System Configuration   ***********************

Counter:                        MCS HENC #1
Count Type:                     Item Count
Collimator/Geometry Setting:    All Banks On (GE -  0

Errors quoted at  1.000 sigma
```

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	22258	Batch Number:	1LANDA1729
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92555	Analysis Date:	3/12/2013

Net Weight	90600.0 g		
Pu mass	3.93E+001	+-	6.19E+000 g
TRU Alpha Activity	7.27E+000	+-	2.26E+000 Ci
TRU Activity Concentration	8.03E+004	+-	2.50E+004 nCi/g
Pu-239 Equivalent Activity	7.35E+000	+-	2.26E+000 Ci
Pu-239 FGE	3.65E+001	+-	5.72E+000 g
Decay heat	2.36E-001	+-	7.55E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	7.07E-002	5.05E-005	8.38E-006	2.55E-006
PU238	1.04E-002	1.81E-001	2.85E-002	8.06E-005
PU239	3.63E+001	2.28E+000	3.60E-001	1.02E-003
PU240	2.82E+000	6.49E-001	1.02E-001	2.90E-004
AM241	1.20E+000	4.16E+000	2.23E+000	5.16E-002
PU241	4.53E-002	4.71E+000	7.42E-001	2.10E-003
PU242	5.69E-002	2.26E-004	3.56E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	7.12E-007
U233	<LLD	<LLD	0.00E+000	5.05E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.45E-006
U238	<LLD	<LLD	0.00E+000	2.49E-005

Errors quoted at 1.000 sigma

Operator: [illegible] Date: 3-15-13

ITR: Ann Barton Date: 3/18/13

Automated Independent Technical Review

Count Sequence Number: 22258 Batch Number: 1LANDA1729
Counter ID: MCS HENC #1
Container ID: 92555
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 3/12/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings.	
- Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Curium/Californium Neutron Analysis complete with warnings.	
- The Cm/Cf Mass Variance is negative, Cm/Cf Mass Uncertainty set to zero so analysis could continue.	Ok
- The Pu-240 Eff. Mass Variance is negative, Pu-240 Eff. Mass Uncertainty set to zero so analysis could continue.	Ok
Cosmic Ray Rejection Analysis complete with warnings.	
- The CRR High-Z mass Mass Variance is negative, High-Z mass Uncertainty set to zero so analysis could continue.	Ok
Section 3 - Data Combiner Analysis	
Override enabled; Passive Neutron Pu and Gamma U data specified as input.	Passive Neutron Pu and Gamma U data specified as input.
Pu results taken from Passive Neutron data, U from Quantitative Gamma data.	
Results comparison test passed.	

Comments	Disposition
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. FRAM results applied. FRAM results attached.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 3-13-13

Waste Container ID: **92555**

BDR Number: **LA13FG2026**

Sampling Date: **3/15/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	192.90	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130315c\
Data File : 92555.D
Acq On : 15 Mar 2013 12:33 pm (#1); 15-Mar-13, 12:32:41 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 15 12:41:28 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.539	96	4643525	201.25	ppmv	-0.03
15) Chlorobenzene-d5	5.881	117	3929220	177.00	ppmv	-0.02
Target Compounds						Qvalue
1) Hydrogen	1.614	GC1	1371m	192.90	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Working Copy
Date: W 10-2-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90B10

6.2[4] Date Processed: 10-2-12

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☐ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☐ Liquids ☐ Pressurized Containers ☑ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D008, D007, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] (S) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 7-31-13

4.3[5][B] (S) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] (S) Stationary Fire Watch has been established:
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) N/A
(Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☐ YES ☐ NO ☑ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Edwin Rios, Edwin Rios 18322 10-2-12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90810

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 376.6 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 0 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 376.6 lb

6.2[7] **($)** Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

NA

EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 9080

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	72145			
10.1[4]	Daughter Drum Filter No.	AM-338			
10.1[4]	Daughter Drum Bag Filter No.	C-3517			
10.1[4]	Daughter Drum Purchase Order No.	916265			
10.1[13][C]	WCG Fire Watch Stationed	–	☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	BOB			
	Model No.	66K 1.5-2.5 Sac			
	Serial No.	C-3718			
	Date of Manufacture	8-12			
10.2[5]	POC ID No	2046			
10.2[7][B]/10.2[6]	POC Item Description	Plastic Suits			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	ER 18822			
10.2[14]	POC Assembly Gross Weight (lb)	365.2			
10.2[15]	POC Rad. Survey Results (mrem/hr)	200 mrem/hr.			
10.3[3][A]	Approx. Containerized Liquid Vol./Units	none			
10.3[5][A]	Free Liquid Volume/Units	none			
10.3[7][A]	Opaque/Non-penetrable Item Description:	POC			
10.3[9][A]	PCB-contaminated Waste Description	N/A			
10.3[9][B]	PCB Item ID No.	N/A			
10.3[10]	Remaining Waste Description	See comment			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	30%	85%		
10.5[3]/10.6[2]	Description Waste Added During Processing	See comments			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90810

Comments: Salts, Plastics, Kitty Litter.

11.1[1] Performed By: [illegible] / [illegible] [illegible] 10-2-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jerez / [illegible] 221452 10-3-12 1143
SOS or designee (print) Signature Z # Date Time

Working Copy
Date: 10-2-12 cw

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 414945
Lot No.: 217366
Manufacture Date: 2011

5.[8] Overpack filtered vent information:

Manufacturer: Nucfil
Model No.: R. Rio ~~019-05~~ 013
Serial No.: R. Rio ~~AM-767~~ HC-947
Manufacture Date: 1/12

Overpack filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	020614	021151
Cal. Expiration Date:	10-19-12	06/11/2013
Tolerance:	+/- 4% cw +/- 6% ccw	+/- 3% cw +/- 6% ccw

Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Steven Mondragon / Steven Mondragon 1104711 10-2-12
Waste Handling Technician (print) Signature Z# Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[15] 2 in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: Steven Mondragon / Steven Mondragon 1104711 10-2-12
Waste Handling Technician (print) Signature Z# Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Jerez / Jose Jerez 221452 10-3-12
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 10-2-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: ~~92199~~ 92146

7.[25] Overpack drum closure ring torque wrench information:
- M&TE No.: 040329
- Cal. Expiration Date: 3-15-13
- Range in ft-lb: 16-80
- Tolerance: +-3% / +-6%

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Eddie Rios — Eddie Rios 18822 10-2-12
Waste Handling Technician (print) Signature Z# Date

7.[28] Overpack drum closure ring torque value: 60 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 07/31/13

7.[36][D] 85-gal overpack drum gross weight (lb): 320.6 lb

Comments: N/A

8.1[1] Performed By: Eddie Rios — Eddie Rios 18822 10-2-12
Waste Handling Technician (print) Signature Z# Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Gilbert M. — [signature] 14855 10-2-12
Supervisor or designee (print) Signature Z# Date

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: 92144

1. Drum/Lid Assembly

- [x] Remove and discard ¾" bung from lid
- [x] Remove Lid
- [x] Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  NOTE: Reject damaged drum/lid assembly
- [x] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:

Purchase Request #: 416265
Lot #: 0229225
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

- [x] Place yellow vinyl tape, with arrear centered on tape, over filter
- [x] Fill bag with air from compressed air source
- [x] Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  NOTE: Reject or repair damaged, cut, or leaking bags
- [x] Stretch bag's bungee cord
- [x] Inspect bungee cord
  NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information:

Manufacturer: BOP
Model #: 6CPVC 1.5-2.5 SPVC
Serial #: L-3515F
Date of Manufacture: 06-12

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- [x] Inspect cardboard liner/plastic liner (circle type of liner used)
  NOTE: Reject any damaged liners
- [x] Place cardboard/plastic liner into drum liner bag/filter assembly
- [x] Line up filter with drum seam
- [x] Place liner/bag/filter assembly into drum
- [x] Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- [x] Place lid and ring onto drum
- [x] Tighten ring sufficiently to simply hold lid in place
- [x] Torque 2" bung plug
- [x] Apply sealant to filter threads, screw in ¾" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:

Manufacturer: Nucfil
Model #: 01105
Serial #: A22-758
Date of Manufacture: 01-12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	020614	M&TE ID #:	021151
Cal Expiration Date:	10-15-12	Cal Expiration Date:	06-11-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-40
Tolerance:	±4% CW ±6% CCW	Tolerance:	±5% CW ±6% CCW

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: Don Pacheco Signature: Don Pacheco ZN: 240012

5. Weigh Drum Assembly

RECORD weight information

Tare wtght (lbs) 756
File ID #: 019065

- [x] Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- [ ] Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print: Don Pacheco Operator Sign: Don Pacheco ZN: 240012 Date: 10-02-12
Verifier Print: Eddie Rios Verifier Sign: Eddie Rios ZN: 18822 Date: 10-2-12

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 92144

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

✓ Install ring with bolt positioned downward and directly over drum seam.

✓ Engage bolt and nut and torque per manufactures instructions.

NOTE Seal the ring while tightening using a rubber hammer or dead-blow mallet or a drum lid press.

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 040329

Cal expiration date: 3-15-13

Range/ Value (ft-lbs): 16-80

Tolerance ±-3% cw / ±-5% ccw

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels.

✓ Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label.

✓ Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.

✓ Place one yellow radioactive waste label between the top two rolling hoops

✓ Place one yellow radioactive waste label in the center of the drum lid.

RCRA Label:

Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops.

OR

Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs) 164.6

Scale ID#: 019065

✓ Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area.

✓ Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓ Complete TWSR.

Operator Print/Sign: [illegible] Date 10-2-12

Verifier Print/Sign: [illegible] Date: 10-2-12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90810 Container Type: POC Gross Weight (lbs): 371

Liner Seal #: None Filter Prefix: None Filter Serial #: BL-1370; BL-1681

Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: PARENT #S822938 WTS-12STD-340

Total PE-Ci Activity: 1.28E+00 Equivalent Combustible PE-Ci: 4.81E-01 AM-241 PE-Ci: 1.08E-01

Total Fissile Gram Equivalents: 14.1 Total Surface Dose Rate (mrem/hr): 0

EPA Code(s): D008 D007 D009 WL 9/25/12

NCR RTR/NDA Comment: None

RTR Pre-Screen Date: None Comment: None

Certified RTR Comment: None

Prohibited Items: ■ Sealed > 4 Liters ■ Liquid ■ Pressurized Container ■ Impenetrable Item ■ Other

Security Determination: ☑ Green ☐ Yellow

Remediation Determination: ☐ VE ☐ PID ☐ Split ☑ Repack

Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☑ >100 and <1,000 ☐ >1,000 and <10,000 ☐ >10,000

TRUCON Code: TBP Production Control Comments: Need to add EPA Codes D007 & D009

Nitrate salts mixed with Wasteloc 770 from previous repack campaign. A minimum of 1.2 volumes of Wasteloc 770 must be mixed with 1.0 volume of nitrate salts

Performed By: Susan Ramsey 100681 9/6/12
Production Control (Print) Signature Z Number Date

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☒ No ☐ Unknown

Processing Determination: ☒ Accept ☐ Reject

WDP Engineering Comments: Nitrate Salts – POC

Net Wt. 6,115 lb. Parent drum (SEDs attached) was part of WCRR nitrate salt repack campaign using Wasteloc 770. This resulting daughter POC is being repacked to adjust admixture/nitrate salt ratios. Nitrate salts carry waste codes for chromium (D007), lead (D008) + mercury (D009). No haz chemicals present.

May require RWP for >100 and <1000 mrem/hr.

Performed By: Valerie Rhodes Valerie Rhodes 112609 9/25/12
WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available

Other Specific Safety Concerns:

Processing Determination: ☑ Accept ☐ Reject

TRU Remediation Operations Comments: Need to add Kitty Litter

Performed By: G Martina [illegible] 9/26/12
TRU Remediation Operations (Print) Signature Z Number Date

IHS Review. [illegible] CSP, Contains Chromium, lead, and Hg. 9/26/12

Document No: EP-DIV-AP-0107 JJ-221452-9-26-12

Noncertified TRU Waste Drum Item Information

DrumID: 010340

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	IXFS-504F-1		30.670	NITRATE SALTS		13.79	52	5/11	
2	IXFS-503-F-1		24.310	NIRTRATE SALTS		0.	42	5/11	
3	IXFS-505-F-1		8.860	NITRATE SALTS		76.11	52	5/11	
4	IXFS-506-F-1		11.360	NITRATE SALTS		1.28	52	5/11	
5	IXFS-507-F-1		4.540	NITRATE SALTS		1.83	54	5/11	
6	IXFS-508-F-1		7.050	NITRATE SALTS		9.08	52	5/11	
7	IXFS-509-F-1		20.680	NITRATE SALTS		16.78	52	5/11	
8	IXFS-510-F-1		31.140	NITRATE SALTS		60.85	52	5/11	

Noncertified Waste Drum Material Summary

Gross Wt (kg):

Material Type	SNM (grams)	Items Net Wt (kg)
42	0.	24.31
52	177.89	109.76
54	1.83	4.54
Totals	179.72	138.61

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: 9.21.12

Container No. (5.[1])	90810					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Nathan Wales (CCP (Print)) 238866 (Z #)

Reviewed By: Sara Aragon (CCP (Print)) 237475 (Z #)

Comments: N/A

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: Colleen Martinez (Waste Handling Operator (print)), Colleen Martinez (Signature), 190248 (Z #), 9.24.12 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120921c\
Data File : 90810.D
Acq On : 21 Sep 2012 1:08 pm (#1); 21-Sep-12, 13:07:35 (#2)
Operator : NW
Sample :
Misc : LFL POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 21 13:15:58 2012
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Wed Sep 05 10:53:25 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	ev(Min)
Internal Standards						
3) Fluorobenzene	3.561	96	6903506	201.25	ppm	0.02
15) Chlorobenzene-d5	5.887	117	6124146	177.00	ppm	0.00

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signal summed

PROJECT NAME _____ NOTEBOOK NO. 1

10-2-12

0545 Assuming WCRR operations center. TColeman
0550 Beginning outside rounds.
0615 Pre-job being conducted by 505.
0640 Beginning inside rounds.
0650 Outside rounds complete.
0705 Inside rounds complete.
0706 Rounds reviewed by 505.
0720 Initiating a drum movement from 50-69 to a transportainer.
0721 Mode change complete. We are now in operations.
0732 Movement out of facility complete.
0738 Bagging on 90955.
0754 Bag on complete.
0814 Bagging off 90955, bagging on 90811.
0830 Bag off complete.
0853 Bagging off 90811, bagging on 90859.
0910 Bag on complete.
0936 Being relieved by OCD, Clarissa Velardo-TColeman.
0937 Assuming WCRR Operations Center-Velarde.
0939 Starting movement into 50-69.
0955 Completed movement into 50-69.
0958 Bagging off 90859 and POC, bagging on 90756.
1000 Being relieved by OCD Terri Coleman - Velarde.
1001 Assuming WCRR operations center, TColeman.
1033 Bag on Complete.
1041 Initiating a drum movement from 50-69 to a transportainer.
1105 Drum movement out of facility complete.
1110 Bagging off, bagging on 90843
1130 Bag on complete.
1153 Bagging off 90843 and 1 POC, bagging on 90870.
1216 Bag on complete.
1226 Permission granted to lower the vehicle access gates to begin receipt of drums from Area G.
1309 Bagging off 90870, bagging on 90810.
1326 Bag on complete.
1400 Initiating a drum movement from 50-69 to a transportainer.
1404 Bagging off 90810, bagging on 90875
1405 Late entry at 1320, vehicle access gates restored. Transportainers secured. TC
1406 Drum movement out of the TC 10-2-12 facility complete.
1432 Initiating a drum movement from transportainer to 50-69.
1433 Bag off complete. Starting outside rounds.
1442 Move into facility complete.
1453 Outside rounds complete.
1511 Bagging off 90875 and 1 POC, TC 10-2-12

continued on next page. TColeman

SIGNATURE _____ DATE _____ 20__
READ AND UNDERSTOOD _____ DATE _____ 20__

PROJECT NAME NOTEBOOK NO.

continued from previous page. JColeman
1550 Bag of complete. Begin bag. Inside rounds.
1616 Inside rounds complete.
1622 Rounds reviewed by SOS.
1624 Mode change complete. We are now in warm standby.
1630 End of day. Operations secure - JColeman

JJ 119

No further entries this page.

SIGNATURE DATE
READ AND UNDERSTOOD DATE

0600 ~~Reviewed SOM tued~~ 10/2/12 Assumed SOM position.

0615 Attended pre job brief conducted by SOS. Discussed yesterday's processing of SP-72 salt drums. Workers added 1.5/1 ratio of Kitty litter to waste and saw no significant decrease in dose rate => repacked into new POC's. Workers briefed to exit/entry requirements to WCRR yard.

0721 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm / Warm to Operations / Operations.

0730 (Late Entry 0635) Per LANL IH and ES IH VOC monitoring of transportainer no longer required. Cancelled Standing Order WCRR-2012-0012 and briefed all personnel.

0735 Notified by Work Control that Characterization (Gamma Spec) to be emergent for tomorrow.

0736 Informed by Inventory Control that no outgoing shipment will take place today.

0738 RP-1 supervisor reported that yesterday's contamination on drum slide had decayed away overnight - verifying radon contamination.

1030 WO # 427964-01 Standing / Expedited WO released to Cut holes in walls in Bldg 50-84 to investigate Rodent infestation.

1200 On Solution Package conference call w/ prod. control / engineering / LIP management. Discussed increase in production w/ SP 72 drums and need to keep shipments on schedule. Require SEDS/CFL's to be increased.

1255 Notified by MSS supervisor that no evidence of rodents in walls or ceiling of 50-~~84~~ 10/2/12 - 84. Walkdown to scope new furnace install will ~~occur~~ occur tomorrow.

1545 Notified by OM that WCRR needs to be in a standdown tomorrow morning until Con Ops Brief is given on Procedure Compliance. Notified OCO's and SOS and RP-1 supervisor.

1624 Completed Mode Change: WCRR yard / Bldg 50-69 from Operations / Operations to Warm / Warm.

1630 Secured SOM position.

LS 10-4-12

No further entries this page

SIGNATURE DATE 10/2 20 12
READ AND UNDERSTOOD DATE 20

10-2-12 WCRR 505 Log Book

0600 Assuming 505 position for the day. [illegible]
0615 Starting Pre-Job brief. Discussed Barriers and Postings. Ensure that all entries and exit into the WCRRF yard are performed through the operations center. Continuing to process nitrate salt waste drums. One shipment in bound
0640 Concluded Pre-Job Brief.
0706 Signed off on inside and outside rounds.
0721 Mode Change Complete 50-69 and yard are now in Ops Mode.
0738 Starting to bag on first drum for the day
0750 Bag on Complete.
0814 Bagging off first drum and bagging on second drum.
0830 Bag off and Bag on complete.
0853 Bagging off second drum, Bagging on third drum
0910 Bag on Complete
1000 Bagging off third drum, Bagging on fourth drum.
1033 Bag on Complete
1041 Initiating Drum movement from 50-69 to Transportainer
1105 Drum movement complete out of facility
1110 Bagging off fourth drum, Bagging on fifth drum
1130 Bag on Complete
1153 Bagging off fifth drum, Baggin on sixth drum
1216 Bag on Complete
1226 Initiating drum movement from Transport vehicle to Transportainers
1309 Bagging off sixth drum, Bagging on seventh
1326 Bag on Complete
1400 Drum movement from 50-69 to Transport Vehicle
1404 Bagging off seventh drum, Bagging on eight
1406 Drum movement out of 50-69 Complete.
1550 Bag off of last drum complete
1622 Signed off on rounds
1624 MODE Change Complete. WARM in 50-69 and yard
1630 Securing 505 position for the day. [illegible]

No Further Entries on this Page

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0010
Examination Date:	1/23/2013
Waste Container ID:	92144
Video/Audio Recorded Media Number:	LA-RTR2-13-0010 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 74.5 kg Tare Wt.: 33.4 kg Net Wt.: 41.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	90 %

CCP Radiography Data Sheet

Waste Container ID: 92144

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	Metal lid, hardware
AM:	
OM:	Scrap lead
OI:	
C:	Fiberboard liner sleeve, fiberboard
R:	
XPM:	Plastic drum lid, plastic bags
OR:	
IN:	Homogeneous solids
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP):Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	22.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	2.1
Other Inorganic Materials (OI)	
Cellulosics (C):	10.0
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	3.0
Soils (S):	
Total WMP Weight:	41.1

CCP Radiography Data Sheet

Waste Container ID: 92144

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments:N/A

RTR Operator:

Thad Hasselstrom	Thad Hasselstrom	1/23/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92144	Count Sequence Number:	14916
Operator:	DCLTD231\Operator		
Assay Start:	1/28/2013 12:04:43 PM		
Description 1:	2LANDA1086		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Debris S5000		
Container Type:	55 gal Drum		
Weight:	Net: 41.1 kg	Net:	41.1 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.220 kg /l		

System Configuration

Counter:	HENC #2
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks on GEO - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 14916
Assay Instrument: HENC #2
Analysis Method: CCP-TP-063 v 14
Item ID: 92144

Batch Number: 2LANDA1086
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 1/28/2013

Net Weight	41100.0 g		
Pu mass	8.00E-001	+-	2.00E-001 g
TRU Alpha Activity	2.48E-001	+-	4.75E-002 Ci
TRU Activity Concentration	6.02E+003	+-	1.16E+003 nCi/g
Pu-239 Equivalent Activity	2.50E-001	+-	4.75E-002 Ci
Pu-239 FGE	7.47E-001	+-	1.86E-001 g
Decay heat	8.13E-003	+-	1.58E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.20E-003	1.57E-006	1.84E-007	2.76E-007
PU238	2.92E-004	5.06E-003	1.27E-003	2.97E-003
PU239	7.42E-001	4.66E-002	1.17E-002	2.74E-002
PU240	5.48E-002	1.26E-002	3.15E-003	7.40E-003
AM241	5.28E-002	1.83E-001	4.59E-002	1.08E-001
PU241	1.25E-003	1.30E-001	3.26E-002	7.65E-002
PU242	1.72E-003	6.83E-006	1.71E-006	0.00E+000
SR90	1.08E-009	1.50E-007	4.89E-008	0.00E+000
CS137	1.71E-009	1.50E-007	4.89E-008	4.08E-008
U233	<LLD	<LLD	0.00E+000	5.91E-004
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.65E-007
U238	<LLD	<LLD	0.00E+000	3.69E-006

Errors quoted at 1.000 sigma

Operator: Sam Barton Date: 1/31/13

ITR: [illegible] Date: 2-1-13

Automated Independent Technical Review

Count Sequence Number: 14916
Batch Number: 2LANDA1086
Counter ID: HENC #2
Container ID: 92144
Waste Matrix Code: Debris S5000
Count Type:
Sequence Type:
Assay Date: 1/28/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor is less than one.	Ok
Add-a-Source correction factor was set to one.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
No Warnings Reported.	
Section 3 - Data Combiner Analysis	
Override enabled; Passive Neutron Pu and Gamma U data specified as input.	Passive Neutron Pu and Gamma U data specified as input.
Pu results taken from Passive Neutron data, U from Quantitative Gamma data.	
Results comparison test passed.	
Section 4 - MGA Analysis	Ok
Section 5 - Gamma Analysis	
Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sherri Chambers Date: 1-30-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **92144**

BDR Number: **LA13FG2008**

Sampling Date: **2/1/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	90.37	U
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130201c\
Data File : 92144.D
Acq On : 1 Feb 2013 1:06 pm (#1); 01-Feb-13, 13:05:24 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 01 13:29:43 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.584	96	4885789	201.25 ppmv	0.02
15) Chlorobenzene-d5	5.914	117	4429024	177.00 ppmv	0.01

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

CCP Radiography Data Sheet

Section 1 General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0003
Examination Date:	1/9/2013
Waste Container ID:	92145
Video/Audio Recorded Media Number:	LA-RTR2-13-0003 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	~~[X]~~ No [X] Yes ms 1.30.13 ms 1.30.13 ms 1.30.13 ms 1.30.13 NCR No.: ~~N/A~~ NCR-LANL-0188-13 NCR No.: N/A

Section 2 Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA212
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 174.5 kg Tare Wt.: 145.1 kg Net Wt.: 29.4 kg
Rigid Liner and Liner Vent Description:	Liner: [ ] No [X] Yes Lid: [ ] No [X] Yes Type: [ ] 30-mil [X] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [X] Yes [ ] N/A Punctured: [ ] No [X] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [X] No [ ] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 92145

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal

AM:

OM:

OI:

C:

R:

XPM:

OR: ~~Vermiculite~~ ms 1.30.13

IN: Vermiculite ms 1.30.13

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	109.0
Plastics (PP): Rigid Liner w/ Lid; Plastic Liner Bag (Inside POC)	8.1
Other: Fiberboard (CP); Fiberboard Liner Sleeve (Inside POC)	28.0
Total Packaging Weight	145.1
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	1.5
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	~~27.9~~ ms 1.30.13
Inorganic Matrix (IN):	27.9 ms 1.30.13
Soils (S):	
Total WMP Weight:	29.4

CCP Radiography Data Sheet

Waste Container ID: 92145

Section 5 RTR Summary	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments: Standard Pipe Overpack Container (P.O.C.); There is separation between the liner and liner lid, therefore, the liner is vented. NCR-LANL-0188-13

ms 1.30.13

RTR Operator:

Michael Simmons		1/9/2013
Print Name	Signature	Date 1.30.13

NDA 2000 Assay Report

Item Information

Item ID: 92145 Count Sequence Number: 21827
Operator: D3PW2DK1\operator
Assay Start: 1/11/2013 11:25:24 AM
Description 1: 1LANDA1696
Description 2: POC - Gross Wt. = 174.5
Location: LANL TA-54
Comment: AK-6
Matrix Type: Homo Sol. S3000
Container Type: 55 gallon drum
Weight: Net: 29.4 kg Net: 29.4 kg
Container: Volume: 208.0 l Full: 95.0 %
Density: 0.743 kg /l

System Configuration

Counter: MCS HENC #1
Count Type: Item Count
Collimator/Geometry Setting: All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 21827
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 14
Item ID: 92145

Batch Number: 1LANDA1696
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 1/11/2013

Net Weight	29400.0 g	
Pu mass	5.53E+001 +-	9.85E+000 g
TRU Alpha Activity	7.37E+000 +-	1.87E+000 Ci
TRU Activity Concentration	2.51E+005 +-	6.35E+004 nCi/g
Pu-239 Equivalent Activity	7.49E+000 +-	1.87E+000 Ci
Pu-239 FGE	5.22E+001 +-	9.24E+000 g
Decay heat	2.37E-001 +-	6.19E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	3.91E-002	2.79E-005	5.40E-006	2.29E-006
PU238	5.09E-003	8.81E-002	1.57E-002	3.64E-005
PU239	5.19E+001	3.27E+000	5.81E-001	1.35E-003
PU240	3.35E+000	7.70E-001	1.37E-001	3.18E-004
AM241	9.34E-001	3.24E+000	1.77E+000	4.37E-002
PU241	6.61E-002	6.87E+000	1.22E+000	2.84E-003
PU242	1.11E-002	4.40E-005	7.83E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	5.96E-007
U233	<LLD	<LLD	0.00E+000	4.56E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.28E-006
U238	<LLD	<LLD	0.00E+000	2.35E-005

Errors quoted at 1.000 sigma

Operator: [signature] Date: 1-21-13

ITR: [signature] Date: 1/21/13

Automated Independent Technical Review

Count Sequence Number: 21827 Batch Number: 1LANDA1696
Counter ID: MCS HENC #1
Container ID: 92145
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/11/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,54,42
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Clamb Date: 1-15-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **92145**

BDR Number: **LA13FG2033**

Sampling Date: **4/3/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	1238.71	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130403c\
Data File : 92145.D
Acq On : 3 Apr 2013 1:49 pm (#1); 03-Apr-13, 13:49:03 (#2)
Operator : GR
Sample :
Misc : POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 03 13:57:43 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.532	96	3565145	201.25	ppmv	-0.04
15) Chlorobenzene-d5	5.868	117	3058841	177.00	ppmv	-0.03
Target Compounds						Qvalue
1) Hydrogen	1.611	GC1	8804	1238.71	ppmv	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Working Copy
Date: 10-2-12 JL

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90811

6.2[4] Date Processed: 10-2-12

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☐ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☐ Liquids ☐ Pressurized Containers ☑ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D008, D007, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 7-13-13

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] ($) Stationary Fire Watch has been established:
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) N/A
(Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
BC 10-3-12 ☐ YES ☑ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Brandon Chavez / [signature] 124792 / 10-2-12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.: 90811	
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	3654 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	0 lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	3654 lb
6.2[7]	(S) Total Parent Drum Weight < 624 lb (SR 4.5.1):	☑ SAT ☐ UNSAT
6.2[28]	Approval to leave a parent drum attached to the WCG overnight:	

EWMO-FOD (print)	Signature	Z #	Date
	NA		

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90811

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92131			
10.1[4]	Daughter Drum Filter No.	AM-900		N	
10.1[4]	Daughter Drum Bag Filter No.	LL-5		A	
10.1[4]	Daughter Drum Purchase Order No.	416265			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)		N		
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units		A		
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	see comments			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	90%			
10.5[3]/10.6[2]	Description Waste Added During Processing	plastic white bags			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90811

Comments: Salts, wire, plastic, cardboard liner

11.1[1] Performed By: Brandon Weaver / [signature] 124142 / 10-2-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jerez / [signature] 1221452 / 10:3-12 1144
SOS or designee (print) Signature Z # Date/Time

UET
Working Copy
Date: 9-26-12

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 414945
Lot No.: 217366
Manufacture Date: 11

5.[8] Overpack filtered vent information:

Manufacturer: Nucfil
Model No.: 013
Serial No.: HL-945
Manufacture Date: 8-11

Overpack filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	020614	021151
Cal. Expiration Date:	10-19-12	6-11-13
Tolerance:	±4% cw ±4% ccw	±3% cw ±6% ccw

Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Michael Romero / Michael Romero / [redacted] 9-26-12
Waste Handling Technician (print) Signature Z# Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]. 120 in-lb

5.[15] 2 in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: Michael Romero / Michael Romero / [redacted] 9-26-12
Waste Handling Technician (print) Signature Z# Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Joe Jerez / Joe Jerez / 221452 / 10-3-12
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 10-2-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92132

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 040329
Cal. Expiration Date: 03-15-2013
Range in ft-lb: 16-80
Tolerance: ±3% CW & ±6% CCW

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Brandon Chavez / [signature] [redacted] 10-2-12
Waste Handling Technician (print) Signature Z# Date

7.[28] Overpack drum closure ring torque value: 60 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 7-13-13

7.[36][D] 85-gal overpack drum gross weight (lb): 336.0 lb

Comments: N/C

8.1[1] Performed By: Brandon Chavez / [signature] [redacted] 10-2-12
Waste Handling Technician (print) Signature Z# Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: Jose Jerez / [signature] 1221452 10-3-12
Supervisor or designee (print) Signature Z# Date

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: 92131

1. Drum/Lid Assembly

- [x] Remove and discard ¾" bung from lid
- [x] Remove Lid
- [x] Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  NOTE: Reject damaged drum/lid assembly
- [x] Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:
Purchase Request #: 416265
Lot #: 0229225
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

- [x] Place yellow vinyl tape, with smear centered on tape, over filter
- [x] Fill bag with air from compressed air source
- [x] Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  NOTE: Reject or repair damaged, cut, or leaking bags
- [x] Stretch bag's bungee cord
- [x] Inspect bungee cord
  NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information:
Manufacturer: BOP
Model #: 6LPVC 1.5-2.5 SPVC
Serial #: LL-8
Date of Manufacture: 12/11

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- [x] Inspect cardboard liner/plastic liner (circle type of liner used)
  NOTE: Reject any damaged liners
- [x] Place cardboard/plastic liner into drum liner bag/filter assembly
- [x] Line up filter with drum seam
- [x] Place liner/bag/filter assembly into drum
- [x] Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- [x] Place lid and ring onto drum
- [x] Tighten ring sufficiently to simply hold lid in place
- [x] Torque 2" bung plug
- [x] Apply sealant to filter threads, screw in ¾" bung hole, and torque
- [x] Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:
Manufacturer: NUCFIL
Model #: 01925
Serial #: AM900
Date of Manufacture: 12/11

RECORD torque wrench information:

Filter torque wrench:
M&TE ID #: 020614
Cal Expiration Date: 10-19-12
Range (ft-lbs or in-lbs): 40-200
Tolerance: + 7% cw
+ 6% ccw

Jam Nut / Bung torque wrench:
M&TE ID #: 021151
Cal Expiration Date: 6/11/2012
Range (ft-lbs or in-lbs): 16-80
Tolerance: +/- 3% cw
+/- 6% ccw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: [illegible] Signature [signature] Z#: 187822

5. Weigh Drum Assembly

RECORD weight information
Tare wight (lbs) 76.6
File ID #: 010065

- [x] Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- [x] Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- [x] Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print: [illegible] Operator Sign: [signature] Z#: 187822 Date: 9-26-12
Verifier Print: Brandon Chavez Verifier Sign: [signature] Z#: 204772 Date: 10-2-12

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 92131

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

✓ Install ring with bolt positioned downward and directly over drum seam.

✓ Engage bolt and nut and torque per manufactures instructions

NOTE: Seal the ring while tightening using a rubber hammer or dead-blow mallet or a drum lid press.

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 046329

Cal expiration date: 03-15-2013

Range/ Value (ft-lbs): 16-80

Tolerance ±3% CW & ±6% CCW

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels.

✓ Place two barcode drum ID labels ~5" from the bottom of the drum ~120° from previously placed ID label.

✓ Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.

✓ Place one yellow radioactive waste label between the top two rolling hoops

✓ Place one yellow radioactive waste label in the center of the drum lid.

RCRA Label:

☐ Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops.

OR

✓ Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs): 234.6

Scale ID#: 019065

✓ Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area.

✓ Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓ Complete TWSR.

Operator Print/Sign: [illegible] Date: 10-2-12

Verifier Print/Sign: [illegible] Date: 10/2/12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90811 Container Type: POC Gross Weight (lbs): 361
Inner Seal #: None Filter Prefix: None Filter Serial #: BL-1363-BL-1367
Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: PARENT #SB22838 WTS-12STD-314
Total PE-Ci Activity: 1.28E+00 Equivalent Combustible PE-Ci: 4.81E-01 AM-241 PE-Ci: 1.06E-01
Total Fissile Gram Equivalents: 14.1 Total Surface Dose Rate (mrem/hr): 0
EPA Code(s): D008 D007 D009 VR 9/25/12
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: None Comment: None
Certified RTR Comment: None
Prohibited Items: Sealed > 4 Liters Liquid Pressurized Container Impenetrable Item Other
Security Determination: Green Yellow
Remediation Determination: VE PID Split Repack
Estimated 30-cm Dose Rate (mrem/hr): <100 >100 and <1,000 >1,000 and <10,000 >10,000
TRUCON Code: TBD Production Control Comments: Need to add EPA Codes D007 & D009.
Nitrate salts mixed with Wastelok 770 from previous repack campaign. A minimum of 1.2 volumes of kitty litter/sorbent must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey (Production Control (Print)) Signature: Tom P. Ramsey Z Number: 100681 Date: 9/6/12

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): Yes No Unknown
Processing Determination: Accept Reject
WDP Engineering Comments: Nitrate Salts, POC
Net Wt: 511b Parent drum (SEDs attached) was part of WCRR nitrate salt repack campaign using Wastelok 770. This resulting daughter POC is being repacked to adjust admixture/nitrate salt ratio. Nitrate salt wastes carry waste codes for chromium (D007), lead (D008), + mercury (D009). No hazardous chemicals present.
May require RWP for >100 and <1000 mrem/hr.

Performed By: Valerie Rhodes (WDP Engineering (Print)) Signature: Valerie Rhodes Z Number: 112609 Date: 9/25/12

TRU Remediation Operations

☒ Waste Container Information Evaluated ☐ Less Than 170 lbs RTR Video Available
Other Specific Safety Concerns:

Processing Determination: Accept Reject
TRU Remediation Operations Comments: Need to add Mix In Kitty Litter

Performed By: Gilbert Mk (TRU Remediation Operations (Print)) Signature: Gilbert Mk Z Number: 148235 Date: 9-26-12

145 Review. Gel/Absorbent ESP. Contains lead, Chromium + Hg.
9/26/12.

Document No: EP-DIV-AP-0107 JJ - 221452 - 9-26-12 WCRRF Page 1 of 1
Monday, August 27, 2012

Noncertified TRU Waste Drum Item Information

DrumID: 010340

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	IXFS-504F-1		30.670	NITRATE SALTS		13.79	52	5/11	
2	IXFS-503-F-1		24.310	NITRATE SALTS		0.	42	5/11	
3	IXFS-505-F-1		8.860	NITRATE SALTS		76.11	52	5/11	
4	IXFS-506-F-1		11.360	NITRATE SALTS		1.28	52	5/11	
5	IXFS-507-F-1		4.540	NITRATE SALTS		1.83	54	5/11	
6	IXFS-508-F-1		7.050	NITRATE SALTS		9.08	52	5/11	
7	IXFS-509-F-1		20.680	NITRATE SALTS		16.78	52	5/11	
8	IXFS-510-F-1		31.140	NITRATE SALTS		60.85	52	5/11	

Noncertified Waste Drum Material Summary

Gross Wt (Kg):

Material Type	SNM (grams)	Items Net Wt (kg)
42	0.	24.31
52	177.89	109.76
54	1.83	4.54
Totals	179.72	138.61

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: 9.21.12

Container No. (5.[1])	90811					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	19DS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	1326.8 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Nathan Wales (CCP (Print)) 238866 (Z #)

Reviewed By: Sara Aragon (CCP (Print)) 237975 (Z #)

Comments: N/A

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By Colleen Martinez (Waste Handling Operator (print)) Colleen Martinez (Signature) 190298 (Z #) 9.24.12 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120921c\
Data File : 90811.D
Acq On : 21 Sep 2012 1:19 pm (#1); 21-Sep-12, 13:19:06 (#2)
Operator : NW
Sample :
Misc : LFL POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 21 13:28:41 2012
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Wed Sep 05 10:53:25 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.558	96	6843749	201.25 ppmv	0.02
15) Chlorobenzene-d5	5.888	117	6051038	177.00 ppmv	0.01
Target Compounds					Qvalue
1) Hydrogen	1.543	GC1	9380m	1326.81 ppmv	

(#) = qualifier out of range (m) = manual integration (+) = sig 1 summed

PROJECT NAME _____ NOTEBOOK NO. _____

10-2-12

0515 Assuming WCRR operations center. - JColeman
0550 Beginning outside rounds.
0615 PO job being conducted by 505.
0640 Beginning inside rounds.
0650 Outside rounds complete.
0705 Inside rounds complete.
0706 Rounds reviewed by 506.
0720 Initiating a drum movement from 50-69 to a transportainer.
0721 Mode change complete. We are now in operations.
0732 Movement out of facility complete.
0738 Bagging on 90955.
0754 Bag on complete.
0814 Bagging off 90955, bagging on 90811.
0830 Bag off complete.
0853 Bagging off 90811, bagging on 90859.
0910 Bag on complete.
0936 Being relieved by OCO, Clarissa Velarde - JColeman.
0937 Assuming WCRRF operations center - Cvelarde.
0939 Starting movement into 50-69.
0955 Completed movement into 50-69.
0958 Bagging off 90859 and POC, bagging on 90756.
1000 Being relieved by OCO Terri Coleman - CVelarde.
1001 Assuming WCRR operations center. - JColeman.
1033 Bag on Complete.
1041 Initiating a drum movement from 50-69 to a transportainer.
1105 Drum movement out of facility complete.
1110 Bagging off, bagging on 90843
1130 Bag on complete.
1153 Bagging off 90843 and 1 POC, bagging on 90870.
1216 Bag on complete.
1226 Permission granted to lower the vehicle access gates to begin receipt of drums from Area 6.
1309 Bagging off 90870, bagging on 90810.
1326 Bag on complete.
1400 Initiating a drum movement from 50-69 to a transportainer.
1404 Bagging off 90810, bagging on 90875
1405 Late entry at 1320, vehicle access gates restored. Transportainers secured. JC
1406 Drum movement out of ~~the~~ JC 10-2-12 facility complete.
1432 Initiating a drum movement from transportainer to 50-69.
1433 Bag off complete. Starting outside rounds.
1442 Move into facility complete.
1453 Outside rounds complete.
1511 Bagging off 90875 and 1 POC. JC 10-2-12

continued on next page. JColeman

SIGNATURE _____ DATE _____ 20 _____
READ AND UNDERSTOOD _____ DATE _____ 20 _____

PROJECT NAME NOTEBOOK NO.

continued from previous page. JColeman

1550 Bag off complete. Beginning Inside rounds.

1616 Inside rounds complete.

1622 Rounds reviewed by SOS.

1624 Mode change complete. We are now in warm standby.

1630 End of day. Operations secure - JColeman

No further entries this page.

SIGNATURE _____ DATE _____

READ AND UNDERSTOOD _____ DATE _____ 20

PROJECT NAME 10/2/12 NOTEBOOK NO.

0600 ~~Reviewed SOM Tued~~ 10/2/12 Assumed SOM position.

0615 Attended prejob brief conducted by SOS. Discussed yesterday's processing of SP-72 salt drums. Workers added 1.5/1 ratio of Kitty litter to waste and saw no significant decrease in dose rate => repacked into new POC's. Workers briefed to exit/entry requirements to WCRR yard.

0721 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm / Warm to Operations / Operations.

0730 (Late Entry 0635) Per LANL IH and ES IH VOC monitoring of transportainer no longer required. Cancelled Standing Order WCRR-2012-0012 and briefed all personnel.

0735 Notified by Work Control that Characterization (Gamma Spec) to be emerged for tomorrow.

0734 Informed by Inventory Control that no outgoing shipment will take place today.

0738 RP-1 supervisor reported that yesterday's contamination on drum slide had decayed away overnight - verifying radon contamination.

1030 WO # 427964-01 Standing / Expedited WO released to Cut holes in walls in Bldg 50-84 to investigate Rodent infestation.

1200 On Solution Package conference call w/ prod. control / engineering / LTP management. Discussed increase in production w/ SP 72 drums and need to keep shipments on schedule. Require SEDS/CFL's to be increased.

1255 Notified by MSS supervisor that no evidence of rodents in walls or ceiling of 50-84 10/2/12 - 84. Walkdown to scope new furnace install will ~~occur~~ occur 10/2/12 tomorrow.

1545 Notified by OM that WCRR needs to be in a stand down tomorrow morning until Con Ops Brief is given on Procedure Compliance. Notified OCO's and SOS and RP-1 supervisor.

1624 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Warm.

1630 Secured SOM position.

10-4-12

No further entries this page

SIGNATURE DATE 10/2 20 12

READ AND UNDERSTOOD DATE 20

10-2-12 WCRR SOS Log Book

0600 Assuming SOS position for the day. [illegible]

0615 Starting Pre-Job brief. Discussed Barriers and Postings. Ensure that all entries and exit into the WCRRF yard are performed through the operations center. Continuing to process nitrate salt waste drums. One shipment in bound

0640 Concluded Pre-Job Brief.

0706 Signed off on inside and outside rounds.

0721 Mode Change Complete 50-69 and yard are now in Ops Mode.

0738 Starting to bag on first drum for the day

0750 Bag on Complete.

0814 Bagging off first drum and bagging on second drum.

0830 Bag off and Bag on complete.

0853 Bagging off second drum, Bagging on third drum

0910 Bag on Complete

1000 Bagging off third drum, Bagging on fourth drum.

1033 Bag on Complete

1041 Initiating Drum movement from 50-69 to Transportainer

1105 Drum movement complete out of facility

1110 Bagging off fourth drum, Bagging on fifth drum

1130 Bag on Complete

1153 Bagging off ~~on~~ fifth drum, Baggin on sixth drum
10-2-12

1216 Bag on Complete

1226 Initiating drum movement from Transport vehicle to Transportainers

1309 Bagging off sixth drum, Bagging on seventh

1326 Bag on Complete

1400 Drum movement from 50-69 to Transport Vehicle

1404 Bagging off seventh drum, Bagging on eight

1406 Drum movement out of 50-69 Complete.

1350 Bag off of last drum complete

1622 Signed off on rounds

1624 MODE Change Complete. WARM in 50-69 and yard

1630 Securing SOS position for the day. [illegible]

No Further Entries on this Page

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0064
Examination Date:	4/29/2013
Waste Container ID:	92131
Video/Audio Recorded Media Number:	LA-RTR2-13-0064 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 12
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 102.0 kg Tare Wt.: 33.4 kg Net Wt.: 68.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	80 %

CCP Radiography Data Sheet

Waste Container ID: 92131

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	Metal lid, hardware, scrap metal
AM:	
OM:	Scrap lead
OI:	
C:	Fiberboard insert sleeve
R:	
XPM:	Liner lid, plastic bags
OR:	
IN:	Homogeneous solids
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	20.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	1.0
Other Inorganic Materials (OI)	
Cellulosics (C):	8.0
Rubber (R):	
Plastics (waste materials) (XPM):	8.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	31.6
Soils (S):	
Total WMP Weight:	68.6

CCP Radiography Data Sheet

Waste Container ID: 92131

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: N/A	

RTR Operator:

Benito Maestas		4/29/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92131	Count Sequence Number:	22672
Operator:	D3PW2DK1\operator		
Assay Start:	5/1/2013 9:37:10 AM		
Description 1:	1LANDA1762		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Debris S5000		
Container Type:	55 gallon drum		
Weight:	Net: 68.6 kg	Net:	68.6 kg
Container:	Volume: 208.0 l	Full:	80.0 %
Density:	0.410 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 22672
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 14
Item ID: 92131

Batch Number: 1LANDA1762
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 5/1/2013

Net Weight	68600.0 g		
Pu mass	1.61E+001	+-	3.26E+000 g
TRU Alpha Activity	5.77E+000	+-	8.74E-001 Ci
TRU Activity Concentration	8.41E+004	+-	1.27E+004 nCi/g
Pu-239 Equivalent Activity	5.86E+000	+-	8.74E-001 Ci
Pu-239 FGE	1.49E+001	+-	2.98E+000 g
Decay heat	1.90E-001	+-	2.91E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	3.19E-002	2.28E-005	3.14E-006	1.49E-006
PU238	2.12E-002	3.67E-001	7.43E-002	3.63E-004
PU239	1.47E+001	9.26E-001	1.87E-001	9.16E-004
PU240	1.24E+000	2.86E-001	5.79E-002	2.83E-004
AM241	1.21E+000	4.19E+000	8.49E-001	4.15E-003
PU241	6.05E-002	6.29E+000	1.27E+000	6.23E-003
PU242	5.60E-002	2.22E-004	4.50E-005	0.00E+000
SR90	6.35E-009	8.76E-007	4.17E-007	0.00E+000
CS137	9.99E-009	8.76E-007	4.17E-007	4.31E-007
U233	<LLD	<LLD	0.00E+000	2.98E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	8.42E-007
U238	<LLD	<LLD	0.00E+000	1.73E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 5-6-13

ITR: _____ Date: 5-7-13

Automated Independent Technical Review

Count Sequence Number: 22672 Batch Number: 1LANDA1762
Counter ID: MCS HENC #1
Container ID: 92131
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 5/1/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Expert review is recommended; the following validity tests failed: Pu239 weight percent is outside limits [92.5, 95.0].	MGA valid. Pu239 percent consistent with AK. Mix of MT-52,54,42.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 5-2-13

Waste Container ID: **92131**

BDR Number: **LA13FG2052**

Sampling Date: **5/9/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	90.37	U
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130509c\
Data File : 92131.D
Acq On : 9 May 2013 2:19 pm (#1); 09-May-13, 14:18:23 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 09 14:27:25 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.552	96	3701668	201.25 ppmv	-0.02
15) Chlorobenzene-d5	5.887	117	3171164	177.00 ppmv	-0.01

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Working Copy
Date: 1-12-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90812

6.2[4] Date Processed: 1-12-13

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☐ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☐ Liquids ☐ Pressurized Containers ☑ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 7-31-13

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] ($) Stationary Fire Watch has been established:
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) N/A
(Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☐ YES ☑ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: BRIAN GALLEGOS / [signature] Z07129 1-12-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.: 90812	
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	3870 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	0 lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	3870 lb
6.2[7]	**($)** Total Parent Drum Weight < 624 lb (SR 4.5.1):	☑ SAT ☐ UNSAT
6.2[28]	Approval to leave a parent drum attached to the WCG overnight:	

EWMO-FOD (print)	Signature	Z #	Date
		/	/

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90812

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92561			
10.1[4]	Daughter Drum Filter No.	AM-788		N/A	
10.1[4]	Daughter Drum Bag Filter No.	L--3754			
10.1[4]	Daughter Drum Purchase Order No.	416184			
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☐ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☐ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)		N/A		
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units				
10.3[7][A]	Opaque/Non-penetrable Item Description:				
10.3[9][A]	PCB-contaminated Waste Description				
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	BAG OUT STUBS			
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	100%		N/A	
10.5[3]/10.6[2]	Description Waste Added During Processing	SEE COMMENTS			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 96812

Comments: CARDBOARD, PLASTIC, PVC LIDS, SALTS, KITTY LITTER

11.1[1] Performed By: BRIAN GALLEGOS / [signature] 126/129 1-12-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: [signature] / [signature] 1M4235 1-13-13 0900
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 1-9-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 413724
Lot No.: 210114
Manufacture Date: 10

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: IL-90
Manufacture Date: 9/11

Overpack filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	040694	0383607
Cal. Expiration Date:	9-26-13	3-16-13
Tolerance:	40-200	10-80

Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Gerald Espinoza / [signature] 123770 1-9-13
Waste Handling Technician (print) Signature Z # Date

5.[12] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[15] 2 in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: Gerald Espinoza / [signature] 123770 1-9-13
Waste Handling Technician (print) Signature Z # Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: [signature] / [signature] 149235 1-13-13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 925662

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 021151
Cal. Expiration Date: 6-11-2013
Range in ft-lb: 16-80
Tolerance: ±3%CW ±6%CCW

7.[26] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: BRIAN GUILLEGOS / [signature] 267129 1-12-13
Waste Handling Technician (print) Signature Z# Date

7.[28] Overpack drum closure ring torque value: 30 ft-lb

7.[31] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[36][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 7-31-13

7.[36][D] 85-gal overpack drum gross weight (lb): 320.2 lb

Comments: N/C

8.1[1] Performed By: BRIAN GUILLEGOS / [signature] 267129 1-12-13
Waste Handling Technician (print) Signature Z# Date

8.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).
☑ No deficiencies

8.1[7] Reviewed By: G Mk / [signature] 146735 1.13.13
Supervisor or designee (print) Signature Z# Date

Attachment 1. Checklist for the preparation of a new 55-Gallon Drum Assembly

Drum ID#: 925561

1. Drum/Lid Assembly

- ☑ Remove and discard ¾" bung from lid
- ☑ Remove Lid
- ☑ Inspect drum, lid, and gasket, ring bolt and nut, chines, and paint
  - NOTE: Reject damaged drum/lid assembly
- ☑ Place 2" duct tape on vertical seam on interior of drum

RECORD drum information:

Purchase Request #: 416184
Lot #: 0229224
Date of Manufacture: 2012

2. Drum Liner Bag/Filter Assembly:

- ☑ Place yellow vinyl tape, with smear centered on tape, over filter
- ☑ Fill bag with air from compressed air source
- ☑ Inspect bag for damage, cuts, or leaks by looking, listening, and feeling
  - NOTE: Reject or repair damaged, cut, or leaking bags
- ☑ Stretch bag's bungee cord
- ☑ Inspect bungee cord
  - NOTE: Reject bag if bungee cord is broken or damaged

RECORD bag filter information:

Manufacturer: BOP
Model #: 6CPV1.5-2SPVC
Serial #: 1-3734
Date of Manufacture: 6-12

3. Cardboard Liner/Plastic Liner Drum Liner Bag/Filter Assembly:

- ☑ Inspect cardboard liner/plastic liner (circle type of liner used)
  - NOTE: Reject any damaged liners
- ☑ Place cardboard/plastic liner into drum liner bag/filter assembly
- ☑ Line up filter with drum seam
- ☑ Place liner/bag/filter assembly into drum
- ☑ Roll excess liner bag into cardboard liner/plastic liner

4. Install Lid/Drum Filter

- ☑ Place lid and ring onto drum
- ☑ Tighten ring sufficiently to simply hold lid in place
- ☑ Torque 2" bung plug
- ☑ Apply sealant to filter threads, screw in ¾" bung hole, and torque
- ☑ Place this Attachment and blank Attachment 2 into a protective sleeve and tape to top of drum

RECORD drum filter information:

Manufacturer: NUCFIL
Model #: 019DS
Serial #: AM-788
Date of Manufacture: 1-12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	021151
Cal Expiration Date:	9-26-13	Cal Expiration Date:	9-11-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	16-80
Tolerance:	±4% cw ±6% ccw	Tolerance:	±3% cw ±6% ccw

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.

☑ Yes ☐ No

Print Name: Branton Chavez Signature: [signature] Z#: 204742

5. Weigh Drum Assembly

RECORD weight information

Tare witght (lbs) 76.0
File ID #: 019065

- ☑ Write the tare weight on drum using permanent marker

6. Label Drum Assembly

- ☑ Place 1 barcode drum ID label to the left of the drum seam, ~6" from drum bottom
- ☑ Place 1 barcode drum ID label in the center of the drum lid

RECORD drum ID# at the top of Attachments 1 and 2

Operator Print: Branton Chavez Operator Sign: [signature] Z#: 204742 Date: 10-23-12

Verifier Print: BRIAN GALLEGOS Verifier Sign: [signature] Z#: 267129 Date: 1-12-13

Attachment 2. Checklist for the Closing of a 55-Gallon Drum Assembly

DRUM ID#: 92561

1. LID INSTALLATION

NOTE: Install lid per manufacturer's instructions

✓ Mount lid with filter directly over drum seam.

✓ Install ring with bolt positioned downward and directly over drum seam.

✓ Engage bolt and nut and torque per manufactures instructions.

NOTE Seal the ring while tightening using a rubber hammer or dead-blow mallet or a drum lid press.

✓ Tighten jam nut.

Record torque wrench information:

MT&E #: 021151

Cal expiration date: 6-11-2013

Range/ Value (ft-lbs): 16-80

--- Tolerance ±3% CW ±6% CCW

2. DRUM LABELING

NOTE: Do not cover the drum seam with any labels.

✓ Place two barcode drum ID labels ~6" from the bottom of the drum ~120° from previously placed ID label.

✓ Place one barcode drum ID label to the right of drum seam between the top two rolling hoops.

✓ Place one yellow radioactive waste label between the top two rolling hoops

✓ Place one yellow radioactive waste label in the center of the drum lid.

RCRA Label:

☐ Place one blue NON-RCRA Regulated Waste label between the top two rolling hoops.

OR

✓ Place one yellow HAZARDOUS Waste label between the top two rolling hoops left of the drum seam. (Ensure EPA waste number and accumulation start date are documented.)

NOTE: Check only one of the above two boxes.

3. WEIGH DRUM ASSEMBLY

Record weight information:

Gross Weight(lbs.): 264.2

Scale ID#: 019065

✓ Using a permanent marker, write the gross weight on the drum lid.

4. FINALIZE DOCUMENTATION

✓ Have RCT monitor drum prior to moving to storage area.

✓ Place attachment 1 and 2 and HMPT Tag into a protective sleeve.

✓ Complete TWSR.

Operator Print/Sign: [illegible] Date: 1-12-13

Verifier Print/Sign: [illegible] Date: 1-12-13

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90812 Container Type: POC Gross Weight (lbs): 383
Container Seal #: None Filter Prefix: None Filter Serial #: BL-1357; BL-1619
RK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: PARENT #S822838 WTS-12STD-311
Total PE-Ci Activity: 1.28E+00 Equivalent Combustible PE-Ci: 4.81E-01 AM-241 PE-Ci: 1.06E-01
Total Fissile Gram Equivalents: 14.1 Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): D008 D007, D009 WL 10/2/12
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: None Comment: None
Certified RTR Comment: None
Prohibited Items: ☐ Sealed > 4 Liters ☐ Liquid ☐ Pressurized Container ☐ Impenetrable Item ☐ Other
Security Determination: ☑ Green ☐ Yellow
Remediation Determination: ☐ VE ☐ PID ☐ Split ☑ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☑ >100 and <1,000 ☐ >1,000 and <10,000 ☐ >10,000
TRUCON Code: TBD Production Control Comments: Need to add EPA Codes D007 & D009. Nitrate salts mixed with Wastelock 770® from previous repack campaign. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey (Production Control (Print)) Signature: Susan B. Ramsey Z Number: 100681 Date: 9/6/12

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☒ No ☐ Unknown
Processing Determination: ☒ Accept ☐ Reject
WDP Engineering Comments: Nitrate Salts – POC

Net Wt: 73lb Parent drum (SEDS attached) was part of WCRR nitrate salt repack campaign using Waste Lock 770®. This resulting daughter POC is being repacked to adjust the admixture/nitrate salt ratio. Nitrate salts carry waste codes for chromium, lead, and mercury. No chemicals present. May require RWP for >100 & <100 mrem/hr

Performed By: Valerie Rhodes (WDP Engineering (Print)) Signature: Valerie Rhodes Z Number: 112609 Date: 10/2/12

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns: Do not push or press on waste. Use Heavyweight gloves when processing waste.
Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments: Use proper ratio of kitty litter to waste in accordance with the procedure

Performed By: Jose Jerez (TRU Remediation Operations (Print)) Signature: Jose Jerez Z Number: 221452 Date: 10-4-12

dk 2# 249750 10/9/12
IHS Review - [illegible] Small CSP, Contains Chromium, lead + [illegible] 10-3-12.

Noncertified TRU Waste Drum Item Information

DrumID: 010340

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	IXFS-504F-1		30.670	NITRATE SALTS		13.79	52	5/11	
2	IXFS-503-F-1		24.310	NIRTRATE SALTS		0.	42	5/11	
3	IXFS-505-F-1		8.860	NITRATE SALTS		76.11	52	5/11	
4	IXFS-506-F-1		11.360	NITRATE SALTS		1.28	52	5/11	
5	IXFS-507-F-1		4.540	NITRATE SALTS		1.83	54	5/11	
6	IXFS-508-F-1		7.050	NITRATE SALTS		9.08	52	5/11	
7	IXFS-509-F-1		20.680	NITRATE SALTS		16.78	52	5/11	
8	IXFS-510-F-1		31.140	NITRATE SALTS		60.85	52	5/11	

Noncertified Waste Drum Material Summary

Gross Wt (kg):

Material Type	SNM (grams)	Items Net Wt (kg)
42	0.	24.31
52	177.89	109.76
54	1.83	4.54
Totals	179.72	138.61

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: 9/28/12

Container No. (5.[1])	90812					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	POC					
Filtered Vent Type (5.[1])	190S					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: SARA ARAGON (CCP (Print)), 237975 (Z #)

Reviewed By: NATHAN WALES (CCP (Print)), 238866 (Z #)

Comments: None

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: SUSAN S. RAMSEY (Waste Handling Operator (print)), [signature] (Signature), 100681 (Z #), 10/2/12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120928C\
Data File : 90812.D
Acq On : 28 Sep 2012 11:42 am (#1); 28 Sep 2012 11:41 am (#2)
Operator : SA
Sample :
InstName : Unit 8
Misc : LFL POC THROUGH FILTER-19DS FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 28 11:50:00 2012
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.256	96	2512677	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2210297	179.50 ppm	0.00

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vocgas.m Fri Sep 28 11:50:17 2012

7-12-13
0600 Assuming WCRRF operations center Orlando.
0611 SCS performing pre job briefing.
0643 pre job has been concluded.
0650 starting inside rounds.
0708 Starting outside rounds.
0715 Item #61 is OOS, POD is in place, OK to continue.
0718 Inside rounds completed.
0736 outside rounds complete.
0738 Inventory control system is not working site wide
0745 Inside and Outside rounds signed off by SOS.
0830 Inventory control system is back up.
0833 mode change performed TA50-69 and WCRRF yard now in Operations
0906 bagging on 90805
0918 bag on complete. PPE check is SAT
0955 Starting movement into 50-69.
1008 completed movement into 50-69.
1012 PPE check is sat.
1019 bagging off 90805, bagging on 90812
1048 bag on, bag off is complete, PPE check is sat.
1122 starting movement out of TA50-69 to transportainer
1147 bagging off 90812 and bagging on 90823
1213 bag on, bag off complete, PPE check is sat.
1230 Operators breaking for lunch.
1339 PPE Check is sat.
1433 bagging off 90823, bagging on 90819. PPE Check is sat.
1500 bag off, bag on complete.
1527 Starting movement into 50-69.
1532 Starting inside rounds.
1538 completed movement out of transportainer to 50-69.
1556 starting outside rounds.
1557 Completed inside rounds, PPE check is sat.
1606 bagging off 90819, bagging on 90817.
1625 inside and outside rounds signed off by SOS.
1633 bag on, bag off complete PPE Check is sat.
Continued on next page, continue.

92574
Ivy Douglas 90861

1-12-13 Continued from previous page - Cvelande
1736 bagging off 90817. PPE check is out.
1758 bag off is complete.
1813 Mode change performed TA-50-69 and WCRRF
yard now in warm standby.
1-12-13
1830 ~~10:00~~ end of day WCRRF operations center secure Cvelande

no further entries this page

PROJECT NAME 1/12/13 NOTEBOOK NO.

0600 Reviewed WCRR SOM turnover checklist and assumed WCRR SOM position

0605 Notified by SOS that Oracle system is down and unable to print labels. Inventory control is trouble shooting.

0645 Attended pre job brief conducted by SOS. Discussed problem w/ Oracle and backup plan is to have operators complete training on-line, required reading, etc. Safety topic w/ cold weather is to dress in layers if conducting outside work and proper PPE/Operation of spotter during forklift movements.

0645 Determined Oracle is down both @ WCRR and TA-54. OM notified and contacting Waste services to bring in on call personnel to repair/reboot.

0830 Inventory control verified Oracle system back in operation

0833 ~~0835~~ 1/12/13 Completed mode change: WCRR Yard/Blds 50-69 from Warm/Warm to Operations/Operations.

0835 (Late Entry 0831) Notified OM and TA-54 SOM of WCRR Oracle status.

0905 Notified by Inventory Control that ability to print TWSR forms via SWOOSH database is not working - verified that TA-54 is having same problem. Will not prevent WCRR from operations (processing) but cannot prepare outgoing shipments w/out capability

0906 Bagging on first drum.

1300 Updated DDP PM of WCRR Status.

1530 Toured inside WCRR yard w/ SSW to observe drum movements. While conducting tour a posting identified on door leading into respirator room had SOM signature/date faded from weather.

1813 Completed Mode Change: WCRR Yard/Blds 50-69 from Operations/Operations to Warm/Warm.

1830 Secured SOM position

1/12/13

No further entries this page

SIGNATURE DATE 1/12 20 13

READ AND UNDERSTOOD DATE 20

1.12.13 WCRR SOS LOG Book

0600 Assuming SOS Position [illegible]

0610 Conducted shift brief discussed Cold weather issues

0643 Concluded shift brief

0645 Having Issues with oracle labeling system.

0647 Some working Issue need to be fixed prior to Operating

0745 Reviewed Inside and outside Rounds

0750 Unable to process due to oracle being down.

0830 Oracle System has been repaired. Operators Dressing out to enter facility

0833 Mode change Complete WCRRF in operations

0906 Bagging on First drum 90805

0918 PPE Check

1012 PPE Check

1019 Bagging off and bagging on 90812

1048 PPE Check

1147 Bagging off and bagging on 90823

1339 PPE Check SAA

1433 Bagging off and bagging on 90819 PPE Check

1606 Bagging off and bagging on 90817

1625 Inside And outside Round's Reviewed

1633 bagging off Final drum of day.

1813 Mode Change Complete WCRRF in warm

1.12.17 1830 end of shift securing Position [illegible]

no further entries on this Page

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0083
Examination Date:	6/18/2013
Waste Container ID:	92561
Video/Audio Recorded Media Number:	LA-RTR2-13-0083 C&D
Procedure and Revision No.:	CCP-TP-053 Rev. 13
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 120.0 kg Tare Wt.: 33.4 kg Net Wt.: 86.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	100 %

CCP Radiography Data Sheet

Waste Container ID: 92561

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hardware, metal lid

AM:

OM:

OI:

C: Fiberboard liner sleeve, fiberboard

R:

XPM: Liner lid, plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	20.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	10.0
Rubber (R):	
Plastics (waste materials) (XPM):	5.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	51.6
Soils (S):	
Total WMP Weight:	86.6

CCP Radiography Data Sheet

Waste Container ID: 92561

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments: N/A

RTR Operator:

Thad Hasselstrom	Thad Hasselstrom	6/18/2013
Print Name	Signature	Date

```
|-----------------------------------------------------------------------|
|                          NDA 2000 Assay Report                        |
|-----------------------------------------------------------------------|

*************************    Item Information    ************************

Item ID:            92561              Count Sequence Number:  23068
Operator:           D3PW2DK1\operator
Assay Start:        6/21/2013   3:09:41 PM
Description 1:      1LANDA1795
Description 2:      N/A
Location:           LANL TA-54
Comment:            AK-6, Not Precision
Matrix Type:        Debris S5000
Container Type:     55 gallon drum
Weight:             Net:        86.6   kg        Net:    86.6 kg
Container:          Volume:    208.0   l        Full:   100.0 %
Density:                        0.420 kg /l


************************   System Configuration   ************************

Counter:                        MCS HENC #1
Count Type:                     Item Count
Collimator/Geometry Setting:    All Banks On (GE -  0

Errors quoted at  1.000 sigma
```

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 23068
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 14
Item ID: 92561

Batch Number: 1LANDA1795
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 6/21/2013

Net Weight	86600.0 g		
Pu mass	5.35E+001	+-	9.18E+000 g
TRU Alpha Activity	9.54E+000	+-	3.30E+000 Ci
TRU Activity Concentration	1.10E+005	+-	3.82E+004 nCi/g
Pu-239 Equivalent Activity	9.62E+000	+-	3.30E+000 Ci
Pu-239 FGE	4.89E+001	+-	8.35E+000 g
Decay heat	3.09E-001	+-	1.10E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	8.48E-002	6.06E-005	8.40E-006	2.53E-006
PU238	3.59E-002	6.21E-001	1.07E-001	1.64E-004
PU239	4.86E+001	3.06E+000	5.25E-001	8.10E-004
PU240	4.59E+000	1.05E+000	1.81E-001	2.79E-004
AM241	1.38E+000	4.80E+000	3.26E+000	1.59E-001
PU241	6.94E-002	7.21E+000	1.24E+000	1.91E-003
PU242	1.50E-001	5.94E-004	1.02E-004	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	7.19E-007
U233	<LLD	<LLD	0.00E+000	5.01E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.39E-006
U238	<LLD	<LLD	0.00E+000	2.67E-005

Errors quoted at 1.000 sigma

Operator: D. R. [illegible] Date: 6-27-13

ITR: [illegible] Date: 7/1/13

Automated Independent Technical Review

Count Sequence Number: 23068 Batch Number: 1LANDA1795
Counter ID: MCS HENC #1
Container ID: 92561
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 6/21/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor was set to one.	Ok
Add-a-Source correction factor is less than n-sigma * the correction factor error.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings.	
- Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Curium/Californium Neutron Analysis complete with warnings.	
- The Cm/Cf Mass Variance is negative, Cm/Cf Mass Uncertainty set to zero so analysis could continue.	Ok
- The Pu-240 Eff. Mass Variance is negative, Pu-240 Eff. Mass Uncertainty set to zero so analysis could continue.	Ok
Cosmic Ray Rejection Analysis complete with warnings.	
- The CRR High-Z mass Mass Variance is negative, High-Z mass Uncertainty set to zero so analysis could continue.	Ok

Comments	Disposition
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed FRAM results applied. FRAM results attached.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamber Date: 6-26-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **92561**

BDR Number: **LA13FG8036**

Sampling Date: **6/26/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	254.09	
74-82-8	Methane	213.40	U
67-56-1	Methanol	49.31	
60-29-7	Ethyl Ether	1.25	U
75-35-4	1,1-Dichloroethylene	5.71	U
67-64-1	Acetone	16.90	U
75-34-3	1,1-Dichloroethane	4.24	U
156-59-2	cis-1,2-Dichloroethene	0.55	U
78-93-3	Methyl ethyl ketone	9.86	U
110-82-7	Cyclohexane	5.84	U
71-43-2	Benzene	1.67	
107-06-2	1,2-Dichloroethane	1.51	U
71-36-3	1-Butanol	1.36	U
108-10-1	Methyl isobutyl ketone	9.34	U
108-88-3	Toluene	17.73	
108-90-7	Chlorobenzene	1.69	U
100-41-4	Ethylbenzene	2.62	U
108-38-3/106-42-3	m- and p-Xylene	1.48	U
95-47-6	o-Xylene	1.76	U
108-67-8	1,3,5-Trimethylbenzene	3.14	U
95-63-6	1,2,4-Trimethylbenzene	3.92	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130626C\
Data File : 92561.D
Acq On : 26 Jun 2013 10:36 am (#1); 26 Jun 2013 10:35 am (#2)
Operator : RJ
Sample :
InstName : Unit 8
Misc : 55 Gallon drum through filter. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 26 10:43:51 2013
Quant Method : C:\msdchem\1\METHODS\Vocgas.m
Quant Title : Flammable Gas Analysis for Transportation
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
3) Fluorobenzene	3.249	96	1704408	203.25	ppm		0.00
15) Chlorobenzene-d5	5.940	117	1223770	176.00	ppm		0.00
Target Compounds							Qvalue
1) Hydrogen	5.269	GC1	67147	254.09	ppm		100
4) Methanol	0.785	31	12794	49.31	ppm		100
12) Benzene	2.874	78	8898	1.67	ppm	#	93
17) Toluene	4.776	92	60883	17.73	ppm		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

S822876

S822876

Container Profile 754227

File Options Reports Help

S822876

754227	TBD-TRU	T-TTRU-TEMP	Active	Decommissioned

- General Information
- Weights/Volumes
- Location
- Account Information
- Waste Material Parameters
- Layers of Confinement
- Prohibited Items
- EPA Codes
- UHC
- Radioassay
- Radiological Survey
- Payload Preparation
- Container Closure
- Materials Added
- TRU Information
- TRU Information (TSDF)
- Radiological Calculations
- Shipping Description
- Site Treatment Plan
- Pending Tasks
- Genealogy
- Container Tags
- Task History
- Documentation
- Comment Log
- Edit Log

Genealogy

S822876

- S822876
  - LA00000069527 – EMPTY
  - LA00000069428 – WCS
    - LASB50421
  - LA00000069422 – LANL
    - LASB50045
  - LA00000069417 – LANL

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
100.0	%	LA00000069422	0.0	kg

ATTACHMENT 1
Page 1 of 4

Working Copy
Date: 2/27/14 HS

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S8228716

6.2[4] Date Processed: 2-27-14

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☐ Liquids ☐ Pressurized Containers ☑ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10-14-14

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) BG 2-27-14 (Initial and Date)

4.3[6] ($) Stationary Fire Watch has been established: (> 300 PE-Ci Equivalent Combustible) (SAC 5.10.1.7.2) ☑ N/A (Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☑ YES ☐ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Brian Gallegos / Bi Hallegos / 2071249 2-27-14
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 5822876

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 4340 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): _____ lb ☑ N/A

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 4340 lb

6.2[7] ($) Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

6.2[16] Retaining clips in place ☑ SAT ☐ UNSAT

6.2[18][D] Drum lift hinge pin retaining clip replaced. _____ / _____ / _____ ☑ N/A
Initials Z# Date

6.2[26] Approval to leave a parent drum attached to the WCG overnight:

_____ N/A _____ / /
EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: S822876

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	69417	69428	69422	
10.1[4]	Daughter Drum Filter No.	KM-389	KM-396	KM-377	N/A
10.1[4]	Daughter Drum Bag Filter No.	L-17378	L-17364	L-17338	
10.1[4]	Daughter Drum Purchase Order No.	501210	501210	501210	
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[6]/10.2[7][B]	POC Item Description		N/A		
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units		5 gallons		
10.3[7][A]	Opaque/Non-penetrable Item Description:	lead shielding			N/A
10.3[9][A]	PCB-contaminated Waste Description	N/A	N/A		
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	SEE comments	SEE comments	SEE comments	
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	10%	100%	50%	N/A
10.5[3]/10.6[2]	Description Waste Added During Processing	Aprons Boots Gloves Kitty litter	Kitty litter	Kitty litter	

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S822876

Comments: Glove Box gloves, lead Shielding, kitty litter, Stab out Bags, 5 gallons of PH-3 liquid neutralized to a 6, Nitrate salts

11.1[1] Performed By: Frederica [illegible] [illegible] 1278826 / 2-27-14
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Gilbert Martinez [illegible] 14835 / 3/3/14
SOS or designee (print) Signature Z # Date/Time

Working Copy

Date 12-26-14

ATTACHMENT 1
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: _____

Lot No.: _____

Manufacture Date: _____

5.[8] Overpack filtered vent and 2-in. bung torque wrench information:

	Filtered Vent	2-in. Bung
M&TE No.:		
Cal. Expiration Date:		
Tolerance:		

Overpack filtered vent information:

Manufacturer: _____

Model No.: _____

Serial No.: _____

Manufacture Date: _____

5.[9] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ Yes ☐ No

5. [11] Performed By: _____ / _____ / _____
Waste Handling Technician (print) Signature Z # Date

5.[15] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb

5. [18] 2-in. bung plug torque value: _____ ft-lb

Comments: Drum not prepared for WCRRF

8.1[1] Performed By: _____ 12-27-14
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: _____ 12/31/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 4
Page 1 of 1

Working Copy
Date: 2-26-14(c)

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69527

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range in ft-lb: 16-80
Tolerance: +/- 3% cw +/- 6% ccw

7.[24] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Frederick Bakulota / [signature] 1228826 12-27-14
Waste Handling Technician (print) Signature Z # Date

7.[26] Overpack drum closure ring torque value: 60 ft-lb

7.[29] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[34][B] Platform scale serial number: 019065
Platform scale calibration expiration date:

7.[34][D] 85-gal overpack drum gross weight (lb): 177.2 lb

Comments: N/C

8.1[1] Performed By: Frederick Bakulota / [signature] 12[illegible] 12-27-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Mc[illegible] / [signature] 1[illegible] 3/3/14
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 2/1/14

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69417

5.[3] Drum information:
Purchase Order No.: 501210
Lot No.: 0237179
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6C PVC 1.5-2.5 PVC
Serial No.: L-17328
Manufacture Date: 11-13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	108 10	036245
Cal. Expiration Date:	15-12-14	8-5-14
Range:	40-20 in-lb	16-80 ft-lb
Tolerance (+/-):	±1.4% CW & ±1.6% CCW	±3% CW & ±6% CCW

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☒ YES ☐ NO

Performed By: Jamie Smith / [signature] / 1116621 / 02-11-13
Operator (print) / Signature / Z # / Date

5.[23] Filtered vent information:
Manufacturer: Nucfil
Model No.: 019DS
Serial No.: KM-389
Manufacture Date: 11-12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76 lbs

5.[34][E] Drum ID No.: 69417

Comments: N/C

5.[35] Performed By: James S. [illegible] / [signature] 116021 02-11-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert [illegible] / [signature] 116231 2/3/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69417

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range: 16-18 ft-lb
Tolerance (+/-): +/- 3% or +/- 6% ok

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Frederick Hebbeler / [signature] [illegible] / 12-27-14
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range:	in-lb	ft-lb
Tolerance (+/-):		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO ~~☑ N/A~~ 12-27-14

Performed By: Frederick Hebbeler / [signature] [illegible] / 12-27-14
Operator (print) Signature Z # Date

6.[17][C] 2 in. bung plug torque value: _____ ft-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68417

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 86.2 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/C

6.[32] Performed By: [illegible] / [signature] / [illegible] / 2-27-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] / [illegible] / 3/3/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 2-11-14

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69422

5.[3] Drum information:
Purchase Order No.: 501210
Lot No.: 0237179
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 62PVC-1.5-2 SPVC
Serial No.: ~~MA~~ 0604-17338
Manufacture Date: 11-13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	101310	036245
Cal. Expiration Date:	11-12-14	8-5-14
Range:	40-200 in-lb	16-80 ft-lb
Tolerance (+/-):	+/- 4% cw +/- 6% ccw	+/- 3% cw +/- 6% ccw

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☒ YES ☐ NO

Performed By: James Schl / Mark Rincha / 116662 / 1092475 / 2-11-14 / 2-11-14
Operator (print) / Signature / Z # / Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019BS
Serial No.: KM-377
Manufacture Date: 11-12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 26 lbs

5.[34][E] Drum ID No.: 69422

Comments: N/C

5.[35] Performed By: James Sell / Mark Rivera (Operator (print)) | Signature | 116662 / 092475 (Z #) | 2-11-14 / 2-11-14 (Date)

7.1[4] Reviewed By: Gilbert Martinez (Supervisor or designee (print)) | Signature | 140351 (Z #) | 2/3/14 (Date)

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69422

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range: 16-80 ft-lb
Tolerance (+/-): +-3% cw +-6% ccw

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Frederick Schlich [signature] [illegible] 12-27-14
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range:	in-lb	ft-lb
Tolerance (+/-):		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO ☐ N/A

Performed By: Frederick Schlich [signature] [illegible]
Operator (print) Signature Z # Date

6.[17][C] 2 in. bung plug torque value: _____ ft-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 69422

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 253.2 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/C

6.[32] Performed By: Frederick [illegible] | [illegible] | 1[illegible] | 12/26/2014
Operator (print) | Signature | Z # | Date

7.1[4] Reviewed By: Gilbert Martinez | [illegible] | 1[illegible] | 3/5/14
Supervisor or designee (print) | Signature | Z # | Date

ATTACHMENT 1
Page 1 of 2

Working Date: 21444

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69428

5.[3] Drum information:
Purchase Order No.: 501210
Lot No.: 0237179
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6cpvc-1.5-2spvc
Serial No.: L-17364
Manufacture Date: 11/13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	101310	036245
Cal. Expiration Date:	11/12/14	08/05/14
Range:	40-200 in-lb	16-80 ft-lb
Tolerance (+/-):	±4% cw ±6% ccw	±3% cw ±6% ccw

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Andrew H. Romero (Operator (print)) | Andrew H. Romero (Signature) | 187006 (Z #) | 02/14/14 (Date)

5.[23] Filtered vent information:
Manufacturer: NucFil
Model No.: 0190S
Serial No.: KM-396
Manufacture Date: 11/12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76 lbs

5.[34][E] Drum ID No.: 69428

Comments: N/C

5.[35] Performed By: Andrew K. Romero | Andrew K Romero | 187006 | 03/14/14
Operator (print) | Signature | Z# | Date

7.1[4] Reviewed By: Gilbert Martinez | [signature] | 145235 | 3/3/14
Supervisor or designee (print) | Signature | Z# | Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69428

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range: 16-80 ft-lb
Tolerance (+/-): +/- 3% or +/- 6% rdg

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Frederico Archuleta / [signature] [redacted] / 12-27-14
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range:	in-lb	ft-lb
Tolerance (+/-):		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO ~~☑ N/A~~ 12-27-14

Performed By: Frederico Archuleta / [signature] [redacted] / 12-27-14
Operator (print) Signature Z # Date

6.[17][C] 2 in. bung plug torque value: _____ ft-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 69428

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 384.8 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/C

6.[32] Performed By: [illegible] [illegible] 12-22-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez [illegible] 142251 5/3/14
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 2/27/14 HS

ATTACHMENT 2
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: S8228740

6.3[15] (S) 55-gal drum wrapped in protective covering: (ISI 6.3.6) ☑ SAT ☐ UNSAT

6.3[16] Platform scale serial number: 019065
Platform scale calibration expiration date: 10-14-14

6.3[18] Prepared parent 55-gal drum weight (lb): 4139.0

6.3[19] (S) Prepared parent 55-gal drum weighs < 624 lb: (SR 4.5.1) ☑ SAT ☐ UNSAT

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / B. Gallegos / 267129 2-27-13
Waste Handling Technician (print) Signature Z# Date

8.1[7] Reviewed By: Gilbert Martinez / [signature] / [illegible] 3/5/14
Supervisor or designee (print) Signature Z# Date

8.1[8][B] Acceptance criteria satisfied: ☑ YES ☐ NO

8.1[8][D] Approved by: Gilbert Martinez / [signature] / [illegible] 3/11 1150
SOS/SOM or designee (print) Signature Z# Date Time

Reject 412 160165

WDP TRU Waste Container Management Operations

UET

Document No: EP-DIV-AP-0107 SR, K
Attachment: 1
Revision: 1
Effective Date: 12/22/2009

ATTACHMENT 1

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S822876 Container Type: 85-GAL Gross Weight (lbs): 356
Inner Seal #: 011369 Filter Prefix: LAVC Filter Serial #: 02971; 03173
AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS NITRATE SALTS 4.61E-01
Total PE-Ci Activity: 1.85E+00 Equivalent Combustible PE-Ci: ~~7.01E-01~~ 10-15-10 AM-241 PE-Ci: No data
Total Fissile Gram Equivalents: 13.4 Total Surface Dose Rate (mrem/hr): 130
EPA Code(s): None
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 2/20/2007 Comment: Impenetrable Obj, Liner Not Punctured,
Certified RTR Comment: None
Prohibited Items: ☐ Sealed > 4 Liters ☐ Liquid ☐ Pressurized Container ☑ Impenetrable Item ☐ Other
Security Determination: 11/28/12 ☑ Green ☐ Yellow
Remediation Determination: ☑ VE 11.9.10 ~~☑ PID~~ ☐ Split ☑ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☒ >100 and <1,000 ☐ >1,000 and <10,000 ☐ >10,000
TRUCON Code: LA125M Production Control Comments: Ensure EPA Codes D007, D008, and D009 are on the label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.
Performed By: Daniel B. Valerio / 169396 8-4-10
Production Control (Print) Signature Z Number Date
SUSAN S. RAMSEY 1006681 11/28/12

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☒ No ☐ Unknown
Processing Determination: ☒ Accept ☐ Reject
WDP Engineering Comments: LEACHED NITRATE SALTS. NET WT = 296 LBS. MAX ITEM WT = 72.73 KG (160 LBS). NO RTR (HERT) DATA. FAILED RTR PRE-SCREEN. POSSIBLE LIQUIDS FROM NITRATE SALTS. MAY REQUIRE RWP FOR >100 MREM/HR.
Performed By: ROBERT L. GRIFFIS / 130352 12-15-10
WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns: To Heavy for Glove Bag operations. Slide Heavy items in Glove box. Use two man rule. Do not push or press on waste with hands.
Processing Determination: ☐ Accept ☒ Reject
TRU Remediation Operations Comments: Use proper ratio of kitty litter to 111-8-13 waste in accordance with the procedure.
Performed By: T. WEIGEL
TRU Remediation Operations (Print) Signature Z Number Date
Clarissa Velarde Clarissa Velarde 234079 11/18/10

IHS Review [illegible] CSP No IH Concerns
ROBIN SHAUL B412 12/4/12

Monday, August 02, 2010

Jose Jerez for Jy 2/24/14 #221452 #272955 1-14-13 Clayton Mullins CA 240092 2/25/14

Discardable Waste Log Sheet

DrumID: 011369

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	IXFS 512 FB	72.73	NITRATE SALTS		4.81	54	5/11	
2	IXFS 513 FD	28.63	NITRATE SALTS		7.22	54	5/11	
3	IXFS 512 R1	5.91	NITRATE SALTS		0.66	54	5/11	
4	IXFS 514 F1	26.14	NITRATE SALTS		2.41	52	5/11	
		133.41 kg						

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: ~~10-5-10~~ 10-5-10 10.4.10

7.[7] Certified CCP Technician:

Gabe Romero [signature] 1236923 10-5-10
CCP (Print) Signature Z # Date

/ / /
CCP (Print) Signature Z # Date

Container No. (7.[1]):	S822876	S824075	S851405
Container Type (SWB, 110/85/55-gal) (7.[1]):	55 gal	55 gal	55 gal
Current Filter Vent No. (7.[1]):	72	72	72
New Filter Vent No.: (7.[8][A]):	72	72	72
WIPP-Approved Filter Vent (7.[8][B]):	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT	☑ SAT ☐ UNSAT
VOC	Value (ppm) (7.[10])		
Benzene	10.03	16.39	
Chlorobenzene			
Cyclohexane			
1,1-Dichloroethane			
1,2-Dichloroethane			
1,1-Dichloroethylene			
cis-1,2-Dichloroethylene			
Ethyl benzene			
Ethyl ether			
Toluene			
1,2,4-Trimethylbenzene			
1,3,5-Trimethylbenzene			
m- and p-Xylene			
o-Xylene			
Acetone		40.13	
1-Butanol			
Methanol		253.08	
Methyl ethyl ketone			
Methyl isobutyl ketone			
Total CCP VOC value (ppm) (7.[11]):	10.03	309.60	Ø

ATTACHMENT 1
Page 2 of 2

NOTE *Filtered vent data may be captured on a support organization data sheet.*

Container Number (7.[1]):	S822876	S824075	S851405
Hydrogen Reading (ppm) (7.[10]):	2426.03 ppm	438.05 ppm	363.41 ppm
Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
Total VOC Reading (ppm) (7.[11]):	10.03 ppm	309.60 ppm	Ø ppm
Filter Type (7.[9][F][c]/7.[9][G][a]):	72	72	72
WIPP Approved (SAT/UNSAT) (7.[9][F][c]/7.[9][G][a]):	SAT	SAT	SAT
Torque Wrench M&TE/ID Number (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
Torque Wrench Calibration Due Date (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
Torque Wrench Tolerance (7.[9][F][a]/7.[9][G][a]):	N/A	N/A	N/A
VERIFY Torque Wrench is within acceptable range as specified on Cal Certificate. (7.[9][F][a]/7.[9][G][b])	☐ YES ☐ NO ☑ N/A	☐ YES ☐ NO ☑ N/A	☐ YES ☐ NO ☑ N/A
Filter Torque Value (7.[9][F][a]/7.[9][G][d]) *	N/A	N/A	N/A

* No torque value required for 072 or 073 filters Record N/A as applicable

Comments:
All drums are 55 gallons sampled from inside an 85 gallon overpack.

11.1[1] Performed By: Alicia Herrera / [signature] 198450 / 10.5.10
Waste Handling Operator (print) Signature / # Date

11.1[5] ☐ Deficiencies identified and submitted (e.g., PCR or FSR system).

☑ No deficiencies

11.1[7][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT

- Hydrogen – less than or equal to 32,000 ppm
- VOC – less than or equal to 7,000 ppm

11.1[7][B]/ Reviewed By: Kenny Romero / [signature] 117584 10-5-10
11.1[8] Waste Handling Supervisor (print) Signature / # Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\101004c\
Data File : S822876.D
Acq On : 4 Oct 2010 1:08 pm (#1); 04-Oct-10, 13:08:07 (#2)
Operator : SA
Sample :
Misc : 55 GALLON LFL SAMPLED FROM 85 OVERPACKED (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 04 13:20:51 2010
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Wed Aug 18 13:26:05 2010
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.668	96	3097392	207.75	ppmv	0.02
15) Chlorobenzene-d5	6.000	117	2003850	180.75	ppmv	0.03
Target Compounds						Qvalue
1) Hydrogen	1.649	GC1	18592	2426.03	ppmv	100
12) Benzene	3.329	78	141432	10.03	ppmv	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

vocgas.m Mon Oct 04 13:21:18 2010

2/27/14 WCRR SOM

0600 Assumed the WCRR SOM position.

0630 Completed prejob brief conducted by SOS C. Velarde. Discussed yesterdays non-glove breech as lessons learned - correct actions taken until positively ID that hole did not go all the way through glove. Good to be conservative per Conduct of Operations. Will change out station #4 left hand glove first thing. Discussed drums in 50-69 staged for processing. All SP-72 drums with possible problems for each one (ie cracked ring, degraded drum, etc.). Engineering assessment group scheduled to be onsite for structural integrity walkdown w/ DOE shadow

0712 Completed morning call into TA-54 SOM to status WCRR work.

0800 Notified by Ops Center that daily inspection of drum lift yielded another break in the wire approximately 15 inches from the next break located @ the 8-10 inch mark. Contacted CSE S. West for notification.

0822 Released WO # 468539-02 FY14 50-69 Equipment Servicing to Change Tires on forklift. Forklift to be moved out of WCRR footprint and transported to TA 54 for servicing - expected back on site today.

0921 Completed glove change on station #4 Left hand glove

1040 Reviewed and signed IPC change to EP-WCRR-WO-DOP-1198 changing drum lift wire rope inspection criteria to that called out for in OSHA and LANL Hoisting and Rigging Policy

1045 Reviewed and approved Parts I and 2 for ES IWD # WCRR - Waste Chrome Glove Box Hoz Port Process 081911-1001 to include Be processing requirements and cutting of drum ring/bolt - use of drill including hand tools. IWD was given to STR who will take it to USQ for review

1050 Completed Mode Change WCRR Yard / Bldg 50-69 from Warm/Warm to Operations / Operations

1100 Met w/ Engineering Assessment Team - they are onsite for outside Bldg 50-69 walkdown as well as SOM interview.

1150 Attended weekly status meeting (team) conducted by OM. Layed out latest plan for processing H-3 and Be drums @ WCRR - to start next Monday regardless of status of G.G. left after weekend.

continued on next page →

2/27/14 WCRR SOM continued

1247 Completed denesting of 3 drums - operators bagged on drum # S822876

1505 Completed bag off of 1 Daughter - continuing to process.

1642 Completed bag off of 2nd daughter - continuing to process.

1754 Completed all bagoffs for incent # S822876 (3 daughters total) Placed drum port cover on WCG.

1810 Completed Mode Change. WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Warm.

1812 Verified 50-69 Thermostat set to 77°F.

1830 Secured the SOM position.

No Entries this page

2-27-14

0550 ASSUMMING OPERATIONS CENTER HSMITH

0605 STARTING OUT SIDE ROUNDS

0615 STARTING PRE-JOB BRIEFING

0620 STARTING INSIDE ROUNDS

0630. PRE JOB BRIEFING CONCLUDED

0631 ~~OH~~ HS 2/27/14 LATE ENTRY: OUTSIDE ROUNDS COMPLETED AT 0627 HS.

0642 ITEM #63 INSIDE ROUNDS ODS. PERMISSION TO PROCEED PER CSE DOCUMENTATION

0644 INSIDE ROUNDS COMPLETED

0700 ROUNDS REVIEWED BY SDS

0745 PERMISSION GRANTED TO BEGIN SHIPMENT OUT OF WCRR. TO LOWER ACCESS GATES.

0800 OPERATORS NOTIFIED ~~OPERATOR~~ OPERATIONS CENTER OF BROKEN STRAND ON DRUMLIFT CABLE. SDM NOTIFIED AND HE IS NOTIFYING CSE

0850 SHIPMENT OUTOF WCRR IS COMPLETED, VEHICLE ACCESS GATE RESTORED, TRANSPORT VEHICLE DOOR SECURED.

0852 STARTING GLOVE CHANGES AT STATION #4 BOTH GLOVES

0921 GLOVE CHANGES COMPLETED

0922 WAITING ON CSE DETERMINATION, ON USE OF DRUMH

1050 MODE CHANGE INCREASE TO OPERATION IN TA50-69 AND WCRR YARD, OPERATOR RETURN TO PROCESS TO NEW PROCEDURE EP-WCRR-WO-DOP-1198 FOR IPC CHN TO ATTACHMENT 2 DRUMLIFT INSPECTION ALLOWING 1 STRAND OF WIRE BREAK

1138 STARTING DENESTING 3 DRUMS, BAGGING ON S222376

1247 DENESTING, BAG ON COMPLETED

1300 OPERATORS OUT FOR LUNCH

1400 OPERATOR BACK TO PROCESS

1435 BAGGING OFF DAUGHTER

1505 BAG OFF COMPLETE

1525 STARTING OUTSIDE ROUNDS

1540 2/27/14 ~~SAHS~~ STARTING INSIDE ROUNDS

1549 OUTSIDE ROUNDS COMPLETED

CONTINUED ON NEXT PAGE HSMITH

~~2-28-14 2-8-14 (R)~~
~~2-28-14 2-28-14 (C)~~
~~DLLD Assuming IGCREF SCS position clearance~~ (C) ~~2-28-14~~ 2-27-1
~~ALLS All job being performed, documented~~ (C) ~~2-28-14~~ 2-27-1

1PLETED

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WCRR, AND

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GLOVES

DRUMHE
)-69 AND

TO
IPC CHANG

SWING 6

S222376

Initial daughter, 68973.

131

PROJECT NAME _____ NOTEBOOK NO. _____

2-27-14

0600 Assuming WCRRF 909 position & duties
0605 Starting outside rounds
0615 Pre job being conducted, briefed on current inventory inside 50-69 and denuting, glove changes on station
0620 Starting inside rounds
0635 Pre job concluded, outside rounds complete.
0644 Inside rounds complete.
0700 Rounds signed and reviewed.
0745 Starting movement out of WCRRF
0800 Operators have notified that they have encountered more broken stands on drum lift cable. SOM contacting CSE.
0850 Shipment out of WCRRF is complete.
0852 Starting glove change on station #4 left and right hands.
0921 Glove changes are complete
0922 Waiting on CSE determination on use of drum lift.
1050 PCR change on procedure EP-WCRR-WO-DOP-1198 for attachment 2 drum lift inspection allowing to stand for wire break.
1051 Mode changed to operations
1135 Starting to denest 3 drums.
1247 Denesting and bag on complete. bagged on 3822287L
1435 bagging off daughter
1505 bag off complete
1525 starting outside rounds
1540 Starting inside rounds
1549 outside rounds complete.
1604 Inside rounds complete
1625 Bagging off 1 daughter, bagging on 1 daughter.
1642 Bag off complete.
1732 Bagging off last daughter, and installing port cover
1750 ~~1850~~ 2-27-14 Bag off complete
1810 mode change performed TA50-49 and WCRRF yard is warm standby
2-27-14 1850 end of day 909 position secured & locked

witnessed this 2-27-14

SIGNATURE _____ DATE _____ 20

READ AND UNDERSTOOD _____ DATE _____ 20

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-14-0046
Examination Date:	4/8/2014
Waste Container ID:	69417
Video/Audio Recorded Media Number:	LA-HERTR-14-0046 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA225
Waste Matrix Code:	S5400
Waste Stream I.D.:	LA-MHD01.001
Waste Container Weights:	Gross Wt.: 39.0 kg Tare Wt.: 33.4 kg Net Wt.: 5.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	10 %

CCP Radiography Data Sheet

Waste Container ID: 69417

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap Lead

OI:

C:

R: Leaded rubber glove

XPM: Plastic sheeting

OR:

IN:

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	2.1
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	2.5
Plastics (waste materials) (XPM):	1.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	
Soils (S):	
Total WMP Weight:	5.6

Waste Container ID: 69417

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: N/A	

RTR Operator:

Eddie Rios	Eddie Rios	4/8/2014
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69417	Count Sequence Number:	17100
Operator:	DCLTD231\Operator		
Assay Start:	4/9/2014 9:27:20 AM		
Description 1:	2LANDA1282		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Debris S5000		
Container Type:	55 gal Drum		
Weight:	Net: 5.6 kg	Net:	5.6 kg
Container:	Volume: 208.0 l	Full:	10.0 %
Density:	0.270 kg /l		

System Configuration

Counter:	HENC #2
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks on GEO - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	17100	Batch Number:	2LANDA1282
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	69417	Analysis Date:	4/9/2014

Net Weight	5600.0 g	
Pu mass	6.97E-002 +-	1.48E-002 g
TRU Alpha Activity	8.15E-003 +-	1.01E-003 Ci
TRU Activity Concentration	1.46E+003 +-	1.80E+002 nCi/g
Pu-239 Equivalent Activity	8.67E-003 +-	1.01E-003 Ci
Pu-239 FGE	6.26E-002 +-	1.31E-002 g
Decay heat	2.60E-004 +-	3.18E-005 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	0.00E+000	0.00E+000	0.00E+000	4.60E-008
PU238	2.54E-005	4.35E-004	9.23E-005	2.41E-004
PU239	6.18E-002	3.83E-003	8.13E-004	2.13E-003
PU240	7.42E-003	1.68E-003	3.57E-004	9.34E-004
AM241	6.41E-004	2.20E-003	4.66E-004	1.22E-003
PU241	2.79E-004	2.87E-002	6.09E-003	1.59E-002
PU242	1.33E-004	5.25E-007	1.11E-007	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.82E-008
U233	<LLD	<LLD	0.00E+000	2.32E-004
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	5.21E-008
U238	<LLD	<LLD	0.00E+000	1.41E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 4-10-14

ITR: _____ Date: 4.10.14

Automated Independent Technical Review

Count Sequence Number: 17100
Batch Number: 2LANDA1282
Counter ID: HENC #2
Container ID: 69417
Waste Matrix Code: Debris S5000
Count Type:
Sequence Type:
Assay Date: 4/9/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor is less than one.	Ok
Add-a-Source correction factor was set to one.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
No Warnings Reported.	
Section 3 - Data Combiner Analysis	
Override enabled; Passive Neutron Pu and Gamma U data specified as input.	Passive Neutron Pu and Gamma U data specified as input.
Analysis Status: Override enabled; data marked not available but were used.	
Pu results taken from Passive Neutron data, U from Quantitative Gamma data.	
Results comparison test passed.	
Section 4 - MGA Analysis	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-54,52.
Results are marked as invalid.	

Comments	Disposition
Section 5 - Gamma Analysis	
Analysis Status: No errors.	Ok
Density is outside range (0.02 to 2.10 g/cc) or fill height is below 30%.	Fill height acceptable, neutron results applied.
Ratio of Pu-239 414 to 129 keV line activities is above the limit of 2.50	Not data affecting, neutron results applied.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 4-10-14

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **69417**

BDR Number: **LA14FG2055**

Sampling Date: **4/11/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	90.37	U
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\140411c\
Data File : 69417.D
Acq On : 11 Apr 2014 10:01 am (#1); 11-Apr-14, 10:00:45 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 11 10:09:26 2014
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Tue Apr 08 10:24:48 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.535	96	2658477	199.75	ppmv	0.00
15) Chlorobenzene-d5	5.848	117	2118190	175.25	ppmv	0.00

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-14-0027
Examination Date:	3/6/2014
Waste Container ID:	69422
Video/Audio Recorded Media Number:	LA-RTR2-14-0027 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 115.0 kg Tare Wt.: 33.4 kg Net Wt.: 81.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	50 %

CCP Radiography Data Sheet

Waste Container ID: 69422

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM:

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	10.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	71.6
Soils (S):	
Total WMP Weight:	81.6

CCP Radiography Data Sheet

Waste Container ID: 69422

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments: N/A

RTR Operator:

Thad Hasselstrom	Thad Hasselstrom	3/6/2014
Print Name	Signature	Date

5822874

NDA 2000 Assay Report

Item Information

Item ID:	69422	Count Sequence Number:	24498
Operator:	D3PW2DK1\operator		
Assay Start:	3/7/2014 3:40:12 PM		
Description 1:	1LANDA1924		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 81.6 kg	Net:	81.6 kg
Container:	Volume: 208.0 l	Full:	50.0 %
Density:	0.790 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	24498	Batch Number:	1LANDA1924
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	69422	Analysis Date:	3/7/2014

Net Weight	81600.0 g			
Pu mass	4.83E+000	+-	2.73E+000	g
TRU Alpha Activity	9.86E+000	+-	5.18E+000	Ci
TRU Activity Concentration	1.21E+005	+-	6.35E+004	nCi/g
Pu-239 Equivalent Activity	9.91E+000	+-	5.18E+000	Ci
Pu-239 FGE	4.40E+000	+-	2.42E+000	g
Decay heat	3.27E-001	+-	1.72E-001	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.59E-001	1.12E-004	2.24E-005	3.49E-006
PU238	1.81E-003	3.10E-002	1.76E-002	7.77E-005
PU239	4.28E+000	2.65E-001	1.50E-001	6.65E-004
PU240	5.14E-001	1.17E-001	6.60E-002	2.92E-004
AM241	2.76E+000	9.45E+000	5.18E+000	6.48E-002
PU241	2.30E-002	2.37E+000	1.34E+000	5.95E-003
PU242	9.20E-003	3.63E-005	2.06E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.00E-006
U233	<LLD	<LLD	0.00E+000	6.71E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.84E-006
U238	<LLD	<LLD	0.00E+000	1.89E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 3·11·14

ITR: _____ Date: 3·12·14

Automated Independent Technical Review

Count Sequence Number: 24498 Batch Number: 1LANDA1924
Counter ID: MCS HENC #1
Container ID: 69422
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 3/7/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis	
Add-a-Source WARNINGS:	
Add-a-Source correction factor was set to one.	Ok
Add-a-Source correction factor is less than n-sigma * the correction factor error.	Ok
Section 2 - Passive Neutron Analysis	
Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings.	
- Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis	
Override enabled; Passive Neutron Pu and Gamma U data specified as input.	Passive Neutron Pu and Gamma U data specified as input.
Pu results taken from Passive Neutron data, U from Quantitative Gamma data.	
Results comparison test passed.	
Section 4 - MGA Analysis	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-54,52.
Results are marked as invalid.	
Section 5 - Gamma Analysis	
Analysis Status: No errors.	Ok

Comments	Disposition
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 3-11-14

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **69422**

BDR Number: **LA14FG2038**

Sampling Date: **3/13/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	202.55	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	2.10	
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\140313c\
Data File : 69422.D
Acq On : 13 Mar 2014 1:58 pm (#1); 13-Mar-14, 13:58:16 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 13 14:08:39 2014
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.545	96	3224303	205.75 ppmv	0.03
15) Chlorobenzene-d5	5.852	117	2577062	177.50 ppmv	0.00
Target Compounds					Qvalue
1) Hydrogen	1.613	GC1	1523m	202.55 ppmv	
12) Benzene	3.216	78	23889	2.10 ppmv	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-14-0030
Examination Date:	3/6/2014
Waste Container ID:	69428
Video/Audio Recorded Media Number:	LA-HERTR-14-0030 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 174.5 kg Tare Wt.: 33.4 kg Net Wt.: 141.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	80 %

CCP Radiography Data Sheet

Waste Container ID: 69428

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM:

OI:

C: Tape rolls

R:

XPM: Plastic bags, 90 mil liner lid

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	0.3
Rubber (R):	
Plastics (waste materials) (XPM):	8.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	132.8
Soils (S):	
Total WMP Weight:	141.1

Waste Container ID: 69428

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: N/A	

RTR Operator:

Michael Simmons		3/6/2014
Print Name	Signature	Date

5822876

NDA 2000 Assay Report

Item Information

Item ID:	69428	Count Sequence Number:	24492
Operator:	D3PW2DK1\operator		
Assay Start:	3/7/2014 10:50:02 AM		
Description 1:	1LANDA1924		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 141.0 kg	Net:	141.0 kg
Container:	Volume: 208.0 l	Full:	80.0 %
Density:	0.850 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	24492	Batch Number:	1LANDA1924
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	69428	Analysis Date:	3/7/2014

Net Weight	141000.0 g		
Pu mass	4.85E+000	+-	1.07E+000 g
TRU Alpha Activity	1.11E+001	+-	5.88E+000 Ci
TRU Activity Concentration	7.86E+004	+-	4.17E+004 nCi/g
Pu-239 Equivalent Activity	1.11E+001	+-	5.88E+000 Ci
Pu-239 FGE	4.42E+000	+-	1.06E+000 g
Decay heat	3.68E-001	+-	1.95E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.18E-006
U233	<LLD	<LLD	0.00E+000	9.18E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.68E-006
NP237	1.85E-001	1.30E-004	2.71E-005	4.79E-006
PU238	1.82E-003	3.11E-002	8.85E-003	5.14E-003
U238	<LLD	<LLD	0.00E+000	2.29E-005
PU239	4.30E+000	2.66E-001	6.57E-002	4.40E-002
PU240	5.16E-001	1.17E-001	3.33E-002	1.93E-002
AM241	3.11E+000	1.07E+001	5.88E+000	1.01E-001
PU241	2.31E-002	2.38E+000	6.77E-001	3.94E-001
PU242	9.23E-003	3.65E-005	1.04E-005	0.00E+000

Errors quoted at 1.000 sigma

Operator: [signature] Date: 3-11-14

ITR: [signature] Date: 3-12-14

Automated Independent Technical Review

Count Sequence Number: 24492 Batch Number: 1LANDA1924
Counter ID: MCS HENC #1
Container ID: 69428
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 3/7/2014

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Ok Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-54,52.
Section 5 - Gamma Analysis Analysis Status: No errors. Spectrum Validity Check engine has suggested data review.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamber Date: 3-11-14

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **69428**

BDR Number: **LA14FG2038**

Sampling Date: **3/13/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	90.37	U
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\140313c\
Data File : 69428.D
Acq On : 13 Mar 2014 2:11 pm (#1); 13-Mar-14, 14:10:29 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 13 14:23:44 2014
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.532	96	3171830	205.75	ppmv	0.01
15) Chlorobenzene-d5	5.842	117	2535930	177.50	ppmv	-0.02

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

S822952

S822952

Container Profile 767413

File Options Reports Help

S822952

767413	TBD-TRU	T-TTRU-TEMP	Active	Decommissioned

- General Information
- Weights/Volumes
- Location
- Account Information
- Waste Material Parameters
- Layers of Confinement
- Prohibited Items
- EPA Codes
- UHC
- Radioassay
- Radiological Survey
- Payload Preparation
- Container Closure
- Materials Added
- TRU Information
- TRU Information (TSDF)
- Radiological Calculations
- Shipping Description
- Site Treatment Plan
- Pending Tasks
- Genealogy
- Container Tags
- Task History
- Documentation
- Comment Log
- Edit Log

Genealogy

S822952

- S822952
  - LA00000068607
  - LA00000068605
  - LA00000068492 - EMPTY
  - LA00000068573

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
33.39	%			

Working Copy
Date: 11/5/13 HS

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 5822952

6.2[4] Date Processed: 11-6-13

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☒ PID ☐ Split ☒ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☒ Liquids ☐ Pressurized Containers ☐ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☒ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☒ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10-14-14

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☒ YES ☐ NO ☐ N/A

4.3[6] ($) Stationary Fire Watch has been established: ☒ N/A
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) _____ (Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☒ YES ☐ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☒ SAT ☐ UNSAT ☐ N/A

Performed By: Melinda Stewart / Melinda Stewart / 277268 / 11-6-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: S 822952

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 514.2 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 0 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 514.2 lb

6.2[7] ($) Total Parent Drum Weight < 624 lb (SR 4.5.1): ☒ SAT ☐ UNSAT

6.2[17][D] Drum lift hinge pin retaining clip replaced. — , N/A , —
Initials Z# Date

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

N/A , N/A , N/A
EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: S822952

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68573	68605	68607 11-6-13	N/A
10.1[4]	Daughter Drum Filter No.	LM-829	LM-310	LM-310305	
10.1[4]	Daughter Drum Bag Filter No.	L-6749	L-6760	L-6762	
10.1[4]	Daughter Drum Purchase Order No.	501578	501578	501578	
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No	N/A	N/A	N/A	
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				N
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				A
10.3[5][A]	Free Liquid Volume/Units	1 GALLONS	1 GALLON	1 LITER	
10.3[7][A]	Opaque/Non-penetrable Item Description:	N/A	LEAD SHIELDING	LEAD SHIELDING	
10.3[9][A]	PCB-contaminated Waste Description		N/A	N/A	
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See Comments	SEE COMMENTS	SEE COMMENTS	
10.3[13]/10.4[10]/10.5[4]/10.6[10]	Daughter Drum % Full (%)	75%	100%	50%	
10.5[3]/10.6[2]	Description Waste Added During Processing	KITTY LITTER, BAG OUT STUB	KITTY LITTER, STUB OUTS	KITTY LITTER, STUB OUTS	

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S 822952

Comments: ROOM TRASH, PLASTICS, GLOVE BOX GLOVES, NITRATE SALTS, MATS, LEAD SHIELDING, KITTY LITTER, WASTE LOC

11.1[1] Performed By: BRIAN GALLEGOS, 267129, 11-06-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: JOSE JUAREZ, 221452, 11/6/13 0340
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 9-26-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501563
Lot No.: 0238367
Manufacture Date: 2013

5.[8] Overpack filtered vent and 2-in. bung torque wrench information:

	Filtered Vent	2-in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Tolerance:	+/- 4% cw +/- 6% ccw	+/- 3% cw +/- 6% ccw

Overpack filtered vent information:

Manufacturer: Nucfil
Model No.: 013
Serial No.: 26-909
Manufacture Date: 10-11

5.[9] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

5. [11] Performed By: Frederick Archuleta / [signature] / 1228426 / 9-26-13
Waste Handling Technician (print) Signature Z # Date

5.[15] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5. [18] 2-in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: Frederick Archuleta / [signature] / 1228426 / 9-26-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Jose Jorez / [signature] / 1224522 / 11/6/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 11/5/13 RS

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68492

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 036245
Cal. Expiration Date: 8-05-14
Range in ft-lb: 16-80
Tolerance: ±3% cw ±6% ccw

7.[24] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Brian Gallegos / Bri Gallegos / 267129 11-06-13
Waste Handling Technician (print) Signature Z# Date

7.[26] Overpack drum closure ring torque value: 60 ft-lb

7.[29] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[34][B] Platform scale serial number: 019048
Platform scale calibration expiration date: 10-14-14

7.[34][D] 85-gal overpack drum gross weight (lb): 168.2 lb

Comments: N/C

8.1[1] Performed By: Brian Gallegos / Bri Gallegos / 267129 11-06-13
Waste Handling Technician (print) Signature Z# Date

8.1[7] Reviewed By: Jose Perez / Jose Perez / 222452 11-6-13
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 10-24-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68573

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240119
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC 1.5 - 2SPVC
Serial No.: L-6749
Manufacture Date: 1/13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Range in ft-lb:	40-200	10-80
Tolerance:	±4%cw ±6%ccw	±3%cw ±6%ccw

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: MICHAEL MONTOYA [signature] 191352 / 10/24/13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019 DS
Serial No.: LM-829
Manufacture Date: 12/12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76 lbs

5.[34][E] Drum ID No.: 68573

Comments: N/C

5.[35] Performed By: MACHAEZ MONTOYA [signature] Z# 191352 Date 10/24/13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Jose Serra [signature] Z# 1221429 Date 11/6/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

Working Copy
Date: 11/5/13 HS

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68573

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038369
Cal. Expiration Date: 12-18-13
Range in ft-lb: 16-80
Tolerance: +/-3% CW + +/-6% CCW

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Melinda Stewart / Melinda Stewart / 1277268 / 11-6-13
Operator (print) / Signature / Z # / Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range in ft-lb:	N/A	N/A
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: / / / /
Operator (print) / Signature / Z # / Date

6.[17][C] 2 in. bung plug torque value: _____ in-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 168573

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 340.4 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/C

6.[32] Performed By: Brian Gallegos [illegible] 267139 11-06-13
Operator (print) Signature Z# Date

7.1[4] Reviewed By: Jose Jerez [illegible] 122421 11-6-13
Supervisor or designee (print) Signature Z# Date

IC 3113 gr

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 608605

5.[3] Drum information:
Purchase Order No.: 50158
Lot No.: 0240119
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: 3OP
Model No.: 16CPVC1.5-25PVA
Serial No.: L-60760
Manufacture Date: 1-13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	1002116	0360245
Cal. Expiration Date:	12-18-13	8-5-14
Range in ft-lb:	40-200 in-LB	16-80
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: GERARD ESPINOZA (Operator (print)) [signature] (Signature) 1237720 (Z #) 10/31/13 (Date)

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019 DS
Serial No.: LM-310
Manufacture Date: 12-12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76.0 lbs

5.[34][E] Drum ID No.: 608605

Comments: N/C

5.[35] Performed By: GERALD ESPINOZA / [signature] / 1237721 / 10/31/13
Operator (print) / Signature / Z # / Date

7.1[4] Reviewed By: Jose Jerez / [signature] / 1221421 / 11/4/13
Supervisor or designee (print) / Signature / Z # / Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68605

6.[9] Drum closure ring torque wrench information:

M&TE No.: 036245
Cal. Expiration Date: 8-05-14
Range in ft-lb: 16-80
Tolerance: ±3% cw ±6% ccw

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: BRIAN GALLEGOS / Brian Gallegos / 1267179 / 11-06-13
Operator (print) / Signature / Z # / Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range in ft-lb:	N/A	N/A
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: / / / /
Operator (print) / Signature / Z # / Date

6.[17][C] 2 in. bung plug torque value: _____ in-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68605

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 11-06-13 BG ~~374.2~~ 374 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/C

6.[32] Performed By: BRIAN GALLEGOS (Operator (print)) [signature] (Signature) 1267129 (Z #) 11-06-13 (Date)

7.1[4] Reviewed By: Jose Jerez (Supervisor or designee (print)) [signature] (Signature) 1221521 (Z #) 11/6/13 (Date)

10-31-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 081007

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240119
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC1.5-25PVC
Serial No.: L-6762
Manufacture Date: 1-13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	100216	036245
Cal. Expiration Date:	12-18-13	8-5-13
Range in ft-lb:	40-200 in-lb	16-80
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: GERALDO ESPINOZA [signature] 1237720 / 10/31/13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019 DS
Serial No.: LM-305
Manufacture Date: 12-12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76.0 lbs

5.[34][E] Drum ID No.: 168607

Comments: N/C

5.[35] Performed By: GERALD ESPINOZA / [signature] / 1237720 / 10/31/13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Jose Jeyer / [signature] / 1241521 / 11/1/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68607

6.[9] Drum closure ring torque wrench information:

M&TE No.: 036245
Cal. Expiration Date: 8-05-14
Range in ft-lb: 16-80
Tolerance: ±3% cw ±6% ccw

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: BRIAN GALLEGOS / [signature] / 126129 / 11-06-13
Operator (print) / Signature / Z # / Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range in ft-lb:	N/A	N/A
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: _____ / _____ / _____ / _____
Operator (print) / Signature / Z # / Date

6.[17][C] 2 in. bung plug torque value: _____ in-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68607

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 274.2 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/C

6.[32] Performed By: BRIAN GALLEGOS / [signature] / 2671259 / 11-06-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Jose Jerez / [signature] / 2214521 / 11/6/13
Supervisor or designee (print) Signature Z # Date

1458
SP78

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S822952 Container Type: 55-GAL Gross Weight (lbs): 425
Inner Seal #: 011370 Filter Prefix: LAVC Filter Serial #: 02848
Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS NITRATE SALTS
Total PE-Ci Activity: 1.95E+00 Equivalent Combustible PE-Ci: 7.31E-01 AM-241 PE-Ci: 5.08E-01
Total Fissile Gram Equivalents: 8.6 Total Surface Dose Rate (mrem/hr): 5
EPA Code(s): D007; D008; D009
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 1/9/2012 Comment: Lead liner, >1% liquid, impenetrable item
Certified RTR Comment: None
Prohibited Items: ☐ Sealed > 4 Liters ☑ Liquid ☐ Pressurized Container ☑ Impenetrable Item ☐ Other
Security Determination: ☑ Green ☐ Yellow
Remediation Determination: ☐ VE ☑ PID ☐ Split ☑ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☐ >100 and <1,000 ☑ >1,000 and <10,000 ☐ >10,000
TRUCON Code: Production Control Comments: Ensure EPA Codes D007, D008, and D009 are on the label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey / Signature / 100681 / 12/20/12
Production Control (Print) Z Number Date

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☑ No ☐ Unknown
Processing Determination: ☑ Accept ☐ Reject
WDP Engineering Comments: Nitrate Salts
Net Wt: 365# Generator info shows 3 items of nitrate salts; weights range from 82-190#. No RTR BDR. Nitrate salts are typically packaged in plastic bags; undocumented liquids &/or debris may be present. RTR PS shows prohibited liquids, impenetrable item(s), & lead liner. No chemicals identified. Applicable waste codes are for chromium, lead, & mercury. Nitrate salts require repack w/ admixture.

Performed By: Valerie Rhodes / Valerie Rhodes / 126091 / 1/23/13
WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns: Do not push or press on waste with hands. Use heavy duty gloves during processing.
Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments: USE Proper PPE Mike Katie

Performed By: G Mk / G Mk / 149235 / 6/19/12
TRU Remediation Operations (Print) Signature Z Number Date
Jose Jerez / Jose Jerez / 221452 / 6/22/13

1 Hs Rerun Jolly Smallpart CSP, may contain Pb, Hg & Cr
1-29-13

Discardable Waste Log Sheet

DrumID: 011370

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	EXFS 517 F1	86.36	NITRATE SALTS		4.44	42	13/11	
2	EXFS 518 F1	37.27	NITRATE SALTS		6.89	52	5/11	
3	EXFS 519 FA	41.13	NITRATE SALTS		1.92	52	5/11	
		164.76 kg						

19 3 0 1 3

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: 4/18/13

Container No. (5.[1])	S822952					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal					
Filtered Vent Type (5.[1])	PDS					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	2.32 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	1003.63 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Erik Loechell (CCP (Print)), 234183 (Z#)

Reviewed By: Nathan Wale (CCP (Print)), 238866 (Z#)

Comments:

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: SUSAN RAMSEY (Waste Handling Operator (print)), Susan Ramsey (Signature), 100661 (Z#), 5/20/13 (Date)

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130418c\
Data File : S822952.D
Acq On : 18 Apr 2013 1:06 pm
Operator : EL
Sample :
Misc : 55 GAL DRUM FROM FILTER-UN-19DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 18 13:15:41 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Wed Feb 20 11:23:15 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	4.063	96	8797994	207.75 ppmv	0.00
15) Chlorobenzene-d5	6.639	117	7113370	178.75 ppmv	0.00
Target Compounds					Qvalue
1) Hydrogen	1.900	GC1	286267	1003.63 ppmv	100
12) Benzene	3.720	78	82386	2.32 ppmv	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

VOCGAS.M Thu Apr 18 13:15:56 2013 UNIT12

11-5-13

0545~~0620~~ HS ASSUMMING WCRR OPS. CENTER H.SMITH

0545~~0620~~ 11-5-13 HS ~~0620~~ HS 11-5-13 0541 LATE ENTRY, COMPLETED OUTSIDE ROUNDS

0615 STARTING PRE-JOB BRIEFING, DISCUSSING EMPLOYEE SAFETY.

0655 PRE-JOB BRIEFING COMPLETED

0802 BAGGING OFF, BAGGING ON 1 DAUGHTER

0922 BEGINNING MOVEMENT INTO TA 50-69 FROM TA50-175 TA50-194/75 TRANSPORTAINERS

0952 BAGGING OFF 1 DAUGHTER BAGGING ON S 823127

1027 BAG OFF - BAG ON COMPLETE, MOVEMENT COMPLETED

1045 PERMISSION GRANTED TO MANIPULATE WASTE, BEGIN MOVE OUT TO TRANSPORTAINERS

1047 TECH IS REPORTED TO OPS CENTER, WHILE OPERATOR WAS NEUTRALIZING LIQUID FROM DRUM ON BOX, NOTICED LIQUID SMOULDERING. TO NOTIFY I-H, PORTS HAVE BEEN PUT ON STATIONS #1 & #2 OPERATORS HAVE PAUSED WAITING FOR RESULTS FROM I-H AND RCT's.

1106 PER RCT's INSTRUCTIONS OPERATORS ARE EXITING BUILDING TA 50-69 FOR PAUSE TO DISCUSS EVENTS

1113 MOVEMENT INTO TA50-194 AS COMPLETE

1325 OPERATOR RETURNED FROM OCC MED WITH NO RESTRICTIONS, OK TO RETURN TO WORK

1326 ~~1304~~ HS 11/5/13 1304, OPERATORS ENTER BUILDING TO CHECK GLOVEBOX GLOVES. LATE ENTRY.

1341 SOS ADVISED OPS. CENTER, NO BREACH IN GLOVES, NO DEGRADATION OF HEX-PRAKIR GLOVE WHERE LIQUID CAME IN CONTACT WITH GLOVE, RCT's PERFORMING SMEAR. SOS WILL BRIEF OPERATORS BEFORE REENTERING FACILITY.

1352 SOS BRIEFED OPERATORS ON GLOVE CONDITIONS AND LIMITS OF WORK WITH CHEMICALS, AND ADVISED OPERATORS THAT WITH OCC MED & RCT's WERE GIVEN PERMISSION TO RETURN TO WORK

CONTINUED ON NEXT PAGE - H SMITH

11-5-13 CONTINUED FROM PREVIOUS PAGE H SMITH

1422 OPERATORS RE ENTER BUILDING TO CONTINUE TO PROCESS

1435 STARTING INSIDE ROUNDS.

1445 STARTING OUTSIDE ROUNDS.

1455 ITEM #63 OOS, OKAY TO PROCEED PER CSE DOCUMENTATION INSIDE ROUNDS

1457 COMPLETED INSIDE ROUNDS

1505 COMPLETED OUTSIDE ROUNDS

1540 INSIDE AND OUTSIDE ROUNDS REVIEWED BY SOS

1555 BAGGING OFF - BAGGING ON 1 DAUGHTER AND CONTINUE TO PROCESS

1614 BAG OFF COMPLETE

1733 BAGGING OFF DAUGHTER BAGGING ON S864662

1802 BAG OFF COMPLETE

11-5-13 BEING RELIEVED BY OCO CLAYTON MULLINS HASMITH

NO FURTHER ENTRIES ON THIS PAGE HSMITH

11/5/13

1805 Assuming WCRRF Operations Center. CA

1820 SOS starting Pre-Job with turnover from day shift. Also discussed similar response to situation that happened today, as well as briefed to new IWD.

1844 Pre-Job complete.

2326 Bagging off 1st daughter, bagging on a 2nd.

2337 Bag off/on complete.

0140 Turning over Operations Center to Jose Jerez. CA

0140 Assuming CCR position, completed turnover with Clayton Mullins. [illegible]

0145 Operator reporting that during inspecting the drum lift he noticed that it was leaking. SOM was notified and he is going to the building to inspect the leak.

0200 SOM reporting that it is leaking and it is coming from a seal from inside of the hydraulic motor. a Caution tag has been generated and placed on the Rotb Grip

0235 Starting outside rounds

0300 Completed outside rounds.

0410 Bagging off Parent and one daughter, Bagging on 5822952

0428 Bag on Bag off Complete

0430 Starting Inside rounds

0455 Inside rounds complete.

0535 Inside and outside rounds reviewed and signed by SOS Operators performing housekeeping duties per SOM inside and outside of the facility.

0555 Securing CCC position for the evening. Turning over to A. Smith [illegible]

No further entries on this Page

WCRR DAYSHIFT 11-5-13

0630 ASSUMED SOM WATCH FOR 11-5-13.
0640 MORNING CALL IN.
1030 BAG OFF/BAG ON S823127.
1108 WORKERS CALLED A PAUSE BECAUSE OF A WORKERS HAND GOING NUMB WHILE NUETRALIZING A HALF GALLON OF A LIQUID WITH A PH OF 11.
1115 LEFT MESSAGE WITH FOD OVER T1108 ENTRY
1117 REPORTED T1108 TO PROGRAM MANAGER.
1125 DIRECT CONTACT TO FOD. T1108 ENTRY
1200 TUESDAY ROUNDUP/DAILY CALL IN.
1216 SENDING T1108 TO DCCMED FOR DOCUMENTING
1224 TURN SOM DUTIES OVER TO J. GUADAGNOLI.
1224 Assumed the SOM Duties at WCRRF [signature]
1325 Operator returned from OCC Med and it was identified that he can return to work and there were no restrictions.
1341 An operator, RCT, and ES/IH entered the facility and inspected the glovebox glove station 1 Left hand. RPI surveys were done and the glove was noted acceptable, no degradation. Upon discussion with ES/IH the employees hand ~~this~~ gloved 11-5-13 came in contact with the solution Black/Brown liquid dripping from the edge of the drum when he felt the difference in temperature. Drum # S823127
1405 Conducted follow up with machine shop to status operators on steel plates. the shop noted arrival of material at 5AM-30 and should be able to work on the plates tomorrow
1523 Conducted follow up on parts for the generator - The planner indicated parts are to be procured offsite and the package will include changing the air filter and performing a load test. Anticipated to be scheduled during our next maintenance day.
1555 Inside operators report bagging off and bagging on / daughter and continue to process.
1614 Bag off is noted completed
1733 Operators report bagging off another daughter and bagging on Parent S8646612
1802 Bag offs and bag ons noted completed.
1805 Initiated shift turnover check list
1807 Relieved of SOM duties by A. Axtell [signature]

No Further Entries this page
[illegible]

11/5/13 Night Shift

1807 Reviewed shift turnover checklist, approved and posted Nightshift operations watchbill. Assumed WCRR SOM position.

1845 Pre job brief conducted by SOS completed. IH safety topic was related to day shift operator experiencing numbness on hand when liquid came in contact w/ gloves. Stressed importance of pausing work and notifying management/IH/safety for evaluation. IH also briefed workers to new IWD covering Decontamination. Briefed workers to active shift orders for Manual Drum Movements and Precautions to prevent bag tears. Covered current status of parent drum on WCG. Stressed being aware when "zoning out" and working on auto-pilot. Keep communicating with one another when on WCG to ensure everyone is engaged and on same page.

1915 Released by signature IWD # 2013-002 Decon activities outside the WCG and within the Transportainers OCO updating the master IWD index

2200 Operator reporting that drum in process proving to be difficult. Drum contents is packed tightly and hardened - like being frozen.

2337 Completed bag off of first ~~drum~~ 11/5/13 daughter. Continuing to process.

11/13 0015 Operators breaking for lunch.

0115 Resuming operations.

0145 Notified by OCO that the Roto Grip used in 50-69 is reported to have a hydraulic leak. Entering 50-69 at high bay to investigate

0200 Roto Grip is determined to be leaking at the hydraulic motor that rotates drums. Leak is small - leaving a quarter size drop on the floor when operator wiped the area dry, fluid was visible again as a drop within a minute. Taking the Roto Grip out of service w/ Caution tag and submitting an FSR. Movement of drums on and off platform scale will take place using fork lift.

0425 Completed all bag offs for parent # S864662 (2 daughters total) Bagged on S822952.

Continued next page →

WCRR SOS Log Book

11/05/13

0600 0600 Assuming SOS position for the day. Conducted turn over with the off going SOS Jose Jerez DZB

0615 0615 Started Pre job brief with off going shift. Parvent bagged on with 30% remaining. Safety talk about over tightening bands, glove box ergonomics split the kitty litter in half to ~ 20 lbs. Staying focused with task at hand.

0802 0802 Bagging off/on 1 daughter

0922 0922 Begin move into IA-50-69.

0952 Bagging off 1 daughter and Bagging on S 823127

1027 Bag on/off and movement completed.

1045 Move out of 50-69

1047 ~~Tech 15~~ DZB 11-5-13 Minor Condition: Tech ~~15~~ 14 DZB 11-5-13 reported that he was neutralizing a liquid from drum # S 823127. He had some liquid run across his left knuckle area. He felt a tingling sensation and then his hand got cold. The liquid was not the normal color of yellow/green it was a coffee color. All work was paused and the drum was put into a safe configurate. All workers exited the building. RCT's surveyed the area and found no gross contamination. Management was notified along with IH Tech 15 was sent to OC Med just to document the incident per Robert Allred.

1300 Tech 15, IH and RCT entering 50-69 to inspect gloves on station 1 to ensure gloves were not breached. Everyone was briefed to how and what to look for while inspecting the glove. Use the right hand glove, do not stock hand on left side. Have RCT monitor for any contamination

1325 Tech 14 returns from OC Med with no restrictions. Needs to report back to OC Med 11/06/13 @ 0700 for a recheck.

1327 Tech 15 reports that after glove inspection completed no degradation of Hex Armour glove or glove box glove. Both gloves not breached. RCT reports no contamination found in glove.

1400 Crew briefed about the pause work situation and returning to work. Will continue to process drum # S823127.

1540 Signed off inside/outside rounds

1555 Bag on/bag off 1 daughter and continue to process.

1614 Bag on/off completed.

1733 Bag off daughter. Bag on S 864662.

11/07/13 0810 Secured SOS Position for the day. Turning over to Jose Jerez. DZB

No further entries on this page. DZB

CCRR 505 Log Book

11/5/13

1800 ~~0400~~ Assuming 505 position for the evening for Jay

1810 Performing turnover with off going SS Robert Blaine

1815 Starting Pre-Job Operators from Day crew giving turnover. Fresh Parent on the box and fresh daughter, one daughter has a bag that split and needs to be replaced. Discussed incident with operator that felt a COD sensation on his hand while bagging. It was conducted and was determined that it was placed. Discussed with operators that the appropriate thing to stop work if it happens again and notify the appropriate personnel & it can be discussed. Also discussed wearing proper clothing for the weather. Have three operators in training will be shadowed, enough people to make a workable

1845 Conducted Pre-Job brief

1900 Operators heading to the back to start processing 5864612

2130 Operators reporting that material in the parent drum is completely used and they are using a hand tool to clip it away at it, one operator believes that the material may be frozen and to feel

2226 Bagging off one daughter, bagging on second daughter.

2251 Bag on Bag off complete

0015 Operators breaking for lunch

0115 Operator returning from lunch.

minor issue 0145 Operator reporting that the drum handler has a hydraulic oil spill to come out to the dock day to but it is more bermuda.

0200 SOM reporting that hydraulic leak is coming from a seal inside of the hydraulic motor. A Caution tag has been generated and placed on the Pot Grip.

0413 Bagging off Parent and one daughter, Bagging on 5822952

FRG 0428 Bag on Bag off complete

0535 Received and signed off on the rounds. Per instruction from the SOM the Brewer Unit was moved on aux power. All operators to perform housekeeping inside and outside, ensure all PPE is stocked and with supplies to the next crew.

11/6/13 0605 Securing 505 position. Jay

See Office on Next Page

11/5/13 Night shift continued

11/6/13 0445 SOS informed that empty 85 containing ~~old~~ RLG 11/6/13 processed parent drum cannot be placed onto scale w/ forklift due to no drum grabber for 85's inside 50-69. Inventory control has in the past assigned standard tare weight of 170 lbs to nested drums.

0541 Reviewed AM round sheets

11/6/13 0603 Relieved by J. Guadagnoli as WCRR SOM. [illegible]

No further entries this page RLG

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0127
Examination Date:	11/13/2013
Waste Container ID:	68573
Video/Audio Recorded Media Number:	LA-RTR2-13-0127 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 154.0 kg Tare Wt.: 33.4 kg Net Wt.: 120.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	75 %

CCP Radiography Data Sheet

Waste Container ID: 68573

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM:

OI:

C:

R: Leaded rubber gloves

XPM: 90 mil liner lid

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	25.0
Plastics (waste materials) (XPM):	1.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	94.6
Soils (S):	
Total WMP Weight:	120.6

CCP Radiography Data Sheet

Waste Container ID: 68573

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments: N/A

RTR Operator:

Michael Simmons		11/13/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68573	Count Sequence Number:	23854
Operator:	D3PW2DK1\operator		
Assay Start:	11/15/2013 12:54:09 PM		
Description 1:	1LANDA1866		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6, (MT-42), Not Precision		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 121.0 kg	Net:	121.0 kg
Container:	Volume: 208.0 l	Full:	75.0 %
Density:	0.780 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	23854	Batch Number:	1LANDA1866
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68573	Analysis Date:	11/15/2013

Net Weight	121000.0 g			
Pu mass	3.09E+000	+-	5.22E-001	g
TRU Alpha Activity	2.86E+000	+-	1.41E+000	Ci
TRU Activity Concentration	2.36E+004	+-	1.16E+004	nCi/g
Pu-239 Equivalent Activity	2.88E+000	+-	1.41E+000	Ci
Pu-239 FGE	2.01E+000	+-	3.29E-001	g
Decay heat	9.48E-002	+-	4.68E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	3.48E-002	2.45E-005	4.88E-006	2.04E-006
PU238	7.28E-003	1.24E-001	2.10E-002	9.84E-005
PU239	1.94E+000	1.21E-001	2.04E-002	9.53E-005
PU240	1.90E-001	4.32E-002	7.30E-003	3.41E-005
AM241	7.49E-001	2.57E+000	1.41E+000	4.66E-002
PU241	1.67E-002	1.72E+000	2.90E-001	1.36E-003
PU242	9.34E-001	3.69E-003	6.23E-004	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	5.80E-007
U233	<LLD	<LLD	0.00E+000	3.92E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.21E-006
U238	<LLD	<LLD	0.00E+000	1.91E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 11/21/13

ITR: _____ Date: 11-22-13

Automated Independent Technical Review

Count Sequence Number: 23854 Batch Number: 1LANDA1866
Counter ID: MCS HENC #1
Container ID: 68573
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 11/15/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,42.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlain Date: 11-19-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **68573**

BDR Number: **LA13FG12120**

Sampling Date: **11/22/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	226.64	
74-82-8	Methane	6.56	U
67-56-1	Methanol	3.62	
60-29-7	Ethyl Ether	0.12	U
75-35-4	1,1-Dichloroethylene	0.20	U
67-64-1	Acetone	0.42	U
75-34-3	1,1-Dichloroethane	0.72	U
156-59-2	cis-1,2-Dichloroethene	0.09	U
78-93-3	Methyl ethyl ketone	0.90	U
110-82-7	Cyclohexane	0.59	U
71-43-2	Benzene	0.28	
107-06-2	1,2-Dichloroethane	0.56	U
71-36-3	1-Butanol	0.38	U
108-10-1	Methyl isobutyl ketone	0.66	U
108-88-3	Toluene	1.33	
108-90-7	Chlorobenzene	0.67	U
100-41-4	Ethylbenzene	0.59	U
108-38-3/106-42-3	m- and p-Xylene	0.38	U
95-47-6	o-Xylene	0.36	U
108-67-8	1,3,5-Trimethylbenzene	0.65	U
95-63-6	1,2,4-Trimethylbenzene	0.78	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\131122c\
Data File : 68573.D
Acq On : 22 Nov 2013 11:51 am (#1); 22 Nov 2013 11:50 am (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 22 12:00:50 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Wed May 22 12:06:27 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	4.063	96	5573727	207.75 ppmv	0.00
15) Chlorobenzene-d5	6.639	117	4342258	178.75 ppmv	0.00
Target Compounds					Qvalue
1) Hydrogen	1.907	GC1	64650m	226.64 ppmv	
4) Methanol	0.831	31	1065	3.62 ppmv	100
12) Benzene	3.723	78	6515	0.28 ppmv #	88
17) Toluene	5.580	92	23272	1.33 ppmv	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0127
Examination Date:	11/13/2013
Waste Container ID:	68605
Video/Audio Recorded Media Number:	LA-RTR2-13-0127 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 169.5 kg Tare Wt.: 33.4 kg Net Wt.: 136.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 68605

Section 3: Container Inventory and Comments (Detailed descriptions)	
IM:	
AM:	
OM:	
OI:	
C:	
R:	
XPM:	Plastic bags
OR:	
IN:	Homogeneous solids
S:	

Section 4: Packaging Material and Waste Material Parameters	
Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	130.1
Soils (S):	
Total WMP Weight:	136.1

CCP Radiography Data Sheet

Waste Container ID: 68605

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments: N/A

RTR Operator:

Michael Simmons		11/13/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68605	Count Sequence Number:	23857
Operator:	D3PW2DK1\operator		
Assay Start:	11/15/2013 3:00:05 PM		
Description 1:	1LANDA1866		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6, (MT-42), Not Precision		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 136.0 kg	Net:	136.0 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.690 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	23857	Batch Number:	1LANDA1866
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68605	Analysis Date:	11/15/2013

Net Weight	136000.0 g			
Pu mass	6.66E+000	+-	1.06E+000	g
TRU Alpha Activity	2.88E+000	+-	1.23E+000	Ci
TRU Activity Concentration	2.12E+004	+-	9.02E+003	nCi/g
Pu-239 Equivalent Activity	2.93E+000	+-	1.23E+000	Ci
Pu-239 FGE	5.38E+000	+-	7.16E-001	g
Decay heat	9.52E-002	+-	4.08E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	4.78E-002	3.37E-005	6.21E-006	1.88E-006
PU238	1.57E-002	2.68E-001	4.25E-002	9.75E-005
PU239	4.19E+000	2.60E-001	4.11E-002	9.45E-005
PU240	4.10E-001	9.30E-002	1.47E-002	3.38E-005
AM241	6.58E-001	2.26E+000	1.23E+000	3.69E-002
PU241	3.59E-002	3.70E+000	5.86E-001	1.35E-003
PU242	2.01E+000	7.94E-003	1.26E-003	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	5.53E-007
U233	<LLD	<LLD	0.00E+000	3.71E-003
U234	2.33E-002	1.45E-004	3.63E-005	0.00E+000
U235	1.66E+000	3.59E-006	9.00E-007	1.81E-006
U238	<LLD	<LLD	0.00E+000	4.47E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 11/21/13

ITR: _____ Date: 11-22-13

Automated Independent Technical Review

Count Sequence Number: 23857 Batch Number: 1LANDA1866
Counter ID: MCS HENC #1
Container ID: 68605
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 11/15/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,42.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 11-19-13

Waste Container ID: **68605**

BDR Number: **LA13FG2119**

Sampling Date: **11/22/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	131.26	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131122c\
Data File : 68605.D
Acq On : 22 Nov 2013 12:07 pm (#1); 22-Nov-13, 12:06:46 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 22 12:15:39 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.535	96	4242776	205.75	ppmv	0.02
15) Chlorobenzene-d5	5.845	117	3361514	177.50	ppmv	-0.02
Target Compounds						Qvalue
1) Hydrogen	1.614	GC1	987m	131.26	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0127
Examination Date:	11/13/2013
Waste Container ID:	68607
Video/Audio Recorded Media Number:	LA-RTR2-13-0127 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 124.5 kg Tare Wt.: 33.4 kg Net Wt.: 91.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	55 %

CCP Radiography Data Sheet

Waste Container ID: 68607

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic containers, plastic bag

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	12.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	1.4
Organic Matrix (OR):	
Inorganic Matrix (IN):	77.7
Soils (S):	
Total WMP Weight:	91.1

CCP Radiography Data Sheet

Waste Container ID: 68607

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments: N/A

RTR Operator:

Michael Simmons		11/13/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68607	Count Sequence Number:	23856
Operator:	D3PW2DK1\operator		
Assay Start:	11/15/2013 2:18:12 PM		
Description 1:	1LANDA1866		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6, (MT-42), Not Precision		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 91.9 kg	Net:	91.9 kg
Container:	Volume: 208.0 l	Full:	55.0 %
Density:	0.800 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	23856	Batch Number:	1LANDA1866
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68607	Analysis Date:	11/15/2013

Net Weight	91900.0 g		
Pu mass	3.82E+000	+- 5.17E-001	g
TRU Alpha Activity	1.50E+000	+- 6.28E-001	Ci
TRU Activity Concentration	1.63E+004	+- 6.83E+003	nCi/g
Pu-239 Equivalent Activity	1.53E+000	+- 6.28E-001	Ci
Pu-239 FGE	3.07E+000	+- 3.65E-001	g
Decay heat	4.95E-002	+- 2.09E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.33E-002	1.64E-005	3.33E-006	1.51E-006
PU238	8.98E-003	1.54E-001	2.08E-002	9.92E-005
PU239	2.40E+000	1.49E-001	2.02E-002	9.61E-005
PU240	2.35E-001	5.33E-002	7.22E-003	3.44E-005
AM241	3.32E-001	1.14E+000	6.27E-001	2.82E-002
PU241	2.06E-002	2.12E+000	2.87E-001	1.37E-003
PU242	1.15E+000	4.55E-003	6.17E-004	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	4.55E-007
U233	<LLD	<LLD	0.00E+000	2.92E-003
U234	1.32E-002	8.19E-005	2.24E-005	0.00E+000
U235	9.40E-001	2.03E-006	5.55E-007	1.14E-006
U238	<LLD	<LLD	0.00E+000	3.94E-005
AM243	2.18E-005	4.36E-006	1.20E-006	3.24E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 11/21/13

ITR: _____ Date: 11-22-13

Automated Independent Technical Review

Count Sequence Number: 23856 Batch Number: 1LANDA1866
Counter ID: MCS HENC #1
Container ID: 68607
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 11/15/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Analysis Status: Override enabled; data marked not available but were used. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,42.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 11-19-13

Waste Container ID: **68607**

BDR Number: **LA13FG2119**

Sampling Date: **11/22/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	90.37	U
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131122c\
Data File : 68607.D
Acq On : 22 Nov 2013 12:29 pm (#1); 22-Nov-13, 12:28:43 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 22 12:37:04 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.539	96	4229065	205.75	ppmv	0.02
15) Chlorobenzene-d5	5.845	117	3318286	177.50	ppmv	-0.02

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

S823004

S823004

Container Profile 747232

File Options Reports Help

S823004

747232	TBD-TRU	T-TTRU-TEMP	Active	Decommissioned

- General Information
- Weights/Volumes
- Location
- Account Information
- Waste Material Parameters
- Layers of Confinement
- Prohibited Items
- EPA Codes
- UHC
- Radioassay
- Radiological Survey
- Payload Preparation
- Container Closure
- Materials Added
- TRU Information
- TRU Information (TSDF)
- Radiological Calculations
- Shipping Description
- Site Treatment Plan
- Pending Tasks
- Genealogy
- Container Tags
- Task History
- Documentation
- Comment Log
- Edit Log

Genealogy

S823004

S823004
- LA00000068459
- LA00000068455
- LA00000068412
- LA00000068438 - EMPTY

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
0.01	%			

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: SB23004

6.2[4] Date Processed: 9-25-13

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☑ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☑ Liquids ☐ Pressurized Containers ☐ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] (S) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10-14-14

4.3[5][B] (S) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] (S) Stationary Fire Watch has been established: (> 300 PE-Ci Equivalent Combustible) (SAC 5.10.1.7.2) ☑ N/A
N/A
(Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☑ YES ☐ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Edward Martinez [signature] 1221911 9-25-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: S823004

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 551.2 lb
40.0

6.2[5][A] Parent Drum Lead Blanket Weight (lb): EM ~~591.2~~ lb
9-25-13

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 591.2 lb

6.2[7] (S) Total Parent Drum Weight < 624 lb (SR 4.5.1): ☒ SAT ☐ UNSAT

6.2[17][D] Drum lift hinge pin retaining clip replaced. N/A
Initials Z# Date

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

N/A
EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: S823004

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68455	68459	68412	N/A
10.1[4]	Daughter Drum Filter No.	LM-288	LM-266	LM-264	
10.1[4]	Daughter Drum Bag Filter No.	L-6799	L-6771	L-6757	
10.1[4]	Daughter Drum Purchase Order No.	501578	501578	501578	
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☐ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No			N/A	
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units		N/A	N/A	
10.3[5][A]	Free Liquid Volume/Units	3 gallons			
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead Shielding	Lead Shielding		
10.3[9][A]	PCB-contaminated Waste Description			N/A	
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	See comments	See comments	See comments	
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	80%	100%	20%	
10.5[3]/10.6[2]	Description Waste Added During Processing	Kitty Litter Stub outs	Kitty Litter	Stub out bags Kitty Litter	

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S823004

Comments: Nitrate salts, plastic, tape, Kitty litter Polly liner lid, stub outs, 3gallons Acid Liquid Neutralized and Absorbed

11.1[1] Performed By: Adam Segovia (Waste Handling Tech (print)) Adam Segovia (Signature) 276772 (Z #) 19-26-13 (Date)

11.1[8] Reviewed By: G Mh (SOS or designee (print)) G Mh (Signature) 149235 (Z #) 9-26-13 1650 (Date/Time)

Working Copy
Date: 9-18-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501563
Lot No.: 0258367
Manufacture Date: 13

5.[8] Overpack filtered vent and 2-in. bung torque wrench information:

	Filtered Vent	2-in. Bung
M&TE No.:	100216	058369
Cal. Expiration Date:	12-15-13	12-18-13
Tolerance:	+/-4% cw +/-6% ccw	+/-3% cw +/-6% ccw

Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 019
Serial No.: JL-907
Manufacture Date: 01/11

5.[9] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

5. [11] Performed By: IAN MARQUEZ / [signature] / Z76701 / 9-18-13
Waste Handling Technician (print) Signature Z# Date

5.[15] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5. [18] 2-in. bung plug torque value: 30 ft-lb

Comments:

8.1[1] Performed By: IAN MARQUEZ / [signature] / Z76701 / 9-18-13
Waste Handling Technician (print) Signature Z# Date

8.1[6] Reviewed By: Gilbert Martinez / [signature] / 14925 / 9-26-13
Supervisor or designee (print) Signature Z# Date

ATTACHMENT 5
Page 1 of 1

9-26-13

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68438

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range in ft-lb: 10-80
Tolerance: +/-3% cw +/-6% ccw

7.[24] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: ADAM Segovia / [signature] / 1276702 / 9-26-13
Waste Handling Technician (print) Signature Z # Date

7.[26] Overpack drum closure ring torque value: 60 ft-lb

7.[29] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[34][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 10-14-14

7.[34][D] 85-gal overpack drum gross weight (lb): 175.4 lb

Comments: N/C

8.1[1] Performed By: Brandon Chavez / [signature] / 1201712 / 9-26-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: G Martin / [signature] / 1HPD5 / 9-26-13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 9-17-13 ω

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68412

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240119
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC 1.5-2SPVC
Serial No.: L-6737
Manufacture Date: 1/13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Range in ft-lb:	40-200	10-80
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: MICHAEL MONTOYA / [signature] 191357 9/17/13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: LM-264
Manufacture Date: 12/12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☒ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76 lbs

5.[34][E] Drum ID No.: 68412

Comments: N/C

5.[35] Performed By: MICHAEL MONTOYA (Operator (print)) [signature] (Signature) 191352 (Z #) 9/17/13 (Date)

7.1[4] Reviewed By: G Mk (Supervisor or designee (print)) [signature] (Signature) 14925 (Z #) 9.26.13 (Date)

Working Copy
Date: 9-17-13 W

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68412

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038 370
Cal. Expiration Date: 8-2-14
Range in ft-lb: 10-80
Tolerance: +/-3% cw +/-6% ccw

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Adam Segovia / Adam Segovia / 2767021 / 9-26-13
Operator (print) / Signature / Z # / Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☐ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:	N	
Range in ft-lb:	A	
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: N/A
Operator (print) / Signature / Z # / Date

6.[17][C] 2 in. bung plug torque value: _____ in-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68412

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 116.4 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/C

6.[32] Performed By: Brandon Chavez / [signature] 134742 / 9-26-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Mtz / [signature] 149235 / 9-26-13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date 9/23/13 HS

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68455

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240999
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPUC 1.5-2 SPUC
Serial No.: L-6799
Manufacture Date: 1/13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Range in ft-lb:	40-206	10-80
Tolerance:	±4%cw ±6%ccw	±3%cw ±6%ccw

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Ivan Martinez (Operator (print)) [signature] (Signature) 276204 (Z#) 9-25-13 (Date)

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: LM-288
Manufacture Date: 12/12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76 lbs

5.[34][E] Drum ID No.: 68455

Comments: n/c

5.[35] Performed By: Ian Marquez [signature] 127625 6-23-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez [signature] N92351 6-26-13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

9-25-13

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68455

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038370
Cal. Expiration Date: 08/02/2014
Range in ft-lb: 10-80
Tolerance: +/- 3% cw and +/- 6% ccw

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Edward Martinez (Operator (print)) (Signature) 1239911 (Z#) 9-25-13 (Date)

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☐ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:	N/A	N/A
Cal. Expiration Date:		
Range in ft-lb:		
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: Edward Martinez (Operator (print)) (Signature) 1239911 (Z#) 9-25-13 (Date)

6.[17][C] 2 in. bung plug torque value: _____ in-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68455

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 299.4 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/C

6.[32] Performed By: Adam Segovia (Operator (print)) [signature] (Signature) 216202 (Z #) 9-26-13 (Date)

7.1[4] Reviewed By: Gilbert Martinez (Supervisor or designee (print)) [signature] (Signature) 149235 (Z #) 9-26-13 (Date)

ATTACHMENT 1
Page 1 of 2

9/23/13 HS

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68459

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240999
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC.5-2SPVC
Serial No.: L-6771
Manufacture Date: 01/13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12/18/13	12/18/19
Range in ft-lb:	40-200	10-80
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Ian Manuel Operator (print) | Signature | Z# | 9-25-13 Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: LM-266
Manufacture Date: 12/12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76 ~~68459~~ lbs

5.[34][E] Drum ID No.: 68459

Comments: N/C

5.[35] Performed By: Ian Marquez / [signature] 28620 / 9-25-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Mata / [signature] M92359 9.26.13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

Working Copy
Date: 9-25-13

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68459

6.[9] Drum closure ring torque wrench information:

M&TE No.: 638370
Cal. Expiration Date: 08/02/2014
Range in ft-lb: 10-80
Tolerance: +/-3% cw and +/-6% ccw

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Edward Martinez / [signature] / 1239911 / 9-25-13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:	N/A	N/A
Cal. Expiration Date:		
Range in ft-lb:		
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: Edward Martinez / [signature] / 1239911 / 9-25-13
Operator (print) Signature Z # Date

6.[17][C] 2 in. bung plug torque value: N/A in-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: N/A in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68459

6.[26] Scale File ID number: 919065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 510.0 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/A

6.[32] Performed By: Brandon Chase / [signature] 120442 / 9-26-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: GMJr / [signature] 14DXT 9.26.13
Supervisor or designee (print) Signature Z # Date

1958
S872

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S823004 Container Type: 55-GAL Gross Weight (lbs): 463
Inner Seal #: 011398 Filter Prefix: LAVC Filter Serial #: 03850
AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS
Total PE-Ci Activity: 5.80E+00 Equivalent Combustible PE-Ci: 2.18E+00 AM-241 PE-Ci: 4.71E-01
Total Fissile Gram Equivalents: 64.1 Total Surface Dose Rate (mrem/hr): 6
EPA Code(s): [redacted]D009
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 5/25/2007 Comment: Liquids Liquid Location: 15
Certified RTR Comment: None
Prohibited Items: ☐ Sealed > 4 Liters ☑ Liquid ☐ Pressurized Container ☐ Impenetrable Item ☐ Other
Security Determination: ☑ Green ☐ Yellow
Remediation Determination: ☐ VE ☑ PID ☐ Split ☑ Repack
Estimated 30-cm Dose Rate (mrem/hr): ☐ <100 ☐ >100 and <1,000 ☑ >1,000 and <10,000 ☐ >10,000
TRUCON Code: Production Control Comments: Ensure EPA Codes D007, D008, and D009 are on the label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey / [signature] / 100681 / 11/20/12
Production Control (Print) Signature Z Number Date

WDP Engineering

Chemicals Present (e.g., pyrophorics, acids, bases, shock sensitive, organic liquids, peroxides, crown ethers): ☐ Yes ☑ No ☐ Unknown
Processing Determination: ☑ Accept ☐ Reject
WDP Engineering Comments: Nitrate Salts
Net Wt. 403#. Generator info shows 4 items of nitrate salts with weights ranging from 63-168#. No RTR BDR available for review. RTR PS shows prohibited liquids. Nitrate salts typically packaged in plastic bags; other debris often present. Nitrate salts carry waste codes for chromium, lead, & mercury. Repack with admixture is required.

Performed By: Valerie Rhodes / Valerie Rhodes / 112689 / 1/2/13
WDP Engineering (Print) Signature Z Number Date

TRU Remediation Operations

☑ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns: Do not push or press on waste with hands. Use Hexarmor gloves during processing.
Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments: Use proper ratio of kitty litter to waste in accordance with the procedure.
Performed By: Jose Jerez / [signature] / 221452 / 2-5-13
TRU Remediation Operations (Print) Signature Z Number Date

Robin Stout RS 272995 2-11-13

HS Review: RL 206362 11.26.12 NOTES: D007 = chromium
D008 = lead

Noncertified TRU Waste Drum Item Information

DrumID: 011398

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	IXFS-519-FB		28.860	NITRATE SALTS		2.01	52	5/11	
2	IXFS-520-FD		29.320	NITRATE SALTS		5.23	52	5/11	
3	IXFS-521-F1		49.080	NITRATE SALTS		5.33	52	5/11	
4	IXFS-522-F1		76.360	NITRATE SALTS		55.53	52	5/11	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 210.2

Material Type	SNM (grams)	Items Net Wt (kg)
52	68.1	183.62
Totals	68.1	183.62

Attachment 1: LEL/VOC Sample Record

Torque Wrench Information (If Used)				☒ N/A
Serial/ID Number:		Cal. Due Date:	Torque Wrench Cal. Within Due Date (initials):	

	Container Number:	S873004							
	Container Type (SWB, 110-Gal, 85-Gal, or 55-Gal):	55 GAL.							
LEL Sample Information	LEL Reading (%)	N/A							
	($) Initial to Verify one of the following MultiRAE Reading (If Applicable): • <10%-LEL with no justification • 10% to 18% with justification	N/A							
	($) Initial to Verify < 8,000 ppm Hydrogen CCP Mass Spec Reading (If Applicable)					NA			
	Initial to Verify < 10,600 ppm Methane CCP Mass Spec Reading (If Applicable)								
VOC Sample Information	VOC Reading (ppm)	3 2k							
	($) Initial to Verify < 2,000 ppm MultiRAE Reading (If Applicable)	N/A							
	($) Initial to Verify < 7,000 ppm CCP Mass Spec Reading (If Applicable)								
	Filter Type:	72							
	WIPP Approved (SAT/UNSAT):	SAT							
	Filter Torque Value:*	N/A							

*No torque value required for 072/073 filters – Write "N/A' as applicable

Justification for a range of 10% to 18% of the LEL using a MultiRAE Plus Monitor: _____

The SOS or SOM shall review Attachment 1 to this procedure and ensure that they have been satisfactorily completed.

Signature [signature] Date 10-28-04 Time 1700

Attachment 1: LEL/VOC Sample Record (Sample Results Using the MultiRAE Plus Monitor)

Sample Date: 10/21/09

MultiRAE Plus Monitor Information (If Used)

Serial/ID Number: _____ Calibration Performed Within 30 Days

VOC Calibration Date: _____ Initials: _____

LEL Calibration Date: _____ Initials: _____

N/A

Pre-Use Performance Check (Bump Test):

a) VOC Value _____ VOC value is ≥ 90 PPM but ≤ 110 PPM (SAT/UNSAT) Initials: _____

b) %LEL Value _____ %LEL value is ≥ 45% LFL but ≤ 55% LFL (SAT/UNSAT) Initials: _____

Post-Use Performance Check (Bump Test):

a) VOC Value _____ VOC value is ≥ 90 PPM but ≤ 110 PPM (SAT/UNSAT) Initials: _____

b) %LEL Value _____ %LEL value is ≥ 45% LFL but ≤ 55% LFL (SAT/UNSAT) Initials: _____

Certified CCP Technician(s) Information and Data (If Used)

Name (Print)	Signature	Z Number
Erik Loechell	Erik Loechell	23413

CCP Hydrogen LEL/LFL (ppm): FHS 35

CCP Methane LEL/LFL (ppm): Ø

Benzene	3 J	Chlorobenzene		Cyclohezane		1,1-Dichloroethane		1,2-Dichloroethane	
1,1-Dichloroethane		Cis-1,2-Dichloroethylene		Ethyl benzene		Ethyl ether		Toluene	
1,2,4-Trimethylbenzene		1,3,5-Trimethylbenzene		m-Xylene		o-Xylene		p-Xylene	
Acetone		1-Butalnol		Methanol		Methyl ethyl Ketone		Methyl isobutyl Ketone	

Total CCP VOC value (ppm): 3 J

Instrument : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\091021c\
Data File : S823004.D
Acq On : 21 Oct 2009 2:15 pm (#1); 21-Oct-09, 14:12:20 (#2)
Operator : GR
Sample :
Misc : 55 GALLON LFL DRUM FROM UNDER DRUM LID (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 21 14:27:19 2009
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Tue Aug 25 13:16:42 2009
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	7.334	96	4631711	210.00	ppmv	-0.01
15) Chlorobenzene-d5	11.265	117	3985924	183.75	ppmv	-0.04
Target Compounds						Qvalue
1) Hydrogen	3.398	GC1	15212	1945.35	ppmv	100
12) Benzene	7.008	78	46297	3.26	ppmv	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

vocgas.m Wed Oct 21 14:28:11 2009

9-25-13
1805 Assuming WCRR operations center. (Coleman)
1820 Pre-job being conducted by SOS.
1838 Pre-job concluded.
1839 Procedure driven work is released.
1906 Operators entering 50-69 to resume operations.
1925 Initiating a drum movement from 50-69 to a transportainer.
2008 Drum movement out of 50-69 complete.
2038 Bagging off 2 daughter (JC 9-25-13) and 1 POC, bagging on S823004.
2138 Bag off/on complete.
2348 Bagging off 1 daughter, bagging on another daughter.
2356 Bag off/on complete.
9-26-13 0003 Operators exiting 50-69 for lunch.
0104 Beginning outside rounds.
0121 Item #19 is unsat, okay to proceed, FSR in place.
0131 Outside rounds complete.
0137 Initiating a drum movement from ~~50-69~~ JC 9-26-13 transportainer to 50-69.
0145 Drum movement into 50-69 is complete.
0146 Late entry - at 0125, operators back from lunch (JC)
0344 Beginning inside rounds.
0407 Item #63 on the rounds is OOS, okay to proceed per CSE documentation
0408 Inside rounds complete.
0455 Initiating a drum movement from 50-69 to a transportainer.
0505 Drum movement of JC 9-26-13 out of 50-69 complete.
0505 Both rounds reviewed by SOS.
9-26-13 0605 Relieved by OCO, Clarissa Velarde, J Coleman

No further entries this page.

9/25/13 Night Shift

1814 Reviewed shift turnover checklist, approved and posted Night Shift Operations Watch bill and assumed WCRR SOM position.

1815 Attended pre job brief conducted by SOS. Discussed current conditions of 50-69 and there is some discrepency between Operations and RP-1 turnover. SOS will evaluate. Illl commented on good catch of operator identifying from MSDS review that new neutralizer will not be compatible w/ bases. Talked about rotating personnel working on WCG - not only for dose reduction but for preventing physical exhaustion as well.

2008 Completed drum movement of 6 drums from 50-69 to transportainers

2138 Completed bagging off parent # 5833037 w/ 2 daughters and 1 POC total. Bagged on 5823004.

2356 Completed bag off of 1 daughter - continuing to process.

9/26/13 0003 Operators breaking for lunch.

0125 Resuming operations.

0145 Completed move in of 3 drums into 50-69 for processing. RCH 9/26/13

0505 Completed move out of 4 drums from 50-69 to transportainers.

9/26/13 0612 Relieved by J. Guadagnolo as SOM.

No further entries this page

RCH

9/25/13 WCRR SOS Log Book

1807 Assuming SOS position. CA

1818 Starting Pre-Job discussed correct steps taken for nose bleeds, using all tools and equipment correctly, and creating an operator aid for the alarm box of the fume hood.

1840 Pre-Job complete.

1925 Starting move out of 50-69.

2008 Move out complete.

2038 Bagging off 1 daughter and 1 POC (maybe 2 POC's), bagging on 5823004.

2138 Bag off/on complete, drum resulted in 2 daughters and 1 POC.

2348 Bagging off 1 daughter, bagging on a 2nd daughter.

2356 Bag off/on complete.

0137 Starting movement ~~out of 50-69.~~ CM 9-26-13 into 50-69.

0145 Movement in complete.

0455 Starting movement out of 50-69.

0505 Movement out complete.

0525 Signed of on the rounds.

0610 Relieved by Gilbert Martinez. 9/26/13 CA

No Further Entries on this Page

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0116
Examination Date:	10/4/2013
Waste Container ID:	68412
Video/Audio Recorded Media Number:	LA-RTR2-13-0116 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 53.0 kg Tare Wt.: 33.4 kg Net Wt.: 19.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	35 %

CCP Radiography Data Sheet

Waste Container ID: 68412

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C: Tape roll

R: Rubber gloves

XPM: Plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	8.0
Other Inorganic Materials (OI)	
Cellulosics (C):	0.1
Rubber (R):	1.0
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	8.5
Soils (S):	
Total WMP Weight:	19.6

CCP Radiography Data Sheet

Waste Container ID: 68412

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: N/A	

RTR Operator:

Eric Lyles		10/4/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68412	Count Sequence Number:	23710
Operator:	D3PW2DK1\operator		
Assay Start:	10/24/2013 1:40:39 PM		
Description 1:	1LANDA1852		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 19.6 kg	Net:	19.6 kg
Container:	Volume: 208.0 l	Full:	35.0 %
Density:	0.270 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	23710	Batch Number:	1LANDA1852
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68412	Analysis Date:	10/24/2013

Net Weight	19600.0 g		
Pu mass	2.55E+000	+-	3.80E-001 g
TRU Alpha Activity	1.14E+000	+-	5.00E-001 Ci
TRU Activity Concentration	5.83E+004	+-	2.55E+004 nCi/g
Pu-239 Equivalent Activity	1.15E+000	+-	5.00E-001 Ci
Pu-239 FGE	2.40E+000	+-	3.79E-001 g
Decay heat	3.76E-002	+-	1.66E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	2.45E-007
U233	<LLD	<LLD	0.00E+000	1.49E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	4.03E-007
NP237	1.67E-002	1.18E-005	1.33E-006	7.50E-007
PU238	2.33E-004	3.98E-003	8.11E-004	2.19E-004
U238	<LLD	<LLD	0.00E+000	4.85E-006
PU239	2.39E+000	1.48E-001	2.35E-002	8.17E-003
PU240	1.53E-001	3.47E-002	7.36E-003	1.91E-003
AM241	2.78E-001	9.55E-001	5.00E-001	1.38E-002
PU241	2.93E-003	3.01E-001	6.40E-002	1.66E-002
PU242	5.10E-004	2.01E-006	4.28E-007	0.00E+000
AM243	1.47E-005	2.94E-006	6.17E-007	1.63E-006

Errors quoted at 1.000 sigma

Operator: D. R. [illegible] Date: 10.29.13

ITR: Maria [illegible] Date: 10.29.13

Automated Independent Technical Review

Count Sequence Number: 23710 Batch Number: 1LANDA1852
Counter ID: MCS HENC #1
Container ID: 68412
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/24/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis Add-a-Source WARNINGS: Add-a-Source correction factor was set to one. Add-a-Source correction factor is less than n-sigma * the correction factor error.	OK
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	OK
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test failed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	Isotopic analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	OK
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: [signature] Date: 10/29/13

026

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **68412**

BDR Number: **LA13FG12108**

Sampling Date: **10/25/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	56.30	
74-82-8	Methane	9.63	U
67-56-1	Methanol	30.57	U
60-29-7	Ethyl Ether	1.77	U
75-35-4	1,1-Dichloroethylene	5.36	U
67-64-1	Acetone	11.55	U
75-34-3	1,1-Dichloroethane	2.29	U
156-59-2	cis-1,2-Dichloroethene	0.36	U
78-93-3	Methyl ethyl ketone	2.55	U
110-82-7	Cyclohexane	2.09	U
71-43-2	Benzene	0.47	U
107-06-2	1,2-Dichloroethane	0.92	U
71-36-3	1-Butanol	0.54	U
108-10-1	Methyl isobutyl ketone	3.11	U
108-88-3	Toluene	2.73	U
108-90-7	Chlorobenzene	0.87	U
100-41-4	Ethylbenzene	1.15	U
108-38-3/106-42-3	m- and p-Xylene	0.59	U
95-47-6	o-Xylene	0.63	U
108-67-8	1,3,5-Trimethylbenzene	0.72	U
95-63-6	1,2,4-Trimethylbenzene	0.78	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\131025c\
Data File : 68412.D
Acq On : 25 Oct 2013 2:29 pm (#1); 25 Oct 2013 2:28 pm (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 25 14:38:01 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Wed May 22 12:06:27 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	4.063	96	7403613	207.75	ppmv	0.00
15) Chlorobenzene-d5	6.636	117	5551971	178.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.903	GC1	16059m	56.30	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination	[ ] RTR Replicate Scan [ ] RTR Independent Observation
Site ID:	LANL
Batch Number:	LA-RTR2-13-0116
Examination Date:	10/4/2013
Waste Container ID:	68455
Video/Audio Recorded Media Number:	LA-RTR2-13-0116 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 136.0 kg Tare Wt.: 33.4 kg Net Wt.: 102.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	70 %

CCP Radiography Data Sheet

Waste Container ID: 68455

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags, liner lid

OR:

IN: Homogeneous solids

S:

Section 4. Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	8.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	3.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	91.6
Soils (S):	
Total WMP Weight:	102.6

CCP Radiography Data Sheet

Waste Container ID: 68455

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block except for Question 1)	
Is there observable liquid?	[X] Yes [ ] No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	[ ] Yes [X] No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	[ ] Yes [X] No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	[ ] Yes [X] No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	[ ] Yes [X] No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	[ ] Yes [X] No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	[ ] Yes [X] No
Is there an indication of wastes containing explosives or compressed gases?	[ ] Yes [X] No
Is there an indication of PCBs liquids?	[ ] Yes [X] No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	[ ] Yes [X] No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	[ ] Yes [X] No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	[ ] Yes [X] No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	[ ] Yes [X] No
Are there sealed containers GREATER than 4 liters?	[ ] Yes [X] No
Are there indications of inadequate protection for heavy and/or sharp objects?	[ ] Yes [X] No
Comments: N/A	

RTR Operator:

Eric Lyles		10/4/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68455	Count Sequence Number:	23706
Operator:	D3PW2DK1\operator		
Assay Start:	10/24/2013 10:45:19 AM		
Description 1:	1LANDA1852		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 103.0 kg	Net:	103.0 kg
Container:	Volume: 208.0 l	Full:	70.0 %
Density:	0.710 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

010
CJ 6/17/14

NDA 2000 Assay Report

Item Information

Item ID: 68455 Count Sequence Number: 23706
Operator: D3PW2DK1\operator
Assay Start: 10/24/2013 10:45:19 AM
Description 1: 1LANDA1852
Description 2: N/A
Location: LANL TA-54
Comment: AK-6
Matrix Type: Homo Sol. S3000
Container Type: 55 gallon drum
Weight: Net: 103.0 kg Net: 103.0 kg
Container: Volume: 208.0 l Full: 70.0 %
Density: 0.710 kg /l

SUPERSEDED CS 6/12/14

System Configuration

Counter: MCS HENC #1
Count Type: Item Count
Collimator/Geometry Setting: All Banks On (GE/- 0

Errors quoted at 1.000 sigma

CS 6/17/14 010A

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 23706
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 68455

Batch Number: 1LANDA1852
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 10/24/2013

Net Weight	103000.0 g		
Pu mass	1.68E+001	+-	3.05E+000 g
TRU Alpha Activity	5.66E+000	+-	8.25E-001 Ci
TRU Activity Concentration	5.50E+004	+-	8.01E+003 nCi/g
Pu-239 Equivalent Activity	5.70E+000	+-	8.25E-001 Ci
Pu-239 FGE	1.59E+001	+-	2.87E+000 g
Decay heat	1.86E-001	+-	2.73E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.24E-001	8.74E-005	1.63E-005	3.01E-006
PU238	1.54E-003	2.63E-002	4.77E-003	3.33E-005
PU239	1.58E+001	9.78E-001	1.78E-001	1.24E-003
PU240	1.01E+000	2.29E-001	4.16E-002	2.90E-004
AM241	1.29E+000	4.43E+000	8.05E-001	5.61E-003
PU241	1.93E-002	1.99E+000	3.62E-001	2.52E-003
PU242	3.37E-003	1.33E-005	2.42E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	7.19E-007
U233	<LLD	<LLD	0.00E+000	5.87E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.76E-006
U238	<LLD	<LLD	0.00E+000	1.39E-005

Errors quoted at 1.000 sigma

Operator: [signature] Date: 6-6-14

ITR: Marla [signature] Date: 6·6·14

011
6/17/14

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 23706
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 68455

Batch Number: 1LANDA1852
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 10/24/2013

Net Weight	103000.0 g		
Pu mass	1.68E+001	+-	3.05E+000 g
TRU Alpha Activity	1.40E+000	+-	1.85E-001 Ci
TRU Activity Concentration	1.35E+004	+-	1.80E+003 nCi/g
Pu-239 Equivalent Activity	1.43E+000	+-	1.85E-001 Ci
Pu-239 FGE	1.58E+001	+-	2.87E+000 g
Decay heat	4.39E-002	+-	5.77E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.24E-001	8.74E-005	1.63E-005	3.01E-006
PU238	1.54E-003	2.63E-002	4.77E-003	3.33E-005
PU239	1.58E+001	9.78E-001	1.78E-001	1.24E-003
PU240	1.01E+000	2.29E-001	4.16E-002	2.90E-004
AM241	4.72E-002	1.62E-001	2.94E-002	2.05E-004
PU241	1.93E-002	1.99E+000	3.62E-001	2.52E-003
PU242	3.37E-003	1.33E-005	2.42E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	7.19E-007
U233	<LLD	<LLD	0.00E+000	5.87E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.76E-006
U238	<LLD	<LLD	0.00E+000	1.39E-005

Errors quoted at 1.000 sigma

Operator: D. R. [illegible] Date: 10.29.13

ITR: Maria [illegible] Date: 10.29.13

011A
06/19/14

Automated Independent Technical Review

Count Sequence Number: 23706 Batch Number: 1LANDA1852
Counter ID: MCS HENC #1
Container ID: 68455
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/24/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	OK
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	OK
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Pu results taken from Passive Neutron data, U from Quantitative Gamma data.
Section 4 - MGA Analysis Expert review is recommended; the following validity tests failed: Normalized fit value (2.82) is greater than allowed (1.15). Fit value (24.16) is greater than allowed (2.50). Pu239 weight percent is outside limits [92.5, 95.0]. Note: The measured and declared isotopics are inconsistent.	Isotopic analysis failed. AK Isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	OK

a2
06/17/14

Comments	Disposition
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified. Am-241 direct reported from gamma results.

Expert Review by: Bart B. Marah Date: 6/5/14

013
6/17/14

Waste Container ID: **68455**

BDR Number: **LA13FG2107**

Sampling Date: **10/28/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	305.88	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	2.31	
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131028c\
Data File : 68455.D
Acq On : 28 Oct 2013 10:37 am (#1); 28-Oct-13, 10:37:11 (#2)
Operator : EL
Sample :
Misc : 55 Gallon Drum Through Filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 28 10:45:48 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.581	96	5460678	205.75 ppmv	0.06
15) Chlorobenzene-d5	5.881	117	4160228	177.50 ppmv	0.02
Target Compounds					Qvalue
1) Hydrogen	1.612	GC1	2300m	305.88 ppmv	
12) Benzene	3.258	78	44510	2.31 ppmv	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0116
Examination Date:	10/4/2013
Waste Container ID:	68459
Video/Audio Recorded Media Number:	LA-RTR2-13-0116 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 231.0 kg Tare Wt.: 33.4 kg Net Wt.: 197.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	95 %

CCP Radiography Data Sheet

Waste Container ID: 68459

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	30.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	165.6
Soils (S):	
Total WMP Weight:	197.6

CCP Radiography Data Sheet

Waste Container ID: 68459

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: N/A	

RTR Operator:

Eric Lyles		10/4/2013
Print Name	Signature	Date

```
|-----------------------------------------------------------------------|
|                          NDA 2000 Assay Report                        |
|-----------------------------------------------------------------------|

************************    Item Information    ************************

Item ID:            68459              Count Sequence Number:  23713
Operator:           D3PW2DK1\operator
Assay Start:        10/24/2013  3:46:40 PM
Description 1:      1LANDA1852
Description 2:      N/A
Location:           LANL TA-54
Comment:            AK-6
Matrix Type:        Homo Sol. S3000
Container Type:     55 gallon drum
Weight:             Net:       198.0   kg        Net:   198.0 kg
Container:          Volume:    208.0   l        Full:    95.0 %
Density:                         1.000 kg /l

************************   System Configuration   ************************

Counter:                        MCS HENC #1
Count Type:                     Item Count
Collimator/Geometry Setting:    All Banks On (GE -  0

Errors quoted at  1.000 sigma
```

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	23713	Batch Number:	1LANDA1852
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68459	Analysis Date:	10/24/2013

Net Weight	198000.0 g			
Pu mass	4.15E+001	+-	9.72E+000	g
TRU Alpha Activity	1.34E+001	+-	5.80E+000	Ci
TRU Activity Concentration	6.78E+004	+-	2.93E+004	nCi/g
Pu-239 Equivalent Activity	1.35E+001	+-	5.80E+000	Ci
Pu-239 FGE	3.83E+001	+-	9.63E+000	g
Decay heat	4.40E-001	+-	1.92E-001	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.36E-006
U233	<LLD	<LLD	0.00E+000	1.03E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.92E-006
NP237	2.08E-001	1.47E-004	3.35E-005	5.31E-006
PU238	6.82E-004	1.17E-002	9.54E-003	2.66E-004
U238	<LLD	<LLD	0.00E+000	2.92E-005
PU239	3.81E+001	2.36E+000	5.97E-001	5.38E-002
PU240	3.37E+000	7.66E-001	3.08E-001	1.74E-002
AM241	3.00E+000	1.03E+001	5.76E+000	1.03E-001
PU241	1.06E-002	1.09E+000	2.88E-001	2.48E-002
PU242	1.78E-003	7.05E-006	3.04E-006	0.00E+000

Errors quoted at 1.000 sigma

Operator: D E R [illegible] Date: 10.29.13

ITR: Martha [illegible] Date: 10.29.13

Automated Independent Technical Review

Count Sequence Number: 23713 Batch Number: 1LANDA1852
Counter ID: MCS HENC #1
Container ID: 68459
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/24/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	OK
Section 2 - Passive Neutron Analysis Analysis Status: No errors. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	OK Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. FRAM results applied. FRAM results attached.
Section 5 - Gamma Analysis Analysis Status: No errors.	OK
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: [signature] Date: 10/29/13

Waste Container ID: **68459**

BDR Number: **LA13FG2126**

Sampling Date: **12/10/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	134.99	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131210c\
Data File : 68459.D
Acq On : 10 Dec 2013 1:38 pm (#1); 10-Dec-13, 13:37:34 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 10 13:46:46 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.565	96	3694609	205.75 ppmv	0.05
15) Chlorobenzene-d5	5.868	117	2933386	177.50 ppmv	0.00
Target Compounds					Qvalue
1) Hydrogen	1.619	GC1	1015m	134.99 ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

36

S823016

S823016

Container Profile 760881

File Options Reports Help

S823016

760881	TBD-TRU	T-TTRU-TEMP	Active	Decommissioned

- General Information
- Weights/Volumes
- Location
- Account Information
- Waste Material Parameters
- Layers of Confinement
- Prohibited Items
- EPA Codes
- UHC
- Radioassay
- Radiological Survey
- Payload Preparation
- Container Closure
- Materials Added
- TRU Information
- TRU Information (TSDF)
- Radiological Calculations
- Shipping Description
- Site Treatment Plan
- Pending Tasks
- Genealogy
- Container Tags
- Task History
- Documentation
- Comment Log
- Edit Log

Genealogy

S823016

S823016
- LA00000068497 – WIPP
  - LASB02107
- LA00000068543 – WCS
  - LASB50031
- LA00000068523 – EMPTY

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
0.01	%			

Working Copy
Date: 10-25-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 5823016

6.2[4] Date Processed: 10-25-13

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☑ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☑ Liquids ☐ Pressurized Containers ☐ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007 D008 D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10-14-14

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] ($) Stationary Fire Watch has been established: ☑ N/A
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) _____ (Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☐ YES ☑ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By GERALD ESPINOSA [signature] 125770 10/25/13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 5823016

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 396.0 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 83.0 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 479.0 lb

6.2[7] (S) Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

6.2[17][D] Drum lift hinge pin retaining clip replaced. N/A / /
Initials Z# Date

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

N/A / /
EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1

Page 3 of 4

4.1[6][B] Parent Waste Container No.: 5823016

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68543	68497		
10.1[4]	Daughter Drum Filter No.	LM 306	LM 3609	N	
10.1[4]	Daughter Drum Bag Filter No.	L-67210	L-10296		A
10.1[4]	Daughter Drum Purchase Order No.	501578	501578		
10.1[13][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured		☐ YES	☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer				
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description		N	A	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	3GAL	N/A	N/A	N/A
10.3[7][A]	Opaque/Non-penetrable Item Description:	lead shielding	lead shielding		
10.3[9][A]	PCB-contaminated Waste Description		N A		
10.3[9][B]	PCB Item ID No.			A	A
10.3[10]	Remaining Waste Description	SEE COMMENTS	SEE COMMENTS		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	80%	70%		
10.5[3]/10.6[2]	Description Waste Added During Processing	PLASTIC	PLASTIC		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 8823616

Comments: NITRATE SALTS, LEAD SHIELDING, PLASTIC

11.1[1] Performed By: GERALD ESPINOZA / [signature] > 1237720 / 10/25/13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Clayton Mullins / CA 1240092 / 10/31/13 0318
SO8 or designee (print) Signature Z # Date/Time

Working Copy
Date: 10-4-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501563
Lot No.: 0238366-1
Manufacture Date: 2013

5.[8] Overpack filtered vent and 2-in. bung torque wrench information:

	Filtered Vent	2-in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12/18/13	12/18/13
Tolerance:	+/-4% cw and +/-6% ccw	+/-3% cw and +/-6% ccw

Overpack filtered vent information:

Manufacturer: Nucfil
Model No.: 013
Serial No.: JL-1039
Manufacture Date: 10/11

5.[9] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

5. [11] Performed By: Brandon Chavez / [signature] 244712 / 10-4-13
Waste Handling Technician (print) Signature Z # Date

5.[15] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5. [18] 2-in. bung plug torque value: 30 ft-lb

Comments: n/c

8.1[1] Performed By: Brandon Chavez / [signature] 244712 / 10-4-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Clayton Mullins / CA 240092 / 10/31/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 10/28/13 [illegible]

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 608523

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 037418
Cal. Expiration Date: 3-6-14
Range in ft-lb: 10-80
Tolerance: ±3% cw ±6% ccw

7.[24] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: GERALD ESPINOZA [illegible] 1237120 10/28/13
Waste Handling Technician (print) Signature Z # Date

7.[26] Overpack drum closure ring torque value: 60 ft-lb

7.[29] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[34][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 10-14-14

7.[34][D] 85-gal overpack drum gross weight (lb): 177.0 lb

Comments: N/C

8.1[1] Performed By: GERALD ESPINOZA [illegible] 1237120 10/28/13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clayton Mullins [illegible] 1240092 10/31/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 10-1-13

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68497

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240999
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: LCPVC 1.5-2SPVC
Serial No.: L-10296
Manufacture Date: 5/13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Range in ft-lb:	40-200	10-80
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: MICHAEL MONTOYA / [signature] / 191352 / 10/01/13
Operator (print) / Signature / Z # / Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: LM-369
Manufacture Date: 12/12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76 lbs

5.[34][E] Drum ID No.: 68497

Comments: N/C

5.[35] Performed By: MICHAEL MONTOYA / [signature] 191352 / 10/01/13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins / [signature] 124092 / 10/31/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

Working Copy
Date: 10/25/13 JZ

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68497

6.[9] Drum closure ring torque wrench information:

M&TE No.: 037418
Cal. Expiration Date: 3-6-14
Range in ft-lb: 10-80
Tolerance: ±8% cw ±6% ccw

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: GERALD ESPINOZA / [signature] / 1237701
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range in ft-lb:		
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: GERALD ESPINOZA / [signature] / 1237701 / 10/25/13
Operator (print) Signature Z # Date

6.[17][C] 2 in. bung plug torque value: _____ in-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68497

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 2780 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: J/C

6.[32] Performed By: GERALD ESPINOZA (Operator (print)) [signature] (Signature) 1237724 (Z #) 10/25/13 (Date)

7.1[4] Reviewed By: Clayton Mullins (Supervisor or designee (print)) [signature] (Signature) 1240926 (Z #) 10/31/13 (Date)

UET Working Copy
Date: 10-21-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68543

5.[3] Drum information:
Purchase Order No.: 301578
Lot No.: 0240999
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: bcpvc 1.5-25pvc
Serial No.: L-6726
Manufacture Date: 1/13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	100216	038369
Cal. Expiration Date:	12-18-13	12-18-13
Range in ft-lb:	40-200	10-80
Tolerance:	±4%cw ±6%ccw	±3%cw ± 6%ccw

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Michael Montoya (Operator (print)) [signature] (Signature) 191352 (Z #) / 10-21-13 (Date)

5.[23] Filtered vent information:
Manufacturer: NucFil
Model No.: 019DS
Serial No.: LM-306
Manufacture Date: 12/12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76 lbs

5.[34][E] Drum ID No.: 68543

Comments:

5.[35] Performed By: MICHAEL MONTOYA / [signature] / 191352 / 10-21-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins / [signature] / 1240092 / 10/31/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 10-25-13

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68543

6.[9] Drum closure ring torque wrench information:

M&TE No.: 037418
Cal. Expiration Date: 03-06-2014
Range in ft-lb: ~~30-60~~ GE 10/28/13 10-80
Tolerance: ± 3% cw ± 6% ccw

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Gerald Espinoza / Brian Cordova — Signature — 287720 / 128594 — 10/25/13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range in ft-lb:		
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: Gerald Espinoza / Brian Cordova — Signature — 287720 / 128594 — 10/25/13
Operator (print) Signature Z # Date

6.[17][C] 2 in. bung plug torque value: _____ in-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 608543

6.[26] Scale File ID number: 0190065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 3582 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/C

6.[32] Performed By: GERALD ESPINOZA / [signature] / 1237720 / 10/25/13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins / [signature] / 240091 / 10/31/13
Supervisor or designee (print) Signature Z # Date

transported SP72

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Planning and Technical Solutions

Container ID: S823016 Container Type: STEEL DRUM (55 GAL) Gross Weight (lbs): 407.925
Total PE-Ci Activity: 1.05E+01 Equivalent Combustible PE-Ci: 3.92E+00
Total Fissile Gram Equivalents: 1.15E+02 Total Surface Dose Rate (mrem/hr): 2
EPA Code(s): D007; D008; D009
Waste Description: Nitrate salts

Remediation/Characterization Activities: Ensure EPA Codes D007, D008, and D009 are indicated on the Haz Waste Label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

RTR pre-screen indicates ~ 2.5 gallons of free liquid.

Potential Safety Risks: Nitrate salt drums often contain free liquids and are packaged in individual plastic bags. Net weight is ~ 242 lbs. and generator data shows 5 items of nitrate salts with weights ranging from ~ 21 – 91 lbs.

Performed By: Susan Ramsey (LTP-PTS (Print)) | Signature | 100681 (Z#) | 7/30/13 (Date)

IHS Representative

Potential IHS Safety Risks: May contain lead, Chromium, Mercury 2.5 gal free liquid

Performed By: Johnny Smallwood (IHS Representative (Print)) | Signature | 241659 (Z#) | 7-31-13 (Date)

LTP Engineering

Waste container remediation compliant with applicable facility safety basis requirements: ☒ Yes ☐ No

Engineering Comments: NA

Performed By: Valerie Rhodes (LTP Engineering (Print)) | Signature | 112609 (Z#) | 8/5/13 (Date)

TRU Remediation Operations

Potential Safety Risks: Use Proper PPE And Kitty Litter Ratio

Performed By: G Martinez (TRU Operations (Print)) | Signature | 149235 (Z#) | 8/12/13 (Date)

Operations Manager or designee

Processing Determination: ☒ Accept ☐ Reject

OM or designee Comments: Do not push or press on waste with hands. Use Hexarmour gloves when processing. Use tools when possible to handle waste.

Approved By: Joe Perez (OM or designee (Print)) | Signature | 221452 (Z#) | 8-12-13 (Date)

Discardable Waste Log Sheet

DrumID: 011319

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1	IXFS 523 F1	41.37	NITRATE SALTS		58.14	52	5/11	
2	IXFS 524 F1	9.77	NITRATE SALTS		9.76	52	5/11	
3	IXFS 525 F1	29.32	NITRATE SALTS		47.79	52	5/11	
4	IXFS 526 F1	16.14	NITRATE SALTS		3.97	52	5/11	
5	IXFS 527 F1	13.41	NITRATE SALTS		2.65	53	5/11	
		110.01 kg						

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: 5/21/13

Container No. (5.[1])	S823016					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55 Gal					
Filtered Vent Type (5.[1])	72					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	6.31 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	1083.94 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: [illegible] 737475
CCP (Print) Z #

Reviewed By: [illegible] 735564
CCP (Print) Z #

Comments:

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: Susan Ramsey [signature] [illegible] 5/22/13
Waste Handling Operator (print) Signature Z # Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130521c\
Data File : S823016.D
Acq On : 21 May 2013 3:08 pm (#1); 21-May-13, 15:07:29 (#2)
Operator : SA
Sample :
Misc : 55 GAL LFL DRUM THROUGH UNOBSTRUCTED 72 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 21 15:15:45 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.548	96	4034236	201.25	ppmv	-0.02
15) Chlorobenzene-d5	5.884	117	3448939	177.00	ppmv	-0.02
Target Compounds						Qvalue
1) Hydrogen	1.601	GC1	7704	1083.94	ppmv	100
12) Benzene	3.235	78	91026	6.31	ppmv	94

(#) = qualifier out of range (m) = manual integration (+) - signals summed

vocgas.m Tue May 21 15:16:09 2013

10-25-13

0600 Assuming WCRR operations center. JColeman
0615 Pre-job being conducted by SOS.
0633 Pre-job concluded.
0639 Beginning outside rounds.
0644 Beginning inside rounds.
0709 Item #63 is OOS, okay to proceed per CSE documentation.
0710 Inside rounds complete.
0711 Late entry at 0708, outside rounds complete. JC
0740 Both rounds reviewed by SOS.
0748 Mode changed to operations in WCRRF yard and 5069.
0749 Bagging on S823016.
0800 Bag on complete. Operators report that there is an elevated CAM.
0814 Initiating a drum movement from transportainer to the transfer vehicle. Permission granted to lower the vehicle access gates.
0903 Bagging off 1 daughter, bagging on another daughter.
0918 Bag off/on complete.
0924 Transportainers closed and latched. Transfer vehicle loaded for a shipment to Area G.
0931 Vehicle access gates have been restored.
0932 Initiating a drum movement from transportainer to 5069.
0945 Drum movement into 5069 complete.
1009 Initiating a drum movement from 5069 to a transportainer.
1024 Bagging off 2nd daughter, bagging on S853883.
~~1043 Bag off/on complete.~~ JC 10-25-13
1049 Initiating a drum movement from transfer vehicle to transportainers. Permission granted to lower vehicle access gates.
1100 Bag off/on complete.
minor issue 1108 Tech 38 states that during the bag off, they encountered a small pinhole in the bag off the empty by the ring. Operators followed RCT instruction and taped and resmeared for contamination. Direct count was 6000 DPM. RCTs took large area smears, no other

continued on next page JColeman

10-25-13 Continued from previous page. TColeman
contamination was found. Continuing operations.
1217 All waste containers have been accepted from Area G.
1245 Vehicle access gates restored. Transportainers secure.
1330 Beginning outside rounds.
1335 Beginning inside rounds.
1352 Item #63 to 005, Okay to proceed per CSE documentation.
1371400 Inside rounds complete.
1401 Late entry - At 1352, outside rounds complete. (TC)
1402 Bagging off 1 daughter and 1 POC, then placing the port covers on the WCG.
1446 Bag off complete.
1458 Both rounds reviewed by 505.
1508 Mode changed to Warm in WCRRF yard and 5069.
1527 Initiating a drum movement from 5069 to a transportainer.
1558 Drum movement out of 5069 complete. All inventory has been removed from 5069.
1601 Mode change complete. We are now in COLD in 5069 and warm in WCRRF yard.
10-25-13 1605 End of day. CCO position secure. TColeman
H9

No further entries this page

10/25/13

0600 Assumed WCRR SOM position.

0635 Attended prejob brief conducted by SOS (D. Blaine). Safety topic was be careful of snakes looking for places to den for cold weather. Discussed weather conditions and effects on todays work (shipments). Identified current Shift Orders in place. Currently have one drum in facility to process - identified as high dose (10.3 mrem/hr @ 3 ft)

0657 Contacted scheduler to emerge WCRR processing items onto POD (J. Vigil).

0710 Completed daily call in to Area G to status todays work.

0745 Reviewed inside/outside rounds.

0748 Completed Mode Change: WCRR Yard/Bldg 50-69 from Warm/Warm to Operations/Operations.

0754 Late Entry @ 0715 - SOS reported that there are areas identified in 50-69 w/ water leakage - same areas as before near platform scale and in front of GBE. Surveys and wipe up to be performed. RA9

0800 Bag on is complete of drum # 823016.

0918 Completed bag off of 1 daughter - continuing to process.

0931 Loading of outgoing shipment completed and all access gates are restored.

1049 Incoming shipment on-site - vehicle access gate is lowered.

1100 Completed all bag offs for parent # 5823016 (2 daughters total) - bagged on 5852883.

1108 Ops Center received report that during bag off a small pin hole was identified on the empty parent by the drum lid ring. Initial direct survey results were 6K dpm/100cm². Area was taped over, resurveyed w/ additional large area wipes taken in vicinity. No other contamination detected. Ops resumed

1245 Completed receipt of incoming shipment (15 drums total). Access gates restored and transportainers secured.

1446 Completed all bag offs for parent # 5852883 - 1 POC and 1 daughter

1505 Completed review of rounds

1508 Mode change completed WCRR Yard/Bldg 50-69 from Operations/Operations to Warm/Warm.

1558 Bldg 50-69 is deinventoried off all TRU waste.

10/25/13 Continued

1601 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm / Warm to Warm / Cold.

1630 Secured SOM position.

No further entries this page

10/25/13 WERRF SOS Log Book

0600 Assuming SOS position. DXB

0615 Started Pre Job, discussed Processing drums, shipping drums, receiving drums, slips, trips, Falls. Weather conditions, Shift Orders.

0640 Pre job completed.

0715 Signed off on outside Rounds.

0740 Signed off on Inside Rounds.

0747 Mode change to Operations Completed.

0749 Bagging on S 823016.

0800 Bag on complete.

0903 Bag off 1 daughter, Bag on 1 daughter

0918 Bag on complete.

0924 Shipment completed to TA-54

0932 Moving 2 drums inside 50-69.

0945 Drum movement completed

1024 Bagging off daughter bagging on S 852883.

1100 Bag off/on complete.

1108 Tech 38 reports that while bagging off a small pin hole was found on the empty drum. Operators followed RCT instructions and taped the pin hole. RCT's conducted smears and large area smears and found no further contamination.

1245 Incoming shipment received.

1400 Reviewed and signed outside Rounds.

1402 Bagging off 1 daughter and 1 POC Placed Port covers on the box

1446 Bag off complete

1458 Reviewed and signed Inside Rounds.

1508 Mode change to Warm

1527 Moving drums out of 50-69.

1600 Move out completed

1605 Mode change to Cold

HG 1625 Secure SOS position for the day. DXB

No further entries on this page.

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0120
Examination Date:	10/30/2013
Waste Container ID:	68497
Video/Audio Recorded Media Number:	LA-RTR2-13-0120 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 126.5 kg Tare Wt.: 33.4 kg Net Wt.: 93.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	45 %

CCP Radiography Data Sheet

Waste Container ID: 68497

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	6.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	1.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	86.1
Soils (S):	
Total WMP Weight:	93.1

CCP Radiography Data Sheet

Waste Container ID: 68497

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: N/A	

RTR Operator:

Eric Lyles		10/30/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68497	Count Sequence Number:	23763
Operator:	D3PW2DK1\operator		
Assay Start:	10/31/2013 12:40:23 PM		
Description 1:	1LANDA1857		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6, Not Precision		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 93.1 kg	Net:	93.1 kg
Container:	Volume: 208.0 l	Full:	45.0 %
Density:	1.000 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 23763
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 68497

Batch Number: 1LANDA1857
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 10/31/2013

Net Weight	93100.0 g		
Pu mass	5.23E+001	+-	8.09E+000 g
TRU Alpha Activity	7.37E+000	+-	2.03E+000 Ci
TRU Activity Concentration	7.91E+004	+-	2.18E+004 nCi/g
Pu-239 Equivalent Activity	7.48E+000	+-	2.03E+000 Ci
Pu-239 FGE	4.93E+001	+-	7.59E+000 g
Decay heat	2.37E-001	+-	6.72E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	7.77E-002	5.48E-005	1.26E-005	3.18E-006
PU238	4.78E-003	8.18E-002	1.26E-002	3.42E-005
PU239	4.91E+001	3.04E+000	4.70E-001	1.27E-003
PU240	3.17E+000	7.19E-001	1.11E-001	3.01E-004
AM241	1.03E+000	3.52E+000	1.97E+000	6.41E-002
PU241	6.01E-002	6.19E+000	9.57E-001	2.59E-003
PU242	1.05E-002	4.14E-005	6.40E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	6.97E-007
U233	<LLD	<LLD	0.00E+000	6.44E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.99E-006
U238	<LLD	<LLD	0.00E+000	2.07E-005

Errors quoted at 1.000 sigma

Operator: [signature] Date: PA 11/4/13 ~~10~~ 11/4/13

ITR: [signature] Date: 11-4-13

Automated Independent Technical Review

Count Sequence Number: 23763 Batch Number: 1LANDA1857
Counter ID: MCS HENC #1
Container ID: 68497
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/31/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Passive Neutron Pu and Gamma U data specified as input. Pu results taken from Passive Neutron data, U from Quantitative Gamma data. Results comparison test passed.	Passive Neutron Pu and Gamma U data specified as input.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52,53.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 11-4-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **68497**

BDR Number: **LA13FG2114**

Sampling Date: **11/8/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	90.37	U
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131108c\
Data File : 68497.D
Acq On : 8 Nov 2013 2:06 pm (#1); 08-Nov-13, 14:05:59 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 08 14:15:21 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.584	96	4515034	205.75 ppmv	0.07
15) Chlorobenzene-d5	5.884	117	3508325	177.50 ppmv	0.02

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0120
Examination Date:	10/30/2013
Waste Container ID:	68543
Video/Audio Recorded Media Number:	LA-RTR2-13-0120 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 162.5 kg Tare Wt.: 33.4 kg Net Wt.: 129.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 1 layer
Volume Utilization Percentage:	85 %

CCP Radiography Data Sheet

Waste Container ID: 68543

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags, liner lid

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	6.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	121.1
Soils (S):	
Total WMP Weight:	129.1

CCP Radiography Data Sheet

Waste Container ID: 68543

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: N/A	

RTR Operator:

Eric Lyles		10/30/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68543	Count Sequence Number:	23766
Operator:	D3PW2DK1\operator		
Assay Start:	10/31/2013 2:50:20 PM		
Description 1:	1LANDA1857		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6, Not Precision		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 129.0 kg	Net:	129.0 kg
Container:	Volume: 208.0 l	Full:	85.0 %
Density:	0.730 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 23766
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 68543

Batch Number: 1LANDA1857
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 10/31/2013

Net Weight	129000.0 g	
Pu mass	4.79E+001 +-	1.53E+001 g
TRU Alpha Activity	7.96E+000 +-	1.25E+000 Ci
TRU Activity Concentration	6.17E+004 +-	9.73E+003 nCi/g
Pu-239 Equivalent Activity	8.32E+000 +-	1.26E+000 Ci
Pu-239 FGE	4.67E+001 +-	1.52E+001 g
Decay heat	2.58E-001 +-	4.01E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	1.07E-008	1.48E-006	8.53E-007	0.00E+000
CS137	1.71E-008	1.48E-006	8.53E-007	7.56E-007
U233	<LLD	<LLD	0.00E+000	7.09E-003
U234	4.99E-002	3.11E-004	7.52E-005	0.00E+000
U235	3.56E+000	7.69E-006	1.86E-006	3.21E-006
NP237	1.13E-001	7.95E-005	1.51E-005	3.62E-006
PU238	2.68E-002	4.58E-001	1.70E-001	8.40E-003
U238	<LLD	<LLD	0.00E+000	2.19E-005
PU239	4.39E+001	2.72E+000	9.42E-001	4.99E-002
PU240	3.69E+000	8.37E-001	2.95E-001	1.53E-002
AM241	1.15E+000	3.94E+000	7.56E-001	8.14E-002
PU241	2.00E-001	2.06E+001	7.16E+000	3.78E-001
PU242	8.71E-002	3.44E-004	1.24E-004	0.00E+000

Errors quoted at 1.000 sigma

Operator: D. R. C Date: 11/4/13

ITR: [signature] Date: 11-4-13

Automated Independent Technical Review

Count Sequence Number: 23766 Batch Number: 1LANDA1857
Counter ID: MCS HENC #1
Container ID: 68543
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/31/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Expert review is recommended; the following validity tests failed:	MGA valid.
Pu239 weight percent is outside limits [92.5, 95.0].	Pu239 percent consistent with AK. Mix of MT-52,53.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chandler Date: 11-4-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **68543**

BDR Number: **LA13FG2117**

Sampling Date: **11/15/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	15689.22	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131115c\
Data File : 68543.D
Acq On : 15 Nov 2013 1:40 pm (#1); 15-Nov-13, 13:39:36 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 15 13:48:16 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.594	96	4469983	205.75	ppmv	0.08
15) Chlorobenzene-d5	5.891	117	3520762	177.50	ppmv	0.03
Target Compounds						Qvalue
1) Hydrogen	1.573	GC1	117970m	15689.22	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

55

S823127

S823127

Container Profile 747038

File Options Reports Help

S823127

747038	TBD-TRU	T-TTRU-TEMP	Active	Decommissioned

- General Information
- Weights/Volumes
- Location
- Account Information
- Waste Material Parameters
- Layers of Confinement
- Prohibited Items
- EPA Codes
- UHC
- Radioassay
- Radiological Survey
- Payload Preparation
- Container Closure
- Materials Added
- TRU Information
- TRU Information (TSDF)
- Radiological Calculations
- Shipping Description
- Site Treatment Plan
- Pending Tasks
- Genealogy
- Container Tags
- Task History
- Documentation
- Comment Log
- Edit Log

Genealogy

S823127

S823127
- LA00000068611
- LA00000068613
- W796951 – EMPTY
  ↳ (68597) before re-class

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
0.01	%			

Working Copy
Date: 11/5/13 HJ

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 58233127

6.2[4] Date Processed: 11-05-13

4.1[6][B] Processing Activity (EP-DIV-AP-0107):
☐ > 190 mrem/hr ☑ PID ☐ Split ☑ Repack

4.1[6][B] Prohibited Items:
☐ Sealed Containers > 4L ☑ Liquids ☐ Pressurized Containers ☐ N/A

4.1[6][B] Parent Waste Container RCRA Designations: D007, D008, D009

4.1[7] Activity Hazard Classification based on Anticipated Extremity Radiation Dose Rate:
☑ Moderate (≤ 10 rem/hr) ☐ High/Complex (> 10 rem/hr)

4.3[1]/4.3[2] ($) TA-50-69 is in the OPERATION or WARM STANDBY MODE (TSR 1.2) ☑ OPERATIONS ☐ WARM STANDBY ☐ N/A

4.3[4][B] Platform Scale: Equipment No.: 019065
Cal. Due Date: 10-14-14

4.3[5][B] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO ☐ N/A

4.3[6] ($) Stationary Fire Watch has been established: ☑ N/A
(> 300 PE-Ci Equivalent Combustible)
(SAC 5.10.1.7.2) _____ (Initial and Date)

4.3[7 [A] Parent Waste Container degraded, loss of integrity, or weighs greater than 468 lb but less than or equal to 624 lb:
☑ YES ☐ NO ☐ N/A

4.3[8][D] WCG glove and bag-in/bag-out bag inspection: ☑ SAT ☐ UNSAT ☐ N/A

Performed By: Brian Gallegos B. Gallegos 267129 11-05-13
Waste Handling Tech (print) Signature Z# Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 88231271

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 578.0 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 23.0 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 601.0 lb

6.2[7] ($) Total Parent Drum Weight < 624 lb (SR 4.5.1): ☑ SAT ☐ UNSAT

6.2[17][D] Drum lift hinge pin retaining clip replaced. N/A
Initials Z# Date

6.2[28] Approval to leave a parent drum attached to the WCG overnight:

N/A
EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 5823127

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68611	68613	N	A
10.1[4]	Daughter Drum Filter No.	LH-324	LH-318		
10.1[4]	Daughter Drum Bag Filter No.	L-10336	L-10364		
10.1[4]	Daughter Drum Purchase Order No.	501578	501578		
10.1[13][C]	WCG Fire Watch Stationed	☐ YES		☐ NO	☑ N/A
10.1[14][C][d]3/11.1[3]	WCG Fire Watch Secured	☐ YES		☐ NO	☑ N/A
10.2[4]	POC bag-on bag: Manufacturer	N	A	N	A
	Model No.				
	Serial No.				
	Date of Manufacture				
10.2[5]	POC ID No				
10.2[7][B]/10.2[6]	POC Item Description				
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)				
10.2[14]	POC Assembly Gross Weight (lb)				
10.2[15]	POC Rad. Survey Results (mrem/hr)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	1 LITER			
10.3[7][A]	Opaque/Non-penetrable Item Description:	N A	LEAD SHIELDING		
10.3[9][A]	PCB-contaminated Waste Description	N A	N A		
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	SEE COMMENTS	SEE COMMENTS		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	95%	50%		
10.5[3]/10.6[2]	Description Waste Added During Processing	KITTY LITTER, BAG OUT STUBS	KITTY LITTER, BAG OUT STUBS		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 68611

Comments: ROOM TRASH, PLASTICS, METAL CANS, CEMENTED WASTE, KITTY LITTER

11.1[1] Performed By: BRIAN GALLEGOS / B. Gallegos 267729 / 11/6/13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Gilbert Martinez / G. Martinez 142225 11/6/13 1355
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 10/31/13 JZ

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501563
Lot No.: 02383666
Manufacture Date: 13

5.[8] Overpack filtered vent and 2-in. bung torque wrench information:

	Filtered Vent	2-in. Bung
M&TE No.:	100216	036245
Cal. Expiration Date:	12.18.13	8.5.13
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: JL-1903
Manufacture Date: 10-11

5.[9] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

5. [11] Performed By: GERALD ESPINOZA / [signature] / 287721 / 10/31/13
Waste Handling Technician (print) Signature Z# Date

5.[15] Filtered Vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5. [18] 2-in. bung plug torque value: 30 ft-lb

Comments: N/C

8.1[1] Performed By: GERALD ESPINOZA / [signature] / 287721 / 10/31/13
Waste Handling Technician (print) Signature Z# Date

8.1[6] Reviewed By: Gilbert Martinez / [signature] / M025 / 11/6/13
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 11/5/13 HS

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68597

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 036245
Cal. Expiration Date: 8-05-14
Range in ft-lb: 16-80
Tolerance: ±3% cw ±6% ccw

7.[24] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: BRIAN GALLEGOS / Bi Gallegos / 267129 11-05-13
Waste Handling Technician (print) Signature Z# Date

7.[26] Overpack drum closure ring torque value: 60 ft-lb

7.[29] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[34][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 10-14-14

7.[34][D] 85-gal overpack drum gross weight (lb): 146.6 lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / Bi Gallegos / 267129 11-05-13
Waste Handling Technician (print) Signature Z# Date

8.1[7] Reviewed By: Gilbert Martinez / [signature] 149351 11/6/13
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 10 31 13 gc

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 108611

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240119
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: uepvc1.5-2 spvc
Serial No.: 10336
Manufacture Date: 6·13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	1002116	036245
Cal. Expiration Date:	12·18·13	8·5·14
Range in ft-lb:	40-200 in-lb	16-80
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: GERARDO ESPINOZA [signature] REZ721 10/31/13
Operator (print) Signature Z# Date

5.[23] Filtered vent information:
Manufacturer: NULFIL
Model No.: 019DS
Serial No.: LM-324
Manufacture Date: 12.12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 0190605

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76.0 lbs

5.[34][E] Drum ID No.: 68611

Comments: N/C

5.[35] Performed By: GERALD ESPENOLA [signature] Z37724 10/31/13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez [signature] 145038 11/1/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68611

6.[9] Drum closure ring torque wrench information:

M&TE No.: 036245
Cal. Expiration Date: 8-05-14
Range in ft-lb: 16-80
Tolerance: ±3% CW ±6% CCW

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: BRIAN GALLEGOS / [signature] / 2671291 / 11-05-13
Operator (print) Signature Z # Date

6.[12] Drum closure ring torque value: 66 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range in ft-lb:		
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: / / /
Operator (print) Signature Z # Date

6.[17][C] 2 in. bung plug torque value: _____ in-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68641

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 378.2 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/C

6.[32] Performed By: BRIAN GALLEGOS / Brian Gallegos / 267129 11-05-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] / 14935 11/6/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

10 31 13

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 08613

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240119
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6cpvc1.5-2spvc
Serial No.: 10364
Manufacture Date: 6.13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	100216	036245
Cal. Expiration Date:	12-18-13	8-5-14
Range in ft-lb:	40-200 in-lb	16-80
Tolerance:	±4% cw ±6% ccw	±3% cw ±6% ccw

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: GERALD ESPINOZA [signature] 237724 10/31/13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: LM-318
Manufacture Date: 12.12

5.[26] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: 120 in-lb

5.[29][B] 2 in. bung plug torque value: 30 ft-lb

5.[30] Scale File ID number: 019065

ATTACHMENT 1
Page 2 of 2

5.[31] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

5.[32] Drum tare weight (lbs): 76.0 lbs

5.[34][E] Drum ID No.: 68613

Comments: N/C

5.[35] Performed By: GERALD ESPINOZA [signature] R37760 10/31/13
Operator (print) Signature Z# Date

7.1[4] Reviewed By: Gilbert Martinez [signature] N9235 11/6/13
Supervisor or designee (print) Signature Z# Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68613

6.[9] Drum closure ring torque wrench information:

M&TE No.: 036245
Cal. Expiration Date: 8-05-14
Range in ft-lb: 16-80
Tolerance: ±3% cw ±6% ccw

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: BRIAN GALLEGOS / Bi Dalling / 246129 / 11-05-13
Operator (print) / Signature / Z # / Date

6.[12] Drum closure ring torque value: 60 ft-lb

6.[15] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

6.[17][A] Filtered vent and 2 in. bung torque wrench information: ☑ N/A

	Filtered Vent	2 in. Bung
M&TE No.:		
Cal. Expiration Date:		
Range in ft-lb:		
Tolerance:		

6.[17][B] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ YES ☐ NO ☑ N/A

Performed By: / / /
Operator (print) / Signature / Z # / Date

6.[17][C] 2 in. bung plug torque value: _____ in-lb ☑ N/A

6.[17][D] Filtered vent torque value [120 in-lb (96 to 144 in-lb)]: _____ in-lb ☑ N/A

ATTACHMENT 2
Page 2 of 2

6.[3] Drum ID No.: 68613

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 331.2 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/C

6.[32] Performed By: BRIAN GALLEGOS / [signature] / 267129 11-05-13
Operator (print) Signature Z# Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] / 142051 11/5/13
Supervisor or designee (print) Signature Z# Date

Inspected SP72

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Planning and Technical Solutions

Container ID: S823127 Container Type: STEEL DRUM (55 GAL) Gross Weight (lbs): 577.71
Total PE-Ci Activity: 7.67E-01 Equivalent Combustible PE-Ci: 2.88E-01
Total Fissile Gram Equivalents: 8.47E+00 Total Surface Dose Rate (mrem/hr): 9
EPA Code(s): D007; D008; D009
Waste Description: Nitrate salts

Remediation/Characterization Activities: Ensure EPA Codes D007, D008, and D009 are indicated on the Haz Waste Label. A minimum of 1.2 volumes of kitty litter/zeolite must be mixed with 1.0 volume of nitrate salts.

RTR pre-screen indicates ~ 3 L of liquid throughout drum in cans and at the bottom
Potential Safety Risks: Nitrate salt drums often contain free liquids and are packaged in individual plastic bags. Net weight is ~ 367 lbs. and generator data shows one item of evaporator salts, but may also contain multiple cans of nitrate salts/cemented nitrate salts.

Performed By: Susan Ramsey (LTP-PTS (Print)) Signature Susan P. Ramsey Z# 100681 Date 7/30/13

IHS Representative

Potential IHS Safety Risks: May contain lead, mercury, chromium, unknown liquids!

Performed By: Johnny Smallwood (IHS Representative (Print)) Signature Johnny Smallwood Z# 241659 Date 7-31-13

LTP Engineering

Waste container remediation compliant with applicable facility safety basis requirements: ☒ Yes ☐ No
Engineering Comments: NA
Performed By: Valerie Rhodes (LTP Engineering (Print)) Signature Valerie Rhodes Z# 112609 Date 8/5/13

TRU Remediation Operations

Potential Safety Risks: USE Proper PPE And Kitty Litter Ratio

Performed By: G Martinez (TRU Operations (Print)) Signature [illegible] Z# 145235 Date 8/12/13

Operations Manager or designee

Processing Determination: ☒ Accept ☐ Reject
OM or designee Comments: Do not push or press on waste with hands. Use heavy duty gloves during processing. Use tools when possible to handle waste!
Approved By: Jose Perez (OM or designee (Print)) Signature [illegible] Z# 221452 Date 8-13-13

Noncertified TRU Waste Drum Item Information

DrumID: 009746

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	NT	Auth (Pg/In)	Comments
1	IXPS-543F1		167.000	EVAPORATOR SALTS		9.	52	5/11	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 262.

Material Type	SNM (grams)	Items Net Wt (kg)
52	9.	167.00
Totals	9.	167.00

ATTACHMENT 1
Page 1 of 1

TA-54 AREA G WASTE CONTAINER HYDROGEN/VOC SAMPLE ANALYSIS DATA SHEET

5.[1] Sample Date: 5/28/13

Container No. (5.[1])	S823177					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal					
Filtered Vent Type (5.[1])	072					
Filtered Vent Unobstructed (5.[1])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
WIPP-Approved Filtered Vent (5.[2])	☑ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT	☐ SAT ☐ UNSAT
Total CCP VOC value (< 7,000 ppm) (5.[4])	0 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	215.13 ppm	ppm	ppm	ppm	ppm	ppm
Methane Reading (< 16,000 ppm) (5.[5])	0 ppm	ppm	ppm	ppm	ppm	ppm

5.[7] Certified CCP Technician:

Performed By: Gabe Romero (CCP (Print)) 236973 (Z #)

Reviewed By: Rick Jagielski (CCP (Print)) 266088 (Z #)

Comments:

6.1[2][A] WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT ☐ N/A

- Hydrogen – less than or equal to 3.2% (32,000 ppm)
- VOC – less than or equal to 7,000 ppm

6.1[3] Performed By: Susan Ramsey (Waste Handling Operator (print)) Susan S. Ramsey (Signature) 100681 (Z #) 5/28/13 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130528c\
Data File : S823127.D
Acq On : 28 May 2013 1:46 pm (#1); 28-May-13, 13:46:11 (#2)
Operator : GR
Sample :
Misc : 55 GAL DRUM THROUGH UNOBSTRUCTED NucFil-072 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 28 13:55:17 2013
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Thu Jan 24 09:52:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	3.571	96	4018975	201.25	ppmv	0.00
15) Chlorobenzene-d5	5.907	117	3448383	177.00	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.603	GC1	1529m	215.13	ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

vocgas.m Tue May 28 13:55:23 2013

11-5-13

0545~~0620~~ HS 11-5-13 ASSUMMING WCRR OPS. CENTER H.SMITH

0545~~0620~~ HS 11-5-13 0541 LATE ENTRY, COMPLETED OUTSIDE ROUNDS

0615 STARTING PRE-JOB BRIEFING, DISCUSSING EMPLOYEE SAFETY.

0655 PRE-JOB BRIEFING COMPLETED

0802 BAGGING OFF, BAGGING ON 1 DAUGHTER

0922 BEGINNING MOVEMENT INTO TA 50-69 FROM TA50-194 TA50-194/75 TRANSPORTAINERS

0952 BAGGING OFF 1 DAUGHTER BAGGING ON S 823127

1027 BAG OFF - BAG ON COMPLETE, MOVEMENT COMPLETED

1045 PERMISSION GRANTED TO MANIPULATE WASTE. BEGIN MOVE OUT TO TRANSPORTAINERS

1047 TECH IS REPORTED TO OPS. CENTER, WHILE OPERATOR WAS NEUTRALIZING LIQUID FROM DRUM ON BOX, NOTICED LIQUID SMOULDERING, TO NOTIFY I-H, PORTS HAVE BEEN PUT ON STATIONS #1 & #2 OPERATORS HAVE PAUSED WAITING FOR RESULTS FROM I-H AND RCT'S.

1106 PER RCT'S INSTRUCTIONS OPERATORS ARE EXITING BUILDING TA 50-69 FOR PAUSE TO DISCUSS EVENTS

1113 MOVEMENT INTO TA50-194 IS COMPLETE

1325 OPERATOR RETURNED FROM OCC MED WITH NO RESTRICTIONS. OK TO RETURN TO WORK

1326 ~~1304~~ HS 11/5/13 1304, OPERATORS ENTER BUILDING TO CHECK GLOVEBOX GLOVES. LATE ENTRY.

1341 SOS ADVISED OPS. CENTER. NO BREACH IN GLOVES, NO DEGRADATION OF HEX-ARMOR GLOVE WHERE LIQUID CAME IN CONTACT WITH GLOVE. RCT'S PERFORMING SWEAR. SOS WILL BRIEF OPERATORS BEFORE REENTERING FACILITY.

1352 SOS BRIEFED OPERATORS ON GLOVE CONDITIONS AND LIMITS OF WORK WITH CHEMICALS, AND ADVISED OPERATORS THAT WITH OCC MED & RCT'S WERE GIVEN PERMISSION TO RETURN TO WORK

CONTINUED ON NEXT PAGE - H SMITH

WCRR DAYSHIFT 11-5-13

0630 ASSUMED SOM WATCH FOR 11-5-13.
0640 MORNING CALL IN.
1030 BAG OFF/BAG ON S823127.
1108 WORKERS CALLED A PAUSE BECAUSE OF A WORKERS HAND GOING NUMB WHILE NUETRALIZING A HALF GALLON OF A LIQUID WITH A PH OF 11.
1115 LEFT MESSAGE WITH FOD OVER T1108 ENTRY
1117 REPORTED T1108 TO PROGRAM MANAGER.
1125 DIRECT CONTACT TO FOD. T1108 ENTRY
1200 TUESDAY ROUNDUP/DAILY CALL IN.
1216 SENDING T1108 TO OCCMED FOR DOCUMENTING.
1224 TURN SOM DUTIES OVER TO J. GUADAGNOLI.
1224 Assumed the SOM Duties at WCRRF
1325 Operator returned from OCC Med and it was identified that he can return to work and there were no restrictions.
1341 An operator, RCT, and ES/IH entered the facility and inspected the glovebox glove station 1 Left hand. All surveys were NDA and the glove was noted acceptable no degradation. Upon discussion with ES/IH the employees hand ~~[illegible]~~ gloved came in contact with the solution Black/Brown liquid - dripping from the edge of the drum when he felt the difference in temperature. Drum # S823127
1405 Conducted follow up with machine shop to status operations on steel plates. the shop noted arrival of material at 5pm-30 and should be able to work on the plates tomorrow.
1523 Conducted follow up on parts for the generator - The planner indicated parts were to be procured offsite and the package will include changing the air filter and performing a load test. Anticipated to be scheduled during our next maintenance day.
1555 Inside operators report bagging off and bagging on / daughter and continue to process.
1614 Bag off is noted completed
1733 Operators report bagging off another daughter and bagging on Parent S864662
1802 Bag offs and bag ons noted completed.
1805 Initiated shift turn over check list
1807 Relieved of SOM duties by A. Axtell

No Further Entries this page

5 PROJECT NAME W/CRR SOS log Book NOTEBOOK NO

11/05/13

0600 0600 Assuming SOS position for the day. Conducted turn over with the off going SOS Jose Jerez. DXB

0615 0615 Started Pre job brief with off going shift. Parsant bagged on with 30% remaining. Safety talk about over tightening bands, glove box ergonomics split the kitty litter in half to ~ 25 lbs. Staying focused with task at hand.

0802 0802 Bagging off/on 1 daughter

0922 0922 Begin move into TA-50-69.

0952 Bagging off 1 daughter and Bagging on S 823127

1027 Bag on/off and movement completed.

1045 Move out of 50-69.

1047 ~~Tech 15~~ DXB 11-5-13 Minor Condition: Tech ~~15~~ 14 DXB 11-5-13 reported that he was neutralizing a liquid from drum # S 823127. He had some liquid run across his left knuckle area. He felt a tingling sensation and then his hand got cold. The liquid was not the normal color of yellow/green it was a coffee color. All work was paused and the drum was put into a safe configuration All workers exited the building. RCT's surveyed the area and found no gross contamination. Management was notified. along with IH Tech 15 was sent to OC Med just to document the incident per Robert Allred.

1300 Tech 15, IH and RCT entering 50-69 to inspect gloves on station 1 to ensure gloves were not breached. Everyone was briefed to how and what to look for while inspecting the glove. Use the right hand glove, do not stick hand on left side. Have RCT monitor for any contamination.

1325 Tech 14 returns from OC Med with no restrictions. Needs to report back to OC Med 11/06/13 @ 0700 for a recheck.

1327 Tech 15 reports that after glove inspection completed no degradation of Hex Armour glove or glove box glove. Both gloves not breeched. RCT reports no contamination found in glove.

1400 Crew briefed about the pause work situation and returning to work. Will continue to process drum #S823127.

1540 Signed off inside/outside rounds

1555 Bag on/bag off 1 daughter and continue to process.

1614 Bag on/off completed.

1733 Bag off daughter. Bag on S 864662.

Last Entry 1810 Secured SOS Position for the day. Turning over to Jose Jerez. DXB

No further entries on this page. DXB

SIGNATURE DATE 20

READ AND UNDERSTOOD DATE 20

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0127
Examination Date:	11/13/2013
Waste Container ID:	68611
Video/Audio Recorded Media Number:	LA-RTR2-13-0127 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 171.5 kg Tare Wt.: 33.4 kg Net Wt.: 138.1 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	90 %

CCP Radiography Data Sheet

Waste Container ID: 68611

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal cans with material, metal lids

AM:

OM:

OI:

C:

R: Leaded rubber gloves

XPM: Plastic bag

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	14.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	10.0
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	112.1
Soils (S):	
Total WMP Weight:	138.1

CCP Radiography Data Sheet

Waste Container ID: 68611

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No
Comments: N/A	

RTR Operator:

Michael Simmons		11/13/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68611	Count Sequence Number:	23850
Operator:	D3PW2DK1\operator		
Assay Start:	11/15/2013 10:05:30 AM		
Description 1:	1LANDA1866		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6, Not Precision		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 138.0 kg	Net:	138.0 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.740 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	23850	Batch Number:	1LANDA1866
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68611	Analysis Date:	11/15/2013

Net Weight	138000.0 g		
Pu mass	5.44E+000	+- 9.84E-001	g
TRU Alpha Activity	6.04E+000	+- 3.90E+000	Ci
TRU Activity Concentration	4.38E+004	+- 2.82E+004	nCi/g
Pu-239 Equivalent Activity	6.05E+000	+- 3.90E+000	Ci
Pu-239 FGE	5.16E+000	+- 9.81E-001	g
Decay heat	2.00E-001	+- 1.30E-001	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	8.49E-007
U233	<LLD	<LLD	0.00E+000	6.23E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.89E-006
NP237	1.13E-001	7.96E-005	1.53E-005	3.23E-006
PU238	4.97E-004	8.50E-003	1.96E-003	8.91E-004
U238	<LLD	<LLD	0.00E+000	1.52E-005
PU239	5.11E+000	3.17E-001	6.08E-002	3.32E-002
PU240	3.27E-001	7.41E-002	1.77E-002	7.77E-003
AM241	1.64E+000	5.64E+000	3.90E+000	2.01E-001
PU241	6.24E-003	6.43E-001	1.53E-001	6.73E-002
PU242	1.09E-003	4.30E-006	1.03E-006	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 11/21/13

ITR: _____ Date: 11-22-13

Automated Independent Technical Review

Count Sequence Number: 23850 Batch Number: 1LANDA1866
Counter ID: MCS HENC #1
Container ID: 68611
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 11/15/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chambers Date: 11-19-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **68611**

BDR Number: **LA13FG2119**

Sampling Date: **11/22/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	199.89	
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131122c\
Data File : 68611.D
Acq On : 22 Nov 2013 10:31 am (#1); 22-Nov-13, 10:30:53 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 22 10:39:31 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.578	96	4491483	205.75 ppmv	0.06
15) Chlorobenzene-d5	5.874	117	3504620	177.50 ppmv	0.01
Target Compounds					Qvalue
1) Hydrogen	1.606	GC1	1503m	199.89 ppmv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0127
Examination Date:	11/13/2013
Waste Container ID:	68613
Video/Audio Recorded Media Number:	LA-RTR2-13-0127 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[X] No [ ] Yes NCR No.: N/A NCR No.: N/A

Section 2: Waste Container Data	
Container Type:	55 Gallon Drum
TRUCON Code:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 151.0 kg Tare Wt.: 33.4 kg Net Wt.: 117.6 kg
Rigid Liner and Liner Vent Description:	Liner: [X] No [ ] Yes Lid: [X] No [ ] Yes Type: [ ] 30-mil [ ] 90-mil [ ] 110-mil [ ] 125-mil Vented: [ ] No [ ] Yes [X] N/A Punctured: [X] No [ ] Yes Mechanical Vent: [X] No [ ] Yes Fiberboard Liner: [ ] No [X] Yes Lead Lined: [X] No [ ] Yes
Number of Layers of Confinement:	Appears to be 2 layers
Volume Utilization Percentage:	50 %

CCP Radiography Data Sheet

Waste Container ID: 68613

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal cans with material, metal lids

AM:

OM:

OI:

C:

R:

XPM: Plastic bags

OR:

IN: Homogeneous solids

S:

Section 4: Packaging Material and Waste Material Parameters

Packaging Material:	**Estimated Weight (kg)**
Steel (ST):	27.7
Plastics (PP): Plastic Liner Bag	2.0
Other: Fiberboard (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	5.3
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	106.3
Soils (S):	
Total WMP Weight:	117.6

CCP Radiography Data Sheet

Waste Container ID: 68613

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	☐ Yes ☒ No
Is there any observable liquid in internal containers, more than 60 milliliters or 3 percent by volume, whichever is greater?	☐ Yes ☒ No
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	☐ Yes ☒ No
Is there observable liquid in payload containers with an EPA Hazardous Waste Number of U134?	☐ Yes ☒ No
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	☐ Yes ☒ No
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	☐ Yes ☒ No
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	☐ Yes ☒ No
Is there an indication of wastes containing explosives or compressed gases?	☐ Yes ☒ No
Is there an indication of PCBs liquids?	☐ Yes ☒ No
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	☐ Yes ☒ No
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	☐ Yes ☒ No
CH or RH TRAMPAC	
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste, or heat sealed bags not authorized in the RH TRUCON Code?	☐ Yes ☒ No
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	☐ Yes ☒ No
Are there sealed containers GREATER than 4 liters?	☐ Yes ☒ No
Are there indications of inadequate protection for heavy and/or sharp objects?	☐ Yes ☒ No

Comments: N/A

RTR Operator:

Michael Simmons		11/13/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68613	Count Sequence Number:	23855
Operator:	D3PW2DK1\operator		
Assay Start:	11/15/2013 1:36:05 PM		
Description 1:	1LANDA1866		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6, Not Precision		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 118.0 kg	Net:	118.0 kg
Container:	Volume: 208.0 l	Full:	50.0 %
Density:	1.130 kg /l		

System Configuration

Counter:	MCS HENC #1
Count Type:	Item Count
Collimator/Geometry Setting:	All Banks On (GE - 0

Errors quoted at 1.000 sigma

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	23855	Batch Number:	1LANDA1866
Assay Instrument:	MCS HENC #1	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68613	Analysis Date:	11/15/2013

Net Weight	118000.0 g		
Pu mass	6.21E+000	+-	4.16E+000 g
TRU Alpha Activity	2.92E+000	+-	1.77E+000 Ci
TRU Activity Concentration	2.48E+004	+-	1.50E+004 nCi/g
Pu-239 Equivalent Activity	2.94E+000	+-	1.77E+000 Ci
Pu-239 FGE	5.86E+000	+-	4.15E+000 g
Decay heat	9.62E-002	+-	5.86E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	6.14E-007
U233	<LLD	<LLD	0.00E+000	4.37E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.34E-006
NP237	4.87E-002	3.43E-005	8.44E-006	2.30E-006
PU238	5.67E-004	9.70E-003	7.03E-003	6.16E-004
U238	<LLD	<LLD	0.00E+000	9.49E-006
PU239	5.83E+000	3.61E-001	2.58E-001	2.30E-002
PU240	3.72E-001	8.45E-002	6.15E-002	5.37E-003
AM241	7.19E-001	2.47E+000	1.75E+000	1.45E-001
PU241	7.11E-003	7.33E-001	5.33E-001	4.66E-002
PU242	1.24E-003	4.91E-006	3.57E-006	0.00E+000

Errors quoted at 1.000 sigma

Operator: _____ Date: 11/21/13

ITR: _____ Date: 11-22-13

Automated Independent Technical Review

Count Sequence Number: 23855
Batch Number: 1LANDA1866
Counter ID: MCS HENC #1
Container ID: 68613
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 11/15/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors. No Warnings Reported.	Ok
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Results taken from Quantitative Gamma data. Results comparison test passed.	Results taken from quantitative gamma data.
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. AK isotopics applied. The AK information utilized was provided by Steve Schafer, AKE, and consists of data from CCP-AK-LANL-006, AK Source Document M237. MT-52.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chamberlin Date: 11-19-13

Attachment 4 – Flammable Gas Analysis Form

SCO 1049 Add 4 - Win XP SP3/Win 7 SP1
Excel 2003/2007/2010

Waste Container ID: **68613**

BDR Number: **LA13FG2119**

Sampling Date: **11/22/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	90.37	U
74-82-8	Methane	142.14	U
67-56-1	Methanol	35.23	U
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	18.08	U
75-34-3	1,1-Dichloroethane	4.08	U
156-59-2	cis-1,2-Dichloroethene	0.76	U
78-93-3	Methyl ethyl ketone	11.73	U
110-82-7	Cyclohexane	5.10	U
71-43-2	Benzene	1.77	U
107-06-2	1,2-Dichloroethane	3.66	U
71-36-3	1-Butanol	1.84	U
108-10-1	Methyl isobutyl ketone	9.82	U
108-88-3	Toluene	8.02	U
108-90-7	Chlorobenzene	4.10	U
100-41-4	Ethylbenzene	3.57	U
108-38-3/106-42-3	m- and p-Xylene	1.92	U
95-47-6	o-Xylene	2.10	U
108-67-8	1,3,5-Trimethylbenzene	1.96	U
95-63-6	1,2,4-Trimethylbenzene	2.13	U

CAS Number	IDENTIFIED TIC COMPOUND	Est. Amount ppmv
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\131122c\
Data File : 68613.D
Acq On : 22 Nov 2013 12:18 pm (#1); 22-Nov-13, 12:17:46 (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 22 12:26:15 2013
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis
QLast Update : Mon Aug 26 13:12:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.578	96	4403706	205.75 ppmv	0.06
15) Chlorobenzene-d5	5.878	117	3481202	177.50 ppmv	0.02

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed