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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: OCT 0 1 2014
Symbol: ENV-DO-14-0260
LAUR: 14-27041
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 14

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* table which is 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. This submittal includes remediation and repackaging documentation for daughter containers resulting from the repackaging and remediation of the 267 original nitrate salt-bearing waste containers and is the fourteenth 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.

36614

Enclosure 1 includes the pertinent documentation for twelve (12) of the original 267 parent waste containers and all associated daughter and granddaughter waste containers. The enclosed documentation for each 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/lm

Enclosures: (1) Remediation and Repacking Documentation for Nitrate Salt-Bearing Waste Containers – Package 14

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)
Kirsten M. Laskey, NA-LA, (E-File)
Carl A. Beard, PADOPS, (E-File to aosburn@lanl.gov)
Michael T. Brandt, ADESH, (E-File)
Raeanna 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)
Kenneth M. Hargis, LTP-PTS, (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 14
ENV-DO-14-0260
LA-UR-14-27041

September 2014

Los Alamos
NATIONAL LABORATORY
EST. 1943

ENCLOSURE 1

Remediation and Repacking Documentation for Nitrate Salt-Bearing Waste Containers – Package 14

ENV-DO-14-0260

LA-UR-14-27041

Date: OCT 0 1 2014

ParentID	Intermediate Daughters	PKG_ID	Overpacked Into
S851416	68998	69548	
S851416	68998	69634	
S851418		69015	
S851418		69633	
S851418		69635	
S851426		68482	
S851426		68546	SB50083
S851432	90993	92231	
S851432	90997	92894	SB02052
S851432	90995	92911	SB02093
S851432	90996	92919	
S851436		69043	SB50039
S851436		69192	SB50105
S851436		69194	SB50088
S851506	91013	92248	SB02091
S851506	91013	92249	
S851506	91018	92892	
S851506	91017	92905	
S851506	91019	93442	SB02067
S851682		68343	
S851682		68372	
S851682		68373	
S851739		68450	
S851739		68453	
S851752		68407	
S851764	68759	69083	SB50098
S851764	68759	69099	SB50432
S851772	68760	69208	SB50069
S851852		94068	
S851852		94069	

S851416

S851416

Container 768222

File Options Reports Help

S851416

768222	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

S851416

- S851416
  - LA00000068998
    - LA00000069634
    - LA00000069548
    - LA00000069682 -EMPTY
  - W801647 EMPTY

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
0.001	%			

UET Working Copy
Date: 4-24-14

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 68998

6.2[4] Date Processed: 4-24-14

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) MM 4/24/14 (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: Michael Montoya / [signature] 191332 / 4/24/14
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.: 68998	
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	569.0 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	0 lb ☑ N/A
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	569.0 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. ____ / ____ / ____ (Initials / Z# / Date)	☑ N/A

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.: 68998

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	69634	69548	N/A	
10.1[4]	Daughter Drum Filter No.	KL-302	KM-401		
10.1[4]	Daughter Drum Bag Filter No.	L-17348	L-17403		
10.1[4]	Daughter Drum Purchase Order No.	501578	501578		
10.1[19][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[20][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		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	1 LITER			
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHIELDING	LEAD SHIELDING		
10.3[9][A]	PCB-contaminated Waste Description	N/A	N/A	N/A	
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	SEE COMMENTS	SEE COMMENTS		A
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	100%	50%		
10.5[3]/10.6[2]	Description Waste Added During Processing	BAG OFF STUBS, KITTY LITTER	BAG OFF STUBS, KITTY LITTER		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 68998

Comments: ROOM TRASH, PLASTICS, METAL CANS & SHAVINGS, CEMENTED WASTE, LEAD SHIELDING

11.1[1] Performed By: Brian Gallegos / [signature] / 267129 4-24-14
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Clayton Mullins / CA / 240092 / 4/25/14 1443
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 4-23-14 JC

69682

ATTACHMENT 1
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.:	501883
Lot No.:	0244488
Manufacture Date:	13

5.[8] Overpack 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
Tolerance:	±11%cw ±6% ccw	±3%cw ±6%ccw

Overpack filtered vent information:

Manufacturer:	NUFIL
Model No.:	013
Serial No.:	JL-948
Manufacture Date:	1-11

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] 124742 / 4-23-14
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] 124742 / 4-23-14
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Clayton Mullins / [signature] 124009 / 4/25/14
Supervisor or designee (print) Signature Z # Date

UBT
Working Copy
Date: 4-24-14

ATTACHMENT 4
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69682

7.[23] Overpack drum closure ring torque wrench information:
- M&TE No.: 038370
- Cal. Expiration Date: 8-02-14
- 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 / [signature] / 267129 4-24-14
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: 10-14-14

7.[34][D] 85-gal overpack drum gross weight (lb): 148.2 lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / [signature] / 267129 4-24-14
Waste Handling Technician (print) Signature Z# Date

8.1[7] Reviewed By: Clayton Mullins / [signature] / 240094 4/25/14
Supervisor or designee (print) Signature Z# Date

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69548

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 2040118
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC-1.5 2SPVC
Serial No.: L-17403
Manufacture Date: 5-13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	101310	036245
Cal. Expiration Date:	11/24/14	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: Michael Montoya (Operator (print)) / [signature] (Signature) 191352 (Z #) / 3-02-14 (Date)

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: KM-401
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): 76.0 lbs

5.[34][E] Drum ID No.: 69548

Comments: N/C

5.[35] Performed By: MICHAEL MONTOYA / [signature] / 191354 / 3-02-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mallins / [signature] / 1240091 / 4/25/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69548

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038370
Cal. Expiration Date: 8-02-14
Range: 40-80 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: Brian Gallegos (Operator (print)) [signature] (Signature) 1267129 (Z #) 4-24-14 (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: / N/A / / (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.: 69548

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 207.0 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: N/O

6.[32] Performed By: BRIAN GALLEGOS / Bri Gallegos / 1267129 / 4-24-14
Operator (print) / Signature / Z # / Date

7.1[4] Reviewed By: Clayton Mullins / CA / 1240000 / 4/25/14
Supervisor or designee (print) / Signature / Z # / Date

Working Copy
Date: 4-3-14

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69634

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 02401118
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6COR. 1-5. 25PVC
Serial No.: L-17348
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: MICHAEL MONTOYA / [signature] 191352 / 4-03-14
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019 DS
Serial No.: KL-302
Manufacture Date: 11/11

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.: 69634

Comments: N/C

5.[35] Performed By: MICHAEL MONTOYA (Operator (print)) [signature] (Signature) 1913552 (Z #) 4/03/14 (Date)

7.1[4] Reviewed By: Clayton Mullins (Supervisor or designee (print)) [signature] (Signature) 1240092 (Z #) 4/25/14 (Date)

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69634

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038370
Cal. Expiration Date: 8-02-14
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: BRIAN GALLEGOS [signature] 1267129 4-24-14
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: / N/A / /
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.: 69634

6.[25] Labels placed on container as directed from Steps 6.18 through 6.[24] — BG 267129 (Initials / Z#)

6.[27] Scale File ID number: 019065

6.[28] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[29] Drum gross weight: 501.6 lbs

6.[30] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

6.[32] Radiological surveys completed — BG 267129 (Initials / Z#)

Comments: N/c

6.[33] Performed By: Brian Gallegos (Operator (print)) / [signature] (Signature) / 1267129 (Z #) / 4-24-14 (Date)

7.1[4] Reviewed By: Clayton Mullins (Supervisor or designee (print)) / [signature] (Signature) / 1240092 (Z #) / 4/25/14 (Date)

Working Copy
Date: 4-24-14

ATTACHMENT 2
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 68998

6.3[15] ($) 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): 569.0

6.3[19] ($) Prepared parent 55-gal drum weighs < 624 lb: (SR 4.5.1) ☑ SAT ☐ UNSAT

Comments: N/C

8.1[1] Performed By: Brandon Chacz / [signature] 120772 / 4-24-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clayton Mullins / [signature] 240096 / 4/25/14
Supervisor or designee (print) Signature Z # Date

8.1[8][B] Acceptance criteria satisfied: ☑ YES ☐ NO

8.1[8][D] Approved by: Jose Jerez / [signature] R21452 / 4/25/14 / 1500
SOS/SOM or designee (print) Signature Z # Date Time

1947 Non-GG Vented

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

DRUM # 68998 SP77

Planning and Technical Solutions

Container ID: S851416 Container Type: 85 GAL DRUM Gross Weight (lbs): 568.2285
Total PE-Ci Activity: 2.78E+00 Equivalent Combustible PE-Ci: 1.04E+00
Total Fissile Gram Equivalents: 3.07E+01 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.

Drum venting and gas sampling completed on 2/26/13. Attachment 3 of DOP-1030 is attached. RTR pre-screen indicates lead liner in the drum.

Potential Safety Risks: Nitrate salt drums often contain free liquids and are packaged in individual plastic bags. Net weight is ~500 lbs. per TRU Waste Management System database. Generator data shows 4 items but other blocks are not legible. *

Performed By: Susan Ramsey (LTP-PTS (Print)) | Signature | 100681 (Z#) | 12/15/13 (Date) 4/7/14

IHS Representative

Potential IHS Safety Risks: May contain D007, D008 and D009. Contains free liquids, No other hazards noted

Performed By: Johnny Williams (IHS Representative (Print)) | Signature | 841657 (Z#) | 8-21-13 (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#) | 9/30/13 (Date)

TRU Remediation Operations

Potential Safety Risks: Follow procedures

Performed By: Dennis Yolton (TRU Operations (Print)) | Signature | 234074 (Z#) | 4/7/14 (Date)

Operations Manager or designee

Processing Determination: ☒ Accept ☐ Reject

OM or designee Comments: Follow current procedures and TWP's.

Approved By: David L. Blain (OM or designee (Print)) | Signature | 218069 (Z#) | 4-7-14 (Date)

* 4 items but other data not legible. 4/7/14

Discardable Waste Log Sheet

DrumID: 019263

Item#	ItemID	Net (kg)	Matrix	M Code	NM	MT	Auth	Remarks
1			Pu CEMENT		32.65	52	6/14	THERE ARE 4 ITEMS. THEY ARE NOT LEGIBLE.
		kg						

ATTACHMENT 3
Page 1 of 3

TA-54 AREA G DRUM VENTING DATA SHEET

7.[2] Waste Container Unique Identifier: 9851416

7.[3] Personnel stationed to prevent unauthorized entry into the 30-ft standoff distance outside of dome. ☑ SAT ☐ UNSAT ☐ N/A

7.[5] (S) Personnel have exited the 30-ft standoff distance. (SAC 5.6.4.3)

55-gal drum: ☑ SAT ☐ UNSAT ☐ N/A

85-gal drum: ☐ SAT ☐ UNSAT ☑ N/A

NOTE *All of the following data spaces may or may not be completed based on the drum configuration. For example, an unvented 55-gal drum without an 85-gal overpack drum would use a short-stem, filtered vent (NucFil-7DS) and the 85-gal overpack drum information is N/A. An unvented 55-gal drum overpacked into an unvented 85-gal overpack drum requires the completion of all of the following data spaces.*

7.[9]

Head Space Gas sample results:	85-gal (☑ N/A)	55-gal (☐ N/A)
Hydrogen	_____ %	0.043533 %
Methane	_____ ppm	1,647.46 ppm
VOC	_____ ppm	27.58 ppm
Filter Vent Unique Identifier No.	_____	AN-330
Filter Vent Installed:		
Stub Stem (e.g., NucFil-007S)	☐ (☑ N/A)	☐ (☑ N/A)
Short Stem (e.g., NucFil-7DS)	☐ (☑ N/A)	☐ (☑ N/A)
Long Stem (e.g., NucFil-08DS)	☐ (☑ N/A)	☑ (☐ N/A)

ATTACHMENT 3
Page 2 of 3

7.[2] Waste Container Unique Identifier: S851416

7.[10] (S) Waste container VENTED DRUM criteria: (TSR 1.1)

- Stub Stem (e.g., NucFil-007S) (Acceptance Criteria: WIPP-Approved Filtered Vent installed, < 6.4% H_2, < 7,000 ppm VOC, and < 16,000 ppm Methane)
  - 55-gal drum: ☐ SAT ☐ UNSAT ☑ N/A
  - 85-gal drum: ☐ SAT ☐ UNSAT ☑ N/A
- Short Stem (e.g., NucFil-7DS) (Acceptance Criteria: WIPP-Approved Filtered Vent installed, < 6.4% H_2, < 7,000 ppm VOC, and < 16,000 ppm Methane)
  - 55-gal drum: ☐ SAT ☐ UNSAT ☑ N/A
  - 85-gal drum: ☐ SAT ☐ UNSAT ☑ N/A
- Long Stem (e.g., NucFil-08DS) (Acceptance Criteria: WIPP-Approved Filtered Vent installed, < 4.8% H_2, < 5,250 ppm VOC, and < 12,000 ppm Methane)
  - 55-gal drum: ☑ SAT ☐ UNSAT ☐ N/A
  - 85-gal drum: ☐ SAT ☐ UNSAT ☑ N/A

7.[11][A] Waste drum venting status: ☐ UNVENTED ☑ N/A

7.[11][B][a] Number of required WIPP-approved filtered vents
- 85-gal Waste Container: 1 ☑ N/A
- 55-gal Waste Container: ____ ☑ N/A

7.[11][B][c] (S) Personnel have exited the 30-ft standoff distance (SAC 5.6.4.3)

Filter Vent	1	2	3	4	5	6	7	8
85-gal		☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A				
55-gal		☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A

UFT

ATTACHMENT 3
Page 3 of 3

7.[2] Waste Container Unique Identifier: S851416

7.[11][B][f] Number of WIPP-approved filtered vents installed:
- 85-gal Waste Container ☑ N/A
- 55-gal Waste Container ☑ N/A

Filter Vent		1	2	3	4	5	6	7	8
85-gal	Type								
	Unique Identifier No.				N/A				
55-gal	Type								
	Unique Identifier No.								

7.[11][F] Drum-lid restraint inspected for degradation (e.g., no indication of cracked parts, missing fasteners, loose or frayed parts, excessive wear, or unusual deformation): (SAC 5.6.4.5.1) ☐ SAT ☐ UNSAT ☑ N/A

7.[11][H] Drum-lid restraint installed: (SAC 5.6.4.5.1) ☐ SAT ☐ UNSAT ☑ N/A

7.[12] Waste drum status:
- 85-gal Waste Container ☐ VENTED ☑ N/A
- 55-gal Waste Container ☑ VENTED ☐ N/A

7.[13][A] (S) 55-gal waste containers to be transferred to WCRRF satisfy the following criteria (WCRRF SAC 5.10.2.3.4.a): ☑ SAT ☐ UNSAT ~~☑~~ BS 3/4/14
- Hydrogen concentration less than or equal to 2.4% (24,000 ppm)
- VOC less than or equal to 5,250 ppm

Comments: Meets requirements for transfer to WCRR.
~~N/A~~ BS 3/4/14

7.[13] Performed By: Chris Vigil 163082 2-28-13
TTP-DOP Supervisor designee (Print) Signature Date

7.[13] Personal space heaters ON and functional ☑ SAT ☐ UNSAT

7.[13] Reviewed By: Chris Vigil 163082 2-28-13
TTP-DOP Supervisor designee (Print) Signature Date

DVS Gas Determination Results Report

Date: 2/28/2013

Waste Container Number: S851416

Batch Number: DVS2130228

Filter Type Installed: 08DS

Number of Filters Installed:

Flammable Volatile Organic Compounds (VOCs)

Compound	Concentration (ppmV)	Upper Calibration Range (ppmV)	Exceeds Calibration (Y/N)	Calculated Value (if exceeds calibration)
Methanol	25.58	1591.00	N	N/A
Diethyl Ether	0	503.00	N	N/A
1,1 Dichloroethene	0	402.80	N	N/A
Acetone	2	1502.00	N	N/A
1,1-Dichloroethane	0	400.80	N	N/A
Cis 1,2-Dichloroethene	0	400.20	N	N/A
Methyl Ethyl Ketone	0	1503.00	N	N/A
Cyclohexane	0	497.30	N	N/A
Benzene	0	1492.00	N	N/A
1,2-Dichloroethane	0	400.80	N	N/A
N-Butyl Alcohol	0	200.20	N	N/A
Methyl Isobutyl Ketone	0	501.90	N	N/A
Toluene	0	1491.00	N	N/A
Chlorobenzene	0	186.60	N	N/A
Ethylbenzene	0	100.00	N	N/A
m,p-Xylene	0	100.09	N	N/A
o-Xylene	0	100.30	N	N/A
1,3,5-Trimethylbenzene	0	50.64	N	N/A
1,2,4-Trimethylbenzene	0	50.17	N	N/A

Flammable Tentative Identified Compounds (TIC)

Compound	Concentration (ppmV)	CAS Number
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Total Flammable VOCs	27.58	I.V.R. Intial and Date	RP 2-28-13

Compound	Concentration		Upper Calibration Range		Exceeds Calibration (Y/N)
Hydrogen	0.043533	%	6.45	%	N
Methane	1,647.46	ppm	15990.00	ppm	N

Comments:

AN-330

Doug Eisele — DVS Operator Print Name

Signature

02-28-13 — Date

4-24-14

0545 Assuming WCRR operations center - Coleman
0558 Beginning outside rounds. Air quality arrived to perform weekly stack monitoring.
0610 Weekly stack monitoring complete.
0614 Beginning inside rounds.
0615 ~~Beginning~~ JC 4-24-14 Pre-job being conducted by 505.
JC 4-24-14 0617 Outside rounds complete.
0625 0635 Pre-job concluded.
0637 Initiating a drum movement from 50-69 to a transportainer. Inside rounds complete.
0656 Both rounds reviewed by 505.
0710 Drum movement out of 50-69 complete. All inventory has been removed from 50-69.
0724 Mode changed to cold in 50-69 and warm in WCRRF yard.
0730 Permission granted to stage drums for the shipment det to Area G.
0758 Permission granted to lower the vehicle access gates to load transfer vehicle.
0823 Personnel entering 50-69 to perform WO#464523-01 (Back flow preventer).
0827 Personnel entering 50-69 to perform WO#479272-01 (Annual Safety shower/eyewash).
0837 Personnel entering WCRRF to perform WO#484110-01 (lock shop support for boiler #2 door and SW gate.)
0838 Personnel entering 50-69 to perform WO#466885-01 (Electrical support and manipulate breakers).
0859 WO#466885-01 complete.
0901 Transportainers secure. Transfer vehicle loaded.
0906 Vehicle access gates restored.
0913 Personnel entering 50-69 to perform WO#481464-01 (Quarterly exhaust stack-603.)
0916 WO#479272-01 complete.
0917 WO#464523-01 complete.
0918 Late entry - at 0910, WO#466885-01 complete (JC)
1018 WO#481464-01 complete.
Continued on next page Coleman

4-24-14 Continued from previous page. JColeman
1022 Currently waiting on parts to complete WO#484110-01.
JC 4-24-14 ~~Mode changed to operations in WCRRF yard and 5069.~~
1140 WO#484110-01 complete.
1141 Mode changed to operations in WCRRF yard and 5069.
1143 Initiating a drum movement from transportainer to 5069.
1144 Late entry-at 1041, test execute complete. Surveillance 4.1.1 performed. (JC)
1154 Drum movement into 5069 complete.
1204 Denesting 2 drums.
1225 Denesting complete. Bagging on S841627.
(JC) 1238 Bag on complete.
1326 Beginning inside rounds.
1357 Inside rounds complete.
1358 Bagging off 2 daughters, bagging on 68998.
1437 Bag off/on complete. PPE check & Sat.
1452 Beginning outside rounds.
1504 Notified by PIC inside that RCT's are sending tech 35 out to change his PPE due to sweating through them.
1514 Outside rounds complete
1534 Bagging off 2 daughters and placing port cover on.
1542 Removed caution tag #5014-0006
1549 Initiating a drum movement from transportainer to 5069. Test execute complete. Surveillance 4.1.1 performed
1559 Drum movement into 5069 complete.
1605 Bag off complete. Everything is in a safe configuration.
1613 Mode change complete. WCRRF yard and 5069 in warm standby.
4-24-14 1630 End of day. DCO position secure. JColeman

No further entries this page.

4/24/14 WCRR SOM

0600 Reviewed SOM Logbook and received face to face turnover from yesterdays SOM J. Gandygroli. Assumed the WCRR SOM position.

0630 Completed the pre job brief conducted by SOS C. Mullins. Site start message was traffic safety focusing on turning @ red stop lights vice red arrows. MSS will be here @ 0730 to conduct maintenance - scheduled (A) BFP, (A) Safety Shower, (Q) Exhaust Stack. ~~Possible~~ standing 4/24/14 Lock Shop and Weed cutting possible to work. Characterization to be on-site to assay drums processed yesterday.

0713 Completed daily call in to TA-54 SOM to status WCRR work.

0723 Late Entry @ 0710 - Reported to Ops Center that move out of waste from 50-69 is complete. Building is de-inventoried. RAG

0724 Mode Change completed: WCRR yard/Bldg 50-69 from Warm/Warm to Warm/Cold.

0832 Released the following WO's:
466885-01 FY14 FOD 5 Elec Support to Manipulate Breakers
464523-01 50-69 (A) BFP
479272-01 50-69 (A) Safety Shower/Eye Wash (Plumbed)
484110-01 FY14 FOD-5 Lock Shop Support
481464-01 50-69 (Q) Exhaust Stack - 003

0853 MSS Superintendent reported Breaker ~~turned~~ 4/24/14 is reset for the forklift charging station. Operators will place large forklift on charger after shipment out is loaded.

0901 Outgoing shipment to TA-54 is loaded (14 drums) and leaving WCRRF.

0905 Operators reported that forklift is on charging station and confirmed operational.

0913 Lock shop is exiting area to obtain replacement locks for the boiler doors (single key for both locks). Discussed possible repair to SW vehicle gate latch - they recommend a foot latch to anchor one side of gate into ground receptacle (will require penetration permit).

0924 (A) Safety Shower/Eyewash PM is complete. Signed off work package PMT complete (included in PMI)

0938 (A) BFP maintenance is complete. Signed off work package - PMT is complete (included in PMI)

4/24/14 WCRR SOM continued.

1039 (Q) Exhaust Stack PM's completed. Signed off work package - PMT completed included in PMI. All work orders completed w/ exception of Lock Shop Support - will need to reschedule installation of new locks on Boiler doors.

1041 Lock Shop on site - report it will take 10-15 minutes to change locks. Allowing them to complete work.

1045 Air Quality contacted Ops center concerning FE-003 exhaust stack monitor having a low reading for flow.

1139 Lock Shop completed work on Boiler doors. Work package closed out.

1141 ~~1140~~ 4/24/14 Completed Mode Change: WCRR Yard/Bldg 50-69 from Warm/Cold to Operations/Operations.

1154 Completed movement of 4 drums into 50-69.

1230 Attended weekly team meeting w/ PM, OM, SOM's and others.

1238 Completed bag on of drum # 5841627.

1245 Late Entry @ 1130 Discussed FE-003 w/ CSE Chris Pitcher concerning stack monitoring system which he ~~[illegible]~~ 4/24/14 verified is not part of the Safety System ~~[illegible]~~ VSS => VSS is operable despite problems w/ stack monitoring. Discussed w/ Deborah Archuleta w/ Air Emissions and received e-mail from her manager Dave Fuerne that operations may continue - they will adjust w/ flow/emissions calculations - also coordinate w/ MSS to look at system.

1325 Verified w/ IH that Be storage signs were removed from the transportainers yesterday. Ops Center was notified at the time.

1437 Completed all bag offs for parent # 5841627 - 2 daughters total. Completed bag on of drum # 68998

1605 Completed all bag offs for parent # 68998 - 2 daughters total, WCG drum port cover in place. WCG in safe configuration.

1613 Mode Change Completed: WCRR Yard/Bldg 50-69 from Operations/Operations to Warm/Warm.

1630 Secured the SOM position. ↳

No further entries this page 4/24

4/24/14 WCRRF SOS Log Book

0600 Assuming SOS position. CM

0615 Starting Pre-Job, discussed going into cold standby for maintenance. Also went over schedule for next week and resuming operations after maintenance.

0630 Pre-Job complete.

0637 Started movement out of 50-69.

0656 Signed off on the rounds.

0710 Move out complete.

0724 Mode change complete WCRRF yard in Warm Standby and 50-69 in Cold Standby.

0730 Starting shipment out of WCRRF.

0823 Starting work Back Flow Preventer, 464523-01

0821 Starting annual safety shower/eye wash, 479272-01.

0837 Starting work for boiler #2 door and SW gate latch, 484110-1.

0907 Shipment out of WCRRF complete.

0910 Breaker manipulation complete.

0911 Late entry @ 0838 Starting work for electricians to manipulate breakers for forklift charger, 466885-01

0913 Starting quarterly exhaust stack calibration, 481464-01

0916 Annual safety shower/eye wash complete.

0917 Back Flow Preventer complete.

1018 Exhaust stack calibration complete.

1141 Mode change complete, WCRRF yard and 50-69 are now in Operations.

1143 Starting movement into 50-69.

1154 Move in complete.

1204 Denesting 2 drums.

1225 Denesting complete, bagging on 5841627.

1238 Bag on complete.

1358 ~~1526~~ cm 4-24-14 Bagging off 2 daughters, bagging on 68998.

1437 Bag off/on complete.

1534 Bagging off 2 daughters, placing port cover on. Signed off on the rounds.

Continued on next page. CMullins

Continued from previous page. C Mullins

1542 Caution tag, 50-14-0006, removed.
1549 Starting movement into 50-69.
1559 Move in complete.
1606 Bag off complete.
1613 Mode change complete, WCRRF yard and 50-69 are now in Warm Standby.
24-14 1624 ~~Secu~~ Securing SOS position. CM

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-HERTR-14-0051
Examination Date:	4/30/2014
Waste Container ID:	69548
Video/Audio Recorded Media Number:	LA-HERTR-14-0051 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.: 94.0 kg Tare Wt.: 33.4 kg Net Wt.: 60.6 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:	45 %

CCP Radiography Data Sheet

Waste Container ID: 69548

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bag, plastic sheeting

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):	23.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	35.6
Soils (S):	
Total WMP Weight:	60.6

Waste Container ID: 69548

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	4/30/2014
Print Name	Signature	Date

S851416

NDA 2000 Assay Report

Item Information

Item ID:	69548	Count Sequence Number:	24619
Operator:	D3PW2DK1\operator		
Assay Start:	4/30/2014 10:59:54 AM		
Description 1:	1LANDA1936		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 60.6 kg	Net:	60.6 kg
Container:	Volume: 208.0 l	Full:	45.0 %
Density:	0.650 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:	24619	Batch Number:	1LANDA1936
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:	69548	Analysis Date:	4/30/2014

Net Weight	60600.0 g		
Pu mass	2.50E+000	+- 5.01E-001	g
TRU Alpha Activity	9.25E-001	+- 4.03E-001	Ci
TRU Activity Concentration	1.53E+004	+- 6.65E+003	nCi/g
Pu-239 Equivalent Activity	9.30E-001	+- 4.03E-001	Ci
Pu-239 FGE	2.36E+000	+- 5.00E-001	g
Decay heat	3.04E-002	+- 1.34E-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	2.89E-007
U233	<LLD	<LLD	0.00E+000	2.47E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	7.22E-007
NP237	2.46E-002	1.73E-005	3.09E-006	1.07E-006
PU238	2.28E-004	3.90E-003	9.67E-004	2.60E-004
U238	<LLD	<LLD	0.00E+000	7.23E-006
PU239	2.35E+000	1.46E-001	3.10E-002	9.73E-003
PU240	1.50E-001	3.41E-002	8.70E-003	2.28E-003
AM241	2.16E-001	7.41E-001	4.02E-001	2.63E-002
PU241	2.81E-003	2.89E-001	7.38E-002	1.93E-002
PU242	5.01E-004	1.98E-006	5.05E-007	0.00E+000
AM243	5.10E-004	1.02E-004	1.83E-005	3.39E-006

Errors quoted at 1.000 sigma

Operator: Jim Barton Date: 5/1/14

ITR: Marla Gn Date: 5.2.14

Automated Independent Technical Review

Count Sequence Number: 24619 Batch Number: 1LANDA1936
Counter ID: MCS HENC #1
Container ID: 69548
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 4/30/2014

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
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; Gamma data specified as input.	Results taken from quantitative gamma data.
Results taken 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.
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: 5-1-14

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-14-0051
Examination Date:	4/30/2014
Waste Container ID:	69634
Video/Audio Recorded Media Number:	LA-HERTR-14-0051 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.: 227.0 kg Tare Wt.: 33.4 kg Net Wt.: 193.6 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: 69634

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal cans with material

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):	5.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	5.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	183.6
Soils (S):	
Total WMP Weight:	193.6

Waste Container ID: 69634

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	4/30/2014
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69643	Count Sequence Number:	24623
Operator:	D3PW2DK1\operator		
Assay Start:	4/30/2014 2:08:46 PM		
Description 1:	1LANDA1936		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 93.6 kg	Net:	93.6 kg
Container:	Volume: 208.0 l	Full:	60.0 %
Density:	0.750 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:	24623	Batch Number:	1LANDA1936
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:	69643	Analysis Date:	4/30/2014

Net Weight	93600.0 g		
Pu mass	4.30E+000	+- 6.17E-001	g
TRU Alpha Activity	1.01E+000	+- 3.83E-001	Ci
TRU Activity Concentration	1.08E+004	+- 4.10E+003	nCi/g
Pu-239 Equivalent Activity	1.02E+000	+- 3.83E-001	Ci
Pu-239 FGE	4.05E+000	+- 5.79E-001	g
Decay heat	3.30E-002	+- 1.27E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.18E-002	1.54E-005	2.99E-006	1.18E-006
PU238	3.91E-004	6.69E-003	9.61E-004	3.39E-005
PU239	4.03E+000	2.50E-001	3.59E-002	1.27E-003
PU240	2.58E-001	5.85E-002	8.40E-003	2.97E-004
AM241	2.03E-001	6.96E-001	3.82E-001	3.05E-002
PU241	4.82E-003	4.96E-001	7.13E-002	2.52E-003
PU242	8.60E-004	3.40E-006	4.88E-007	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	3.09E-007
U233	<LLD	<LLD	0.00E+000	2.71E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	8.25E-007
U238	<LLD	<LLD	0.00E+000	5.16E-006
AM243	4.76E-004	9.53E-005	1.86E-005	3.61E-006

Errors quoted at 1.000 sigma

Operator: Jon Barton Date: 5/1/14

ITR: Marsha Egan Date: 5.2.14

Automated Independent Technical Review

Count Sequence Number: 24623
Batch Number: 1LANDA1936
Counter ID: MCS HENC #1
Container ID: 69643
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 4/30/2014

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

Expert Review by: Shelia Chambers Date: 5-1-14

S851418

S851418

Container 754288

File Options Reports Help

S851418

754288	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

S851418

- S851418
  - LA00000069635
  - LA00000069015
  - LA00000069633
  - LA00000069704 – EMPTY

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
0.01	%			

Working C.
Date: 4-18-14

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S 851418

6.2[4] Date Processed: 4/18/14

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) JQ 4/18/14 (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: JOE QUINTANA, Joe Q 239987, 4/18/14
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: S851418

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 418.2 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 83. lb ☐ N/A

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 501.2 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.: S 851418

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	69635	69633		
10.1[4]	Daughter Drum Filter No.	KL303	KL322		
10.1[4]	Daughter Drum Bag Filter No.	L 10225	L 10250		
10.1[4]	Daughter Drum Purchase Order No.	501578	501578		
10.1[19][C]	WCG Fire Watch Stationed		☐ YES	☐ NO	☑ N/A
10.1[20][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.	6LPR15-2SPC			
	Serial No.	L 10118			
	Date of Manufacture	5/13			
10.2[5]	POC ID No 69015	2916 STD			
10.2[6]/10.2[7][B]	POC Item Description	NITRATE SALT			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	SQ 239987			
10.2[14]	POC Assembly Gross Weight (lb)	358.4			
10.2[15]	POC Rad. Survey Results (mrem/hr)	1500			
10.3[3][A]	Approx. Containerized Liquid Vol./Units	0			
10.3[5][A]	Free Liquid Volume/Units	0			
10.3[7][A]	Opaque/Non-penetrable Item Description:	N/A			
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 Comments	See Comments		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	75	95		
10.5[3]/10.6[2]	Description Waste Added During Processing	KITTY LITTER	KITTY LITTER		

N/A

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S851418

Comments: LEAD, FREE LIQUID (1.5 GAL), PLASTICS, STUB OUTS, PLASTIC LID, NITRATE SALTS, BROKEN ALUMINUM TOOL FROM GLOVE BOX.

11.1[1] Performed By: JOE QUINTANA / Joe Q / 2399871 / 4/18/14
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Jose Jerez / Jose Jerez / 221452 / 4-21-14 0917
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 4/18/14

ATTACHMENT 1
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501563
Lot No.: 0240323
Manufacture Date: 2013

5.[8] Overpack filtered vent and 2-in. bung torque wrench information:

	Filtered Vent	2-in. Bung
M&TE No.:		
Cal. Expiration Date:	N/A	N/A
Tolerance:		

Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 0190S
Serial No.: LM 213
Manufacture Date: 12/12

5.[9] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. N/A ☐ 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)]: N/A in-lb

5. [18] 2-in. bung plug torque value: N/A ft-lb

Comments: NOT PREPPED IN WCRRF

8.1[1] Performed By: JOE QUINTANA, [signature] 239987, 4/18/14
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: JOSE JAREZ, [signature] 1221452 4/21/14
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 4/8/14

ATTACHMENT 4
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69704

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: JOE QUINTANA / / /
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): 165.4 lb

Comments: N/C

8.1[1] Performed By: JOE QUINTANA, Joe Q 239987, 4/18/14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Jose Jerez, [signature] 2214521 4/21/14
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 4-3-14

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69633

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240118
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6cpvc-1.5-2 Spvc
Serial No.: L-10250
Manufacture Date: 5/13

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: Randy Rorbal / [signature] 1187034 04/03/14
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019 DS
Serial No.: KL-322
Manufacture Date: 11/11

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.: 69633

Comments: N/C

5.[35] Performed By: Randy Ropbal | [signature] | 1870341 | 04/03/14
Operator (print) | Signature | Z # | Date

7.1[4] Reviewed By: Jose Sevez | [signature] | 1221521 | 4/21/14
Supervisor or designee (print) | Signature | Z # | Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69633

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: JOE QUINTANA [signature] Z39987 4/18/14
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:	N/A	N/A
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: N/A / / / /
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.: 69633

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 417.0 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: JOE QUINTANA (Operator (print)) Joe Q (Signature) 239987 (Z #) 4/18/14 (Date)

7.1[4] Reviewed By: Jose Jerez (Supervisor or designee (print)) (Signature) EZ14521 (Z #) 4/21/14 (Date)

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 4/3/14 [illegible]

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69635

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240118
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC 1.5-2SPVC
Serial No.: L-10225
Manufacture Date: 11/11

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	~~+/- 4% cw + 11-6% ccw~~ +/- 3% cw

5.[20] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Steven Mendragon (Operator (print)) / Steven Mendragon (Signature) 1104781 (Z #) 04-03-14 (Date)

5.[23] Filtered vent information:
Manufacturer: Nucfil
Model No.: 019DS
Serial No.: KL-303
Manufacture Date: 11/11

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.: 69635

Comments: N/C

5.[35] Performed By: Steven Mandragon (Operator (print)) | Steven Mandragon (Signature) | 1104741 (Z #) | 04-03-14 (Date)

7.1[4] Reviewed By: Jose Jerez (Supervisor or designee (print)) | Jose Jerez (Signature) | R214521 (Z #) | 4-21-14 (Date)

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69635

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: JOE QUINTANA, [signature] 239987 4/18/14
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:	N/A	N/A
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: NOT PREPPED IN WCRRF / /
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.: 69635

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 240.0 lbs

6.[29] Drum gross weight recorded on drum lid in approximately 1/2 in. lettering: ☑ SAT ☐ UNSAT

Comments: NIL

6.[32] Performed By: JOE QUINTANA (Operator (print)) Joe Q (Signature) 239987 (Z #) 4/18/14 (Date)

7.1[4] Reviewed By: Jose Jerez (Supervisor or designee (print)) [signature] (Signature) 1221454 (Z #) 4/21/14 (Date)

Working Copy
Date: 4/8/14

ATTACHMENT 2
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: S851418

6.3[15] ($) 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): 418.2

6.3[19] ($) Prepared parent 55-gal drum weighs < 624 lb: (SR 4.5.1) ☑ SAT ☐ UNSAT

Comments: N/C

8.1[1] Performed By: JOE QUINTANA / [signature] Z39987 / 4/18/14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Jose Jerez / [signature] Z21452 / 4/21/14
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] 1149354 / 4/21/14 / 0928
SOS/SOM or designee (print) Signature Z # Date Time

Inspected Non-GG

1937

SP7

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Planning and Technical Solutions

Container ID: S851418 Container Type: 85 GAL DRUM Gross Weight (lbs): 435.9285
Total PE-Ci Activity: 7.74E+00 Equivalent Combustible PE-Ci: 2.90E+00
Total Fissile Gram Equivalents: 8.13E+01 Total Surface Dose Rate (mrem/hr): 5
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 ~4 gallons of liquid in the drum.

Potential Safety Risks: Nitrate salt drums often contain free liquids and are packaged in individual plastic bags. Net weight is ~310 lbs. and generator data shows 14 items of nitrate salts with weights ranging from ~8-34 lbs.

Performed By: Susan Ramsey | Susan S. Ramsey | 100681 | 8/15/13
LTP-PTS (Print) | Signature | Z# | Date

IHS Representative

Potential IHS Safety Risks: May contain D007, D008 and D009 contains free liquid, no other hazards noted

Performed By: Johnny Smallwood | Johnny Smallwood | 241659 | 8-21-13
IHS Representative (Print) | Signature | Z# | Date

LTP Engineering

Waste container remediation compliant with applicable facility safety basis requirements: ☒ Yes ☐ No

Engineering Comments: NA

Performed By: Valerie Rhodes | Valerie Rhodes | 112607 | 9/30/13
LTP Engineering (Print) | Signature | Z# | Date

TRU Remediation Operations

Potential Safety Risks: Use proper tools and PPE when processing, as well as correct amount of kitty liter, 3 to 1.

Performed By: Clayton Mullins | CM | 240092 | 3/12/14
TRU Operations (Print) | Signature | Z# | Date

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 when processing. Ensure all liquids are remediated.

Approved By: Jose Jerez | Jose Jerez | 221452 | 3/13/14
OM or designee (Print) | Signature | Z# | Date

Noncertified TRU Waste Drum Item Information

DrumID: 019656

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	MX172NE1		4.090	NITRATE SALTS		1.06	53	6/14	G468	
2	MX174NE1		14.770	NITRATE SALTS		9.69	52	6/14	G468	
3	MX176NW1		8.410	NITRATE SALTS		1.55	52	6/14	G468	
4	MX176NE1		6.140	NITRATE SALTS		2.93	52	6/14	G468	
5	MX174NW1		13.180	NITRATE SALTS		9.16	52	6/14	G468	
6	MX178NE1		12.950	NITRATE SALTS		5.76	52	6/14	G468	
7	MX178NW1		15.450	NITRATE SALTS		16.56	52	6/14	G468	
8	MX179NW1		10.450	NITRATE SALTS		3.08	52	6/14	G468	
9	RR177URNE1		6.140	NITRATE SALTS		2.34	52	6/14	G468	
10	MX172NW1		7.500	NITRATE SALTS		17.25	53	6/14	G468	
11	MX173NE1		10.680	NITRATE SALTS		5.33	53	6/14	G468	
12	LR175NE1		14.770	NITRATE SALTS		6.08	52	6/14	G468	
13	LR175NW1		12.950	NITRATE SALTS		5.58	52	6/14	G468	
14	MX179NE1		3.410	NITRATE SALTS		1.07	52	6/14	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 197.7

Material Type	SNM (grams)	Items Net Wt (kg)
52	63.8	118.62
53	23.64	22.27
Totals	87.44	140.89

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 5/29/13

Container No. (5.[1])	585 1418					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-Gal (overpacked in 85-Gal)					
Filtered Vent Type (5.[1])	077					
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 N/A	☐ 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])	260.71 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)), 238566 (Z #)

Comments:
Email from Eric Loechell verifies LFL sample was taken from 55 gallon container. 3/4/14

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)), [signature] (Signature), [illegible] (Z #), 6/3/13 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130529c\
Data File : S851418.D
Acq On : 29 May 2013 2:32 pm (#1); 29-May-13, 14:31:22 (#2)
Operator : SA
Sample :
Misc : 85 GAL LFL THROUGH UNOBSTRUCTED-072 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 29 15:12:35 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	3.516	96	3648591	201.25	ppmv	-0.05
15) Chlorobenzene-d5	5.855	117	3144258	177.00	ppmv	-0.05
Target Compounds						Qvalue
1) Hydrogen	1.609	GC1	1853m	260.71	ppmv	

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

vocgas.m Wed May 29 15:12:45 2013

4-18-14
0530 Assuming WCRR operations center - JColeman
0535 Beginning outside rounds.
0555 Outside rounds complete.
0617 Beginning inside rounds.
~~0654~~ 0644 Inside rounds complete.
0646 Both rounds reviewed by SOS.
0655 Mode changed to operations in WCRRF yard and 5069.
0701 Surveillance 4.1.1 performed. Received notification from inventory test executed completed.
0715 Initiating a drum movement from transportainer to 5069.
0725 Drum movement into 5069 complete.
0755 Operators moving 7 drums to LLW staging area. JC 4-18-14
0810 Operators denesting 2 drums.
0852 Denesting complete. Bagged on S851418.
0958 Bagging off 1 daughter, bagging on another daughter. PPE Sat
1015 Bag off/on complete.
1134 Bagging off 2nd daughter and a POC, bagging on 68994. PPE Sa
1210 Bag off/on complete.
1335 Beginning outside rounds.
1356 PPE check is Sat.
1400 Outside rounds complete.
1406 Per JH - he has deposited the Berthold and JH table in the High Bay area.
1444 Bagging off 1 Daughter and 1 POC.
1506 Bag off/on complete.
1515 Beginning inside rounds.
1532 Inside rounds complete.
1533 Bagging off last daughter of the day. Placing port cover on.
1558 Permission granted to move drums from 5069 to a transportainer.
1559 Late entry - at 1548, bag off complete (JC) Everything is in a safe configuration.
1623 Both rounds reviewed by SOS.
1625 Drum ~~movement~~ JC 4-18-14 movement complete
Continued on next page - JColeman

4-18-14 Continued from previous page
1627 Mode changed to cold in 5069, warm in WCRRF yard
4-18-14 1630 End of day. OCD position secured. JColeman

No further entries this page.

4-18-14 WCRR SOM Daysh1ft

0545 Reviewed logs and assumed the WCRR SOM position John Lundegard.
0636 Completed attending the pre-job brief conducted by the SOS (Jose) The safety topic was to watch out for the pilgrimage walkers. Due to only 2 open locations in the transportainers. Eleven Low Level locations were identified (LLW Room trash - non-BE) and (Empty B5 - non BE) which will be moved to the LL staging area. Operations will move 2 drums into the facility SP-72 for processing. One operator reported that the fire blanket was bulky and requested ordering a tongsten type blanket. Information will require obtaining prior to ordering and having ALARA Center check. One shift order was briefed.
0655 Made Change: 50/69 and Yard transition from cold/warm to Operation/Operation.
0707 Completed the daily phone call to the ARCH GSOM updating WCRR POD.
0725 Movement into 50/69 completed - two drums total, SP-72-5851418 and 68994 which require denesting.
0755 Two Outside Operators initiate movement of LLW drums from the transportainers to the LLW Staging area. Also observed ES/IH taking samples from the transportainers (BE) also the Berthold. All proper PPE and protocol was observed.
0810 Inside Operations initiate denesting.
0830 Movement to the LLW staging area is completed. 7 drums total. The OCO initiates updating the TSD paperwork.
0852 Inside Operators complete the de-nest and bag on of SP-72 5851418
0956 Inside Operators initiate bag off of 1 daughter, bag on another daughter and continue.
1009 Bag off and Bag On is noted completed.
1033 inside Operations report of a POC.
1194 Inside Operators initiate bag off of 1 daughter, 1 POC, empty parent and will bag on Parent 68994.
1157 Discussed with ES/IH and all BE samples taken will be shipped offsite today.
1210 Inside Operations complete bag offs and bag On's.
1355 Inside Operations report various POCs in WCG
1405 ES/IH completed depositing 50/69 Rm 104 BE signage on Table and Berthold.
1444 Operations are bagging off 1 daughter, 1 POC and continue to process
1506 Bag off inside is completed
1532 Inside Operations initiate bag off of daughter and Parent and secure WCG
1549 Bag offs completed and Outside Operations initiate procedure for drum transfers when smears are completed and OK

(Continued on Next Page)

4-18-14 WCRR SOM DAYSHIFT (cont)

1558 Outside Operations initiated from movement from 50-69 to the transportainers

1625 Movement out of the facility is completed

1627 Mode Change: 50/69 and yard transition from Operating/Operations to Cold/Lexam

1630 Secured the WCRR SOM position [signature]

No Further Entries this Page

[signature]

4/18/14

WCRR SOS Log Book

0600 Assuming SOS position for the day.

0615 Starting Pre-Job brief. Safety Topic discussed pedestrians walking to Chimayo for Holy Week especially today Outside crew moving out LLW drums that have been aproved by SOM as being able to be stored in LLW area. Picking in two Parents for D-Nesting and processing. Skeleton Crew today as half of them are working nights supporting maintenance activities.

0630 Pre-Job complete

0646 Inside and outside rounds have been completed and S

0655 WCRR yard and 50-69 are now in Operations mode

0700 Starting Movement into the facility of 2 Parents 5851418 SP72, 5816768 SP72

0710 Operators identified that 5816768 is the parent that is wrapped in lead around the outside. Swapping it for 68994.

0722 Movement into the facility complete

0810 Starting to D-Nest

0852 D-Nesting and Bag on Complete. Bagged on 5851418. PPE check is SAT.

0957 Bagging off one daughter, Bagging on second daughter.

1008 Bag on Bag off Complete.

1133 Bagging off one POC, one daughter, Bagging on 68994 PPE.

1210 Bag on Bag off Complete

1230 Operators Breaking for lunch

1335 Operators returning to continue processing.

1444 Bagging off one daughter and one POC and will continue to process.

1533 Bagging off Parent and daughter. Placing port cover on Final drum for the day.

1622 Reviewed and signed rounds

1627 Mode change WCRR yard in WARM 50-69 is in Cold.

4/18/14 1630 Securing SOS position for the day. [illegible]

No further entries.

4/18/14 WCRRF SOS Log Book

1657 Assuming SOS position. CJ

1658 All entries for tonights shift will be made in the Operations Center log book.

1659 Securing SOS position. CJ

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-RTR2-14-0040
Examination Date:	4/25/2014
Waste Container ID:	69015
Video/Audio Recorded Media Number:	LA-RTR2-14-0040 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.: 145.1 kg Net Wt.: 17.4 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 2 layers
Volume Utilization Percentage:	60 %

CCP Radiography Data Sheet

Waste Container ID: 69015

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal

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):	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):	0.5
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):	12.9
Soils (S):	
Total WMP Weight:	17.4

CCP Radiography Data Sheet

Waste Container ID: 69015

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 liner lid and liner therefore liner is vented.

RTR Operator:

Thad Hasselstrom	Thad Hasselstrom	4/25/2014
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69015	Count Sequence Number:	24606
Operator:	D3PW2DK1\operator		
Assay Start:	4/28/2014 1:09:14 PM		
Description 1:	1LANDA1935		
Description 2:	POC 162.5		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 17.4 kg	Net:	17.4 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.682 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: 24606
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 69015

Batch Number: 1LANDA1935
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 4/28/2014

Net Weight	17400.0 g		
Pu mass	9.91E+000	+-	4.46E+000 g
TRU Alpha Activity	2.95E+000	+-	1.54E+000 Ci
TRU Activity Concentration	1.70E+005	+-	8.87E+004 nCi/g
Pu-239 Equivalent Activity	2.97E+000	+-	1.54E+000 Ci
Pu-239 FGE	9.29E+000	+-	4.45E+000 g
Decay heat	9.66E-002	+-	5.12E-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	4.93E-007
U233	<LLD	<LLD	0.00E+000	4.91E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.45E-006
NP237	3.94E-002	2.78E-005	5.10E-006	2.05E-006
PU238	1.35E-003	2.31E-002	1.16E-002	8.55E-004
U238	<LLD	<LLD	0.00E+000	1.18E-005
PU239	9.23E+000	5.72E-001	2.76E-001	2.12E-002
PU240	6.60E-001	1.50E-001	7.53E-002	5.54E-003
AM241	6.43E-001	2.20E+000	1.52E+000	1.04E-001
PU241	1.33E-002	1.37E+000	6.90E-001	5.08E-002
PU242	3.37E-003	1.33E-005	6.70E-006	0.00E+000
AM243	1.78E-003	3.55E-004	6.56E-005	6.63E-006

Errors quoted at 1.000 sigma

Operator: Marla Sm Date: 4-29-14

ITR: Brit Lyle Date: 4-30-14

Automated Independent Technical Review

Count Sequence Number: 24606 Batch Number: 1LANDA1935
Counter ID: MCS HENC #1
Container ID: 69015
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 4/28/2014

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-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: 4-29-14

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-14-0040
Examination Date:	4/25/2014
Waste Container ID:	69633
Video/Audio Recorded Media Number:	LA-RTR2-14-0040 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.: 189.5 kg Tare Wt.: 33.4 kg Net Wt.: 156.1 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: 69633

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):	10.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	142.1
Soils (S):	
Total WMP Weight:	156.1

CCP Radiography Data Sheet

Waste Container ID: 69633

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	4/25/2014
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69633	Count Sequence Number:	24610
Operator:	D3PW2DK1\operator		
Assay Start:	4/28/2014 4:00:20 PM		
Description 1:	1LANDA1935		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 156.0 kg	Net:	156.0 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.830 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:	24610	Batch Number:	1LANDA1935
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:	69633	Analysis Date:	4/28/2014

Net Weight	156000.0 g		
Pu mass	6.15E+001	+-	2.36E+001 g
TRU Alpha Activity	1.98E+001	+-	1.06E+001 Ci
TRU Activity Concentration	1.27E+005	+-	6.80E+004 nCi/g
Pu-239 Equivalent Activity	1.99E+001	+-	1.06E+001 Ci
Pu-239 FGE	5.91E+001	+-	2.35E+001 g
Decay heat	6.47E-001	+-	3.52E-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	1.46E-006
U233	<LLD	<LLD	0.00E+000	1.57E-002
U234	3.18E-002	1.98E-004	7.32E-005	0.00E+000
U235	2.27E+000	4.90E-006	1.82E-006	4.35E-006
NP237	2.51E-001	1.77E-004	3.64E-005	6.74E-006
PU238	8.40E-003	1.44E-001	6.23E-002	2.84E-003
U238	<LLD	<LLD	0.00E+000	4.73E-005
PU239	5.73E+001	3.55E+000	1.46E+000	7.02E-002
PU240	4.10E+000	9.30E-001	4.03E-001	1.84E-002
AM241	4.41E+000	1.51E+001	1.05E+001	2.97E-001
PU241	8.29E-002	8.53E+000	3.70E+000	1.69E-001
PU242	2.10E-002	8.28E-005	3.59E-005	0.00E+000
AM243	8.05E-003	1.61E-003	3.33E-004	2.06E-005

Errors quoted at 1.000 sigma

Operator: Marla Sa Date: 4.29.14

ITR: Brittany Date: 4-30-14

Automated Independent Technical Review

Count Sequence Number: 24610 Batch Number: 1LANDA1935
Counter ID: MCS HENC #1
Container ID: 69633
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 4/28/2014

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; Gamma data specified as input.	Results taken from quantitative gamma data.
Results taken 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-52,53.
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: 4-29-14

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-14-0040
Examination Date:	4/25/2014
Waste Container ID:	69635
Video/Audio Recorded Media Number:	LA-RTR2-14-0040 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.: 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:	60 %

CCP Radiography Data Sheet

Waste Container ID: 69635

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):	0.5
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	5.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	70.1
Soils (S):	
Total WMP Weight:	75.6

CCP Radiography Data Sheet

Waste Container ID: 69635

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	4/25/2014
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69635	Count Sequence Number:	24604
Operator:	D3PW2DK1\operator		
Assay Start:	4/28/2014 11:43:24 AM		
Description 1:	1LANDA1935		
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:	60.0 %
Density:	0.610 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

S851418

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number:	24604	Batch Number:	1LANDA1935
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:	69635	Analysis Date:	4/28/2014

Net Weight	75600.0 g		
Pu mass	1.85E+001	+-	7.11E+000 g
TRU Alpha Activity	4.28E+000	+-	1.62E+000 Ci
TRU Activity Concentration	5.66E+004	+-	2.14E+004 nCi/g
Pu-239 Equivalent Activity	4.32E+000	+-	1.62E+000 Ci
Pu-239 FGE	1.73E+001	+-	7.09E+000 g
Decay heat	1.39E-001	+-	5.35E-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	5.53E-007
U233	<LLD	<LLD	0.00E+000	6.07E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.72E-006
NP237	6.80E-002	4.80E-005	8.22E-006	2.53E-006
PU238	2.53E-003	4.32E-002	1.88E-002	1.41E-003
U238	<LLD	<LLD	0.00E+000	1.35E-005
PU239	1.72E+001	1.07E+000	4.40E-001	3.50E-002
PU240	1.23E+000	2.80E-001	1.22E-001	9.15E-003
AM241	8.41E-001	2.88E+000	1.55E+000	6.33E-002
PU241	2.49E-002	2.57E+000	1.12E+000	8.39E-002
PU242	6.30E-003	2.49E-005	1.08E-005	0.00E+000
AM243	2.30E-003	4.61E-004	7.97E-005	7.93E-006

Errors quoted at 1.000 sigma

Operator: Marisa [signature] Date: 4-29-14

ITR: Brett [signature] Date: 4-30-14

Automated Independent Technical Review

Count Sequence Number: 24604 Batch Number: 1LANDA1935
Counter ID: MCS HENC #1
Container ID: 69635
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 4/28/2014

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-52,53.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sherri Chandler Date: 4-29-14

S851426

S851426

Container 754091

File Options Reports Help

S851426

754091	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

S851426

- S851426
  - LA00000068482 - WIPP
  - LA00000068546 - LANL
    - LASB50083
  - LA00000068529 - EMPTY

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
0.01	%			

Working Copy
Date: 10-24-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S851426

6.2[4] Date Processed: 10-24-13

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: ☑ 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: Fredrick Archuleta / [signature] / 122036 / 10-24-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: S851426

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 457.4 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 83 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 540.4 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.: S851426

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68482	68546		
10.1[4]	Daughter Drum Filter No.	LM-277	LM-352	N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-10320 ~~501578~~	L-10375		
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#)			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	3 galons			
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.			N/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%	100%		
10.5[3]/10.6[2]	Description Waste Added During Processing	Kitty litter, Neutralizer,	Kitty litter plastic shipping Bags/liners		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S851426

Comments: Plastic, Kitty litter, PH-4 liquid, approximately 3 gallons, lead shielding, Nitrate salts, Room trash. Hex Armor gloves

11.1[1] Performed By: Federico Hernandez / [signature] / 1228826 / 10-24-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Clayton Mullins / [signature] / 240092 / 10/24/13 1612
SOS 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: 13

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.: JL-1029
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] 1047112 / 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: 36 ft-lb

Comments: N/C

8.1[1] Performed By: Brandon Chavez / [signature] 1047112 / 10-4-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Clayton Mullins / CA 1240026 / 10/24/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: ~~68528~~ 68529 JM 10-24-13

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% rd +/- 6% rd

7.[24] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Federico Rebolledo / [signature] / 122[illegible] / 10-24-13
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): 171.4 lb

Comments: N/C

8.1[1] Performed By: James Sandal / [signature] / 111662 / 10-24-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clayton Mullins / [signature] / 240092 / 10/24/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 9-26-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68482

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 9-26-13 ~~02050~~ 0240999
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: ROP
Model No.: 6CPVC 1.5-2 SPVC
Serial No.: L-6720
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: Fredrick [illegible] / [signature] 1228261 9-26-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NuCsl
Model No.: 019 DS
Serial No.: LM-277
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: 20 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.: 68482

Comments: N/C

5.[35] Performed By: Frederico [illegible] [illegible] 1228026 9-26-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins [illegible] 240092 10/24/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

Working Copy
Date: 10-24-13

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 684182

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: +-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: Frederico [illegible] / [illegible] 122884 10-24-13
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.: 68482

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 313.6 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: James Sandoval [signature] 116662 10-24-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins [signature] 240096 10/24/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 10-21-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68546

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 240999
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC1.5-2SPVC
Serial No.: L-10375
Manufacture Date: 6/13

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: BRIAN GALLEGOS (Operator (print)) Bri Gallegos (Signature) 2067129 (Z #) 10-21-13 (Date)

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: LH-352
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): 74 lbs

5.[34][E] Drum ID No.: 68546

Comments: N/c

5.[35] Performed By: BRIAN GALLEGOS / [signature] / 267129 / 10-21-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins / [signature] / 240092 / 10/24/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 10-24-13

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68546

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: +/- 3% or +/- 6% ccw

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Jordan Archuleta / [signature] / 1228286 / 10-24-13
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: / / / /
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.: 68546

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 415.4 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: Frederick Hochstein / [signature] 1228826 10-24-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins / [signature] 1240096 10/24/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 3
Page 1 of 1

10-24-13

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: S851426

6.3[15] ($) 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): 457.4

6.3[19] ($) Prepared parent 55-gal drum weighs < 624 lb: (SR 4.5.1) ☑ SAT ☐ UNSAT

Comments: N/c.

8.1[1] Performed By: Frederick [illegible] / [signature] / 1228326 / 10-24-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clayton Mullins / CA / 1240094 / 10/24/13
Supervisor or designee (print) Signature Z # Date

8.1[8][B] Acceptance criteria satisfied: ☑ YES ☐ NO

8.1[8][D] Approved by: JOHN GUADAGNOLI / [signature] / 125655 / 10-24-13 / 1620
SOS/SOM or designee (print) Signature Z # Date Time

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

NO PMP SP72

Production Control

Container ID: S851426 Container Type: 85-GAL Gross Weight (lbs): 545
Inner Seal #: 019658β Filter Prefix: None Filter Serial #: None
AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST 12
Total PE-Ci Activity: 1.15E+01 Equivalent Combustible PE-Ci: 4.32E+00 AM-241 PE-Ci: 9.36E-01
Total Fissile Gram Equivalents: 127.4 Total Surface Dose Rate (mrem/hr): 3
EPA Code(s): [redacted] D009
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 6/14/2007 Comment: Impenetrable Obj.
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 (Production Control (Print)) / Signature / 100681 (Z Number) / 11/20/12 (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
Net Wt 423#. Generator info shows 9 items of nitrate salts with weights ranging from 7-64#. No RTR BDRs available for review. RTR PS shows impenetrable item(s). Nitrate salts usually packaged in plastic bags; other debris and/or unidentified liquids often present. Nitrate salts carry waste codes for chromium, lead + mercury. Repack with admixture required

Performed By: Valerie Rhodes (WDP Engineering (Print)) / Valerie Rhodes (Signature) / 112609 (Z Number) / 11/7/13 (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 Hexarmour 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 Perez (TRU Remediation Operations (Print)) / Signature / 221452 (Z Number) / 2-5-13 (Date)

ROBIN SHAUT 272995 2-11-13

IHS review 266362 11.26.12 NOTE: D007=Chromium D008=Lead

Noncertified TRU Waste Drum Item Information

DrumID: 019568

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)	Comments
1	MX180NW1		21.360	NITRATE SALTS		23.44	52	6/14	G468
2	MX181NE2		3.410	NITRATE SALTS		14.36	52	6/14	G468
3	MX182NE1		5.230	NITRATE SALTS		3.89	52	6/14	G468
4	MX182NW1		12.730	NITRATE SALTS		7.99	52	6/14	G468
5	MS183NE1		20.680	NITRATE SALTS		33.87	52	6/14	G468
6	MS183NW1		29.090	NITRATE SALTS		33.1	52	6/14	G468
7	OX146188NE1		11.190	NITRATE SALTS		3.7	52	6/14	G468
8	MX184NE1		22.730	NITRATE SALTS		2.57	52	6/14	G468
9	MX185NW1		28.640	NITRATE SALTS		12.39	52	6/14	G468

Noncertified Waste Drum Material Summary

Gross Wt (kg): 218.8

Material Type	SNM (grams)	Items Net Wt (kg)
52	135.31	155.06
Totals	135.31	155.06

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 1/19/11

Container No. (5.[1])	S8514746					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-gal overpacked in 85-gal					
Filtered Vent Type (5.[1])	77					
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])	1296.0 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: Erik Lockhart (CCP (Print)) 234183 (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 S. RAMSEY (Waste Handling Operator (print)) [signature] (Signature) [illegible] (Z #) 11/27/12 (Date)

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 1/19/11

7.[7] Certified CCP Technician:

CCP (Print)	/ Signature	/ Z #	/ Date
CCP (Print)	/ Signature	/ Z #	/ Date

Container No. (7.[1]):	S851426	S824584	S846098
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			
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			
1-Butanol			
Methanol			
Methyl ethyl ketone			
Methyl isobutyl ketone			
Total CCP VOC value (ppm) (7.[11]):	Ø	Ø	Ø

ATTACHMENT 1
Page 2 of 2

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

Container Number (7.[1]):	S851426	S824584	S846098
Hydrogen Reading (ppm) (7.[10]):	1296.00 ppm	Ø ppm	Ø ppm
Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
Total VOC Reading (ppm) (7.[11]):	Ø ppm	Ø 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 55 gallon drums were sampled from inside an 85 gallon overpack.

11.1[1] Performed By: Alicia Herrera / [signature] 198450 / 1/24/11
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: _____ / _____ / _____ / _____
11.1[8] Waste Handling Supervisor (print) Signature Z # Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\110119c\
Data File : S851426.D
Acq On : 19 Jan 2011 2:21 pm
Operator : EL
Sample :
InstName : Unit 8
Misc : 55 GAL LFL DRUM FROM 85 GAL OVERPACK (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 19 14:29:38 2011
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	3.246	96	4253318	209.00 ppm	0.00
15) Chlorobenzene-d5	5.933	117	3512840	184.00 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.350	GC1	328186	1296.06 ppm	100

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

Vocgas.m Wed Jan 19 14:29:43 2011

10-24-13

0553 Assuming WCRR operations center - JColeman

0600 Beginning outside rounds.

0617 Pre-job being conducted by SOS. Re briefed to shift orders.

0621 Beginning inside rounds.

0622 Outside rounds complete.

0637 Pre-job concluded.

0643 Item #63 is OOS, okay to proceed per CSE documentation.

0645 Inside rounds complete.

0752 Both rounds reviewed by SOS.

0753 ~~0744~~ JC 10-24-13 Initiating a drum movement from 50-69 to a transportainer.

0758 Drum movement complete.

0805 Mode change complete. WCRRF yard and 50-69 are now in operations.

0810 Denesting 2 drums and then bagging on 5851426.

0914 Denesting and bag on complete.

1028 Bagging off / daughter, bagging on another daughter.

1048 Bag on complete.

1156 Bagging off, bagging on 5846088

1220 Bag off / on complete.

1348 Bagging off / daughter, bagging on another daughter.

1408 Bag off / on complete.

1419 Notified by tech 38 that the LL salvage drum that was recapped and moved into 50-69 is leaking from the cap again. RCT's have stated it is known rain water. SOS, SOM notified as well as IH.

1423 Per lead RCT, they will absorb the liquid and proceed with operations.

1536 Operators and RCT's donning respirators to absorb the liquid on the LL drum.

1557 Beginning outside rounds

1621 Outside rounds complete

1622 Operators have completed absorbing liquid on the LL drum

1648 Beginning inside rounds.

1731 Item #63 is OOS, okay to proceed per CSE documentation

continued on next page - JColeman

10-24-13 Continued from previous page - KOleman
1742 Bagging off final drum of the day.
1809 Bagoff completed.
rs). 1819 Mode change complete. We are now in Warm Standby in WCRRF yard and 50-69.
1820 Both rounds reviewed by SOS.
224131830 End of day. OCC position secured. KOleman

n.

o

No further entries this page

drum

con

0558 Assumed the WCRR SOM Position John Guadagnoli

0609 Completed attending the pre job brief conducted by the SOS (Clayton) the shift orders were discussed/read to operators. Currently there are no scheduled transfers in or out of WCRR. The operators were questioned by DOE/on ISMs, ACs, SRs, and Design Features, 50% of the questions were incorrectly responded. The SOS discussed drums to be processed today. Also 1 new drum will be brought in to remove rain water, and complete filling with waste. The safety topic was carbon monoxide.

0700 Completed daily phone call to AREAS to update the POD

0730 Discussed with CM and FAC REP. weekly extensions of shift Orders -

0805 Made Change - WCRR YARD and 5069 Facility transition from WARM/WARM to Operations/Operations

0823 Completed walkdown of the WCRR YARD reviewing growth of weeds and location. The crew will require scheduling for weed cutting on the next maintenance scheduled day. Observed operators de-nesting the first drum with slings.

0944 Inside operators report de-nesting completed. (two drums) Bag on completed.

0952 SOM exits WCRR to attend lockout schedule, not location made to CM-CCC.

1000 SOM returns to WCRR notification made to Operations Center.

1017 Conducted debrief with FAC REP (Dalton) SOM questioned the posting (non-existent) existing 5069 - Rm 104 - High Bay AREA RCT supervisor - not available at time of event

1027 Operators report bagging off laboratory and bagging on another.

1048 Bag on Completed -

1056 Operators reported bagging off daughter and bagging on 5069

1220 Bag off noted complete

1423 LLW drum entered facility and liquid was completed being absorbed on plastic shower cap - noted - liquid - rain water

1536 Upon opening LLW drum, it was 80% full - top off with room trash and oil dry/kitty litter was added to the drum.

1630 Turned the SOM position over to R. Axtell John Guadagnoli

1630 Assumed WCRR SOM position.

1742 Bagging off last drums of the day

1809 All bag offs completed - WCG is in safe configuration

1819 Made change completed: WCRR yard/Bldg 5069 from Operations/Operations to Warm/Warm.

1830 Secured the SOM position.

10/24/13 WCRR SOS Log Book

0600 Assuming SOS position. CJ

0615 Starting Pre-Job discussed carbon monoxide safety at home. Also went over both standing orders as well went over TSR related.

0638 Pre-Job complete.

0752 Signed off on the rounds.

0805 Mode change complete, WCRRF yard and 50-69 are now in Operations.

0810 Denesting 2 drums, bagging on 5851426.

0914 ~~Dene~~ 10-24-13 cm Denesting and bag on complete.

1028 Bagging off 1st daughter, bagging on a 2nd

1048 Bag off/on complete.

1156 Bagging off 2nd daughter, bagging on 5846088

1220 Bag off/on complete.

1348 Bagging off 1st daughter, bagging on a 2nd.

1408 Bag off/on complete.

1419 Notified by tech 38 that the low level salvage drum that was recapped and moved into 50-69 is leaking from the cap again. RCT's have stated the liquid is known to be rain water.

1423 Per lead RCT, the operators will absorb the liquid in respirators as a pre-caution. Will then proceed with operations.

1622 Liquid has been absorbed with the low level drum.

1742 Bagging off ~~2nd~~ cm 10-24-13 2nd daughter to complete processing.

1809 Bag off complete.

1812 Late entry @ 0753 starting movement out of 50-69. C Mullins

1813 Late entry @ 0758 move out complete. C Mullins

1819 Mode change complete, WCRRF yard and 50-69 are now in Warm Standby.

1820 Signed off on the rounds.

1822 Securing SOS position for the day. CJ

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:	68482
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.: 142.5 kg Tare Wt.: 33.4 kg Net Wt.: 109.1 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:	75 %

CCP Radiography Data Sheet

Waste Container ID: 68482

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Utility knife

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):	0.1
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	8.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	99.0
Soils (S):	
Total WMP Weight:	109.1

CCP Radiography Data Sheet

Waste Container ID: 68482

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:	68482	Count Sequence Number:	23764
Operator:	D3PW2DK1\operator		
Assay Start:	10/31/2013 1:22:29 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: 109.0 kg	Net:	109.0 kg
Container:	Volume: 208.0 l	Full:	75.0 %
Density:	0.700 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

CS 6/17/14 009

NDA 2000 Assay Report

SUPERSEDED 05/17/14

Item Information

Item ID:	68482	Count Sequence Number:	23764
Operator:	D3PW2DK1\operator		
Assay Start:	10/31/2013 1:22:29 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: 109.0 kg	Net:	109.0 kg
Container:	Volume: 208.0 l	Full:	75.0 %
Density:	0.700 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

05/17/14 003A

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 23764
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 68482

Batch Number: 1LANDA1857
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 10/31/2013

Net Weight	109000.0 g		
Pu mass	6.81E+001	+-	1.24E+001 g
TRU Alpha Activity	1.21E+001	+-	1.49E+000 Ci
TRU Activity Concentration	1.11E+005	+-	1.37E+004 nCi/g
Pu-239 Equivalent Activity	1.22E+001	+-	1.49E+000 Ci
Pu-239 FGE	6.42E+001	+-	1.17E+001 g
Decay heat	3.91E-001	+-	4.88E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.49E-001	1.05E-004	1.95E-005	4.57E-006
PU238	6.22E-003	1.06E-001	1.94E-002	3.39E-005
PU239	6.39E+001	3.96E+000	7.24E-001	1.26E-003
PU240	4.08E+000	9.27E-001	1.70E-001	2.96E-004
AM241	2.06E+000	7.07E+000	1.29E+000	2.26E-003
PU241	7.82E-002	8.05E+000	1.47E+000	2.57E-003
PU242	1.36E-002	5.38E-005	9.84E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.06E-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	2.96E-006
U238	<LLD	<LLD	0.00E+000	2.54E-005
AM243	4.95E-003	9.90E-004	1.85E-004	1.41E-005

Errors quoted at 1.000 sigma

Operator: [illegible] Date: 6.5.14

ITR: Martha Egan Date: 6.6.14

DIO
CJ 4/17/14

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 23764
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 68482

Batch Number: 1LANDA185
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 10/31/2013

Net Weight	109000.0 g		
Pu mass	6.81E+001	+- 1.24E+001	g
TRU Alpha Activity	5.65E+000	+- 7.54E-001	Ci
TRU Activity Concentration	5.19E+004	+- 6.91E+003	nCi/g
Pu-239 Equivalent Activity	5.80E+000	+- 7.54E-001	Ci
Pu-239 FGE	6.42E+001	+- 1.17E+001	g
Decay heat	1.78E-001	+- 2.35E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.49E-001	1.05E-004	1.95E-005	4.57E-006
PU238	6.22E-003	1.06E-001	1.94E-002	3.39E-005
PU239	6.39E+001	3.96E+000	7.24E-001	1.26E-003
PU240	4.08E+000	9.27E-001	1.70E-001	2.96E-004
AM241	1.91E-001	6.56E-001	1.20E-001	2.09E-004
PU241	7.82E-002	8.05E+000	1.47E+000	2.57E-003
PU242	1.36E-002	5.38E-005	9.84E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.06E-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	2.96E-006
U238	<LLD	<LLD	0.00E+000	2.54E-005
AM243	4.95E-003	9.90E-004	1.85E-004	1.41E-005

Errors quoted at 1.000 sigma

Operator: D F R C Date: 11/4/13

ITR: [illegible] Date: 11-4-13

CORRECTED 6/17/14

6/17/14 010A

Automated Independent Technical Review

Count Sequence Number: 23764 Batch Number: 1LANDA1857
Counter ID: MCS HENC #1
Container ID: 68482
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. 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.
Section 5 - Gamma Analysis Analysis Status: No errors. Spectrum Validity Check engine has suggested data review.	Ok After EA review, spectrum valid.

011
CS 6/17/14

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. Marsh Date: 6/3/14

OIIA
CS 6/17/14

Automated Independent Technical Review

Count Sequence Number: 23764
Batch Number: 1LANDA1857
Counter ID: MCS HENC #1
Container ID: 68482
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.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
Spectrum Validity Check engine has suggested data review.	After EA review, spectrum valid.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

SUPERSEDED

Expert Review by: Sheri Chamberlin Date: 11-4-13

CJ 6/17/14 011B

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68482**

BDR Number: **LA13FG2114**

Sampling Date: **11/8/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	513.09	
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 : 68482.D
Acq On : 8 Nov 2013 1:09 pm (#1); 08-Nov-13, 13:08:50 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 08 13:17:16 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	3.552	96	4576455	205.75 ppmv	0.03
15) Chlorobenzene-d5	5.861	117	3565420	177.50 ppmv	0.00
Target Compounds					Qvalue
1) Hydrogen	1.620	GC1	3858m	513.09 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-RTR2-13-0120
Examination Date:	10/30/2013
Waste Container ID:	68546
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.: 188.5 kg Tare Wt.: 33.4 kg Net Wt.: 155.1 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: 68546

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):	10.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	1.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	144.1
Soils (S):	
Total WMP Weight:	155.1

CCP Radiography Data Sheet

Waste Container ID: 68546

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:	68546	Count Sequence Number:	16660
Operator:	DCLTD231\Operator		
Assay Start:	10/30/2013 2:37:47 PM		
Description 1:	2LANDA1235		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 155.0 kg	Net:	155.0 kg
Container:	Volume: 208.0 l	Full:	85.0 %
Density:	0.880 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:	16660	Batch Number:	2LANDA1235
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68546	Analysis Date:	10/30/2013

Net Weight	155000.0 g		
Pu mass	1.56E+002	+- 5.16E+001	g
TRU Alpha Activity	4.64E+001	+- 2.46E+001	Ci
TRU Activity Concentration	2.99E+005	+- 1.59E+005	nCi/g
Pu-239 Equivalent Activity	4.67E+001	+- 2.46E+001	Ci
Pu-239 FGE	1.47E+002	+- 5.14E+001	g
Decay heat	1.52E+000	+- 8.16E-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	3.51E-006
U233	<LLD	<LLD	0.00E+000	4.20E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.27E-005
NP237	5.84E-001	4.12E-004	8.72E-005	1.02E-005
PU238	1.42E-002	2.43E-001	9.23E-002	4.41E-003
U238	<LLD	<LLD	0.00E+000	8.96E-005
PU239	1.46E+002	9.05E+000	3.19E+000	1.64E-001
PU240	9.33E+000	2.12E+000	8.04E-001	3.84E-002
AM241	1.02E+001	3.50E+001	2.44E+001	5.71E-001
PU241	1.79E-001	1.84E+001	6.99E+000	3.34E-001
PU242	3.11E-002	1.23E-004	4.67E-005	0.00E+000
AM243	2.20E-002	4.41E-003	9.36E-004	6.47E-005

Errors quoted at 1.000 sigma

Operator: [signature] Date: 11-1-13

ITR: Ann Barton Date: 11/4/13

Automated Independent Technical Review

Count Sequence Number: 16660 Batch Number: 2LANDA1235
Counter ID: HENC #2
Container ID: 68546
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/30/2013

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.	
NCC Pu mass was above calibration range.	Outside the calibration range of the neutron detector. Multiplication in drum. Neutron results rejected. Gamma results applied.
FGE is greater than the upper limit of 200.00	
The Standard NCC Pu effective mass exceeds the Upper Calibration Limit.	
No roots found within the limits while determining the Standard NCC Pu Mass, Chose largest positive root.	
Ones Rate Analysis complete with warnings.	
- Error calculating the Ones Rate Pu-240 Effective MDA.	
Curium/Californium Neutron Analysis complete with warnings.	

Comments	Disposition
Section 2 - Passive Neutron Analysis	
- 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; Gamma data specified as input.	Results taken from quantitative gamma data.
Analysis Status: Override enabled; data marked not available but were used.	
Results taken 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.
Results are marked as invalid.	
Section 5 - Gamma Analysis	
Analysis Status: No errors.	Ok
MCA Deadtime greater than the upper limit of 50.0%.	No spectral distortion observed. Spectrum valid.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified. Pu239 FGE >200g with 2*TMU but <325g.

Expert Review by: Sheri Chambers Date: 10-31-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68546**

BDR Number: **LA13FG2114**

Sampling Date: **11/8/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	1047.32	
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 : 68546.D
Acq On : 8 Nov 2013 11:00 am (#1); 08-Nov-13, 10:59:40 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 08 12:44:20 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	4647043	205.75 ppmv	0.07
15) Chlorobenzene-d5	5.887	117	3597193	177.50 ppmv	0.03
Target Compounds					Qvalue
1) Hydrogen	1.613	GC1	7875m	1047.32 ppmv	

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

S851432

S851432

Container Profile 763677

File Options Reports Help

S851432

763677	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

S851432

- S851432
  - 90998 – EMPTY
  - 90997
    - 92895 – EMPTY
    - 92894
      - SB02052
  - 90996
    - 92920 – EMPTY
    - 92919
  - 90995
    - 92912 - EMPTY
    - 92911
      - LASB02093
  - 90993
    - 92232 – EMPTY
    - 92231

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weight ...
99.9989555	%			

ATTACHMENT 1
Page 1 of 3

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S851432

6.2[4] Date Processed: 2-27-12

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] ($) Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO

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

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

Performed By: B. FORDHAM / B. Fordham 235835 / 2-27-12
Waste Handling Tech (print) Signature Z # Date

5.[16] Prepared Parent Drum Weight (lb): 429.4 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 120.0 lb

ATTACHMENT 1
Page 2 of 3

4.1[6][B] Parent Waste Container No.: 3851432

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 549.4 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.	90993			
10.1[4]	Daughter Drum Filter No.	CL-1391	N	N	N
10.1[4]	Daughter Drum Bag Filter No.	LL-178	A	A	A
10.1[4]	Daughter Drum Purchase Order No.	415090			
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	Nuc-Fil	Nuc-Fil	Nuc-Fil	
	Model No.	LANL BAG 3-Spike	LANL BAG 3-Spike	LANL-BAG 3 Spike	
	Serial No.	LL-128	LL-193	LL-173	
	Date of Manufacture	12-11	12-11	12-11	
10.2[5]	POC ID No	90995	90996	90997	
10.2[7][B]/10.2[6]	POC Item Description	liquids absorbed Salts Plastic	liquids absorbed Salts Plastic	liquids absobed Salts plastic	N
10.2[7][D]/10.2[8][D]	Bag-out Bag Filter No.	N/A	N/A	N/A	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	B.F. 235635	B.F 235635	B.F. 235635	A
10.2[14]	POC Assembly Gross Weight (lb)	415.6	428.4	365-8	
10.2[15]	POC Rad. Survey Results (mrem/hr)	1101 mr	880 mR	770 mR	
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A	N/A	N/A	
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHIELDING		N	
10.3[5][A]	Free Liquid Volume/Units	5 gallon	N		
10.3[9][A]	PCB-contaminated Waste Description	N/A	A	A	
10.3[9][B]	PCB Item ID No.				
10.3[10]	Remaining Waste Description	SEE Comments	N	N	
10.3[13]/10.4[12]/ 10.5[5]	Daughter Drum % Full (%)	75%			
10.5[4]	Description Waste Added During Processing	Plastic Hexamon Gloves Impact Drill	A	A	

ATTACHMENT 1
Page 3 of 3

4.1[6][B] Parent Waste Container No.: S851432

Comments: Lead sheilding, salts, sludge, 5 gallons free liquid absorbed 3 gallons of acid absorbed and neutralized, plastic, Poly liner lid

11.1[1] Performed By: B. Fordham B Fordham R35238 2-27-12
Waste Handling Tech (print) Signature Z# Date

11.1[7] Reviewed By: Gilbert Martinez 1149235 2/28/12
SOS/SOM (print) Signature Z# Date/Time

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

85-Gallon Overpack ID Number 90998

RECORD Drum Filter information: Nuc - Fil - 013	
Filter ID Number: HK-1462	
Date of Manufacture: 8/0	

TORQUE WRENCH INFORMATION			
Filter Torque Wrench		**Drum Lid Ring Bolt**	
M&TE ID#		M&TE ID#	058373
Cal Expiration Date		Cal Expiration Date	5-30-12
	N		
Tolerance		Tolerance +/- 3% cw +/- 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
Done @ TA 54 area G		**Bung Torque Wrench**	
		M&TE ID#	
		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

Filter vent torque value: (new container only) 30 in-lb ☐ N/A

Drum lid 2-inch bung torque value: (If applicable) 120 ft-lb ☐ N/A

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

Drum lid ring threaded end touching jam nut: 3/5/12 ☑ YES ☑ NO

Drum lid ring ends touching: ☐ YES ☑ NO

Technician Name (print)	Signature	Initials	Z#	Date
B. Farnham	B. Farnham	B.F.	235635	2-27-12
Steven Mondragon	Steven Mondragon	SM	104741	12-27-12

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

Drum ID#: 90993

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 #: 415090
Lot #: 0220644
Date of Manufacture: 2011

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: Nucfil
Model #: 036 DA
Serial #: LL-178
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 #: 019DS
Serial #: CL-1391
Date of Manufacture: 3/11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040695	M&TE ID #:	040691
Cal Expiration Date:	9/11/12	Cal Expiration Date:	8/3/11
Range (ft-lbs or in-lbs):	5-25 ~~40-200~~	Range (ft-lbs or in-lbs):	20-80
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: Clayton Mullins Signature [signature] Z#: 240092

5. Weigh Drum Assembly

RECORD weight information

Tare witght (lbs) 96.0
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: B. Fordham Operator Sign: B. Fordham Z#: 235235 Date: 2-27-12

Verifier Print: Steven Mondragon Verifier Sign: Steven Mondragon Z#: 104741 Date: 2-27-12

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

DRUM ID#: 90993

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 #: 038373

Cal expiration date: 5-30-12

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

-- 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.): 235.6

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: B. Fanbrum B. Fanbrum Date: 2-27-12

Verifier Print/Sign: Steven Mondragon Steven Mondragon Date: 2-27-12

SP13

ATTACHMENT 1

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S851432 Container Type: 85-GAL Gross Weight (lbs): 445
Inner Seal #: 019411 Filter Prefix: LAVC Filter Serial #: 00940
AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST 12
Total PE-Ci Activity: 9.76E+00 Equivalent Combustible PE-Ci: 3.66E+00 AM-241 PE-Ci: 7.92E-01
Total Fissile Gram Equivalents: 107.8 Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): None
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 1/31/2007 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 / R. W. Jones / 117434 / 10.12.10
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 WASTE WT = 140.46 KG (310 LBS) IN 9 ITEMS. MAX ITEM WT = 34.09 KG (75 LBS). NO CURR RTR DATA. FAILED RTR PRE-SCREEN. MAY REQUIRE RWP FOR >1000 MREM/HR (115 GRAMS PUSZ). NOTE: NITRATE SALTS HAVE PREVIOUSLY HELD SIGNIFICANT QUANTITIES OF UNDOCUMENTED LIQUID.
Performed By: ROBERT L GRIFFIS / Robert L. Griffis / 130356 / 11-30-10
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:

Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments:

Performed By: Clarissa Velarde / C. Velarde / 234079 / 12/9/10
TRU Remediation Operations (Print) Signature Z Number Date

Noncertified TRU Waste Drum Item Information

DrumID: 019411

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	MX195NE1		12.950	NITRATE SALTS		4.88	52	6/14	G468	
2	MX195NW1		12.290	NITRATE SALTS		8.27	52	6/14	G468	
3	LR193NE1		14.090	NITRATE SALTS		12.21	52	6/14	G468	
4	MX194NE1		13.640	NITRATE SALTS		10.82	52	6/14	G468	
5	MX194NW1		14.770	NITRATE SALTS		13.02	52	6/14	G468	
6	MX196NW1		20.450	NITRATE SALTS		22.06	52	6/14	G468	
7	MX197NE1		7.730	NITRATE SALTS		1.36	52	6/14	G468	
8	MX196NE1		10.450	NITRATE SALTS		2.35	52	6/14	G468	
9	OX147198NW		34.090	NITRATE SALTS		39.62	52	6/14	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 202.

Material Type	SNM (grams)	Items Net Wt (kg)
52	114.59	140.46
Totals	114.59	140.46

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 10.20.10

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Gabe Romero	[signature]	123973	10-21-10
	/	/	/

Container No. (7.[1]):	5845318	5851432	5846140
Container Type (SWB, 110/85/55-gal) (7.[1]):	55gal	55gal	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			
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			
1-Butanol			
Methanol			
Methyl ethyl ketone			
Methyl isobutyl ketone			
Total CCP VOC value (ppm) (7.[11]):	Ø	Ø	Ø

ATTACHMENT 1
Page 2 of 2

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

Container Number (7.[1]):	5845318	5851432	5846140
Hydrogen Reading (ppm) (7.[10]):	197.43 ppm	490.50 ppm	5500.33 ppm
Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
Total VOC Reading (ppm) (7.[11]):	Ø ppm	Ø 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 55 gallon drums were sampled from inside an 85 gallon overpack.

11.1[1] Performed By: Alicia Herrera, [signature] 198450 / 10.21.10
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]/ 11.1[8] Reviewed By: Kenny Romero [signature] 118561 / 10.27.10
Waste Handling Supervisor (print) Signature Z # Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\101020c\
Data File : S851432.D
Acq On : 20 Oct 2010 8:39 am (#1); 20-Oct-10, 08:38:13 (#2)
Operator : EL
Sample :
Misc : 55 GALLON DRUM SAMPLED FROM 85 OVERPACKED (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 20 08:47:30 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	3.697	96	2533325	207.75	ppmv	0.05
15) Chlorobenzene-d5	6.023	117	1798031	180.75	ppmv	0.05
Target Compounds						Qvalue
1) Hydrogen	1.640	GC1	3759m	490.50	ppmv	

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

vocgas.m Wed Oct 20 08:47:36 2010

B
6-27-12

PROJECT NAME _____ NOTEBO

0700 Assuming WCERF Operations center - Cleveland.
0632 Item #10 on rounds to SOS per CSE documentation OK to proceed.
0710 Inside and Outside rounds signed off by SOS.
0738 Site radio check performed.
0755 mode change performed WCERF now in operations.
0756 Starting to do list.
0848 Conducted deicing of 3881569 drum, bagging on 3881569
1005 bagging off 3881569 and POC, bagging on ~~3851569~~ 3851432.
1330 Starting movement out of SD-109.
1412 Completed movement out of SD-69.
1430 Started outside rounds
1450 completed outside rounds.
1500 Started inside rounds.
1536 Inside and Outside rounds signed off by SOS.
1600 bagging off 3851432 on 3 POCS
1634 mode change being performed WCERF are now in warm.
1650 end of day WCERF operations center Seaike-Cleveland

no further entries this page

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

PROJECT NAME 2-27-12 WCRR SOM LOG NOTEBOOK NO.

0555 ASSUME SOM DUTIES FOR 2-27-12.
0700 SHIFT BRIEF. TURN U/I WATCH OVER TO RANDY ARTELL.
0700 Assumed WCRRF SOM U/I watch.
0755 Mode change performed for both WCRRF yard and Bldg 50-69 from Warm Standby to Operational.
1203 Gate Entry (0640) Notified from OSPRT that outgoing shipment is cancelled for today, OM notified.
1321 Notified from OSPRT that tomorrows incoming shipment from 07A-54 is cancelled. OM notified.
1434 Mode change completed for both WCRRF yard and 50-69 from Operational to Warm Standby.
1439 Secured SOM U/I watch.
1640 SECURE SOM SHIFT.

NO FURTHER ENTRIES THIS PAGE

SIGNATURE DATE 2-27 2012
READ AND UNDERSTOOD DATE 20

259

PROJECT NAME WCRR SOS LOG BOOK NOTEBOOK NO.

2-27-12

0600 Reviewed SOS Turnover Assuming SOS Position [illegible] 10 of
0615 Shift Brief Conducted
0645 Shift Brief Concluded
0710 Reviewed Inside And outside Rounds
0755 Mode Change Complete WCRR Yard And 50-69 In Operations.
0900 had Meeting About what we could do to Prevent [illegible] breaking lead windows
0940 Meeting Concluded Talk about putting a metal Frame around window or adding a rail for protection.
0946 Late entrie on 07-25-12 myself and a operator came in to perform rounds 0700 on 07-25-12 [illegible]
Rounds were also Previewed on 7-25-12 1115
1130 Ended shift [illegible]
1305 Contacted Representative on Wastelock 770 was notified that Wastelock 770 Bale with still in liquids Is just a bit more he also gave us 2 other absorbents that should work he Recommended wastelock PAM And TOAL SORB. Sent Email he will send a couple of Trial bags
1455 Reviewed out side Rounds.
1536 Reviewed Inside Rounds.
1634 Mode Change Complete WCRR Yard And 50-69 In warm
1635 End of Shift Securing SOS Position [illegible]

No further entries on this Date

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

UETWorking Copy

Date: 10-23-12

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90993

6.2[4] Date Processed: 10/23/12

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, D009, D008

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.: JG 10/23/12 [redacted]-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: JOE QUINTANA Joe Q 237987, 10/23/12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.:	00993
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	240.4 lb
6.2[5][A]	Parent Drum Lead Blanket Weight (lb):	120.0 lb
6.2[5][B]/ 6.2[6]	Total Parent Drum Weight (lb)	360.4 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:	

NA

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

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90993

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92231			
10.1[4]	Daughter Drum Filter No.	AM-841		N/A	
10.1[4]	Daughter Drum Bag Filter No.	L 3692			
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#)		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		N/A	
10.3[13]/10.4[10]/ 10.5[4]/10.6[8]	Daughter Drum % Full (%)	100%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Plastic Kitty Litter			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90993

Comments: KITTY LITTER, SALTS, PLASTICS, LEAD

11.1[1] Performed By: JOE QUINTANA / Joe Q 239987, 10/23/12
Waste Handling Tech (print) Signature Z# Date

11.1[7] Reviewed By: Jose Jerez / [signature] 221452, 10/24/12 1100
SOS or designee (print) Signature Z# Date/Time

Working Copy
Date: 10-16-12

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: 10

5.[8] Overpack filtered vent information:

Manufacturer: Nucfil
Model No.: 013
Serial No.: HL-743
Manufacture Date: 8-11

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

	Filtered Vent	2 in. Bung
M&TE No.:	040654	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: Michael Romero [signature] 182723 / 10-16-12
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] 182723 10-16-12
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, 10-24-12
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 10-23-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: ~~92231~~ 92232 10-24-12

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: JOE QUINTANA [signature] 239987 10/23/12
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): 160.0 lb

Comments: N/C

8.1[1] Performed By: JOE QUINTANA [signature] 239987 10/23/12
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] 122452 10-24-12
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 92231

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 #: 4162265
Lot #: 0229225
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 #: 4CPV1.5-25PVC
Serial #: L-36492
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 #: 0190S
Serial #: Am-841
Date of Manufacture: 7/12

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):	160-80
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 ID#: 182723

5. Weigh Drum Assembly

RECORD weight information

Tare wtght (lbs) 75.4
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: Michael Romero Operator Sign: Michael Romero ID#: 182723 Date: ~~10-3~~ 10-11-12 MR 10-11-12

Verifier Print: Brandon Chavez Verifier Sign: [signature] ID#: 204742 Date: 10-23-12

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

DRUM ID#: 92231

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): 279.6

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: Joe Quintana Date: 10/23/12

Verifier Print/Sign: Brandon Chavez Date: 10-23-12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

72

Production Control

Container ID: 90993 Container Type: 55-GAL Gross Weight (lbs): 236
Inner Seal #: None Filter Prefix: None Filter Serial #: CL-1391
RTR Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: PARENT #S851432
Total PE-Ci Activity: 2.44E+00 Equivalent Combustible PE-Ci: 9.15E-01 AM-241 PE-Ci: 1.98E-01
Total Fissile Gram Equivalents: 26.9 Total Surface Dose Rate (mrem/hr): 16
EPA Code(s): D008 D007 D009 KR 10/9/12
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 6/27/2012 Comment: Impenetrable, S3000
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: TOD Production Control Comments: Need to add EPA Codes D007 & D009.
Nitrate salts mixed with Vitalloc 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 L Ramsey Z Number: 100681 Date: 9/4/12

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/debris
~~Net wt~~ parent drum (SEDS attached) was part of WCRR nitrate salt repack campaign. This resulting daughter 55-gal drum may contain nitrate salts or a combination of nitrate salts and debris. RTR PS identifies impenetrable item(s) (likely homogeneous nitrate salts or debris such as lead). Nitrate salts may contain undocumented liquids (requiring adjustment to the admixture/nitrate salt ratio). Nitrate salts carry waste codes for chromium, lead, and mercury. No chemicals present. May require RWP for > 100 & < 1000 mrem/hr
Net wt: 167 lb
Performed By: Valerie Rhodes (WDP Engineering (Print)) Signature: Valerie Rhodes Z Number: 111200 Date: 10/9/12

TRU Remediation Operations

Valerie Rhodes

☐ Waste Container Information Evaluated ☐ Less Than 170 lbs ☐ RTR Video Available
Other Specific Safety Concerns: Use Hexamaxgloves when processing waste. Do not push or press on 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: 10-11-12
LL Z# 249750 10/15/12
HS Review: RB 204362 10.11.12

Noncertified TRU Waste Drum Item Information

DrumID: 019411

Item No	ItemID	Process Status	Net Wt (Kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	MX195NE1		12.950	NITRATE SALTS		4.88	52	6/14	G46B	
2	MX195NW1		12.290	NITRATE SALTS		8.27	52	6/14	G46B	
3	LR193NE1		14.090	NITRATE SALTS		12.21	52	6/14	G46B	
4	MX194NE1		13.640	NITRATE SALTS		10.82	52	6/14	G46B	
5	MX194NW1		14.770	NITRATE SALTS		11.02	52	6/14	G46B	
6	MX196NW1		20.450	NITRATE SALTS		22.06	52	6/14	G46B	
7	MX197NE1		7.730	NITRATE SALTS		1.36	52	6/14	G46B	
8	MX196NE1		10.450	NITRATE SALTS		2.35	52	6/14	G46B	
9	OX147198NW		34.090	NITRATE SALTS		39.62	52	6/14	G46B	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 202.

Material Type	SNM (grams)	Items Net Wt (kg)
52	114.59	140.46
Totals	114.59	140.46

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 10/5/12

Container No. (5.[1])	90993					
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])	4.88 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: SARA ARAGON — CCP (Print) — Z# 237975

Reviewed By: NATHAN WALES — CCP (Print) — Z# 238866

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 RAMSEY, Susan B. Ramsey — Waste Handling Operator (print) — Signature — Z# 100681 — Date 10/10/12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121005c\
Data File : 90993.D
Acq On : 5 Oct 2012 12:48 pm
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GALLON LFL DRUM THROUGH 19DS-UNOBSTRUCTE (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 05 12:56:50 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	2683354	206.00 ppm	0.00
15) Chlorobenzene-d5	5.940	117	2317247	179.50 ppm	0.00
Target Compounds					Qvalue
17) Toluene	4.779	92	26108	4.88 ppm	98

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

Vocgas m Fri Oct 05 12:57:07 2012

PROJECT NAME _____ NOTEBOOK NO. _____

10-23-12

0600 Assuming WRRF Operations center Overlands
0605 Starting outside and inside rounds.
0615 Pre-job being conducted by SSS.
0634 Inside rounds complete.
0630 Outside rounds complete.
0650 Inside and outside rounds signed off by SOS
0742 CSE completed 151631 TAS069 building structure integrity.
0800 Mode change performed TAS069 and WRRF panel now in operations
0802 bagging on 90888
0806 bag on is complete.
0814 notified by lead RCT they will not be able to support lunch coverage due to training.
0903 Bagging off 90888 and bagging on 90993
0910 Bagging off complete.
1001 bagging off 90993 and bagging on 90939
1013 starting movement into SD-69
1020 bag on and bag off is complete.
1115 bagging off 90939 and bagging on 90965
1134 bag on bag off complete.
1149 Operators writing TAS069 for lunch no RCT coverage.
1350 Operators entering TAS069 to continue processing.
1405 Starting inside rounds.
1410 starting outside rounds.
1426 bagging off 90965 and bagging on 90895.
1435 Outside rounds completed.
1438 Completed inside rounds.
1451 bag on, bag off complete.
1546 bagging off 90895
1604 bag on/off is complete
1630 mode change performed TAS069 and WRRF panel now in warm mode.
1631 End of day WRRF Operations Center secure - Overland

JT

no further entries this page

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

PROJECT NAME 10-23-12 NOTEBOOK NO.

0600 Assumed the WCRC SOM position. [signature]
0615 Pre-op briefing conducted by SSS. Miscellaneous supplies needed such as kitty litter. Also the building integrity TSI will be conducted first thing this morning.
0630 Notified by ACO that there is a hole in the men's restroom causing mice to come into the building. Pest Control was called out to come and pick up another rodent. SOM notified Jack Vigil who will get with MSS on a path forward.
0800 Mode change complete WCRC YARD 150-69 from WARM/WARM to OPERATIONS/OPERATIONS.
0830 Notified by RPI Supervisor that they will not be able to support operations through lunch due to being short staffed due to training.
1129 SOM and SSTI worked on ensuring an LWD is available for D/S steps DOS testing. OM was notified and is helping in getting proper approvals for NFT to use existing LAWS LWD to allow changing of parts.
1300 Met with Jack Vigil PTB for over maintenance for the up coming months. Offered weekends in November. Jack Vigil will work with MSS on maintenance.
1535 Notified by Inventory control that he is having problems with printing labels through oracle data base. A request to update field has been sent. SOM requested Inventory control to try using the operation center computer.
1547 Signed off on WCRCF Quarterly Combustible Loading Surveillance 4.4.1. Requested Operation center to update status board and TSE/SI compliance tracking data base. The total combustible quantity equaled to 0.56 lb/ft² which meets the 0.60 lb/ft² requirement.
1630 Mode change complete WCRC YARD 150-69 from OPERATIONS/OPERATIONS to WARM/WARM.
1645 Securing the SOM watch. [signature]

11-6-12

No further entries this page

SIGNATURE [signature] DATE 10 23 2012
DATE 20

10-23-12 WXRR 505 Log Book

0400 Assuming 505 position for the day. Jan Jay

0405 Starting Pre Job brief. Engineering performing Building integrity inspection. Should take about 30 minutes. No shipments in or out today. Processing daughter drums from SPRR.

0630 Concluded Pre-Job brief

0650 Inside and outside rounds signed off

~~10-23-12~~ 0742 Engineer completed building integrity ~~[illegible]~~ inspection 10-23-12

0754 Waiting for SSW to be onsite to go into Ops Mode.

0800 Mode Change Completed. In Operations Mode.

0815 Lead RCT notifying Operations that they will not be able to support us working through lunch due to mandatory training they need to attend and also short handed on RCTs due to wounds.

0830 Late Entry. At 0800 first drum was bagged on (JJ)

1145 First Crew breaking for lunch. Second Crew on standby waiting for RCT's so that they can go into process drum #4 that was bagged on prior to breaking for lunch.

1245 Second Crew going in to start processing Parent drum #4 for the day

1430 Signed off on outside rounds

1512 Signed off on inside rounds

1630 Mode Change WARM in the yard and SG-69.

10-23-12 1634 Securing 505 position for the day. Jan Jay

JR 1119

No further entries on this page.

CCP Radiography Data Sheet

5851432

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0105
Examination Date:	9/4/2013
Waste Container ID:	92231
Video/Audio Recorded Media Number:	LA-RTR2-13-0105 A&B
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:	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:	85 %

CCP Radiography Data Sheet

Waste Container ID: 92231

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal

AM:

OM: Scrap lead

OI:

C:

R: Leaded rubber gloves

XPM: Plastic lids, 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):	1.1
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	15.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	5.0
Plastics (waste materials) (XPM):	10.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	60.0
Soils (S):	
Total WMP Weight:	91.1

CCP Radiography Data Sheet

Waste Container ID: 92231

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		9/4/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92231	Count Sequence Number:	23527
Operator:	D3PW2DK1\operator		
Assay Start:	9/4/2013 2:08:06 PM		
Description 1:	1LANDA1835		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 91.1 kg	Net:	91.1 kg
Container:	Volume: 208.0 l	Full:	85.0 %
Density:	0.520 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:	23527	Batch Number:	1LANDA1835
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:	92231	Analysis Date:	9/4/2013

Net Weight	91100.0 g		
Pu mass	1.95E+001	+- 3.33E+000	g
TRU Alpha Activity	3.26E+000	+- 3.53E-001	Ci
TRU Activity Concentration	3.58E+004	+- 3.88E+003	nCi/g
Pu-239 Equivalent Activity	3.31E+000	+- 3.53E-001	Ci
Pu-239 FGE	1.84E+001	+- 3.12E+000	g
Decay heat	1.06E-001	+- 1.15E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	4.02E-002	2.84E-005	4.44E-006	1.70E-006
PU238	1.78E-003	3.05E-002	5.21E-003	3.24E-005
PU239	1.83E+001	1.13E+000	1.94E-001	1.20E-003
PU240	1.17E+000	2.66E-001	4.53E-002	2.82E-004
AM241	5.34E-001	1.83E+000	2.92E-001	3.91E-002
PU241	2.26E-002	2.32E+000	3.97E-001	2.47E-003
PU242	3.90E-003	1.54E-005	2.63E-006	0.00E+000
SR90	2.37E-008	3.27E-006	6.75E-007	0.00E+000
CS137	3.76E-008	3.27E-006	6.75E-007	5.19E-007
U233	<LLD	<LLD	0.00E+000	4.14E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.10E-006
U238	<LLD	<LLD	0.00E+000	1.38E-005
AM243	1.41E-003	2.82E-004	4.46E-005	5.31E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 9.5.13

ITR: _____ Date: 9.5.13

Automated Independent Technical Review

Count Sequence Number: 23527 Batch Number: 1LANDA1835
Counter ID: MCS HENC #1
Container ID: 92231
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 9/4/2013

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.
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 Cleaveland Date: 9-5-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92231**

BDR Number: **LA13FG2098**

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

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	133.53	
74-82-8	Methane	142.14	U
67-56-1	Methanol	81.21	
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	19.20	
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	8.80	
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\130909c\
Data File : 92231.D
Acq On : 9 Sep 2013 11:13 am (#1); 09-Sep-13, 11:12:35 (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 09 11:45:27 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	4984574	205.75	ppmv	0.05
15) Chlorobenzene-d5	5.868	117	3827912	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.617	GC1	1004m	133.53	ppmv	
4) Methanol	0.877	31	32345	81.21	ppmv	100
7) Acetone	1.412	58	28389	19.20	ppmv	77
17) Toluene	4.837	92	120507	8.80	ppmv	97

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

Working Copy
Date: 2-1-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90995

6.2[4] Date Processed: 2/11/13

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: Gerald Espinoza / [signature] / 237120 / 2/11/13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 9C9F5

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 4196 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) 4196 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.: 90995

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92911			
10.1[4]	Daughter Drum Filter No.	KL-407			
10.1[4]	Daughter Drum Bag Filter No.	L-6204			
10.1[4]	Daughter Drum Purchase Order No.	501011			
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				
10.3[5][A]	Free Liquid Volume/Units	1 GALLON			
10.3[7][A]	Opaque/Non-penetrable Item Description:	See Comments			
10.3[9][A]	PCB-contaminated Waste Description	None			
10.3[9][B]	PCB Item ID No.	None		N/A	
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	Plastic waste lock 770			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 9C495

Comments: Salts, PCC-lid, PCC liners, plastic, (1) Scrubbers, 1 gallon liquid.

11.1[1] Performed By: Gerald Espinoza / [signature] 123mz 12/4/13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jerez / [signature] 221452 12/12/13 0922
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 2-6-13 JL

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 415525
Lot No.: 0220649
Manufacture Date: 11

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: JL-1948
Manufacture Date: 10/11

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

	Filtered Vent	2 in. Bung
M&TE No.:	040694	038369
Cal. Expiration Date:	9.26.13	12.18.13
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: Gerald Espinoza / [signature] 1237720 2/6/13
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] 1237720 2/6/13
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: Jose Jorez / [signature] 121452 / 2-12-13
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 2-11-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92912

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 038367
Cal. Expiration Date: 3/16/13
Range in ft-lb: 10-80
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] / 237769 / 2/11/13
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): 325.6 lb

Comments: N/A

8.1[1] Performed By: Edelio Rios / [signature] / 187872 / 2-11-13
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: Jose Jerez / [signature] / 221452 / 2-12-13
Supervisor or designee (print) Signature Z# Date

Working Copy
Date: 2.7.13

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

Drum ID#: 92911

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 #: 501011
Lot #: 0233370
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 #: 6CPVC 1.5-25PVC
Serial #: L-6204
Date of Manufacture: 11/12

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 #: 019DS
Serial #: KL-407
Date of Manufacture: 11/11

RECORD torque wrench information:

Filter torque wrench:
M&TE ID #: 040694
Cal Expiration Date: 9-26-13
Range (ft-lbs or in-lbs): 40-200
Tolerance: +/- 4% cw and +/- 6% ccw

Jam Nut / Bung torque wrench:
M&TE ID #: 038369
Cal Expiration Date: 12-18-13
Range (ft-lbs or in-lbs): 10-80
Tolerance: +/- 3% cw and +/- 6% ccw

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

Print Name: Kevin Belasak Signature: Kevin Belasak Z#: 238199

5. Weigh Drum Assembly

RECORD weight information

Tare witght (lbs) 75.8
File ID #: 091065

- [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: Kevin Belasak Operator Sign: Kevin Belasak Z#: 238199 Date: 02/07/13
Verifier Print: Gerald Espinoza Verifier Sign: Gerald Espinoza Z#: 237720 Date: 2/11/13

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

DRUM ID#: 92911

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 #: 038367

Cal expiration date: 3/14/13

Range/ Value (ft-lbs): 10-80

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:

NA 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.): 321.0

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: [illegible] Date: 2-11-13

[illegible] 2-11-13

Verifier Print/Sign: Kevin Brusoski Date: 2-11-13

Tom [illegible]

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WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 90995 Container Type: POC Gross Weight (lbs): 416

Inner Seal #: None Filter Prefix: None Filter Serial #: EL-400; EL-457

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

TWSR Comments: PARENT #S851432 WTS-12STD-884

Total PE-Ci Activity: 2.44E+00 Equivalent Combustible PE-Ci: 9.15E-01 AM-241 PE-Ci: 1.98E-01

Total Fissile Gram Equivalents: 26.9 Total Surface Dose Rate (mrem/hr): 2

EPA Code(s): D008 D007 D009

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 G. Ramsey Z Number: 100681 Date: 9/11/12

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: 106 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 fo[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: 112609

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; Utilize heavy glove & tools to handle 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: 10-11-12

OK 24-249750 10/19/12

HS REVIEW: AB 206362 10.9.12

Noncertified TRU Waste Drum Item Information

DrumID: 019411

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	MX195NE1		12.950	NITRATE SALTS		4.88	52	6/14	G468	
2	MX195NW1		12.290	NITRATE SALTS		8.27	52	6/14	G468	
3	LR193NE1		14.090	NITRATE SALTS		12.21	52	6/14	G468	
4	MX194NE1		13.640	NITRATE SALTS		10.82	52	6/14	G468	
5	MX194NW1		14.770	NITRATE SALTS		13.02	52	6/14	G468	
6	MX196NW1		20.450	NITRATE SALTS		22.06	52	6/14	G468	
7	MX197NE1		7.730	NITRATE SALTS		1.36	52	6/14	G468	
8	MX196NE1		10.450	NITRATE SALTS		2.35	52	6/14	G468	
9	OX147198NW		34.090	NITRATE SALTS		39.62	52	6/14	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 202.

Material Type	SNM (grams)	Items Net Wt (kg)
52	114.59	140.46
Totals	114.59	140.46

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])	90995					
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)) / (Signature) 190298 (Z #) 10·4·12 (Date)

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121003c\
Data File : 90995.D
Acq On : 3 Oct 2012 2:13 pm (#1); 3 Oct 2012 2:12 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 14:21:15 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	3.263	96	2181167	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	1971999	179.50 ppm	0.00

Target Compounds	Qvalue

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

Vocgas.m Wed Oct 03 14:21:27 2012

0913 Continue work operations after Coffman
0914 Pre-job being conducted by SOS.
0942 Pre-job concluded.
0950 Beginning outside rounds
0958 Item #3 on the rounds is unsat. FSR in place, okay to proceed with the rounds.
1005 Beginning inside rounds
0108 Outside rounds completed.
1022 Item #1 on the rounds is OOS FSR in place, okay to proceed with the rounds.
0125 Inside rounds completed.
0230 ~~Notified~~ IC 2-11-13 An operator notified the SOM that the drum lift has a piece of tape on the clip to prevent someone from knocking it off. ~~0255~~ 2-11-13 SOM + SSW questioning if a temp mod should be in place.
0755 SOM spoke with Engineering manager regarding the tape. She will get back in touch with the SOM after she speaks with the CSE.
0828 The following e-mail was received from the CSE regarding the tape on the clip of the drum lift:

> WCRRF Ops.,
>
> A thin layer of tape may be used on the Drum Lift hinge pin clips to mitigate the potential for "snagging" clips with operator PPE or otherwise. The clips must remain visible under the tape for inspection purposes. This tape does not perform a structural function and does not require a design change.
>
> Shawn West
> ES-EWMO CSE, Drum Lift

The operator has been given permission to replace the filament tape with clear tape to be able to perform inspections to the clip.
0916 Both rounds reviewed by SOS.
0920 Mode change complete. We are now in operations in 5069 and WCRRF yard.
0921 Permission granted to lower the vehicle access gates to load transport vehicle for a shipment to Area G
0938 Begging on drum #91067.
Continued on next page. Coffman

2-11-13 Continued from previous page - Coleman
0948 Bag on completed. PPE check w Sgt.
1058 Bagging off 91001, bagging on 90995.
1120 Initiating a drum movement from S to 2-11-13 transfer to 50169.
1129 Bag on completed. PPE check w Sgt.
1145 Drum movement into the facility complete.
1320 Bagging off 90995, bagging on 90989.
1342 Permission granted to lower the vehicle access gate, to begin receipt of drums from Areas.
1348 Bag on completed. PPE check w Sgt
1442 Bagging off 90989 bagging on 91003.
1508 Bag on completed. PPE check w Sgt.
1540 Notified by operator that the 85 gallon gripper 2-11-13 grapple attachment is currently broken. The operators were working at 40 off, had the transport vehicle when they noticed that the drum was not situated correctly, upon further inspection they found the weld was broken, report on file w SGT.
1621 Bagging off 91003, bagging on 90923.
1625 Initiating a Caution tag # 2-13-0003 for the [illegible] grapplers.
1652 Bag on completed PPE check w Sgt.
1653 Late entry at 1652, inside rounds began at
1700 Item # 60 is C.S. PCD in place, continuing rounds. Beginning outside rounds.
1701 Late entry at 1652, the mechanics arrived to adjust the 2x4 on the [illegible] that we have for the 85 gallon drums. Continuing to ride with the yard vehicle. ~~Inside rounds complete~~, 2-11-13
1716 The shipment from Iowa has been accepted. Vehicle access gates restored. Inside rounds completed.
1725 Outside rounds completed.
1752 Bagging off 90923
1830 Both rounds reviewed by SCS
1831 Late entry at 1815, bag off complete. PPE
continued on next page - Coleman

Continued from previous page. Coleman
1530 Mode change complete. We are now in warm standby in 50 [illegible]
an [illegible] WCKF band.
1700 End of day. OCC position secured. Coleman

No further entries this page.

ACCESS

2/11/13

0600 Reviewed shift turnover from previous shift and assumed the WCRR SOM position. [illegible]

0615 Attended the prior briefing conducted by SOS. Discussed bad times discovered on 2/8/13 with team (incoming new shift).

0700 Call in with TA54 SOM. Statused WCRR work for the day. Will be emerging receipt from Area 9.

0730 Notified by an operator that the drum lift clip has a piece of tape on it. Per CSE clear packing tape was placed on clips to prevent knocking them off pins. SOM and SSW concerned and questioning if a temp engr should be in place on the drum lift prior tape removed.

0740 SOM attempting to speak with CSE and OM. No answer.

0755 Engineer Manager called back SOM. Concerns of SOM and SSW were discussed with her. She will call back with further recommendation after she speaks to CSE.

0830 Received an e-mail from CSE on permission to use clear tape on WCRR drum lift single pin clip.

0910 Permission granted to proceed per CSE and OM.

0915 Rate entry 0820 - SOM Phase II [illegible]

0916 Rate entry 0910 - SOM back from Phase II.

0920 Mode change complete WCRR YARD/50-69 from WARM/WARM to OPERATIONS/OPERATIONS.

0938 Bagging on first drum of the day.

1040 SOM going to attend Drum Venting meeting at Pueblo Complex for WCATS.

1145 SOM returning from Drum Venting meeting

1200 Call in meeting with OM and night-shift

1300 SOM attending training at NRTC.

1420 SOM back from training

1535 Notified by CSE that while the operators were working on an unrelated project, upon inspection of the 55 gallon drum garbage they noticed a cracked weld. Operations immediately stopped and made notifications. Operations tag was placed, initiated by CSE personnel.

1600 Area 9 has a certified drum crane to lend operations at WCRR. An operator is 10 minutes to pick up.

1625 Per team with UNL IH the installed drum handling frame is rated for 500 lbs however the maximum weight to be imposed will not exceed 100 lbs. Per IH ok to proceed in using drum handling equipment.

1630 Mercaris camera to capture 55 gal drum handling/gantrying WCRR Area 9 [illegible] but cannot know how to capture. It is confirmed that it is certified and approved for use.

[illegible]

[illegible] OPERATIONS [illegible] TO WARM/WARMING [illegible] THE SOIL [illegible]

[illegible]

2-11-13 WCRR SOS Log Book

0600 Assuming SOS position for the day. [illegible]

0615 Starting Pre-Job brief. Talked about turnover from the weekend, maintenance on the drum lift and other delays. Three drums inside from Solutio Package 72 for processing. Empty drums prepped. One shipment in and one shipment out today. Safety Topic discussed on Space Heaters, and dressing in Layers. Also needing to stay Hydrated.

0640 Pre-Job brief complete.

0730 Operator performing rounds reported that the drum lift has tape on it over the clips to ~~pret~~ prevent the clips from being knocked off. SOM and SSW questioning if a temp mod should be in place.

0751 SOM spoke with engineering manager regarding the tape. She will get back in touch with the SOM after she speaks with the CSE.

0828 Received e-mail from CSE stating "A thin layer of tape may be used on the drum lift Hinge pin clips to mitigate the potential for "snagging" clips with operator PPE or otherwise. The clips must remain visible under the tape for inspection purposes. This tape does not perform a structural function and does not require a design change." Tape used was not clear and inspection can not be performe Tape will be changed out with clear tape so that inspection can be performed.

0916 Signed off on both rounds, inside and outside.

0920 Mode Change. WCRR Yard and 50-69 in Operations.

0938 Bagging on first drum for the day. PPE Check SAT

1058 Bagging off first drum, bagging on second

1320 Bagging off second drum, Bagging on number three PPE Check is SAT

1442 Bagging off drum number three, Bagging on number four

1540 Notified by operators that the 85 gallon drum grabber being used has a broken weld and is

Continued on following Page

being tagged out. The operators observed it happ
while unloading an 85 gallon
1621 Bagging off drum number four and bagging on
drum number five
1625 Caution Tag placed on 85 gallon drum grabber
that is broken
1700 Operator notifying that Parent drum that is
bagged on is frozen on the bottom and may
take longer to process. Operators were able to
pull all of the material out, Operators are
breaking it up into smaller pieces to add li
litter to.
1745 Starting Bag off, last drum for the day
1830 Signed off on inside and outside rounds.
1833 Mode Change. WKR 50-69 and Hood are in WARM.
1845 Securing SOS position for the day. Processed 5 parents
generated 5 daughters. No POC's, all from SP#72

Further entries on this page.

CCP Radiography Data Sheet

CCP-TP-053 Attachment 2

585432

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0032
Examination Date:	2/25/2013
Waste Container ID:	92911
Video/Audio Recorded Media Number:	LA-RTR2-13-0032 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.: 145.5 kg Tare Wt.: 33.4 kg Net Wt.: 112.1 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:	75 %

CCP Radiography Data Sheet

Waste Container ID: 92911

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal hardware, pipe component lid

AM:

OM:

OI:

C: Fiberboard

R:

XPM: Plastic bags, 90 mil plastic 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 Liner (CP)	3.7
Total Packaging Weight	33.4
Waste Material Parameter:	**Estimated Weight (kg)**
Iron-based Metal / Alloys (IM):	18.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	12.0
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	78.1
Soils (S):	
Total WMP Weight:	112.1

CCP Radiography Data Sheet

Waste Container ID: 92911

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		2/25/2013
Print Name	Signature	Date

5851432

NDA 2000 Assay Report

Item Information

Item ID:	92911	Count Sequence Number:	15343
Operator:	DCLTD231\Operator		
Assay Start:	3/22/2013 2:33:06 PM		
Description 1:	2LANDA1124		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6, Not Precision		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 112.0 kg	Net:	112.0 kg
Container:	Volume: 208.0 l	Full:	75.0 %
Density:	0.720 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:	15343	Batch Number:	2LANDA1124
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92911	Analysis Date:	3/22/2013

Net Weight	112000.0 g		
Pu mass	1.55E+002	+-	2.99E+001 g
TRU Alpha Activity	1.30E+001	+-	1.83E+000 Ci
TRU Activity Concentration	1.16E+005	+-	1.64E+004 nCi/g
Pu-239 Equivalent Activity	1.34E+001	+-	1.83E+000 Ci
Pu-239 FGE	1.46E+002	+-	2.80E+001 g
Decay heat	4.09E-001	+-	5.70E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.49E-001	1.78E-004	3.34E-005	5.07E-006
PU238	1.42E-002	2.46E-001	4.74E-002	3.85E-005
PU239	1.45E+002	9.14E+000	1.76E+000	1.43E-003
PU240	9.29E+000	2.14E+000	4.12E-001	3.35E-004
AM241	4.30E-001	1.49E+000	2.88E-001	2.34E-004
PU241	1.83E-001	1.90E+001	3.67E+000	2.98E-003
PU242	3.10E-002	1.23E-004	2.37E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.76E-006
U233	<LLD	<LLD	0.00E+000	2.12E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	7.01E-006
U238	<LLD	<LLD	0.00E+000	4.41E-005
AM243	8.93E-003	1.80E-003	3.39E-004	3.14E-005
CM243	1.85E-006	9.63E-005	5.50E-005	5.62E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 3-27-13

ITR: _____ Date: 3-27-13

Automated Independent Technical Review

Count Sequence Number: 15343 Batch Number: 2LANDA1124
Counter ID: HENC #2
Container ID: 92911
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 3/22/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis Add-a-Source WARNINGS: Add-a-Source correction factor is less than one.	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. 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.

Comments	Disposition
Section 5 - Gamma Analysis	
Analysis Status: No errors.	Ok
MCA Deadtime greater than the upper limit of 50.0%.	No spectral distortion observed. Gamma spectrum acceptable.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified. Pu239 FGE >200g with 2*TMU but <325g.

Expert Review by: Sheri Chamberlin Date: 3-26-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92911**

BDR Number: **LA13FG8024**

Sampling Date: **4/5/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	527.15	
74-82-8	Methane	213.40	U
67-56-1	Methanol	65.86	
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\130405c\
Data File : 92911.D
Acq On : 5 Apr 2013 1:02 pm
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 16:55:36 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	2045574	206.00 ppm	0.00
15) Chlorobenzene-d5	5.943	117	1865549	179.50 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.219	GC1	130250m	527.15 ppm	
4) Methanol	0.788	31	12696	65.86 ppm	100

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

Working Copy
Date: 2-12-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90996

6.2[4] Date Processed: 2/12/13

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: Gerald Espinoza / [signature] / 23TH0 / 2/12/13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 9C9916

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 4324 lb

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

6.2[5][B] Total Parent Drum Weight (lb) 4324 lb
6.2[6]

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:

N/A

EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 909960

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92919			
10.1[4]	Daughter Drum Filter No.	KL 374		N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-6225			
10.1[4]	Daughter Drum Purchase Order No.	50101			
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				
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%		N/A	
10.5[3]/10.6[2]	Description Waste Added During Processing	plastic kitty litter			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90996

Comments: nitrate salts, plastic, Poc lid, poc liners, absorbant

11.1[1] Performed By: Gerald Espinoza / [signature] / 231720 / 2/12/13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jerez / [signature] / 122452 / 2/16/13 1427
SOS or designee (print) Signature Z # Date/Time

UET
Working Copy
Date: 2-10-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 415525
Lot No.: 0220649
Manufacture Date: 11

5.[8] Overpack filtered vent information:

Manufacturer: NucFil
Model No.: 013
Serial No.: SL 1927
Manufacture Date: 10-11

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

	Filtered Vent	2 in. Bung
M&TE No.:	0401694	038369
Cal. Expiration Date:	9-26-13	12-18-13
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: Steven Mondragon / [signature] 1104241 2/10/13
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] 1235120 2/12/13
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: Jose Jorez / [signature] 221452 2-16-13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 2-12-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92920

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 038707
Cal. Expiration Date: 3-16-13
Range in ft-lb: 10-80
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] 1231720 / 2/12/13
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): 325.2 lb

Comments: N/C

8.1[1] Performed By: Gerald Espinoza / [signature] 1231720 / 2/12/13
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: Jose Jerez / [signature] 721452 / 2-16-13
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 92919

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 #: 501011
Lot #: 6233413
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 #: 16cpvc-1.5-2spvc
Serial #: L-6225
Date of Manufacture: 11-12

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
- [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

- [ ] Place lid and ring onto drum
- [x] 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 #: 019DS
Serial #: KL-374
Date of Manufacture: 11-11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	038369
Cal Expiration Date:	9-26-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	~~[illegible]~~ 10-80
Tolerance:	±4% cw ±6% ccw	Tolerance:	±1% cw ±6% ccw

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

[x] Yes [ ] No

Print Name: Brandon Chavez Signature: [signature] Z#: 204742

5. Weigh Drum Assembly

RECORD weight information

Tare wtght (lbs) 76.0
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:	Brandon Chavez	Operator Sign:	[signature]	Z#: 204742	Date: 2-10-13
Verifier Print:	Gerald Espinoza	Verifier Sign:	[signature]	Z#: 237720	Date: 2/12/13

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

DRUM ID#: 92919

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 #: 0383607

Cal expiration date: 3/16/13

Range/ Value (ft-lbs): 10-80

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): 1280

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 Espinosa [signature] Date 2/12/13

Verifier Print/Sign: Justin Lopez [signature] Date: 2-12-13

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET 72

Production Control

Container ID: 90996 Container Type: POC Gross Weight (lbs): 428

Inner Seal #: None Filter Prefix: None Filter Serial #: EL-385; EL-467

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

TWSR Comments: PARENT #S851432/WTS-12STD-876

Total PE-Ci Activity: 2.44E+00 Equivalent Combustible PE-Ci: 9.15E-01 AM-241 PE-Ci: 1.98E-01

Total Fissile Gram Equivalents: 26.9 Total Surface Dose Rate (mrem/hr): 2

EPA Code(s): D008 D007 D009 10/4/12

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 to the 1.0 volume of nitrate salts

Performed By: Susan Ramsey / 100681 / 9/11/12
Production Control (Print) Signature for S. Ramsey 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: 118 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 / Valerie Rhodes / 112609 / 10/4/12
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 when processing waste. Do not push or press on waste with hands; Utilize hexarmor gloves & tools to handle 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 / Jose Jerez / 1221452 / 10-11-12
TRU Remediation Operations (Print) Signature Z Number Date

OR Z# 249750 10/19/12

IHS REVIEW. RS 206362 10.9.12

Noncertified TRU Waste Drum Item Information

DrumID: 019411

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	MX195NE1		12.950	NITRATE SALTS		4.88	52	6/14	G468	
2	MX195NW1		12.290	NITRATE SALTS		8.27	52	6/14	G468	
3	LR193NE1		14.090	NITRATE SALTS		12.21	52	6/14	G468	
4	MX194NE1		13.640	NITRATE SALTS		10.82	52	6/14	G468	
5	MX194NW1		14.770	NITRATE SALTS		13.02	52	6/14	G468	
6	MX196NW1		20.450	NITRATE SALTS		22.06	52	6/14	G468	
7	MX197NE1		7.730	NITRATE SALTS		1.36	52	6/14	G468	
8	MX196NE1		10.450	NITRATE SALTS		2.35	52	6/14	G468	
9	OX147198NW		34.090	NITRATE SALTS		39.62	52	6/14	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 202.

Material Type	SNM (grams)	Items Net Wt (kg)
52	114.59	140.46
Totals	114.59	140.46

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])	90996					
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~~ Cgn 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 : 90996.D
Acq On : 3 Oct 2012 1:30 pm (#1); 3 Oct 2012 1:29 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 13:38:06 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	2248551	206.00	ppm	0.00
15) Chlorobenzene-d5	5.936	117	2012747	179.50	ppm	0.00

Target Compounds	Qvalue

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

Vocgas.m Wed Oct 03 13:38:19 2012

2-12-13

0550 Assuming WCRF Operations Center - Coleman

0615 Beginning inside and outside rounds.

0620 Pre job briefing being conducted by SDS.

0621 Item #1 on the rounds is CCS. PRD in place, continuing rounds

0622 Item #3 is unsat, FSR in place for repair, continuing rounds.

0627 Outside rounds complete.

0650 Pre job concluded.

0707 Both rounds as of 2-11-13 reviewed by SDS.

0715 mode change complete. We are now in operations in 5069 and WCRF upd.

0753 Bagging on 90996.

0801 Bag on complete. PPE check is Sat.

0835 Permission granted to lower vehicle access gates to load transport vehicle for a shipment to Area G. Initiating a drum movement from transportainer to the transport vehicle

0855 Bagging off Acc 2-12-13 90996, bagging on 91990.

0902 Bag on complete. PPE check is Sat.

0954 Initiated a drum movement from transportainer to 5069. Vehicle access gates restored.

1030 movement into 5069 complete.

1114 Bagging off 91990, bagging on 5818290.

1143 Operator 59 notified the Ops. Center of a WCG High Pressure alarm going off. He states that they were bagging on the parent drum and when they reached inside to pull the old bag into the glovebox, the new bag tore right down the seam approximately 12-18 inches long. Entering procedure #EP-WCRF-RAA-ARP-0401. Instrument reading on the Gilton Bradley for PRI 034 is 0.53 and the readings for PC-501 is -0.50 and PC-503 is -0.53. Everything is in a safe configuration and all non-essential personnel are exiting 5069. The operator has placed a piece of tape on the seam. No contamination has been found and no CAMS are alarming.

Continued on next page - Coleman

1143 Continued from previous page. Coleman
1145 CM notified as well as other notifications being made
1155 All personnel have been instructed by RCTs to exit 5 with their respirators on
1157 Operator 39, who taped the torn seam on the bag has tried twice to clean the PCM 2, his (L) hand indicating contamination
1224 Health RCT states that no contamination has been found and all swipes around the area are NDA. He also states that Operator 39 is still inside 5069 and his contamination levels are down to 364 DPM alpha and 851 DPM. The contamination is on his (L) hand.
1234 CM notified DOE.
1324 Operator 39 has cleared the PCM 2 and exited the facility.
1342 Briefing being held to discuss the path forward with the torn bag currently hanging on the WES.
1400 Operators entering 5069 to bag off the drum, re bag it, and bag the drum back on.
1412 Beginning to bag on, PPE check is set.
1415 Notified by Operator 31 of a minor personal injury SOS, Sam and CM notified. ~~Entering procedure HED-WRT-RH-OPO~~ JC 2-12-13
1424 Notified by Sam upon further investigation that the operator was in Area J stacking drum liners when he turned around and bumped his (L) knee on a drum hanger. The operators finished what they were doing and returned back to work and reported it. He's fine (Sam) bleeding a little.
1451 Notified the TA-54 operations center of the situation and that the drums have made many rotations thru.
1524 Notified by SOS that a briefing to be implemented with modifications are being made to the crane.
1625 Bag on complete.
1637 RCTs working on smears to deposit ~~HAVE~~ JC 2-12-13 Room.
1640 Lead RCT says all smears are good and they are de-posting.
1650 Initiating drum movement from 5069 to a transportainer.
1730 Drum movement out of 5069 complete.
1745 Beginning outside records
Continued on next page Coleman

2-12-13 Continued from previous page. [illegible]
1656 Bagging off S81S290
1715 Bag off complete.
1716 Late entry at 1705, begin inside rounds. (a)
1717 Item #3 is unsat on the rounds, okay to proceed.
1722 Item #61 is OOS, POD in place, continuing rounds.
1725 ~~Date~~ 2-12-13 Inside rounds complete.
1732 Outside rounds complete.
1735 Initiating drum movement from 5-109 to a transportation
1748 Drum movement out of 5-109 complete. All inventory has been removed from the facility.
1754 Both rounds reviewed by SOS.
2-12-13 1800 Mode change complete. We are now in CLD in 5-109 and Uranium standby in WCRCF yard.
2-12-13 1830 End of day CCC position secured. [illegible]

[illegible]

2/12/13

0600 Assumed the WCRR SDM position [signature]
0640 Call in with FOD
0700 Call in with TA54 SDM to status WCRR.
0715 Mode change complete. WCRR YAC-0150-01 from WARM/WARM to OPERATIONS/OPERATIONS
0830 Notified by RP-1 that an individual from RP-1 [illegible] 2/12/13 entered the transportation without building RP-1 supervisor. The RP-1 individuals didn't enter the area while RP-1 was notified. RP-1 supervisor is investigating further to see if an RPO will be initiated.
1413 Notified by ACO of a WCG high pressure alarm inside 50 bay. The PIC inside stated that they were hooking up bagging to the purge drum with an individual reached up the inner bag of stub to pull it into the WCG and the outer bag tore. The tear is approximately 10-12 inches in length. No CAM alarms and no contamination. ACO entering EP-WCRR-RM-ARP-001. The current reading for PC501 is -50 and PC502 is -053 and the reading for PDT031 is 0.53 and the reading for PC501 is -050. Everything is in safe configuration and all non essential personnel are exiting 50bl. The area placed a piece of tape on the door. No contamination was found and no CAMs are alarming.
1445 CM notified
1555 All personnel are exiting 50bl with respirators per RCTs.
1557 Operator #39 is unable to clear PCM L hand contamination. RP-1 supervisor allows us to leave because no contamination was detected on PPE.
1209 RP1 supervisor states that no contamination was been found and all surveys came back RDH. He also notified that operator #39 is still inside WCG and has contamination which are dom L 364 DPM alpha and 351 beta. The contamination is on his L hand.
1230 CM notified of update.
1345 Began pre-job briefing with team to discuss path forward. Discussed bagging off drum and placing a piece of poly over drum. Everyone felt comfortable with moving forward.
1402 Team headed towards the back to begin work.
1450 Notified by ACO that an individual bumped his knee and obtained a small cut to his knee.

3/12/13 continued

1454 Upon further investigation it was discovered that the injury occurred at TA54 area, while the operator was being alert. The individual bumped his left knee on a drum trailer. The operator didn't report it to TA54 Operation Center.

1457 OCC notified the TA54 operation center of the incident.

1504 notified by SOS and are that a person is being placed on the gate and notifications are being made to work call.

1510 RP15 putting on smears to depart room.

1520 notified by OCC that the (L and elbow) has been continuing and it didn't get numb at anything. She woke up this morning with a sore hurting elbow.

1525 EM notified and Energy Solutions SOS notified of pre-existing condition.

1530 Energy Solutions left working with OCC operator obtaining additional information for sore hurting elbow.

1540 notified by RP1 that all smears/swipes are APP-Room has been released.

1800 Management Company was called at 2109 from OPERATIONS/OPERATIONS to WRM/WO

1810 leaving the main entry [illegible] portion [illegible]

No further entries thereafter

[illegible] 2 7/10

2-12-13 WCRR SOS Log Book

0610 Assuming SOS position for the day.
0620 Starting Pre-Job brief. Safety Topic, Discussing winter driving conditions and Slips trips and falls. Processing SP#72 and SP#57. 1 shipment out. Clean snow and applying ice melt to paths and areas where there will be traffic.
0640 Pre-Job Complete
0707 Signed off on inside and outside rounds.
0715 Mode Change. WCRRF in Operations.
0753 Bagging on first drum for the day.
0801 Bag on Complete
0920 ~~Bag off off~~ Bag off of first drum and Bag on of second drum Complete. 2-12-13
1112 Bagging off drum number ~~three~~ two and Bagging on drum number three. 2-12-13
1143 Operator notifying Ops Center of a WCG High pressure alarm. Operator state that they were bagging on drum number three, as they were going through their bag on steps, when they were pulling off the ~~stab~~ stub off the WCG from the second parent the bag of third parent split on the seam approximately 12-18 inches long. Entering ARP-0601. Everything is in a safe configuration and non-essential personnel are exiting 50-69. Operator was able to place tape over the hole ~~wer~~ where it tore at the seam. No Contamination was found, No CAM alarms.
1155 All personnel were instructed by RCT's to leave the area in respirators and surveys will be performed outside in the Change room.
1157 Operator 39 was unable to clear the PCM. Contamination detected on his left hand.
1329 Operator 39 has been cleared, Contamination appears to be RADON
1348 Held briefing with Operators going in and RCT's. The plan is to treat this as a normal Bag off. Will probably have to use extra tape so that there

Continued on next Page

2-12-13 WCRR SOS Log Book

is no further tearing at the seam. Once that part is completed the parent drum will be prepped with a new bag. Bagged on and place. Discussed alarms that would be encountered, and ensuring personnel take their time. Operator SO stated that when prepping the parent again the banding that is placed on the parent won't allow for new banding to be placed as directed in procedure 0233. Per SOM we agree that since this situation is out of the Norm that the banding will be placed in the proper location where the old banding can be taken off when it is bagged on inside of the ~~the~~ WCG and not damage the bag.

1402 Operators and RCT's headed in to start the process.

1441 Operators finished prepping and will start the bag on

1450 Operator notifying that he ~~injur~~ was taking empty 55 gallon ~~Cardboard~~ Cardboard liners to a Morgan that we have at area J for storage. The Operator was placing the last of them in the Morgan when he turned to walk out he hit his knee on a drum mover that has been inside. Reported it to Operations Center, Since it happened at area J our operations Center is notifying the area G Operations Center. Chain of Command has been notified and Work CARE has been contacted through Energy Solutions I.H.

1505 Bag on has been Completed No Contamination has been detected and all CAM's are normal.

1540 SOM is reporting that this morning the Operations Center Operator reported to her that her left elbow is soar and swollen and she woke up this morning with it in that condition. The operator believes that it could be the way that she sits in her Chair leaning on her elbow and might be an ergonomic issue. The SOM has reported this to LANL

Continued on Next Page

JJ 2-12-13

~~2-12~~ 2-12-13 WCRR SOS Log Book

ergonomic personnel and are scheduled to evaluate Energy Solutions IH talked with the operator and is changing out her chair and recommended self medication and notify him if it gets worse.

1715 Bagging off last drum for the day. Going into Cold for maintenance being performed tomorrow.

1754 Signed off on inside and outside rounds.

1800 Mode Change. Cold in 50-69 Warm in WCRR yard. RCT's needing to leave at 1800 due to staying late yesterday. Processed 3 Parents generated 4 daughters

2-12-13/1830 Securing SOS position for the day. Jon Jy

HP

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-RTR2-13-0028
Examination Date:	2/19/2013
Waste Container ID:	92919
Video/Audio Recorded Media Number:	LA-RTR2-13-0028 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.: 128.5 kg Tare Wt.: 33.4 kg Net Wt.: 95.1 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:	75 %

CCP Radiography Data Sheet

Waste Container ID: 92919

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal hardware

AM:

OM: Scrap lead

OI:

C: Fiberboard insert sleeve, fiberboard

R:

XPM: Plastic bag, 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):	2.5
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	6.0
Other Inorganic Materials (OI)	
Cellulosics (C):	5.0
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	77.6
Soils (S):	
Total WMP Weight:	95.1

CCP Radiography Data Sheet

Waste Container ID: 92919

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		2/19/2013
Print Name	Signature	Date

5851432

NDA 2000 Assay Report

Item Information

Item ID:	92919	Count Sequence Number:	15169
Operator:	DCLTD231\Operator		
Assay Start:	3/1/2013 1:17:10 PM		
Description 1:	2LANDA1109		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 95.1 kg	Net:	95.1 kg
Container:	Volume: 208.0 l	Full:	75.0 %
Density:	0.610 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:	15169	Batch Number:	2LANDA1109
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92919	Analysis Date:	3/1/2013

Net Weight	95100.0 g			
Pu mass	8.01E+001	+-	1.57E+001	g
TRU Alpha Activity	2.09E+001	+-	8.07E+000	Ci
TRU Activity Concentration	2.19E+005	+-	8.48E+004	nCi/g
Pu-239 Equivalent Activity	2.10E+001	+-	8.07E+000	Ci
Pu-239 FGE	7.56E+001	+-	1.48E+001	g
Decay heat	6.83E-001	+-	2.69E-001	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.90E-001	1.36E-004	2.31E-005	2.71E-006
PU238	7.36E-003	1.27E-001	2.50E-002	3.60E-005
PU239	7.52E+001	4.73E+000	9.29E-001	1.34E-003
PU240	4.80E+000	1.10E+000	2.17E-001	3.12E-004
AM241	4.29E+000	1.49E+001	8.01E+000	9.32E-002
PU241	9.50E-002	9.87E+000	1.94E+000	2.79E-003
PU242	1.60E-002	6.36E-005	1.25E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	1.41E-006
U233	<LLD	<LLD	0.00E+000	1.30E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.65E-006
U238	<LLD	<LLD	0.00E+000	3.46E-005
AM243	6.94E-003	1.40E-003	2.40E-004	1.75E-005

Errors quoted at 1.000 sigma

Operator: Marsha [illegible] Date: 3·6·13

ITR: Jim Bitton Date: 3/6/13

Automated Independent Technical Review

Count Sequence Number: 15169 Batch Number: 2LANDA1109
Counter ID: HENC #2
Container ID: 92919
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 3/1/2013

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
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.
Results are marked as invalid.	

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: 3-6-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92919**

BDR Number: **LA13FG8016**

Sampling Date: **3/8/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	277.81	
74-82-8	Methane	213.40	U
67-56-1	Methanol	56.03	
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	3.89	
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\130308c\
Data File : 92919.D
Acq On : 8 Mar 2013 1:40 pm (#1); 8 Mar 2013 1:39 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: Mar 08 14:02:04 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	2165446	206.00 ppm	0.00
15) Chlorobenzene-d5	5.933	117	1942093	179.50 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.304	GC1	68641m	277.81 ppm	
4) Methanol	0.788	31	11435	56.03 ppm	100
17) Toluene	4.776	92	17477	3.89 ppm	99

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

Working Copy
UET
Date: B.F. 2/9/13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 90997

6.2[4] Date Processed: 2-9-13

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, 008, 009

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: Frederick Archuleta / [signature] Z28026 / 2-9-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 90997

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 370.4 lb

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

6.2[5][B] Total Parent Drum Weight (lb) 370.4 lb
6.2[6]

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

FWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 90997

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92894			
10.1[4]	Daughter Drum Filter No.	KL - 389			
10.1[4]	Daughter Drum Bag Filter No.	L - 6212			
10.1[4]	Daughter Drum Purchase Order No.	501011			
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)				
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 (%)	90%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Shoe out Bags, Kitty litter			

NA

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 90997

Comments: Kitty litter, plastics, Room trash, P.O.C. Lids, Cardboard, Salts.

11.1[1] Performed By: [illegible] / [signature] [illegible] / 2-9-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: GMk / [signature] 149235 / 2.10.13 0930
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 2-8-13a

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 415525
Lot No.: 0220649
Manufacture Date: 7011

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: SL-1909
Manufacture Date: 10/11

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

	Filtered Vent	2 in. Bung
M&TE No.:	040694	038369
Cal. Expiration Date:	9-26-13	12-18-13
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: Brandon Chance / [signature] [illegible] 2-8-13
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: Brandon Chance / [signature] [illegible] 2-8-13
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: Gulk / [signature] 149XX 2-10-13
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.: GM 1-10-13 ~~92894~~ 92895

7.[25] Overpack drum closure ring torque wrench information: 2-9-13
M&TE No.: ~~0380~~ 038367
Cal. Expiration Date: 3-16-13
Range in ft-lb: 10-80
Tolerance: ±3% cal ±6% ccal

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

Performed By: Frederick Hebbeler / [signature] 228824 / 2-9-13
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): 325.0 lb

Comments: No Comments

8.1[1] Performed By: Frederick Hebbeler / [signature] 228824 2-9-13
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: GMb / [signature] 149278 2.10.13
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 92894

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 #: 501011
Lot #: 0253120
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 #: GCPVC 1.5-25 PVC
Serial #: L-6212
Date of Manufacture: 11/2012

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: McFee
Model #: 01905
Serial #: KC 389
Date of Manufacture: 11/11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	031707
Cal Expiration Date:	9-26-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	+/-4% & +/-6% acc	Tolerance:	+/-3% & +/-6% acc

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

[x] Yes [ ] No

Print Name: Kevin Belascak Signature: Kevin Bel Z#: 238199

5. Weigh Drum Assembly

RECORD weight information

Tare wtght (lbs) 76.0
File ID #: 019005

- [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: Kevin Belascak Operator Sign: Kevin Bel Z#: 238199 Date: 02/07/13

Verifier Print: Frederick Archuleta Verifier Sign: [signature] Z#: 228826 Date: 2-9-13

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

DRUM ID#: 92894

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 #: 038367

Cal expiration date: 3-16-13

Range/ Value (ft-lbs): 10-80

— 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): 246.2

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 2-9-13

Verifier Print/Sign: [illegible] Date: 2-09-13

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET 12

Production Control

Container ID: 90997 Container Type: POC Gross Weight (lbs): 366
Inner Seal #: None Filter Prefix: None Filter Serial #: EL-446; EL-485
RK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: PARENT #S851432 WTS-12STD-880
Total PE-Ci Activity: 2.44E+00 Equivalent Combustible PE-Ci: 9.15E-01 AM-241 PE-Ci: 1.98E-01
Total Fissile Gram Equivalents: 26.9 Total Surface Dose Rate (mrem/hr): 1
EPA Code(s): D008 D007 D009 VR 10/4/12
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 P. Ramsey Z Number: 100681 Date: 9/11/12

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: 56 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 fo[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: 10/4/12

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. Utilize hexamor gloves & tools to handle 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: 10-11-12
Z#249750 10/19/12

IHS REVIEW: RB 206362 10.9.12

Noncertified TRU Waste Drum Item Information

DrumID: 019411

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	MX195NE1		12.950	NITRATE SALTS		4.88	52	6/14	G468	
2	MX195NW1		12.290	NITRATE SALTS		8.27	52	6/14	G468	
3	LR193NE1		14.090	NITRATE SALTS		12.21	52	6/14	G468	
4	MX194NE1		13.640	NITRATE SALTS		10.82	52	6/14	G468	
5	MX194NW1		14.770	NITRATE SALTS		13.02	52	6/14	G468	
6	MX196NW1		20.450	NITRATE SALTS		22.06	52	6/14	G468	
7	MX197NE1		7.730	NITRATE SALTS		1.36	52	6/14	G468	
8	MX196NE1		10.450	NITRATE SALTS		2.35	52	6/14	G468	
9	OX147198NW		34.090	NITRATE SALTS		39.62	52	6/14	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 202.

Material Type	SNM (grams)	Items Net Wt (kg)
52	114.59	140.46
Totals	114.59	140.46

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])	90997					
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: Non-PDC 10.4.12 Per attached email, Container was verified as a PDC.

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 : 90997.D
Acq On : 3 Oct 2012 3:09 pm (#1); 3 Oct 2012 3:08 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 15:20:18 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	2157793	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	1938786	179.50 ppm	0.00

Target Compounds	Qvalue

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

Vocgas.m Wed Oct 03 15:20:29 2012

2/9/13 Assuming operations center - B. Fordham
0600 PRE-SOB BRIEFING BEING CONDUCTED BY SOS
0615 STARTING INSIDE ROUNDS AT 0633
0633 STARTING OUTSIDE ROUNDS AT 0644
0644 ITEM #61 on INSIDE ROUNDS IS OOS, POD IS inplace, ok to proceed
0656
0657 ITEM #3 on outside ROUNDS IS UNSAT, FSR inplace, ok to proceed
0658 INSIDE ROUNDS complete
0711 completed outiside Rounds at 0711
0713 ROUNDS HAVE BEEN SIGNED OFF BY SOS
0837 Computer issues, DATABASE IS DOWN, unable to track TSR's
0840 MANUALLY VERIFIED TSR TRACKING, UPDATED THE STATUS BOARD
0845 MODE CHANGE TO operations
0851 BAGGED on S823165 PPE CHECK SAT
0949 BAGGING OFF AND BAGGING on 90973
1024 BAGG ON complete
1032 Pausing work Due to PIN FALLING OFF OF THE DRUM Lift CREW HAS PLACED everything in a SAFE configuration.
1033 Continuing work PER SOM, to finish processing current DRUM on the lift and the glovebox after processing this DRUM facility will go to cold so maintnance can fix drum lift, PPE CHECK SAT
1036 OPS MANAGER notified, with his concurance "Imediate operability Determination" performed. statusing the DRUMLIFT as operable. Do not need to go to cold CAN be performed in warm
1109 MOVEMENT OF 8 drum out of facility to transportainers
1127 Movement out of facility complete
1147 DRUM # 90973 Being BAGGED OFF AND ANOTHER DRUM is not being bagged on, mechanics are coming to replace pins on drum lift. PPE CHECK SAT.
1208 Bagoff complete, facility is in a safe configuration.
1245 FACILITY IS IN WARM STANDBY MODE, MODE CHANGE PERFORMED IN ORDED TO FIX THE DRUMLIFT, MECHANICS ARE ON SIGHT
1320 MECHANIC ENTERING THE FACILITY TO REPAIR THE CLIPS ON THE DRUM LIFT
1353 operators are conducting drum lift inspection as part of post inspections upon mechanics fixing the DRUMLIFT

continued on next page B. FORDHAM

- Int daughter 9/011

2-4-13 continued from Previous Page B. Fordham

1400 Drumlift inspection complete
1412 Drumlift inspection signed off by CSE
1429 MODE CHANGE TO operations mode
1434 Bagging on 91002
1447 BAG on complete PPE CHECK SAT
1455 STARTED INSIDE ROUNDS
1512 Item #61 on inside Rounds is OOS, POD inplace, ok to pr
1518 completed inside Rounds
1527 BAGGING OFF AND BAGGING on Drum #91018
1553 BAG on Complete PPE CHECK IS SAT
1600 STARTED outside rounds
1606 Item #3 on the outside rounds is unsat, FSR inplace ok to proceed.
1620 outside Rounds complete
1621 Bagging on and bag off, bagged on Drum #91997
1623 SOS signed off on afternoon rounds
1645 BAG on complete PPE CHECK IS SAT
1740 BAGGING OFF LAST DRUM PPE CHECK IS SAT
1752 BAG OFF complete facility is in a safe configu
1800 Mode change to warm standby
2-4-13 1830 END OF Day WCRRF IS SECURE B. Fordham
B. HM

No more ENTRIES THIS PAGE

2/9/13

0600 Assumed WCRR SOM position after reviewing SOM turnover checklist. L

0615 Attended pre-job brief conducted by SOS. Safety topic was use of AED's. Discussed ensuring all paperwork is completed - specifically drum prep paperwork.

0715 Notified by OCO and SOS that data base is down - both FRI and Oracle - prevents MAR tracking and printing labels. Notified OM.

0720 Identified scheduled RCRA inspector scheduled for day off. Area G backup is not available. Contacted off-shift RCRA inspector and will come in to work during AM.

0830 Verified that Oracle portion of data base is on-line. Able to print labels => processing of inventory already in building can take place.

0840 Verified from status board and round sheets completed that all SR's / ISI's are current for LCO/TSR tracking requirements.

0845 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm/Warm to Operations / Operations

1015 All functions of data base are working. SOS having personnel prepare for inventory movement out of Bldg 50-69.

1025 RCRA inspections completed, SAT

1032 Notified by OCO that a drum lift pin clip had fallen off from the belly band. Drum had just been bagged on when identified.

1036 Notified OM of drum lift issue - with his concurrence performed an immediate operability determination (IOD) and statused the drum lift as operable. Notifying CSE and MSS of problem. Will process drum currently on WCO to get inventory into safe configuration. SOS notifying operators to perform frequent inspections of belly band pin.

1130 MSS will have a mechanic here @ 1300. CSE on call contacted and will be available to sign off PMT. OM updated to status.

1245 Completed Mode Change WCRR ~~Op~~ Area G Yard / Bldg 50-69 from Operations / Operations to Warm / Warm

1300 Released WO # 454327-01 TA-50-69 TSR Drum Lift - to reinstall pin clips.

1317 MSS and operations going into facility to repair / inspect drum lift.

1425 Drum Lift work completed and signed off by CSE.

1429 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm / Warm to Operations / Operations

1800 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Warm

1830 Secured SOM position. L

2/9

3

2-9-13 WCRR SOS LOG BOOK

0600 Assuming SOS Position [signature]
0615 Conducted shift brief.
0635 Concluded shift brief.
0723 Reviewed Inside and outside Rounds
0745 having Issues with Database It is Down.
0840 manually Verified TSR Tracking. Updated status Board
0845 made change complete WCRRF In operations
0851 Bagged on first drum of day 5823165 PPE checksat
0949 Bagging off and bagging on 90973 PPE Check sat
1032 Notified by Inside Personal That Pin on Lift Popped off
1033 Per Som Finish processing drum on After processing drum will go to warm to perform repairs.
1076 Per OM drum Lift declared operable.
1147 Drum 90973 will be bagged off and will not bag nothing on to do Maintanance on Lift. 2-9-13 PPE Check sat
1238 Maintanance Crew Arrived to replace clip on pin.
1315 Maintanance entering Facility to perform work
1406 2 clips were replaced on Lift maintanance complete Also Inspection Complete need CSE sighn off. CSE Is here.
1407 late entry mode Change complete WCRRF In warm 1245 GM
1412 Inspection sighned off by All needed.
1489 Mode Change Complete WCRRF In operations
1442 bagged on 91002 PPE check sat
1527 bagged off and bagging on 91018 PPE check sat
1621 bagging off and bagging on 90997 PPE check sat
1623 reviewed Inside And outside Rounds.
1740 Bagging off last drum of Day
1800 Mode Change Complete WCRRF In warm
2-9-13 1830 End of shif Securing SOS Position [signature]
HM

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-RTR2-13-0084
Examination Date:	6/19/2013
Waste Container ID:	92894
Video/Audio Recorded Media Number:	LA-RTR2-13-0084 A&B
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.: 112.0 kg Tare Wt.: 33.4 kg Net Wt.: 78.6 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:	65 %

CCP Radiography Data Sheet

Waste Container ID: 92894

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal hardware, pipe component lid

AM:

OM: Scrap lead

OI:

C: Fiberboard insert sleeve, fiberboard, cloth material

R:

XPM: 90 mil 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):	21.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	1.5
Other Inorganic Materials (OI)	
Cellulosics (C):	10.0
Rubber (R):	
Plastics (waste materials) (XPM):	8.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	38.1
Soils (S):	
Total WMP Weight:	78.6

CCP Radiography Data Sheet

Waste Container ID: 92894

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		6/19/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92894	Count Sequence Number:	23054
Operator:	D3PW2DK1\operator		
Assay Start:	6/20/2013 3:05:13 PM		
Description 1:	1LANDA1794		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6, Not Precision		
Matrix Type:	Debris S5000		
Container Type:	55 gallon drum		
Weight:	Net: 78.6 kg	Net:	78.6 kg
Container:	Volume: 208.0 l	Full:	65.0 %
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: 23054
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 14
Item ID: 92894

Batch Number: 1LANDA1794
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 6/20/2013

Net Weight	78600.0 g		
Pu mass	1.54E+001	+-	3.54E+000 g
TRU Alpha Activity	4.36E+000	+-	1.74E+000 Ci
TRU Activity Concentration	5.54E+004	+-	2.21E+004 nCi/g
Pu-239 Equivalent Activity	4.39E+000	+-	1.74E+000 Ci
Pu-239 FGE	1.55E+001	+-	3.33E+000 g
Decay heat	1.43E-001	+-	5.80E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	7.11E-002	5.08E-005	8.44E-006	2.30E-006
PU238	1.42E-003	2.45E-002	5.61E-003	3.48E-005
PU239	1.45E+001	9.12E-001	2.09E-001	1.29E-003
PU240	9.27E-001	2.13E-001	4.88E-002	3.03E-004
AM241	9.24E-001	3.21E+000	1.72E+000	5.44E-002
PU241	1.80E-002	1.88E+000	4.30E-001	2.67E-003
PU242	3.09E-003	1.23E-005	2.81E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	5.95E-007
U233	<LLD	<LLD	0.00E+000	5.67E-003
U234	1.92E-002	1.21E-004	3.51E-005	0.00E+000
U235	1.37E+000	3.00E-006	8.70E-007	2.14E-006
U238	<LLD	<LLD	0.00E+000	1.56E-005
AM243	2.41E-003	4.87E-004	8.18E-005	7.59E-006

Errors quoted at 1.000 sigma

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

ITR: [illegible] Date: 6/28/13

Automated Independent Technical Review

Count Sequence Number: 23054 Batch Number: 1LANDA1794
Counter ID: MCS HENC #1
Container ID: 92894
Waste Matrix Code: Debris S5000 Count Type:
Sequence Type: Assay Date: 6/20/2013

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.
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: 6-26-13

Waste Container ID: **92894**

BDR Number: **LA13FG12054**

Sampling Date: **6/24/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	138.15	
74-82-8	Methane	9.63	U
67-56-1	Methanol	94.42	
60-29-7	Ethyl Ether	1.77	U
75-35-4	1,1-Dichloroethylene	5.36	U
67-64-1	Acetone	13.97	
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	10.02	
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\130624c\
Data File : 92894.D
Acq On : 24 Jun 2013 10:53 am
Operator : GR
Sample :
Misc : 55 GALLON DRUM THOUGH FILTER. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 24 11:50:55 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	4.057	96	7539198	207.75	ppmv	0.00
15) Chlorobenzene-d5	6.636	117	6118649	178.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.903	GC1	39406m	138.15	ppmv	
4) Methanol	0.824	31	37613	94.42	ppmv	100
7) Acetone	1.357	58	28030	13.97	ppmv	100
17) Toluene	5.577	92	247654	10.02	ppmv	96

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

S851436

S851436

Container F 754160

File Options Reports Help

S851436

754160	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

S851436
- S851436
  - LA00000069173— EMPTY
  - LA00000069192
    - LASB50105
  - LA00000069043
    - LASB50039
  - LA00000069194
    - LASB50088

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
100.0	%	LA00000069194	0.0	kg

working copy

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S851436

6.2[4] Date Processed: 1-14-14

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)
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: Adam Segovia Adam Segovia 276701 1-14-14
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

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

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 421.2 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) 421.2 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
EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 5851436

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	69194	69043		
10.1[4]	Daughter Drum Filter No.	JL-809	JL-884		N/A
10.1[4]	Daughter Drum Bag Filter No.	L-10077	L-10164		
10.1[4]	Daughter Drum Purchase Order No.	501872	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	BOP			
	Model No.	GCPVC15-25PK			
	Serial No.	L-10089			
	Date of Manufacture	13			
10.2[5]	POC ID No	69192			
10.2[7][B]/10.2[6]	POC Item Description	NITRAK SACKS		N/A	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	CO 271712			
10.2[14]	POC Assembly Gross Weight (lb)	35.2 lb			
10.2[15]	POC Rad. Survey Results (mrem/hr)	1,000 mRem			
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A			
10.3[5][A]	Free Liquid Volume/Units	4 GALLONS			
10.3[7][A]	Opaque/Non-penetrable Item Description:	lead shielding	Degraded 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		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	70%	100%		N/A
10.5[3]/10.6[2]	Description Waste Added During Processing	Kitty Litter	Kitty litter stuffed out bags		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 5851436

Comments: Degraded lead shielding, kitty litter, stuffed Bags, Poly liner lid, 55 gallon drum lid ring, 5 gallons of liquid with a 1% of O Neutralized to a pH 7

11.1[1] Performed By: Adam Sego Adam Sego 076702 11-14-14
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Clayton Mullins CM 124092 1/23/14 1751
SOS or designee (print) Signature Z # Date/Time

69173

ATTACHMENT 2
Page 1 of 1

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ate: 1/5/14 HS

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501893
Lot No.: 02444388
Manufacture Date: 2013

5.[8] Overpack filtered vent and 2-in. bung torque wrench information:

	Filtered Vent	2-in. Bung
M&TE No.:	100 216	036 245
Cal. Expiration Date:	12/18/13	08/05/14
Tolerance:	±4% CW ± 6% CCW	±3% CW ± 6% CCW

CS 1/5/14

Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: HL-853
Manufacture Date: 8/11

5.[9] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

5. [11] Performed By: Joe Romero [signature] 110822021 1/5/14
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: Joe Romero [signature] 110822021 1/5/14
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Clayton Mullins [signature] 124009021 1/14/14
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 1/5/14

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69173

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 036245
Cal. Expiration Date: 8-5-14
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: Adam Segovia / [signature] D76702 / 1-5-14
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: 10-14-14

7.[34][D] 85-gal overpack drum gross weight (lb): 1896 lb

Comments: N/C

8.1[1] Performed By: Adam Segovia / [signature] D76702 / 1-5-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clayton McMillan / [signature] 240092 / 1/23/14
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: ~~12-15~~ 12-5-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69.043

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240119
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: Bol
Model No.: 6C PVC 1.5-2 SPVC
Serial No.: L-10154
Manufacture Date: 5-13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	12-5-13 MS 00 100216	030245
Cal. Expiration Date:	12-18-13	8-5-13
Range:	40-200 in-lb	16-80 ft-lb
Tolerance (+/-):	+/-4% +/-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: Melinda Stewart (Operator (print)) Melinda Stewart (Signature) 107268 (Z #) 12-5-13 (Date)

5.[23] Filtered vent information:
Manufacturer: Nuc Fil
Model No.: 01905
Serial No.: JL-884
Manufacture Date: 10-11

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.: 69043

Comments: N/C

5.[35] Performed By: Melinda Stewart (Operator (print)) | Melinda Stewart (Signature) | 277268 (Z #) | 12-5-13 (Date)

7.1[4] Reviewed By: Clayton Mullins (Supervisor or designee (print)) | CA (Signature) | 240096 (Z #) | 1/14/14 (Date)

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69043

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: Adam Segovia / [signature] D76702 1-14-14
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: / / /
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.: 69043

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 4208 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), 276202 (Z #), 1-14-14 (Date)

7.1[4] Reviewed By: Clayton Mullins (Supervisor or designee (print)), [signature] (Signature), 240092 (Z #), 1/14/14 (Date)

UET Working Copy
Date: 1-11-14 ar

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69194

5.[3] Drum information:
Purchase Order No.: 501892
Lot No.: 0244449
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC1.5-2SPVC
Serial No.: L-10077
Manufacture Date: 5/13

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:

Operator (print)	Signature	Z #	Date
RUSSELL SHUMAKER	[signature]	Z12073	1-11-14
GERALD ESPINOZA	[signature]	1237720	1-11-14

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: JL-809
Manufacture Date: 10/11

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.: 69194

Comments: M/C

5.[35] Performed By: RUSSELL SHUMAKER / [signature] / 212075 / 1-11-14
GERALD ESPINOZA / [signature] / 237720 / 1-11-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Clayton Mullins / [signature] / 240071 / 1/14/14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69194

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: Adam Segovia (Operator (print)) [signature] (Signature) Z0670241 (Z #) 11-14-14 (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: / / / /
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.: 69194

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 248.4 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), 276708 (Z #), 1-14-14 (Date)

7.1[4] Reviewed By: Clayton Mullins (Supervisor or designee (print)), [signature] (Signature), 248096 (Z #), 1/14/14 (Date)

Working Copy
Date: 1-13-14 JL

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 5851436

6.3[15] ($) 55-gal drum wrapped in protective covering: (ISI 6.3.6) ☑ SAT ☐ UNSAT

6.3[16] Platform scale serial number: 619065
Platform scale calibration expiration date: 10-14-14

6.3[18] Prepared parent 55-gal drum weight (lb): 621.2

6.3[19] ($) Prepared parent 55-gal drum weighs < 624 lb: (SR 4.5.1) ☑ SAT ☐ UNSAT

Comments: N/C

8.1[1] Performed By: Adan Segovia, [signature] 276204 1-14-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Clayton Mullins, [signature] 1240092 1/14/14
Supervisor or designee (print) Signature Z # Date

8.1[8][B] Acceptance criteria satisfied: ☑ YES ☐ NO

8.1[8][D] Approved by: Jose Perez, [signature] 1221452 1/14/14 14:14
SOS/SOM or designee (print) Signature Z # Date Time

1937 8P72

LTP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Planning and Technical Solutions

Container ID: S851436 Container Type: 85 GAL DRUM Gross Weight (lbs): 440.3385
Total PE-Ci Activity: 1.31E+01 Equivalent Combustible PE-Ci: 4.91E+00
Total Fissile Gram Equivalents: 1.45E+02 Total Surface Dose Rate (mrem/hr): 1
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.

Drum venting and gas sampling completed on 2/26/13 and Attachment 3 of DOP-1030 is attached. RTR pre-screen indicates liquids in 90 mil liner, lead liner, and rigid liner in the drum

Potential Safety Risks: Nitrate salt drums often contain free liquids and are packaged in individual plastic bags. Net weight is ~297 lbs. and generator data shows 8 items of nitrate salts with weights ranging from ~25-56 lbs.

Performed By: Susan Ramsey (LTP-PTS (Print)) | Signature | 100681 (Z#) | 8/15/13 (Date)

IHS Representative

Potential IHS Safety Risks: May contain D007, D008 and D009
May contain free liquid

Performed By: Tommy Smallwood (IHS Representative (Print)) | Signature | 124659 (Z#) | 8-21-13 (Date)

LTP Engineering

Waste container remediation compliant with applicable facility safety basis requirements: ☒ Yes ☐ No

Engineering Comments: NIT

Performed By: Valerie Rhodes (LTP Engineering (Print)) | Signature | 112609 (Z#) | 9/30/13 (Date)

TRU Remediation Operations

Potential Safety Risks: USE Proper PPE And Kitty Litter Ratio

Performed By: Gilbert Martinez (TRU Operations (Print)) | Signature | 119235 (Z#) | 12/6/13 (Date)

Operations Manager or designee

Processing Determination: ☒ Accept ☐ Reject

OM or designee Comments: Do not push or press on waste with hands
Use hexavinyl gloves during processing.

Approved By: Jose Jerez (OM or designee (Print)) | Signature | 122452 (Z#) | 12/6/13 (Date)

Noncertified TRU Waste Drum Item Information

DrumID: 019655

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	MX185NE1		18.860	NITRATE SALTS		50.95	52	6/14	G468	
2	MX185NW2		25.680	NITRATE SALTS		5.57	52	6/14	G468	
3	1244186NE1	TW 19.7	[redacted]	NITRATE SALTS		11.31	52	6/14	G468	
4	PKG1		16.140	NITRATE SALTS		10.5	52	6/14	G468	UNREADABLE
5	0145187NE1	TW 17.27	[redacted]	NITRATE SALTS		7.61	52	6/14	G468	
6	0145187NW1		14.550	NITRATE SALTS		6.74	52	6/14	G468	
7	MX191NE1		11.590	NITRATE SALTS		33.46	52	6/14	G468	
8	MX180NW1		11.360	NITRATE SALTS	TW [redacted] 27.51		52	6/14	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 199.7

Material Type	SNM (grams)	Items Net Wt (kg)
52	147.65	134.16
Totals	147.65	134.16
	153.65 TW	135.22 TW

ATTACHMENT 3
Page 1 of 3

TA-54 AREA G DRUM VENTING DATA SHEET

7.[2] Waste Container Unique Identifier: 5851436

7.[3] Personnel stationed to prevent unauthorized entry into the 30-ft standoff distance outside of dome. ☑ SAT ☐ UNSAT ☐ N/A

7.[5] **(S)** Personnel have exited the 30-ft standoff distance. (SAC 5.6.4.3)

55-gal drum: ☑ SAT ☐ UNSAT ☐ N/A

85-gal drum: ☐ SAT ☐ UNSAT ☑ N/A

NOTE *All of the following data spaces may or may not be completed based on the drum configuration. For example, an unvented 55-gal drum without an 85-gal overpack drum would use a short-stem, filtered vent (NucFil-7DS) and the 85-gal overpack drum information is N/A. An unvented 55-gal drum overpacked into an unvented 85-gal overpack drum requires the completion of all of the following data spaces.*

7.[9] Head Space Gas sample results:

	85-gal (☑ N/A)	55-gal (☐ N/A)
Hydrogen	_____ %	0.085698 %
Methane	_____ ppm	0.000 ppm
VOC	_____ ppm	0 ppm
Filter Vent Unique Identifier No.:	_____	AN-364
Filter Vent Installed:		
Stub Stem (e.g., NucFil-007S)	☐ (☑ N/A)	☐ (☑ N/A)
Short Stem (e.g., NucFil-7DS)	☐ (☑ N/A)	☐ (☑ N/A)
Long Stem (e.g., NucFil-08DS)	☐ (☑ N/A)	☑ (☐ N/A)

ATTACHMENT 3
Page 2 of 3

7 [2] Waste Container Unique Identifier: S851436

7 [10] (S) Waste container VENTED DRUM criteria: (TSR 1 1)

- Stub Stem (e.g., NucFil-007S) (Acceptance Criteria: WIPP-Approved Filtered Vent installed, < 6.4% H_2, < 7,000 ppm VOC, and 16,000 ppm Methane)
  - 55-gal drum: ☐ SAT ☐ UNSAT ☑ N/A
  - 85-gal drum: ☐ SAT ☐ UNSAT ☑ N/A
- Short Stem (e.g., NucFil-7DS) (Acceptance Criteria: WIPP-Approved Filtered Vent installed, < 6.4% H_2, < 7,000 ppm VOC, and 16,000 ppm Methane)
  - 55-gal drum: ☐ SAT ☐ UNSAT ☑ N/A
  - 85-gal drum: ☐ SAT ☐ UNSAT ☑ N/A
- Long Stem (e.g., NucFil-08DS) (Acceptance Criteria: WIPP-Approved Filtered Vent installed, < 4.8% H_2, < 5,250 ppm VOC, and 12,000 ppm Methane)
  - 55-gal drum: ☑ SAT ☐ UNSAT ☐ N/A
  - 85-gal drum: ☐ SAT ☐ UNSAT ☑ N/A

7.[11][A] Waste drum venting status: ☐ UNVENTED ☑ N/A

7 [11][B][a] Number of required WIPP-approved filtered vents.

- 85-gal Waste Container _____ ☑ N/A
- 55-gal Waste Container _____ ☑ N/A

7 [11][B][c] (S) Personnel have exited the 30-ft standoff distance (SAC 5.6.4.3)

Filter Vent	1	2	3	4	5	6	7	8
85-gal		☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A				
55-gal		☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A	☐ SAT ☐ UNSAT ☑ N/A

LET

ATTACHMENT 3
Page 3 of 3

7 [2] Waste Container Unique Identifier: S851436

7 [11][B][f] Number of WIPP-approved filtered vents installed:

- 85-gal Waste Container _____ ☑ N/A
- 55-gal Waste Container _____ ☑ N/A

Filter Vent		1	2	3	4	5	6	7	8
85-gal	Type								
	Unique Identifier No.				N/A				
55-gal	Type								
	Unique Identifier No.								

7 [11][F] Drum-lid restraint inspected for degradation (e.g., no indication of cracked parts, missing fasteners, loose or frayed parts, excessive wear, or unusual deformation): (SAC 5.6.4.5.1) ☐ SAT ☐ UNSAT ☑ N/A

7 [11][H] Drum-lid restraint installed: (SAC 5.6.4.5.1) ☐ SAT ☐ UNSAT ☑ N/A

7 [12] Waste drum status:
85-gal Waste Container ☐ VENTED ☑ N/A
55-gal Waste Container ☑ VENTED ☐ N/A

7 [13][A] (S) 55-gal waste containers to be transferred to WCRRF satisfy the following criteria (WCRRF SAC 5.10.2.3.4.a): ☑ SAT ☐ UNSAT ~~☑ N/A~~ 12/6/13

- Hydrogen concentration less than or equal to 2.4% (24,000 ppm)
- VOC less than or equal to 5,250 ppm

Comments: N/A

7 [11][H] Performed By Chris Vigil 163082 2-26-13
LLP-DOP Supervisor/designee (Print) Signature Date

7 [13] Electrical space heaters ON and thermocouples ☐ SAT ☑ UNSAT

Verified By Chris Vigil 163082 2-26-13
LLP-DOP Supervisor/designee (Print) Signature Date

DVS Gas Determination Results Report

Date: 2/26/2013

Waste Container Number: S851436

Batch Number: DVS2130226

Filter Type Installed: 08DS

Number of Filters Installed:

Flammable Volatile Organic Compounds (VOCs)

Compound	Concentration (ppmV)	Upper Calibration Range (ppmV)	Exceeds Calibration (Y/N)	Calculated Value (if exceeds calibration)
Methanol	0	1591.00	N	N/A
Diethyl Ether	0	503.00	N	N/A
1,1 Dichloroethene	0	402.80	N	N/A
Acetone	0	1502.00	N	N/A
1,1-Dichloroethane	0	400.80	N	N/A
Cis 1,2-Dichloroethene	0	400.20	N	N/A
Methyl Ethyl Ketone	0	1503.00	N	N/A
Cyclohexane	0	497.30	N	N/A
Benzene	0	1492.00	N	N/A
1,2-Dichloroethane	0	400.80	N	N/A
N-Butyl Alcohol	0	200.20	N	N/A
Methyl Isobutyl Ketone	0	501.90	N	N/A
Toluene	0	1491.00	N	N/A
Chlorobenzene	0	186.60	N	N/A
Ethylbenzene	0	100.00	N	N/A
m,p-Xylene	0	100.09	N	N/A
o-Xylene	0	100.30	N	N/A
1,3,5-Trimethylbenzene	0	50.64	N	N/A
1,2,4-Trimethylbenzene	0	50.17	N	N/A

Flammable Tentative Identified Compounds (TIC)

Compound	Concentration (ppmV)	CAS Number
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Total Flammable VOCs	0	**I.V.R. Intial and Date**	JAB 2/26/13

Compound	Concentration		Upper Calibration Range		Exceeds Calibration (Y/N)
Hydrogen	0.085698	%	6.45	%	N
Methane	0.000	ppm	15990.00	ppm	N

Comments:

AN-364

Doug Eisele — DVS Operator Print Name

Signature

02-26-13 — Date

1-14-14 Assuming WCRR operations center - Coleman
0550 Beginning outside rounds.
0607 Beginning inside rounds.
0618 Outside rounds complete.
0627 Item #63 is OOS, okay to proceed per CSE documentation.
0634 Inside rounds complete.
0637 Both rounds reviewed by SOS.
0651 Mode change complete. We are now in operations in WCRRF yard and 50-69.
0704 WCG receptacle has been de-energized.
0740 Bagging on S851436.
0811 Permission granted to lower the vehicle access gates to load the transfer vehicle for a shipment to Area G.
0816 Bag off complete. 1-14-14 PPE check is Sat.
0843 PPE check is Sat.
0913 Vehicle access gates restored. Shipment to Area G. complete.
0940 Bagging off 1 daughter, bagging on another daughter.
1002 Bag off/on complete. PPE check is Sat.
1023 Initiating a drum movement from 50-69 to a transportainer.
1026 PPE check is Sat.
1048 Drum movement out of 50-69 complete.
1055 Bagging off 1 daughter and 1 POC, bagging on 68825
1150 Bag off/on complete.
1232 Bagging off 1 daughter, placing port cover on so that maintenance can perform a vibration analysis on FE003. Everything is in a safe configuration.
1329 Bag off complete. Port cover in place.
1354 Initiating a drum movement from 50-69 to a transportainer.
1409 Maintenance coordinator entering 50-69 to prepare for the vibration analysis.
1440 Mode changed from operations to warm standby in WCRRF yard and 50-69. Beginning vibration analysis WO# 00478946-01.
1445 Vibration analysis complete.
1500 Maintenance coordinator relaying vibration analysis
1510 Continued on next page - Coleman

1-14-14 (Continued) from previous page. (Coleman)
feeding with the CSE, SOS, SOR, OM.
1524 OM notifying upper management.
1525 Mode change from warm to cold in 50-69. WCRRF yard remains in warm.
1526 Awaiting upper management decision to continue processing.
1611 Maintenance has entered 50-69 to grease the bearing on FE-003.
1620 Per OM, after greasing the bearing, we will increase the mode to warm in 50-69 and re-inventory.
1650 Mode changed to warm standby in WCRRF yard and 50-69.
1654 Initiating a drum movement from transportainer to 50-69.
1700 Beginning inside rounds.
1705 Beginning outside rounds
1715 Outside rounds complete.
1718 Item #63 is OOS, okay to proceed per CSE documentation
1720 Inside rounds complete.
1726 Drum movement into 50-69 complete.
1750 RCRA inspections complete.
1754 Late entry at 1740, both rounds reviewed by SOS.
1414 1830 End of day. OCO position secured. (Coleman)

(No further entries this page)

1-14-14 WCRR SOM

558 Reviewed logs and assumed the WCRR SOM position for Grundgraeb

0644 Completed attending the pre-job brief conducted by the SOS (Clayton) There is one transfer scheduled out (20 drums), crafts are to arrive to scope FE-3. Also during the day, vibration analysis is to be performed by crafts. The safety message for today is good hygiene, wash hands, and take vitamins as needed. Shift Orders in effect were discussed and the Yard Work Tool was reviewed.

0704 Mode change: 50/69 and yard transition from WARM/WARM to Operations/Operations

0707 Completed daily phone call to RREAG SOM updating the POD activities. Current temperature inside 50/69 is noted at 66°F set point is at 77°F.

0740 The WCG was de-energized

0810 Inside operators report bagging on Parent 5851436, also P&T arrived to initiate transfer out.

0830 Discussed with A. Crawford (CSE) on lifting equipment the list of equipment for critical lifts. J. Virgil will initiate a material request after determining vendor availability which will provide 200% proof certification. (A.C) CSE will initiate exhibit H and the 1952 form.

0843 Inside Operators report bag on completed with parent.

0940 The transfer out is completed 20 drums total.

0943 Request noted to merge WO# 478946-01 - Vibration Analysis.

1002 Inside Operators report bagging off 1 daughter and bagging on another and continue.

1023 Operators complete the bag on and continue to process.

1026 Outside operators initiate a movement of 6 drums from the facility to the transportainer

1035 Outside operations complete the transfer.

1150 Inside operators initiate bagging off 1 daughter and 1 POC and initiate bag on of Parent SP 3-68825.

1210 Completed noon phone call with OM, PM, SOM and others

1215 RWP brief is provided to operation on crafts to conduct work.

1220 Reviewed and approved WO# 00478946-01, 50/69 Q FE-003 Vibration Analysis, also reviewed and approved WO# 00486704-01 - TA 50/69 Model WO for FE-003 Motor and Fan Repair; the Hold point was not signed, this package will be implemented - if needed, and only after vibration Analysis information is reviewed.

1225 Pre-Job Brief is conducted by craft supervisor - (BW)

1232 Inside Operations report Bag on of Parent - Completed

1240 The pre-Job brief is completed by the job supervisor. Maintenance on hold

(Continued on Next Page)

1-14-14 WCRR- SOM (continued)

1329 Inside Operators initiate bag off of daughter drum.
1354 Bag off is noted complete.
1415 Outside Operators initiate drum movement out of 50/69 (7 drums total)
1440 Crafts enter facility to perform vibration analysis.
1445 Mode change; 50/69 and WCRR/YARD transition from Operations/Operations to WARM/WARM
1450 Production inventory notes 1 LLW drum is carrying .002 PeCi content, in WCATS WCATS indicates the drum is in 50/69, however LLW inventory notes drum in LLW staging with item id - 10180055 and WCATS ID W798343. The drum is being transfered in WCATS to 69-0 LLW, and the gamma spec number is 110613 Y0dc02.
1455 Confirmed with Production Inventory, the drum W798343 is in LLW staging obtained ok/concurrence with OM to proceed with Vibration Analysis. Also status boards/WCATS updated by production inventory.
1525 Mode Change; 50/69 and YARD Transition from WARM/WARM to Cold/WARM
1530 The recommendation from Roger - Vibration tech recommends changing both Fan bearings. Notification made to OM/FOD via OM and WCRR PM
1544 Per direction from OM, he requests crafts to grease bearings and then re-inventory. Notification made to SOS.
1545 Hold point in WO# 466704-01, TA 50/69 Model WO for FE-003 Motor an Fan repairs is signed and approved to work crafts have been notified.
1611 Crafts obtain brief and enter facility to grease FE-003
1638 WO# 00466704-01 - FE-003 Motor and Fan repairs, was utilize to grease FE-003, all grease removed, (little difference in sound noted); work package will be left open by maintenance, so that when parts arrive they will install using the package. Also the CSE is initiating a Prompt Operability Determination
1650 Mode Change: 50/69 and Yard transition from Cold/Warm to WARM/WARM
1654 Operations initiated i.e. inventory of 6 drums total - 3-SP 72s, and 3 SP 57s
1724 Movement into 50/69 is completed.
1750 Verified set point Temperature controls - set at 77°F, Inside temp is 66°F
1800 Rounds reviewed - inside and outside
1810 Secured the SOM position John Guadagnoli

No further entries this page

PROJECT NAME WCRRF SOS Log Book NOTEBOOK NO.

01/14/14
0600 Assuming SOS position. CA
0615 Starting Pre-Job discussed processing denested drums prior to maintenance coming in. Also went over ~~RWP~~ CM 1-14-14 IWD. ES-WCRRF-2013-001.
0640 Pre-Job complete.
0654 Signed off on the rounds.
0704 Mode change complete, WCRRF yard and 50-69 are now in Operations.
0811 Bagging on 5851436.
0816 Starting to stage for the shipment out.
0843 Bag on complete, had difficulty with the banding around the port cover.
0940 Shipment out complete.
1002 Bagging off 1st daughter, bagging on a 2nd.
1023 Bag off/on complete.
1026 Starting movement out of 50-69.
1055 Movement out complete.
1150 Bagging off 2nd daughter and 1 POC, bagging on 68825
1232 Bag off/on complete.
1329 Bagging off and placing port cover on, maintenance ready after bag off to perform vibration analysis.
1354 Bag off ready.
1409 Starting movement out of 50-69
1410 Maintenance entering 50-69 to prepare for FE-003 vibration.
1445 Mode change complete, WCRRF yard and 50-69 are now in Warm Standby. Beginning FE-003 vibration, WO# 00478946-01.
1500 FE-003 vibration complete.
1501 WCG CSE ~~hear~~ CM 1-14-14 here to scope the acorn nuts on the WCG.
1525 Mode change complete, WCRRF yard and 50-69 are now in Cold Standy.
1527 WCG CSE scope is complete.
1-14-14 1530 Turning over SOS position to Jose Jerez. CA
1531 Assuming SOS position for the remainder of the shift. JJ
1535 Maintenance has completed the vibration analysis and explaining to the OM, SOM and CSE their discovery. Without running the information they believe that the problem maybe a bearing out and getting close to failing. Upper management will need to decide on path forward for processing
1611 Management OM making decision to grease the bearing then change Modes to re-inventory the facility so that waste containers with liquids can thaw
Continued on Next Page.

SIGNATURE DATE 20
READ AND UNDERSTOOD DATE 20

PROJECT NAME _____ NOTEBOOK NO. _____

1650 Mode Change to WARM
1654 Initiating drum movement from Transportainer to SD-69.
1715 Rounds reviewed and signed
1726 Drum Movement Complete
1800 Securing SOS position for the day - Jim Jo

Additional entries on this page.

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-RTR2-14-0007
Examination Date:	1/17/2014
Waste Container ID:	69043
Video/Audio Recorded Media Number:	LA-RTR2-14-0007 A&B
Procedure and Revision No.:	CCP-TP-053 Rev. 14
NCR(s) associated with the container? (e.g., Prohibited Items)	[~~X~~] No [X] Yes 1-29-14 ms 1-29-14 ms 1-29-14 ms NCR No.: ~~N/A~~ NCR-LANL-0103-14 1-29-14 ms 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.: 190.5 kg Tare Wt.: 33.4 kg Net Wt.: 157.1 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: 69043

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):	1.29.14 ms ~~8.0~~ 6.0 1.29.14 ms
Organic Matrix (OR):	
Inorganic Matrix (IN):	151.1
Soils (S):	ms 1.29.14 ms 1.29.14
Total WMP Weight:	1.29.14 ms ~~159.1~~ 157.0 1.29.14 ms

CCP Radiography Data Sheet

Waste Container ID: 69043

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~~ 1.29.14 MS NCR-LANL-0103-14: Operator inadvertently added 2.0 Kg to WMP XPM, this has been corrected so that the total WMP weight in Section 4 matches the container Net Weight in Section 2. 1.29.14 MS

RTR Operator:

Michael Simmons		1/17/2014
Print Name	Signature	Date

1/29/14

NDA 2000 Assay Report

Item Information

Item ID:	69043	Count Sequence Number:	24202
Operator:	D3PW2DK1\operator		
Assay Start:	1/25/2014 12:24:43 PM		
Description 1:	1LANDA1898		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 157.0 kg	Net:	157.0 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.840 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: 24202
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 69043

Batch Number: 1LANDA1898
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 1/25/2014

Net Weight	157000.0 g		
Pu mass	8.37E+001	+-	2.81E+001 g
TRU Alpha Activity	1.10E+001	+-	3.83E+000 Ci
TRU Activity Concentration	7.01E+004	+-	2.44E+004 nCi/g
Pu-239 Equivalent Activity	1.12E+001	+-	3.83E+000 Ci
Pu-239 FGE	7.89E+001	+-	2.81E+001 g
Decay heat	3.54E-001	+-	1.26E-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	8.29E-007
U233	<LLD	<LLD	0.00E+000	1.01E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.04E-006
NP237	1.44E-001	1.02E-004	2.10E-005	4.41E-006
PU238	7.64E-003	1.31E-001	4.95E-002	1.98E-003
U238	<LLD	<LLD	0.00E+000	2.25E-005
PU239	7.86E+001	4.87E+000	1.74E+000	7.37E-002
PU240	5.02E+000	1.14E+000	4.38E-001	1.73E-002
AM241	1.42E+000	4.87E+000	3.38E+000	1.96E-001
PU241	9.51E-002	9.79E+000	3.76E+000	1.48E-001
PU242	1.68E-002	6.62E-005	2.54E-005	0.00E+000
AM243	5.86E-003	1.17E-003	2.44E-004	1.36E-005

Errors quoted at 1.000 sigma

Operator: DLP Date: 1.29.14

ITR: Brittlyth Date: 1-29-14

Automated Independent Technical Review

Count Sequence Number: 24202 Batch Number: 1LANDA1898
Counter ID: MCS HENC #1
Container ID: 69043
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/25/2014

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-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 Chandler Date: 1-29-14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69043**

BDR Number: **LA14FG12014**

Sampling Date: **1/29/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	269.53	
74-82-8	Methane	6.56	U
67-56-1	Methanol	14.55	
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	0.17	U
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	0.93	U
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\140129C\
Data File : 69043.D
Acq On : 29 Jan 2014 2:34 pm (#1); 29 Jan 2014 2:33 pm (#2)
Operator : DE
Sample :
Misc : 55 GALLON ~~THROUGH FILTER~~ DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1 FC 1-30-14

Quant Time: Jan 29 14:42:47 2014
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Tue Dec 03 09:52:38 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	4.063	96	8773195	207.75	ppmv	0.00
15) Chlorobenzene-d5	6.639	117	6919203	178.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.917	GC1	76885	269.53	ppmv	100
4) Methanol	0.831	31	6744	14.55	ppmv	100

(#) = 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-RTR2-14-0008
Examination Date:	1/21/2014
Waste Container ID:	69192
Video/Audio Recorded Media Number:	LA-RTR2-14-0008 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.: 155.0 kg Tare Wt.: 145.1 kg Net Wt.: 9.9 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:	55 %

CCP Radiography Data Sheet

Waste Container ID: 69192

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):	109.0
Plastics (PP): Rigid Liner/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):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	1.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	8.9
Soils (S):	
Total WMP Weight:	9.9

CCP Radiography Data Sheet

Waste Container ID: 69192

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:

Michael Simmons		1/21/2014
Print Name	Signature	Date

5851436

NDA 2000 Assay Report

Item Information

Item ID:	69192	Count Sequence Number:	1235
Operator:	CLREMO67292\User		
Assay Start:	1/27/2014 1:41:52 PM		
Description 1:	4LANDA0041		
Description 2:	POC 155.0		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	S3000		
Container Type:	55 Gal Drum		
Weight:	Net: 9.9 kg	Net:	9.9 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.644 kg /l		

System Configuration

Counter:	MILCC		
Efficiency Description:	208 Drum Near 1_01_13		
Segments:	Number: 2	Offset:	0
Count Type:	Item Assay		
Collimator/Geometry Setting:	Near - 1		

Errors quoted at 1.000 sigma

********** Radioassay Data Sheet **********

Engine Version: TMU Gamma 1.4

Count Sequence Number:	1235	Batch Number:	4LANDA0041
Assay Instrument:	MILCC	Location:	LANL TA-54
Analysis Method:	CCP-TP-076 v 0	Software Version:	NDA 2000 V.4.0
Item ID:	69192	Analysis Date:	1/27/2014

Net Weight	9900.0 g		
Pu mass	2.34E+001	+-	6.73E+000 g
TRU Alpha Activity	3.02E+000	+-	5.99E-001 Ci
TRU Activity Concentration	3.05E+005	+-	6.05E+004 nCi/g
Pu-239 Equivalent Activity	3.05E+000	+-	5.99E-001 Ci
Pu-239 FGE	2.19E+001	+-	6.71E+000 g
Decay heat	9.68E-002	+-	1.93E-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	2.04E-007
U233	<LLD	<LLD	0.00E+000	3.23E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	5.64E-007
NP237	4.87E-002	3.44E-005	1.01E-005	5.61E-007
PU238	3.54E-003	6.05E-002	3.14E-002	4.47E-004
U238	<LLD	<LLD	0.00E+000	8.06E-006
PU239	2.18E+001	1.35E+000	4.16E-001	1.00E-002
PU240	1.59E+000	3.61E-001	1.23E-001	2.67E-003
AM241	3.63E-001	1.24E+000	4.12E-001	9.20E-003
PU241	1.75E-002	1.80E+000	5.57E-001	1.33E-002
PU242	7.89E-003	3.12E-005	1.21E-005	0.00E+000
AM243	1.24E-003	2.48E-004	7.30E-005	2.65E-006

Errors quoted at 1.000 sigma

Operator: [signature] Date: 1-31-14

ITR: [signature] Date: 2/3/14

Automated Independent Technical Review

Count Sequence Number: 1235
Batch Number: 4LANDA0041
Counter ID: MILCC
Container ID: 69192
Waste Matrix Code: S3000
Count Type:
Sequence Type:
Assay Date: 1/27/2014

Comments	Disposition
Data Combiner Analysis No Multi-Modal Results Combination TMU results available for reporting purposes.	OK
Section 4 - MGA Analysis Results are marked as invalid.	MGA analysis failed. FRAM results applied. FRAM results attached.
Gamma Analysis Analysis Status: No errors. Spectrum Validity Check engine has suggested data review.	OK After EA review, spectrum valid.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: [signature] Date: ~~1/14/31~~ 1/31/14 F 1/31/14

Waste Container ID: **69192**

BDR Number: **LA14FG12018**

Sampling Date: **2/4/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	320.25	
74-82-8	Methane	6.56	U
67-56-1	Methanol	49.39	
60-29-7	Ethyl Ether	0.12	U
75-35-4	1,1-Dichloroethylene	0.20	U
67-64-1	Acetone	1.60	
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	0.17	U
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	2.67	
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\140204c\
Data File : 69192.D
Acq On : 4 Feb 2014 2:45 pm (#1); 4 Feb 2014 2:44 pm (#2)
Operator : DE
Sample :
Misc : POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 04 14:54:39 2014
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Tue Dec 03 09:52:38 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
3) Fluorobenzene	4.063	96	9568543	207.75	ppmv	0.00
15) Chlorobenzene-d5	6.639	117	7384379	178.75	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.917	GC1	91352	320.25	ppmv	100
4) Methanol	0.827	31	24971m	49.39	ppmv	
7) Acetone	1.363	58	4071	1.60	ppmv	93
17) Toluene	5.580	92	79665	2.67	ppmv	96

(#) = 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-RTR2-14-0007
Examination Date:	1/17/2014
Waste Container ID:	69194
Video/Audio Recorded Media Number:	LA-RTR2-14-0007 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.: 112.5 kg Tare Wt.: 33.4 kg Net Wt.: 79.1 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:	65 %

CCP Radiography Data Sheet

Waste Container ID: 69194

Section 3: Container Inventory and Comments	(Detailed descriptions)
IM:	Drum ring
AM:	
OM:	
OI:	
C:	Leather gloves
R:	
XPM:	Plastic bags, 90 mil liner lids
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):	2.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	0.5
Rubber (R):	
Plastics (waste materials) (XPM):	8.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	68.6
Soils (S):	
Total WMP Weight:	79.1

CCP Radiography Data Sheet

Waste Container ID: 69194

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		1/17/2014
Print Name	Signature	Date

~~70~~ 69 BM 1.20.14

5851436

NDA 2000 Assay Report

Item Information

Item ID:	69194	Count Sequence Number:	1225
Operator:	CLREMO67292\User		
Assay Start:	1/25/2014 1:12:36 PM		
Description 1:	4LANDA0040		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	S3000		
Container Type:	55 Gal Drum		
Weight:	Net: 79.1 kg	Net:	79.1 kg
Container:	Volume: 208.0 l	Full:	65.0 %
Density:	0.590 kg /l		

System Configuration

Counter:	MILCC		
Efficiency Description:	208 Drum Near 1_01_13		
Segments:	Number: 2	Offset:	0
Count Type:	Item Assay		
Collimator/Geometry Setting:	Near - 1		

Errors quoted at 1.000 sigma

********** Radioassay Data Sheet **********

Engine Version: TMU Gamma 1.4

Count Sequence Number:	1225	Batch Number:	4LANDA0040
Assay Instrument:	MILCC	Location:	LANL TA-54
Analysis Method:	CCP-TP-076 v 0	Software Version:	NDA 2000 V.4.0
Item ID:	69194	Analysis Date:	1/25/2014

Net Weight	79100.0 g			
Pu mass	1.20E+000	+-	3.32E-001	g
TRU Alpha Activity	3.69E-001	+-	9.17E-002	Ci
TRU Activity Concentration	4.66E+003	+-	1.16E+003	nCi/g
Pu-239 Equivalent Activity	3.73E-001	+-	9.17E-002	Ci
Pu-239 FGE	1.36E+000	+-	3.38E-001	g
Decay heat	1.21E-002	+-	3.04E-003	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	1.50E-007
U233	<LLD	<LLD	0.00E+000	9.23E-004
U234	4.98E-003	3.10E-005	8.79E-006	0.00E+000
U235	3.56E-001	7.69E-007	2.18E-007	3.14E-007
NP237	8.65E-003	6.10E-006	1.69E-006	2.34E-007
PU238	1.19E-004	2.04E-003	6.66E-004	8.78E-005
U238	<LLD	<LLD	0.00E+000	7.96E-006
PU239	1.13E+000	6.98E-002	2.06E-002	3.01E-003
PU240	7.21E-002	1.64E-002	5.34E-003	7.04E-004
AM241	8.17E-002	2.80E-001	8.92E-002	5.26E-003
PU241	2.30E-003	2.37E-001	7.74E-002	1.02E-002
PU242	2.40E-004	9.49E-007	3.10E-007	0.00E+000
AM243	2.63E-004	5.25E-005	1.45E-005	1.35E-006

Errors quoted at 1.000 sigma

Operator: Jim Barton Date: 1/28/14

ITR: DER Date: 1.31.14

Automated Independent Technical Review

Count Sequence Number: 1225
Batch Number: 4LANDA0040
Counter ID: MILCC
Container ID: 69194
Waste Matrix Code: S3000
Count Type:
Sequence Type:
Assay Date: 1/25/2014

Comments	Disposition
Data Combiner Analysis No Multi-Modal Results Combination TMU results available for reporting purposes.	OK
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.
Gamma Analysis Analysis Status: No errors.	OK
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: [signature] Date: 1/28/14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69194**

BDR Number: **LA14FG2010**

Sampling Date: **1/29/2014**

S851436

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\140129C\
Data File : 69194.D
Acq On : 29 Jan 2014 12:33 pm (#1); 29-Jan-14, 12:32:44 (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 29 12:41:20 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	3.588	96	3275541	205.75	ppmv	0.07
15) Chlorobenzene-d5	5.884	117	2604485	177.50	ppmv	0.02

Target Compounds	Qvalue

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

23

S851506

S851506

Container Profile 766726

File Options Reports Help

S851506

766726	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

S851506

- S851506
  - 91020 – EMPTY
  - 91019
    - 93443 – EMPTY
    - 93442
      - LASB02067
  - 91018
    - 92893 – EMPTY
    - 92892
  - 91017
    - 92906 – EMPTY
    - 92905
  - 91013
    - 92250 – EMPTY
    - 92249
    - 92248
      - LASB02091

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weight ...
100.0	%	92248	0.0	kg

Working Copy
Date: 2-29-12

ATTACHMENT 1
Page 1 of 3

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S851506

6.2[4] Date Processed: 2-29-12

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] **($)** Three 1-Liter containers carbon spheroids or MET-L-X in WCG: (SAC 5.10.1.7.1) ☑ YES ☐ NO

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

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

Performed By: B. FORDHAM B. Fordham 123535
Waste Handling Tech (print) Signature Z # Date

5.[16] Prepared Parent Drum Weight (lb): 456.6 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 120.0 lb

ATTACHMENT 1

Page 2 of 3

4.1[6][B] Parent Waste Container No.: S851506

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 576.6 lb

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

		Daughter Drums	B.F 2-29-12	H.F 2-29-12	
10.1[4]/10.2[4]	Daughter Drum No.	91013	POC #1B	POC #1C	
10.1[4]	Daughter Drum Filter No.	CL-1886	N/A	N/A	N/A
10.1[4]	Daughter Drum Bag Filter No.	LL-127			
10.1[4]	Daughter Drum Purchase Order No.	415090			
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	Nuc-Fil	Nuc-Fil	Nuc-Fil	
	Model No.	~~Nuc-Bag~~ 036-DA	036-DA	036-DA	
	Serial No.	LL-200	LL-61	LL-64	
	Date of Manufacture	12-11	12-11	12-11	
10.2[5]	POC ID No	91017	91018	91019	
10.2[7][B]/10.2[6]	POC Item Description	SALTS LIQUID/ABSORBED PLASTIC	SALTS LIQUID/ABSORBED PLASTIC	SALTS LIQUID/ABSORBED PLASTIC	
10.2[7][D]/10.2[8][D]	Bag-out Bag Filter No.	N/A	N/A	N/A	N
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	B.F 235635	B.F. 235635	B.F. 235635	
10.2[14]	POC Assembly Gross Weight (lb)	911.4lbs	326.8	349.6	
10.2[15]	POC Rad. Survey Results (mrem/hr)	1100.5 mr	550.25 mr	222.25 mr	A
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N/A	N/A	N/A	
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHIELDING	N/A	N/A	
10.3[5][A]	Free Liquid Volume/Units	20 GALLONS	20 GALLON	20 GALLON	
10.3[9][A]	PCB-contaminated Waste Description	N/A	N/A	N/A	
10.3[9][B]	PCB Item ID No.		A		
10.3[10]	Remaining Waste Description	SEE Comments	N/A	N/A	
10.3[13]/10.4[12]/ 10.5[5]	Daughter Drum % Full (%)	100%			
10.5[4]	Description Waste Added During Processing	PLASTIC	PLASTIC	PLASTIC	

ATTACHMENT 1
Page 3 of 3

4.1[6][B] Parent Waste Container No.: S851506

Comments: LEAD SHEILDING, PLASTICS, SALTS, 20 GALLONS OF ACID PH TESTED TO A ZERO, ACID NEUTRALIZER WAS ADDED TO THE LIQUID, LIQUID WAS RE PH TESTED TO A 5, AND OPERATORS PROCEEDED TO ADD ABSORBANT TO THE LIQUID, LIQUID WAS ABSORBED, POLY LINER LID

11.1[1] Performed By: B. FORDHAM B. Fordham R35535 12-29-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Gilbert Martinez [signature] M9235 3/12/12
SOS/SOM (print) Signature Z # Date/Time

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

85-Gallon Overpack ID Number 91020

RECORD Drum Filter information: Nuc Fil-013	
Filter ID Number: HK-1328	
Date of Manufacture: 8/10	

TORQUE WRENCH INFORMATION			
Filter Torque Wrench		**Drum Lid Ring Bolt**	
M&TE ID#		M&TE ID#	038373
Cal Expiration Date		Cal Expiration Date	5/30/12
Tolerance	N	Tolerance +/- 3% cw +/- 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
Done @ Ta 54 area G		**Bung Torque Wrench**	
		M&TE ID# N	
		Cal Expiration Date	
		Tolerance A	
		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

Filter vent torque value: (new container only) 30 in-lb ☐ N/A

Drum lid 2-inch bung torque value: (If applicable) 120 ft-lb ☐ N/A

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

Drum lid ring threaded end touching jam nut: 3/13/12 B.F. ☑ YES ☑ NO

Drum lid ring ends touching: ☐ YES ☑ NO

B. Fordham	B. Fordham	B.F.	235635	2-29-12
Technician Name (print)	Signature	Initials	Z#	Date
Don Pacheco	Don Pacheco	dp	240012	02-29-12
Technician Name (print)	Signature	Initials	Z#	Date

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

Drum ID#: ~~91013~~ 91013 B.F. 2-29-12

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 #: 415090
Lot #: 022064 4
Date of Manufacture: 2011

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: NUCFIL
Model #: 036DA
Serial #: LL-127
Date of Manufacture: 12/11

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
- ☑ 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 #: CL - 1386
Date of Manufacture: 3/11

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):	20-80
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.

☑ Yes ☐ No

Print Name: B. Fordham Signature B. Fordham Z#: 235635

5. Weigh Drum Assembly

RECORD weight information

Tare witght (lbs) 76.0 lbs
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: B. Fordham Operator Sign: B Fordham Z#: 235635 Date: 2-29-12

Verifier Print: Michael Romero Verifier Sign: Michael Romero Z#: 182723 Date: 2-29-12

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

DRUM ID#: 91013

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 #: 038373

Cal expiration date: 5/30/12

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

--- 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.): 405.4 lbs

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: Michael Romero Date: 2-29-12

Verifier Print/Sign: B. Fordham B. Fordham Date: 2-29-12

Working Copy
Date: 2-28-12

ATTACHMENT 2
Page 1 of 1

85-GAL DRUM ASSEMBLY CLOSING CHECKLIST

DRUM ID#: S851506

1. LID INSTALLTION	3. WEIGH DRUM ASSEMBLY
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 mallet or a drum lid press.* ☑ Tighten jam nut. Record torque wrench information: MT&E #: 038373 Cal expiration date: 5/30/12 Value (ft-lbs): +/- 3% CW +/- 6% CCW	Record weight information: Gross Weight(lbs.): 538.6 lbs Scale ID#: 019065 ☑ Using a permanent marker, write the gross weight on the drum lid.
2. DRUM LABELING	**4. FINALIZE DOCUMENTATION**
NOTE *Do not cover the drum seam with any labels.* ☑ Label drum in accordance with EP-DIV-DOP-0103, WDP TRU Waste Container Labeling.	☑ Have RCT monitor drum prior to moving to storage area.

Performed By: B. Fordham (Operator (print)) B. Fordham (Signature) 235835 (Z #) 2-28-12 (Date)

Reviewed By: Anthony V. (Verifier (print)) [signature] (Signature) 187861 (Z #) 2-28-12 (Date)

3P13

ATTACHMENT 1

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S851506 Container Type: 85-GAL Gross Weight (lbs): 484
Inner Seal #: 019305 Filter Prefix: LAVC Filter Serial #: 00102
AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST 12
Total PE-Ci Activity: 8.45E+00 Equivalent Combustible PE-Ci: 3.17E+00 AM-241 PE-Ci: No data
Total Fissile Gram Equivalents: 93.3 Total Surface Dose Rate (mrem/hr): 4
EPA Code(s): None
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 2/26/2007 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: LA125M Production Control Comments:

Performed By: R. W. Jones / R. W. Jones / 117434 / 9.27.10
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: RTR pre-screen has no comments. Solid waste record indicates leached solids in form of nitrate salts. 8 items, heaviest is 28 kg (62 lbs), net weight of 8 items is 160 kg (352 lbs). May require RWP for > 1,000 and < 10,000 mrem/hr @ 30-cm.

Performed By: Michael Garcia / T. Michael Garcia / 099143 / 10/26/10
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:

Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments: reviewed w/ SME RK

Performed By: John Gallegos / John Gallegos / 176905 / 11.3.10
TRU Remediation Operations (Print) Signature Z Number Date

Noncertified TRU Waste Drum Item Information

DrumID: 019305

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	O148199NW1		9.410	NITRATE SALTS		7.73	52	6/14	G468	
2	O148199NE1		27.730	NITRATE SALTS		18.04	52	6/14	G468	
3	DS202NE1		20.230	NITRATE SALTS		8.09	52	6/14	G468	
4	LR200NE1		[redacted]	NITRATE SALTS		14.3	52	6/14	G468	
5	MX201NW1		19.700	NITRATE SALTS		13.29	52	6/14	G468	
6	OX149203		26.820	NITRATE SALTS		19.98	52	6/14	G468	
7	DS204041		19.550	NITRATE SALTS		10.67	52	6/14	G468	
8	DS204NW1		17.270	NITRATE SALTS		7.	52	6/14	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 219.3

Material Type	SNM (grams)	Items Net Wt (kg)
52	99.1	160.41
Totals	99.1	160.41

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 9.28.10

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Gabe Romero	/	1286973	9-28-10
	/	/	/

Container No. (7.[1]):	5851506	5863324	5870338
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			
Chlorobenzene			
Cyclohexane			
1,1-Dichloroethane			
1,2-Dichloroethane			
1,1-Dichloroethylene			
cis-1,2-Dichloroethylene			
Ethyl benzene			
Ethyl ether			
Toluene		19.10	
1,2,4-Trimethylbenzene			
1,3,5-Trimethylbenzene			
m- and p-Xylene			
o-Xylene			
Acetone		389.62	
1-Butanol		3.01	
Methanol		47.27	
Methyl ethyl ketone		30.03	
Methyl isobutyl ketone			
Total CCP VOC value (ppm) (7.[11]):	Ø	489.03	Ø

ATTACHMENT 1
Page 2 of 2

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

Container Number (7.[1]):	58851506	58633324	58703338
Hydrogen Reading (ppm) (7.[10]):	1453.90 ppm	514.38 ppm	363.15 ppm
Methane Reading (ppm) (7.[10]):	Ø ppm	Ø ppm	Ø ppm
Total VOC Reading (ppm) (7.[11]):	Ø ppm	489.03 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 55 gallon drums were sampled from inside an 85 gallon overpack.

11.1[1] Performed By: Alicia Herrera, [signature] 198450, 9.29.10
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 111786, 9.29.10
11.1[8] Waste Handling Supervisor (print) Signature Z # Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\100928c\
Data File : S851506.D
Acq On : 28 Sep 2010 1:45 pm (#1); 28-Sep-10, 13:44:34 (#2)
Operator : RG
Sample :
Misc : 55 GAL. LFL SAMPLE INSIDE 85 GAL. OVERPACK (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 28 13:54:08 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	3.730	96	2910320	207.75	ppmv	0.08
15) Chlorobenzene-d5	6.049	117	2192819	180.75	ppmv	0.08
Target Compounds						Qvalue
1) Hydrogen	1.666	GC1	11142m	1453.90	ppmv	

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

vocgas.m Tue Sep 28 13:54:26 2010

5
2-29-12 PROJECT NAME _____ NOTEBOOK NO. _____

0600 Assuming WCRR operations center. - JColeman.
0610 Beginning inside rounds.
0615 Pre-job being conducted by SOS. Beginning outside rounds.. Item #50 on the rounds is unsat. We are still currently in an LCO (3.5) regarding this item. maintenance is scheduled for this morning to fix the cotter pins.
0636 Item #160 on the rounds is OOS. Per CSE, we are okay to proceed.
0650 Tech 20 states that while performing inside rounds, he was searching inside the WCG for a liter of Metalx and moved the hose to find it and accidentally hit the lower leaded window and broke it. It had previously been cracked, but not enough to replace it, it was duct taped. He states that it definitely needs to be replaced now. (Station 4) SOS, SOM, OM notified.
0742 Initiating a drum movement from 50-69 to a transportainer.
0747 Drum movement complete. All inventory has been removed from 50-69.
0802 Rounds reviewed and signed off by SOS.
0822 Mode change complete. We are now in COLD mode to perform maintenance on the drumlift cotter pins, and warm standby in the WCRRF vault.
0828 Initiating a drum movement from transportainers to transfer vehicle for shipment to Area G. Lowering vehicle access gates.
0848 Beginning monthly valve alignment surveillance 4.2.4.
0906 Vehicle access gates restored. Transfer vehicle loaded. Transportainers secured.
0946 Maintenance and operators entering 50-69 to begin to replace cotter pins on the drumlift.
1003 CSE (Rob Wilde) entering facility.
1110 Drumlift maintenance completed. Post maintenance inspection completed as well. Caution tag has been removed from the drumlift.
1208 Exiting the LCO's for the drumlift. All operational limits have been met.
JC 2-29-12
1321 Mode change complete. We are now in operations.
1320 Initiating a drum movement from transportainers to 50-69.
1330 Drum movement into facility complete.
1310 Beginning to de-nest 3 drums.
1350 De-nesting complete. Bagging on drum #5851506.
1430 Beginning inside rounds.
1445 Item #160 on the rounds is OOS. Per CSE, we are okay to proceed.
1530 Beginning outside rounds.
Continued on next page. JColeman

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

PROJECT NAME _____ NOTEBOOK NO. _____

Continued from previous page. - JCollman

1529 Bagging off drum #5851306 and 3 PCC's.

1545 Loads returned and signed off by SOS.

1650 Night shift complete. We are now in warm standby.

1651 End of day. Operations secure. - JCollman

No further entries this page

SIGNATURE _____ DATE _____ 20

READ AND UNDERSTOOD _____ DATE _____ 20

PROJECT NAME 2-29-12 NOTEBOOK NO.

0100 Received shift turnover from previous shift and assumed the WCRR SOM position. [illegible]
0620 Attended pre-job briefing conducted by SOS. SOM discussed importance of making prompt notifications to SOM Op Center and DSA.
0640 SOM call in with FOD. Message from FOD proper review on packages and ensuring work packages are complete.
0650 Notified by OCO that while tech 20 was performing inside rounds he moved the chair looking for the metal x and accidentally hit the lower secondary window and broke it. It had previously been blocked but not enough to replace it. Window will be repaired today.
0822 Mode change complete: WCRR YARD from WARM to WARM and 30-69 from WARM to COLD.
0900 0920 Reviewed and signed off on WO #432283 drum lift.
0946 Maintenance crew arrived at WCRR to perform maintenance on retaining clips on belly band.
1110 Drum lift maintenance complete as well as post maintenance. CSE and SOM reviewing final signatures on work package and procedures.
1220 Exiting LCOs. 30-1 and 3-5. All operation limits have been met.
1221 Mode change complete: WCRR YARD from WARM to OPERATIONS and 30-69 from WARM to OPERATIONS.
1650 Mode change complete: WCRR YARD and 30-69 from OPERATIONS to WARM.
1745 Securing the watch.

No further entries

SIGNATURE [illegible] DATE 2-29 20 12
READ AND UNDERSTOOD DATE 20

PROJECT NAME WCRR SDS Log Book NOTEBOOK NO.

2342
0600 Reviewed SDS Turnover Assuming SDS Position. [illegible]
0610 SHIFT BRIEF Being Conducted
0640 SHIFT Brief Concluded
0645 Conducting brief on FRPR by RCT's
0802 Reviewed Panels
0821 LATE ENTRY 0230 Operator notified when performing rounds operators noticed that window was cracked more than previous.
0840 LATE ENTRY 0822 MODE CHANGE COMPLETE
0820 Pre Job on putting clips on drum lift
0955 Pre-Job Concluded
1130 Completed putting on clips and DOP 0305 and DOP 0306.
1210 Exited CCD
1221 Mode Change complete operations in Yard & Building
1310 Started De-Nesting Drums
1350 De-Nesting is complete & the operators are going to bag on first drum
1545 Reviewed Inside and outside panels
1450 Mode Change Complete
1700 END OF SHIFT SECURING SDS POSITION [illegible]

No Further Entries on this page

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

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 91013

6.2[4] Date Processed: 10-25-12

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.: 019865
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: Eddie Rios / Eddie Rios 1878221 10-25-12
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 91013

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 409.4 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) 409.4 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.: 91013

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92248	92249		
10.1[4]	Daughter Drum Filter No.	AM-784	AM839		
10.1[4]	Daughter Drum Bag Filter No.	L-3672	L-3684		
10.1[4]	Daughter Drum Purchase Order No.	416189	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)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	12 ozs	12 oz's		
10.3[7][A]	Opaque/Non-penetrable Item Description:	none	none		
10.3[9][A]	PCB-contaminated Waste Description	none	none		
10.3[9][B]	PCB Item ID No.	none	nor		
10.3[10]	Remaining Waste Description	See Comments			
10.3[13]/10.4[10]/10.5[4]/10.6[8]	Daughter Drum % Full (%)	60%	100%		
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.: 91013

Comments: Plastic, stubs, nitrate salts, kitty litter, split into (2) daughter drums.

11.1[1] Performed By: Eddie Rios / Eddie Rios 188824 10-25-12
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: Jose Jerez / [signature] 122452 10 26 12 0800
SOS or designee (print) Signature Z # Date/Time

3

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:
Purchase Order No.: 413957
Lot No.: 211826
Manufacture Date: 10

5.[8] Overpack filtered vent information:
Manufacturer: NucFil
Model No.: 013
Serial No.: HL-813
Manufacture Date: 8-11

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: Steven Mondragon / Steven Mondragon 104741 / 10-23-12
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 104741 / 10-23-12
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: Eddie Rios / Eddie Rios 188824 10-25-12
Supervisor or designee (print) Signature Z# Date
Jose Jerez Jose Jerez 221452 10-26-

Working Copy
Date: 10-25-12

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92250

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 040329
Cal. Expiration Date: 3-13-13
Range in ft-lb: 16-60
Tolerance: +-3%rdg / +-6%rdg

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 187822 10-25-12
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: 014065
Platform scale calibration expiration date: 7-31-13

7.[36][D] 85-gal overpack drum gross weight (lb): 167.2 lb

Comments: N/A

8.1[1] Performed By: Eddie Rios / Eddie Rios 187822 10-25-12
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] 224521 10-26-12
Supervisor or designee (print) Signature Z# Date

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

Drum ID#: 92248

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 #: 0229224
- 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 #: 6CPV 1.5-2.5PVC
- Serial #: L-3678
- 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 #: 0170D
- Serial #: AM-789
- 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:	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: Brandon Chavez Signature: [signature] Z#: 204772

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: 10-25-12

Verifier Print: Clyde Miller Verifier Sign: [signature] Z#: 240091 Date: 10/25/12

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

DRUM ID#: 92248

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 Seat 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): 281.2

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 10-25-12

Verifier Print/Sign: [illegible] Date: 10/25/12

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

Drum ID#: 92249

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 #: 414265
Lot #: 02279225
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 #: LCPVC1.5-2 SPVC
Serial #: L-31084
Date of Manufacture: 01-2012

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 #: AM-339
Date of Manufacture: 01-2012

RECORD torque wrench information

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	021151
Cal Expiration Date:	07-24-2013	Cal Expiration Date:	06-11-2013
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 certificates.

[x] Yes [ ] No

Print Name: BRIAN GALLEGOS Signature: [signature] ZS: 267125

5. Weigh Drum Assembly E.Rios 10-25-12

RECORD weight information

Tare wight (lbs): ~~56~~ 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: BRIAN GALLEGOS Operator Sign: [signature] ZS: 267125 Date: 10-18-12
Verifier Print: Eddie Rios Verifier Sign: [signature] ZS: 187822 Date: 10-25-12

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

DRUM ID#: 92249

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 Seat 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%ccw / +-6%cw

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.): 332.6

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: Eddie Rios Date: 10-25-12

Verifier Print/Sign: Clayton Mullins CM Date: 10/25/12

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

72

Production Control

Container ID: 91013 Container Type: 55-GAL Gross Weight (lbs): 405
Inner Seal #: None Filter Prefix: None Filter Serial #: CL-1386
K Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: PARENT #S851506
Total PE-Ci Activity: 2.11E+00 Equivalent Combustible PE-Ci: 7.92E-01 AM-241 PE-Ci: 1.71E-01
Total Fissile Gram Equivalents: 23.3 Total Surface Dose Rate (mrem/hr): 9
EPA Code(s): D008 D007 D009 JR 10/9/12
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 6/27/2012 Comment: Impenetrable, Liquid is present, S3000
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 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 L. Ramsey Z Number: 100681 Date: 9/4/12

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/debris
Not RCRA
Parent drum (SEDS attached) was part of WCRR nitrate salt repack campaign. This resulting daughter 55-gal drum may contain nitrate salts or a combination of nitrate salts and debris. RTR PS identifies impenetrable item(s) (likely homogeneous nitrate salts or debris such as lead) and liquids (requiring adjustment to the admixture/nitrate salt ratio). Nitrate salts carry waste codes for chromium, lead, and mercury. No chemicals present. May require RWP for >100 + < 1000 mrem/hr
Net Wt: 336 lb
Performed By: Valerie Rhodes (WDP Engineering (Print)) Valerie Rhodes Signature: Valerie Rhodes Z Number: 111260 Date: 10/10/12

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. Use Kevlar glove
Processing Determination: ☑ Accept ☐ Reject
TRU Remediation Operations Comments: Use proper ratio of kitty litter to waste in accordance with the procedure
Performed By: Jose Juarez (TRU Remediation Operations (Print)) Signature: Jose Juarez Z Number: [illegible] Date: 10-11-12
LL Z# 249750 10/15/12
HS Review: AB 206362 10.11.12

Noncertified TRU Waste Drum Item Information

DrumID: 019305

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Haz Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	G148199NN1		9.410	NITRATE SALTS		7.73	S2	6/14	G468	
2	G148199NE1		27.730	NITRATE SALTS		18.04	S2	6/14	G468	
3	DS202NE1		20.230	NITRATE SALTS		8.09	S2	6/14	G468	
4	LR300NE1		[illegible]	NITRATE SALTS		14.3	S2	6/14	G468	
5	MX201NN1		19.700	NITRATE SALTS		13.29	S2	6/14	G468	
6	GN149203		26.820	NITRATE SALTS		19.98	S2	6/14	G468	
7	DS204041		19.850	NITRATE SALTS		10.67	S2	6/14	G468	
8	DS204NN1		17.370	NITRATE SALTS		7.	S2	6/14	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 219.3

Material Type	SNM (grams)	Items Net Wt (kg)
S2	99.1	160.41
Totals	99.1	160.41

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 10/5/12

Container No. (5.[1])	91013					
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])	12.04 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	173.42 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: SARA ARAGON 237975
CCP (Print) I.#

Reviewed By: NATHAN WALES 238866
CCP (Print) I.#

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 RAMSEY, Susan J Ramsey 100684 10/10/12
Waste Handling Operator (print) Signature I.# Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121005c\
Data File : 91013.D
Acq On : 5 Oct 2012 2:02 pm (#1); 05-Oct-12, 14:01:52 (#2)
Operator : NW
Sample :
Misc : 55 gallon LFL drum through 019DS,unobstructed Sig #: . (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 05 14:10:09 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	3.600	96	6461061	201.25 ppmv	0.06
15) Chlorobenzene-d5	5.923	117	5713278	17[illegible].00 ppmv	0.05
Target Compounds					Value
1) Hydrogen	1.615	GC1	1226	1[illegible].42 ppmv	100
17) Toluene	4.886	92	215740	12.09 ppmv	93

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

PROJECT NAME _____ NOTEBOOK NO. _____

0000 Assuming WCRRF operations center - relaxed
0001 Starting inside and outside rounds
0035 Stack sampling complete
0038 Inside and outside rounds complete.
0700 Inside and outside rounds completed by SOS.
0717 Mode change performed TA50-69 and WCRRF yard now in operations.
0744 Bag on 90899
0751 ~~0810~~ 50 Bag on is complete.
0813 Starting movement to transport vehicle
0829 Permission granted to lower vehicle gates.
0910 movement to transport vehicle is complete, vehicle access gates have been restored.
0915 Starting movement out of 50-69
0923 movement out of 50-69 complete.
0927 bagging off 90899 and ~~bd~~ daughtering bagging on 91013.
0956 bag on is complete.
1150 bagging off 91013 and ~~off~~ daughtering bagging on 91092.
1217 bag on complete
1335 Permission granted to lower vehicle access gates to unload drums from transport vehicle
1354 Bag off is complete.
1410 Starting inside rounds.
1415 Starting to unload transport vehicle
1450 ~~off~~ loading of transport vehicle is complete vehicle access gates have been restored.
1451 Starting movement out of 50-69. Completed inside rounds.
1459 Starting outside rounds.
1500 movements are complete
1522 outside rounds complete
1526 late entry at 1510 mode change performed TA50-69 is in cold and WCRRF yard in warm mode CO
1550 CSE going into 50-69 to perform 6.31 ~~to perform~~ CO 2012. CSE will be going to the roof thru the puggaree roof hatch SOR has given him permission
1604 while CSE was performing check on roof, other bandwidth alarm for high pressure alarm.
1615 operator has completed verification check. alarm has been acknowledged. CSE has completed his checks of bldg.
1630 end of day WCRRF operations center secure - relaxed
1639

no further entries this pg

SIGNATURE _____ DATE _____ 20-
I HAVE UNDERSTOOD _____ DATE _____ 20-

10/25/12

0600 Assumed WCRR SOM position.

0615 Attended pre job brief conducted by SOS. Discussed using introductory part, how to access dose records, preparations for cold weather.

0717 Completed mode change: WCRR Yard / Bldg 50-69 from Warm / Warm to Operations / Operations.

0845 CSE for Bldg 50-69 Integrity after discussing w/ IH will check roof integrity by accessing thru Bldg 69 mezzanine hatch.

0940 Released W.O # 438157-01 50-54 (A) CAE-001 Shutdown

1000 Emerged ISI 6.3.1 w/ scheduling to perform this afternoon.

1030 Attended team meeting conducted by OM. Discussed plan to take both Bldg 50-69 and WCRR yard to Cold on 11/15/12 to 11-20-12 for maintenance

1510 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Cold.

1550 CSE is on site to complete ISI 6.3.1 Building Integrity Inspection. Allowing access thru mezzanine hatch for limited time. RP-1 completed survey @ hatch and identified no contamination.

1604 As expected received Bldg High pressure alarm on Allen Bradley due to hatch being opened

1615 Operator ~~[illegible]~~ 10/25/12 acknowledged alarm after CSE completed inspection and closed hatch. Bulding pressure back to normal as reported by operator.

1630 Secured SOM position

LJ
11-5-12

No further entries this page

12

10/25 12

10-25-12 WCRR 505 Log Book

0600 Assuming 505 position for the day. Jon Jay

0605 Starting Pre-Job brief. Discussed not being Complacent follow procedures and stay focused. 1 shipment out and 1 shipment in. Processing waste, possibly taking SWB's in to load salvage 55 gallon drums. Housekeeping at the end of the day. Deep to be In Cold by the end of the day for maintenance tomorrow. Talked about Cold weather, will need to start putting the eye wash indoors. Talk to the CSE to ensure all boilers are operating normal so that temperature stays above operating limits of 60°.

0700 Signed off on inside and outside rounds

0717 Mode Change. 50-69 and Yard are now in Operations.

0744 Bagging on first drum

1454 Inside rounds signed off

1510 Mode Change Complete. WARM Stand by in the yard Cold Stand by in 50-69.

1540 Signed off on outside rounds

1550 CSE going into 50-69 to finish building integrity surveillance last time he was here he didn't complete the roof

1604 Notified of alarm inside of 50-69. Possibly because of roof hatch being opened

1615 Operator 39 notifying that alarm is for high pressure alarm. Ventilation readings are all normal. CSE has completed his inspection.

10-25-12 1625 Securing 505 position for the day Jon Jay.
Jt 1629

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-RTR2-13-0105
Examination Date:	9/4/2013
Waste Container ID:	92248
Video/Audio Recorded Media Number:	LA-RTR2-13-0105 A&B
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:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 127.5 kg Tare Wt.: 33.4 kg Net Wt.: 94.1 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:	65 %

CCP Radiography Data Sheet

Waste Container ID: 92248

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal, hardware

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):	3.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	5.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	80.1
Soils (S):	
Total WMP Weight:	94.1

CCP Radiography Data Sheet

Waste Container ID: 92248

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:

Print Name	Signature	Date
Benito Maestas		9/4/2013

5851506

NDA 2000 Assay Report

Item Information

Item ID:	92248	Count Sequence Number:	23540
Operator:	D3PW2DK1\operator		
Assay Start:	9/5/2013 2:45:13 PM		
Description 1:	1LANDA1836		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 94.1 kg	Net:	94.1 kg
Container:	Volume: 208.0 l	Full:	65.0 %
Density:	0.700 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:	23540	Batch Number:	1LANDA1836
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:	92248	Analysis Date:	9/5/2013

Net Weight	94100.0 g		
Pu mass	2.59E+001	+-	4.09E+000 g
TRU Alpha Activity	3.16E+000	+-	7.26E-001 Ci
TRU Activity Concentration	3.35E+004	+-	7.71E+003 nCi/g
Pu-239 Equivalent Activity	3.21E+000	+-	7.26E-001 Ci
Pu-239 FGE	2.44E+001	+-	3.84E+000 g
Decay heat	1.01E-001	+-	2.40E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.99E-002	2.11E-005	3.94E-006	1.98E-006
PU238	2.37E-003	4.06E-002	6.40E-003	3.28E-005
PU239	2.43E+001	1.51E+000	2.38E-001	1.22E-003
PU240	1.56E+000	3.53E-001	5.57E-002	2.85E-004
AM241	3.66E-001	1.25E+000	6.83E-001	4.33E-002
PU241	3.00E-002	3.09E+000	4.87E-001	2.50E-003
PU242	5.19E-003	2.05E-005	3.23E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	4.09E-007
U233	<LLD	<LLD	0.00E+000	4.39E-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	1.31E-005
AM243	9.81E-004	1.96E-004	3.68E-005	5.86E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 9-9-13

ITR: _____ Date: 9/9/13

Automated Independent Technical Review

Count Sequence Number: 23540 Batch Number: 1LANDA1836
Counter ID: MCS HENC #1
Container ID: 92248
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 9/5/2013

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.
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: 9-9-13

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Attachment 4 – Flammable Gas Analysis Form

5851506

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

Waste Container ID: **92248**

BDR Number: **LA13FG2098**

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

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	107.19	
74-82-8	Methane	142.14	U
67-56-1	Methanol	189.93	
60-29-7	Ethyl Ether	0.96	U
75-35-4	1,1-Dichloroethylene	6.38	U
67-64-1	Acetone	34.74	
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\130909c\
Data File : 92248.D
Acq On : 9 Sep 2013 11:56 am (#1); 09-Sep-13, 11:55:23 (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 09 12:04:18 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	3.591	96	5067881	205.75 ppmv	0.07
15) Chlorobenzene-d5	5.891	117	3916546	177.50 ppmv	0.03
Target Compounds					Qvalue
1) Hydrogen	1.619	GC1	806m	107.19 ppmv	
4) Methanol	0.880	31	76912	189.93 ppmv	100
7) Acetone	1.425	58	52227	34.74 ppmv	83

(#) = 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-13-0002
Examination Date:	1/8/2013
Waste Container ID:	92249
Video/Audio Recorded Media Number:	LA-HERTR-13-0002 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.: 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:	90 %

CCP Radiography Data Sheet

Waste Container ID: 92249

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hardware

AM:

OM: Scrap lead

OI:

C:

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):	1.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	4.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.5
Organic Matrix (OR):	
Inorganic Matrix (IN):	110.1
Soils (S):	
Total WMP Weight:	117.6

CCP Radiography Data Sheet

Waste Container ID: 92249

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		1/8/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92249	Count Sequence Number:	21849
Operator:	D3PW2DK1\operator		
Assay Start:	1/16/2013 9:50:19 AM		
Description 1:	1LANDA1697		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
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:	90.0 %
Density:	0.630 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: 21849
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 14
Item ID: 92249

Batch Number: 1LANDA1697
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 1/16/2013

Net Weight	118000.0 g		
Pu mass	9.77E+000	+-	2.22E+000 g
TRU Alpha Activity	1.60E+000	+-	2.06E-001 Ci
TRU Activity Concentration	1.36E+004	+-	1.75E+003 nCi/g
Pu-239 Equivalent Activity	1.62E+000	+-	2.07E-001 Ci
Pu-239 FGE	9.95E+000	+-	2.10E+000 g
Decay heat	5.18E-002	+-	6.69E-003 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.96E-002	2.12E-005	3.71E-006	1.45E-006
PU238	8.98E-004	1.55E-002	3.53E-003	3.35E-005
PU239	9.17E+000	5.77E-001	1.31E-001	1.24E-003
PU240	5.86E-001	1.35E-001	3.06E-002	2.90E-004
AM241	2.51E-001	8.72E-001	1.56E-001	3.65E-002
PU241	1.17E-002	1.21E+000	2.75E-001	2.61E-003
PU242	1.96E-003	7.76E-006	1.77E-006	0.00E+000
SR90	7.96E-009	1.10E-006	3.14E-007	0.00E+000
CS137	1.25E-008	1.10E-006	3.14E-007	3.29E-007
U233	<LLD	<LLD	0.00E+000	3.07E-003
U234	1.59E-002	1.01E-004	2.81E-005	0.00E+000
U235	1.14E+000	2.49E-006	6.96E-007	1.66E-006
U238	<LLD	<LLD	0.00E+000	1.24E-005
AM243	7.66E-004	1.55E-004	2.73E-005	4.38E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-21-2013

ITR: Marita _____ Date: 1/24/13

Automated Independent Technical Review

Count Sequence Number: 21849 Batch Number: 1LANDA1697
Counter ID: MCS HENC #1
Container ID: 92249
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/16/2013

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.
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 Chumbe Date: 1-17-13

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Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92249**

BDR Number: **LA13FG8003**

Sampling Date: **1/24/2013**

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\130124c\
Data File : 92249.D
Acq On : 24 Jan 2013 3:16 pm (#1); 24 Jan 2013 3:15 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 24 15:54:48 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	3.253	96	2083586	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	1867750	179.50 ppm	0.00

Target Compounds	Qvalue

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

Working Copy
Date: 2-10-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 9107

6.2[4] Date Processed: 2-10-13

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, 008, 009

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: Frederico Arbulado / [signature] 2288226 / 2-10-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 91017

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 415.0 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) 415.0 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.

N/A

EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 94017

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92905		A	
10.1[4]	Daughter Drum Filter No.	KL-422			
10.1[4]	Daughter Drum Bag Filter No.	L-6184	N		
10.1[4]	Daughter Drum Purchase Order No.	501011			
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			
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	A			
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				
10.3[5][A]	Free Liquid Volume/Units	16 oz		A	
10.3[7][A]	Opaque/Non-penetrable Item Description:	N			
10.3[9][A]	PCB-contaminated Waste Description	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 (%)	100%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Stub out bags Her Armor 2 bags Kitty litter Kutes			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 91017

Comments: Room trash, plastics, Salts, P.O.C lids, cardboard, kitty litter, 16 oz free liquid, neutralizer, Hex Armor gloves, knifes.

11.1[1] Performed By: Frederick [illegible] / [illegible] 0258526 12-10 13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: [illegible] / [illegible] 123654 12/13/13 1712
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 2-6-13 jl

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 415525
Lot No.: 0220649
Manufacture Date: 11

5.[8] Overpack filtered vent information:

Manufacturer: NUCFIL
Model No.: 013
Serial No.: JL 1920
Manufacture Date: 10-11

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

	Filtered Vent	2 in. Bung
M&TE No.:	040694	0393169
Cal. Expiration Date:	9-26-13	12-18-13
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: Gerald Espinoza / [signature] 1237720 / 2/6/13
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] 1237720 / 2/6/13
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: B. Fordham / B. Fordham 235635 / 2/13/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 2-10-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 92906

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 038367
Cal. Expiration Date: 3-16-13
Range in ft-lb: 10-80
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: Frederick Dahlek / [signature] 228826 / 2-10-13
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): 325.6 lb

Comments: No Comments

8.1[1] Performed By: Frederick Dahlek / [signature] 228826 / 2-10-13
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: B. Forsman / [signature] 235635 2/13/13
Supervisor or designee (print) Signature Z # Date

Working Copy

Date: 2-7-13

Preparing and Closing 55-Gallon Daughter Drum Assemblies

Procedure No:	EP-WCRR-WO-DOP-0221
Revision:	7
Effective Date:	2/18/09
Page:	13 of 14
	UET

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

Drum ID#: 92905

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 #: 501011
Lot #: 0233370
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 #: LCPVC 1.5-25pvc
Serial #: 26184
Date of Manufacture: 11/12

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 #: KL-422
Date of Manufacture: 11/11

RECORD torque wrench information:

Filter torque wrench:
M&TE ID #: 040694
Cal Expiration Date: 9-26-13
Range (ft-lbs or in-lbs): 40-200
Tolerance: +/- 4% cw and +/- 6% ccw

Jam Nut / Bung torque wrench:
M&TE ID #: 038369
Cal Expiration Date: 12-18-13
Range (ft-lbs or in-lbs): 10-80
Tolerance: +/- 2% cw and +/- 6% ccw

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

☑ Yes ☐ No

Print Name: Kevin Belusczak Signature: [signature] Z#: 238199

5. Weigh Drum Assembly

RECORD weight information

Tare wtight (lbs) 76.2
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: Kevin Belusczak Operator Sign: [signature] Z#: 238199 Date: 02/07/13

Verifier Print: Frederick Archibald Verifier Sign: [signature] Z#: 278320 Date: 2-10-13

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

DRUM ID#: 92905

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 # : 038367

Cal expiration date: 3-16-13

Range/ Value (ft-lbs): 10-80

— 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.): 294.2

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: 2-10-13

Verifier Print/Sign: B. Haire Date: 2-10-13

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

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Production Control

Container ID: 91017 Container Type: POC Gross Weight (lbs): 411

Inner Seal #: None Filter Prefix: None Filter Serial #: EL-323; EL-402

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

TWSR Comments: PARENT #S851506 WTS-12STD-861

Total PE-Ci Activity: 2.11E+00 Equivalent Combustible PE-Ci: 7.92E-01 AM-241 PE-Ci: 1.71E-01

Total Fissile Gram Equivalents: 23.3 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 ve 10/4/12

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 1.0 volume 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: 9/11/12

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: 101 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: 10/4/12

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. Utilize hexarmor gloves & tools to handle 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: 122452 / Date: 10-11-12

OK Z# 249750 10/19/12

IHS REVIEW AB 206362 10.9.12

Noncertified TRU Waste Drum Item Information

DrumID: 019305

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	O148199NW1		9.410	NITRATE SALTS		7.73	52	6/14	G468	
2	O148199NE1		27.730	NITRATE SALTS		18.04	52	6/14	G468	
3	DS202NE1		[illegible]	NITRATE SALTS		8.09	52	6/14	G468	
4	LR200NE1		[redacted]	NITRATE SALTS		14.3	52	6/14	G468	
5	MX261NW1		19.700	NITRATE SALTS		13.29	52	6/14	G468	
6	OX149203		26.820	NITRATE SALTS		19.98	52	6/14	G468	
7	DS204041		19.550	NITRATE SALTS		10.67	52	6/14	G468	
8	DS204NW1		17.270	NITRATE SALTS		7.	52	6/14	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 219.3

Material Type	SNM (grams)	Items Net Wt (kg)
52	99.1	160.41
Totals	99.1	160.41

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])	91017					
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])	120.99 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~~ CW 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 : 91017.D
Acq On : 3 Oct 2012 4:03 pm (#1); 3 Oct 2012 4:02 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 16:10:46 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	2157766	206.00	ppm	0.00
15) Chlorobenzene-d5	5.936	117	1931455	179.50	ppm	0.00
Target Compounds						Qvalue
4) Methanol	0.788	31	24603	120.99	ppm	100

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

Vocgas.m Wed Oct 03 16:10:59 2012

2-10-13
0600 Assuming WCRRF Operations center - Cleland.
0614 Starting outside rounds.
0615 Pre job briefing being conducted by SOS.
0637 Item #1 is OOS, POD in place, OK to continue
0640 Item 3 is unsat, FSR in place, OK to continue.
0644 Inside rounds complete.
0709 Inside and outside rounds signed off by SOS
0722 mode change performed TA50-69 and WCRRF yard now in operations.
0730 bagging on 90988 PPE Check is sat.
0746 starting movement out of 50-69
0756 bag on, bag off complete, PPE Check is sat
0802 movement complete out of 50-69.
0841 bagging off 90988, bagging on 91009. PPE Check is sat.
0855 Starting movement into 50-69
0904 bag on, bag off complete. PPE Check is sat
1051 bagging off 91009, bagging on 91010, PPE Check is sat
1101 SOS notifying operations center that the auto roll up door will not go up or down. SOS has contacted SOM.
1118 SOM contacted maintenance on door. maintenance will not be able to come in till tomorrow 2-11-13.
1120 bag on, bag off complete.
1200 bagging off 91010, bagging on 91011. PPE Check is sat.
1230 bag on, bag off complete.
1415 starting inside rounds. PPE Check is sat
1422 Item #1 is OOS, POD in place, OK to continue
1438 bagging off 91011 and bagging on 91017.
1500 bag on, bag off complete. PPE Check is sat.
1503 starting outside rounds
1512 Starting movement out of 50-69.
1525 Item #3 is unsat, FSR in place, OK to continue.
1530 Completed outside rounds.
1531 movement out 50-69 is complete.
1542 Rounds have been signed off by SOS.
1557 Bagging off 91017, bagging on 90987 PPE Check is sat
Continued on next page - checklist.

2-10-13 Continued from previous page - Orlando.
1614 bag on, bag off complete
1705 starting bag 076 of 90987
1734 bag off is complete
1745 mode change performed 50-69 and WCRRF yard now in warm standby.
2-10-13 1830 end of day WCRRF Operations Center secure
HH

no further entries this page

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PROJECT NAME 2/10/13 NOTEBOOK NO.

0600 Assumed WCRR SOM position. R

0615 Attended pre-job brief conducted by SOS. Discussed yesterdays wo and lessons learned. Talked about CSE approved placing of clear tape on drum lift pin clips. Operator #15 stated it makes it easier to inspect while drum lift is moving and will help in keeping clips in place.

0722 Completed Mode Change: WCRR ~~Delta~~ 2/10/13 yard / Bldg 50-69 from Warm / Warm to Operations / Operations.

1105 Notified by SOS that Arctic door is stuck in open position - will not operate manually either direction. Operating chain pulley just freewheels on shaft.

1118 Contacted MSS - they have no one on site today to look at it but will tomorrow. SOS was able to get door to lower by manual means but is difficult to operate

1500 SSW identified that the last 2 annual drum lift inspection surveillences did not have pictures attached. Also a block on 4/14/12 surveillence was not filled in by operator. Researching location of pictures possibly attached in emails to/from CSE's, stored on share drives, etc.

1710 Operator #59 who completed surveillence on 4/14/12 on drum lift for post maint. testing recalled no issues with drum lift - specifically the rollers which had not been marked SAT. Operator made comment on surveillence form, initialed, dated and SOM reviewed entry. Verified by past SOM log entries that drum lift was operable for that day.

1745 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Warm.

1830 Secured SOM position. R

2-20-13

No further entries this page

SIGNATURE R DATE 2/10 20 13

READ AND UNDERSTOOD DATE 20

2-10-13 WCKK SOS LOG Book

0600 Assuming SOS Position [illegible]

0615 Conducted shift brief discussed drum lift issues need to keep an eye on them

0635 Concluded shift brief

0709 Reviewed Inside and outside Rounds

0722 Mode Change Complete WCRRF In operations.

0730 bagging on 90988 PPE Check sat

0756 PPE check sat

0841 bagging off and bagging on 9K09 PPE check sat

0910 Operators noticed that drum on WC6 was going to take more time than usual salts were very difficult to break up.

0951 Bagging off and bagging on 91010 PPE check sat

1200 Bagging off and bagging on 91011 PPE check

1230 Operators breaking for lunch

1330 Operators entering from lunch

1438 bagging off and bagging on 91017 PPE check sat

1542 Reviewed Inside And outside Rounds

1557 Bagging off and bagging on 90987 PPE check sat

1705 Bagging off last drum of day Processed 6 Drums 6 Daughter was result.

1745 Mode change Complete WCRRF In warm

2-10-13 1830 End of shift securing SOS Position [illegible]

HM

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-RTR2-13-0027
Examination Date:	2/15/2013
Waste Container ID:	92905
Video/Audio Recorded Media Number:	LA-RTR2-13-0027 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.: 133.5 kg Tare Wt.: 33.4 kg Net Wt.: 100.1 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:	70 %

CCP Radiography Data Sheet

Waste Container ID: 92905

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Utility knife, hardware, metal lid

AM:

OM:

OI:

C: Fiberboard

R: Rubber glove

XPM: 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):	20.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	10.0
Rubber (R):	1.0
Plastics (waste materials) (XPM):	1.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	68.1
Soils (S):	
Total WMP Weight:	100.1

CCP Radiography Data Sheet

Waste Container ID: 92905

Section 5: RTR Summary (Questions answered "Yes" will be explained in the Comment block, except for Question 1)	
Is there observable liquid?	TSH 2-19-13 ☒ Yes ~~☒ No~~ TSH 2-19-13
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~~ TSH 2-19-13
AFTER REVIEW OF RECORDING, OPERATOR AGREES I MISSED 30 MILS OF ACCEPTABLE LIQUID IN A PLASTIC BAG AT 22 INCES. THIS ATTACHMENT 2 REFLECTS MY CORRECTION. TSH 2-19-13

RTR Operator:		2-19-13
Thad Hasselstrom	Thad Hasselstrom	2/15/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92905	Count Sequence Number:	15105
Operator:	DCLTD231\Operator		
Assay Start:	2/22/2013 10:30:50 AM		
Description 1:	2LANDA1104		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 100.0 kg	Net:	100.0 kg
Container:	Volume: 208.0 l	Full:	70.0 %
Density:	0.690 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:	15105	Batch Number:	2LANDA1104
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92905	Analysis Date:	2/22/2013

Net Weight	100000.0 g		
Pu mass	6.53E+001	+-	1.23E+001 g
TRU Alpha Activity	1.30E+001	+-	4.48E+000 Ci
TRU Activity Concentration	1.30E+005	+-	4.48E+004 nCi/g
Pu-239 Equivalent Activity	1.31E+001	+-	4.48E+000 Ci
Pu-239 FGE	6.26E+001	+-	1.15E+001 g
Decay heat	4.23E-001	+-	1.49E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.71E-001	1.22E-004	2.24E-005	2.82E-006
PU238	6.00E-003	1.04E-001	1.95E-002	3.81E-005
PU239	6.13E+001	3.85E+000	7.23E-001	1.41E-003
PU240	3.92E+000	9.00E-001	1.69E-001	3.31E-004
AM241	2.34E+000	8.14E+000	4.41E+000	1.19E-001
PU241	7.75E-002	8.05E+000	1.51E+000	2.96E-003
PU242	1.31E-002	5.19E-005	9.74E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	8.22E-007
U233	<LLD	<LLD	0.00E+000	1.29E-002
U234	2.23E-002	1.41E-004	3.76E-005	0.00E+000
U235	1.60E+000	3.49E-006	9.31E-007	3.36E-006
U238	<LLD	<LLD	0.00E+000	2.39E-005
AM243	6.44E-003	1.30E-003	2.39E-004	1.87E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 2 28 13

ITR: _____ Date: 3/4/13

Automated Independent Technical Review

Count Sequence Number: 15105
Counter ID: HENC #2
Container ID: 92905
Waste Matrix Code: Homo Sol. S3000
Sequence Type:

Batch Number: 2202-7813 LANDA1104
Count Type:
Assay Date: 2/22/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis Add-a-Source WARNINGS: Add-a-Source correction factor is less than one.	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.
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: 2-25-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92905**

BDR Number: **LA13FG8015**

Sampling Date: **3/1/2013**

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\130301c\
Data File : 92905.D
Acq On : 1 Mar 2013 1:39 pm (#1); 1 Mar 2013 1:38 pm (#2)
Operator : NW
Sample :
InstName : Unit 8
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 01 13:46:47 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	2313107	206.00 ppm	0.00
15) Chlorobenzene-d5	5.933	117	2069637	179.50 ppm	0.00

Target Compounds Qvalue

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

UET Working Copy
Date: B.F. 2/9/13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 91018

6.2[4] Date Processed: 2-9-13

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, 008, 009

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: 7-21-13

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: Fabricio Rabiela / [signature] / 1228806 / 2-9-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 91018

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 380.8 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) 380.8 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:

N/A

EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 91018

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	92892			
10.1[4]	Daughter Drum Filter No.	KL-398			
10.1[4]	Daughter Drum Bag Filter No.	L-6186			
10.1[4]	Daughter Drum Purchase Order No.	501011			
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)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	16 oz			
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	Stale out bags kitty litter			

N/A

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 91018

Comments: Kitty litter, Salts, plastics, Room trash, P.O.C. lids, Card board, Neutralizer, 16 oz free liquid.

11.1[1] Performed By: [illegible] / [illegible] 220026 / 12-9-13
Waste Handling Tech (print) Signature Z# Date

11.1[7] Reviewed By: [illegible] / [illegible] / 1492351 2-10-13 0900
SOS or designee (print) Signature Z# Date/Time

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:
Purchase Order No.: 415525
Lot No.: 0220649
Manufacture Date: 2011

5.[8] Overpack filtered vent information:
Manufacturer: NUCFIL
Model No.: 013
Serial No.: JL-1904
Manufacture Date: 10/11

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

	Filtered Vent	2 in. Bung
M&TE No.:	040694	038369
Cal. Expiration Date:	9-26-13	12-18-13
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: Brandon Chavez / [signature] [illegible] 12-8-13
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: Brandon Chavez / [signature] [illegible] 12-8-13
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 Mh / [signature] 149035 2.10.13
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.: 92893

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 038367
Cal. Expiration Date: 3-16-13
Range in ft-lb: 10-80
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: Frederico Archuleta / [signature] 1228826 / 2-4-13
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): 326.4 lb

Comments: NO Comments

8.1[1] Performed By: Frederico Archuleta / [signature] 1228826 / 2-4-13
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 2.10.13
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 92892

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 #: 501021
Lot #: 07337270
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
- [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 #: GLOVE 1.5 - 25 PVC
Serial #: C-6196
Date of Manufacture: 11/2012

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: MULTI.
Model #: 01905
Serial #: KL-398
Date of Manufacture: 11/11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	039369
Cal Expiration Date:	9-25-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	+-4% ccw + +-6% cw	Tolerance:	+-3% cw +4-6° ccw

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

[x] Yes [ ] No

Print Name: Kevin Belusczak Signature: Kevin B Z#: 238199

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs) 76.2
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: Kevin Belusczak Operator Sign: Kevin B Z#: 238199 Date: 02/07/13

Verifier Print: Federico Archuleta Verifier Sign: [signature] Z#: 228826 Date: 2-9-13

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

DRUM ID#: 92892

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 # : 038367

Cal expiration date: 3-16-13

Range/ Value (ft-lbs): 10 - 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:

NA 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) 258.0

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: [illegible] Date 2-9-13

Verifier Print/Sign: [illegible] Date: 2-09-13

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

72

Production Control

Container ID: 91018 Container Type: POC Gross Weight (lbs): 377

Inner Seal #: None Filter Prefix: None Filter Serial #: EL-329; EL-391

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

TWSR Comments: PARENT #S851506 WTS-12STD-807

Total PE-Ci Activity: 2.11E+00 Equivalent Combustible PE-Ci: 7.92E-01 AM-241 PE-Ci: 1.71E-01

Total Fissile Gram Equivalents: 23.3 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 VR 10/4/12

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 (zeolite) must be mixed with 1.0 volume of nitrate salts.

Performed By: Susan Ramsey 100681 9/11/12

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: 67 1/2 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 [redacted] and mercury. No chemicals present. May require RWP for > 100 + < 1000 mrem/hr

Performed By: Valerie Rhodes 112609 10/4/12

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: Do not push or press on waste. Use proper PPE when processing waste, utilize hazmat gloves & tools to handle 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 Perez 224452 10-11-12

TRU Remediation Operations (Print) Signature Z Number Date

OK Z# 249750 10/10/12

IHS REVIEW: PB 206362 10.9.12

Noncertified TRU Waste Drum Item Information

DrumID: 019305

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	O148199NW1		9.410	NITRATE SALTS		7.73	52	6/14	G468	
2	O148199NE1		27.730	NITRATE SALTS		18.04	52	6/14	G468	
3	DS202NE1		[illegible]	NITRATE SALTS		8.09	52	6/14	G468	
4	LR200NE1		[redacted]	NITRATE SALTS		14.3	52	6/14	G468	
5	MX201NW1		19.700	NITRATE SALTS		13.29	52	6/14	G468	
6	OX149203		26.820	NITRATE SALTS		19.98	52	6/14	G468	
7	DS204041		19.550	NITRATE SALTS		10.67	52	6/14	G468	
8	DS204NW1		17.270	NITRATE SALTS		7.	52	6/14	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 219.3

Material Type	SNM (grams)	Items Net Wt (kg)
52	99.1	160.41
Totals	99.1	160.41

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])	91018					
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])	148.35 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	128.01 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~~ 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 — 90298 — Z # — 10.4.12 — Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\121003c\
Data File : 91018.D
Acq On : 3 Oct 2012 12:47 pm (#1); 3 Oct 2012 12:46 pm (#2
Operator : SA
Sample :
InstName : Unit 8
Misc : 55 GALLON LFL DRUM THROUGH FILTER-19DS FILTER
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 03 12:55:06 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 Unit	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.259	96	2433953	206.00 ppm	0.00
15) Chlorobenzene-d5	5.940	117	2106390	179.50 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.312	GC1	31628m	128.01 ppm	
4) Methanol	0.785	31	34028	148.35 ppm	100

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

Vocgas.m Wed Oct 03 12:55:38 2012

2/9/13 Assuming operations center - B. Fordham
0600 PRE-JOB BRIEFING BEING CONDUCTED BY SOS
0615 STARTING INSIDE ROUNDS AT 0633
0633 STARTING OUTSIDE ROUNDS AT 0644
0644 ITEM #61 on INSIDE ROUNDS IS OOS, POD IS inplace, ok to proceed
0656 ITEM #3 on outside ROUNDS IS UNSAT, FSR inplace, ok to proceed
0657 INSIDE ROUNDS complete
0658 completed outside Rounds at 0711
0711 ROUNDS HAVE BEEN SIGNED OFF BY SOS
0713 Computer issues, DATABASE IS DOWN, unable to track TSR's
0837 MANUALLY VERIFIED TSR TRACKING, UPDATED THE STATUS BOARD
0840 MODE CHANGE TO operations
0845 BAGGED on S823165 PPE CHECK SAT
0851 BAGGING OFF AND BAGGING on 90973
0949 BAGG on complete
1024 Pausing work due to PIN FALLING OFF OF THE DRUM LIFT CREW WAS placed everything in a SAFE configuration.
1032 Continuing work PER SOM, to finish processing current DRUM on the lift and the glovebox after processing this DRUM facility will go to cold so maintnance can fix drum lift, PPE CHECK SAT
1033 Ops MANAGER notified, with his concurance "imediate operability determination" performed, statusing the DRUMLIFT as operable. Do not need to go to cold CAN be performed in warm
1036 MOVEMENT OF 8 drum out of facility to transportainers
1109 Movement out of facility complete
1127 DRUM # 90973 Being BAGGED OFF AND ANOTHER DRUM is not being bagged on, mechanics are coming to replace pins on drum lift, PPE CHECK SAT.
1147 Bagoff complete, facility is in a safe configuration.
1208 FACILITY IS IN WARM STANDBY MODE, MODE CHANGE PERFORMED IN ORDED TO FIX THE DRUMLIFT, MECHANICS ARE ON Sight
1245 MECHANIC ENTERING THE FACILITY TO REPAIR THE CLIPS ON THE DRUM LIFT
1320 operators are conducting drum lift inspection as part of post inspections upon mechanics fixing the DRUMLIFT
1358

continued on next page B. Fordham

- Int daughter 91011

2-4-13 continued from Previous Page B. Fordham

1400 Drumlift inspection complete
1412 Drumlift inspection signed off by CSE
1429 Mode CHANGE TO operations mode
1434 Bagging on 91002
1447 BAG on complete PPE CHECK SAT
1455 STARTED INSIDE ROUNDS
1512 Item #61 on inside Rounds is OOS, POD inplace, ok to pr
1518 completed inside Rounds
1527 BAGGING OFF AND BAGGING on Drum #91018
1553 BAG on complete PPE CHECK IS SAT
1600 STARTED outside rounds
1606 Item #3 on the outside rounds is unsat, FSR inplace ok to proceed.
1620 outside Rounds complete
1621 BAGGING on and bag off, bagged on Drum #90997
1623 SOS signed off on afternoon rounds
1645 BAG on complete PPE CHECK IS SAT
1740 BAGGING OFF LAST DRUM PPE CHECK IS SAT
1752 BAG OFF complete facility is in a safe configur
1800 Mode change to warm standby
2-4-13 1830 END OF DAY WCRRF IS SECURE B. Fordham
8:00 AM

NO MORE ENTRIES THIS PAGE

2/9/13

0600 Assumed WCRR SOM position after reviewing SOM turnover checklist. L

0615 Attended pre-job brief conducted by SOS. Safety topic was use of AED's. Discussed ensuring all paperwork is completed – specifically drum prep paperwork.

0715 Notified by OCO and SOS that data base is down – both FRI and Oracle – prevents MAR tracking and printing labels. Notified OM.

0720 Identified scheduled RCRA inspector scheduled for day off. Area G backup is not available. Contacted off-shift RCRA inspector and will come in to work during AM.

0830 Verified that Oracle portion of data base is on-line. Able to print labels => processing of inventory already in building can take place.

0840 Verified from status board and round sheets completed that all SR's / ISI's are current for LCO/TSR tracking requirements.

0845 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm/Warm to Operations / Operations

1015 All functions of data base are working. SOS having personnel prepare for inventory movement out of Bldg 50-69.

1025 RCRA inspections completed, SAT.

1032 Notified by OCO that a drum lift pin clip had fallen off from the belly band. Drum had just been bagged on when identified.

1036 Notified OM of drum lift issue – with his concurrence performed an immediate operability determination (IOD) and statused the drum lift as operable. Notifying CSE and MSS of problem. Will process drum currently on WCO to get inventory into safe configuration. SOS notifying operators to perform frequent inspections of belly band pin.

1130 MSS will have a mechanic here @ 1300. CSE on call contacted and will be available to sign off PMT. OM updated to status.

1245 Completed Mode Change WCRR ~~Op~~ MAR 2/4/13 Yard / Bldg 50-69 from Operations / Operations to Warm / Warm

1300 Released WO # 454327-01 TA-50-69 TSR Drum Lift – to reinstall pin clips.

1317 MSS and operations going into facility to repair / inspect drum lift.

1425 Drum Lift work completed and signed off by CSE.

1429 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm / Warm to Operations / Operations

1800 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Warm

1830 Secured SOM position. L

L 2-20-13

2/9 3

2-9-13 WCRR SOS LOG BOOK

0600 Assuming sos position [signature]

0615 Conducted shift brief.

0635 Concluded shift brief.

0723 Reviewed Inside and outside Rounds

0745 having Issues with Database It is Down.

0840 manually Verified TSR Tracking. Updated status Board

0845 mode change complete WCRRF In operations

0851 Bagged on first drum of day 5823165 PPE Checksat

0949 Bagging off and bagging on 90973 PPE Check sat

1032 Notified by inside Personel That Pin on lift Removed off

1033 Per Sorm Finish processing drums on After processing drum will go to warm to perform repairs.

1076 Per om drum lift declared operable.

1147 Drum 90973 will be bagged off and will not bag nothing on to do maintanance on lift, w/ PPE Check sat

1238 Maintannance Crew arrived to replace clip on pin.

1315 Maintanance entering Facility to perform work

1406 2 clips were replaced on lift maintanance complete Also Inspection Complete need CSE sighn off. CSE Is here.

1407 Late entry mode change complete WCRRF In warm 1245 GM

1412 Inspection sighned off by All needed.

1439 Mode Change Complete WCRRF In operations

1442 bagged on 91002 PPE check sat

1527 bagged off and bagging on 91018 PPE check sat

1621 bagging off and bagging on 90997 PPE check sat

1623 reviewed inside and outside Rounds.

1740 Bagging off last drum of Day

1800 Mode Change Complete WCRRF In warm

2-9-13 1830 End of shif securing sos Position [signature]

HM

no further entries on this page

CCP Radiography Data Sheet

S851506

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0028
Examination Date:	2/19/2013
Waste Container ID:	92892
Video/Audio Recorded Media Number:	LA-RTR2-13-0028 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.: 116.5 kg Tare Wt.: 33.4 kg Net Wt.: 83.1 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:	80 %

CCP Radiography Data Sheet

Waste Container ID: 92892

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal hardware, metal lid

AM: Respirator filters

OM: Scrap lead

OI:

C: Fiberboard insert sleeve (cut up), fiberboard

R:

XPM: Plastic bag, 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):	2.5
Aluminum-based Metals / Alloys (AM):	0.2
Other Metals (OM):	6.0
Other Inorganic Materials (OI)	
Cellulosics (C):	5.0
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	65.4
Soils (S):	
Total WMP Weight:	83.1

CCP Radiography Data Sheet

Waste Container ID: 92892

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		2/19/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	92892	Count Sequence Number:	15171
Operator:	DCLTD231\Operator		
Assay Start:	3/1/2013 2:59:41 PM		
Description 1:	2LANDA1109		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 83.1 kg	Net:	83.1 kg
Container:	Volume: 208.0 l	Full:	80.0 %
Density:	0.500 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:	15171	Batch Number:	2LANDA1109
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	92892	Analysis Date:	3/1/2013

Net Weight	83100.0 g		
Pu mass	2.87E+001	+-	5.34E+000 g
TRU Alpha Activity	8.32E+000	+-	3.31E+000 Ci
TRU Activity Concentration	1.00E+005	+-	3.98E+004 nCi/g
Pu-239 Equivalent Activity	8.39E+000	+-	3.31E+000 Ci
Pu-239 FGE	2.70E+001	+-	5.02E+000 g
Decay heat	2.73E-001	+-	1.11E-001 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.09E-001	7.77E-005	1.18E-005	1.45E-006
PU238	2.63E-003	4.55E-002	8.50E-003	3.60E-005
PU239	2.69E+001	1.69E+000	3.15E-001	1.34E-003
PU240	1.72E+000	3.95E-001	7.37E-002	3.12E-004
AM241	1.78E+000	6.19E+000	3.30E+000	5.30E-002
PU241	3.40E-002	3.53E+000	6.59E-001	2.79E-003
PU242	5.74E-003	2.28E-005	4.25E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	7.73E-007
U233	<LLD	<LLD	0.00E+000	7.31E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.94E-006
U238	<LLD	<LLD	0.00E+000	1.42E-005
AM243	3.86E-003	7.79E-004	1.19E-004	9.25E-006

Errors quoted at 1.000 sigma

Operator: Marsha Fr Date: 3 6 13

ITR: Sam Barton Date: 3/6/13

Automated Independent Technical Review

Count Sequence Number: 15171 Batch Number: 2LANDA1109
Counter ID: HENC #2
Container ID: 92892
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 3/1/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis Add-a-Source WARNINGS: Add-a-Source correction factor is less than one.	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.
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: 3-6-13

S851506

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **92892**

BDR Number: **LA13FG8018**

Sampling Date: **3/14/2013**

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\130314c\
Data File : 92892.D
Acq On : 14 Mar 2013 12:57 pm (#1); 14 Mar 2013 12:56 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: Mar 14 13:06:07 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	2250288	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	2057153	179.50 ppm	0.00

Target Compounds Qvalue

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

Working Copy
Date: 4-10-13w

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 91019

6.2[4] Date Processed: 4/10/13

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: D001, D007, D005

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.: OR065
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: Gilbert Martinez, [signature], 149235, 4/10/13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B]	Parent Waste Container No.:	91019
5.[18]	Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable:	354.4 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)	354.4 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:	

N/A

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

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 91019

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	95442			
10.1[4]	Daughter Drum Filter No. Gm 4/10/13	~~L-6376~~	LM-554	N	
10.1[4]	Daughter Drum Bag Filter No.	L-6376	N/A		N
10.1[4]	Daughter Drum Purchase Order No.	50101L			
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		
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)			N	
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		N	
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	100%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Stub out bags		N	

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 91019

Comments: Plastic, Salt, POL LD, Cardboard
Wood

11.1[1] Performed By: Gilbert Martin, [signature] 145235, 4/10/13
Waste Handling Tech (print) Signature Z# Date

11.1[7] Reviewed By: B Forsyom, [signature] 123535 14/22/13 0955
SOS or designee (print) Signature Z# Date/Time

3/27/13 B.F.

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 50101d
Lot No.: ~~0[illegible]~~ 0133945
Manufacture Date: 2012

5.[8] Overpack filtered vent information:

Manufacturer: Nucfil
Model No.: 013
Serial No.: EL-325
Manufacture Date: 5-11

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

	Filtered Vent	2 in. Bung
M&TE No.:	040694	038369
Cal. Expiration Date:	9-26-13	12-18-13
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: Justin Lopez / [signature] 1266481 3-27-13
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: Justin Lopez / [signature] 1266481 3-27-13
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: Justin Lopez / [signature] 1266481 3-27-13
Supervisor or designee (print) / Signature — Z # — Date

4-10-13 W

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[19] Overpack Drum Unique Identifier No.: 93443

7.[25] Overpack drum closure ring torque wrench information:
M&TE No.: 058373
Cal. Expiration Date: 9-11-13
Range in ft-lb: 10 - 80
Tolerance: +/- 30% cw +/- 6% ccw

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

Performed By: Gilbert Martinez [signature] 149355 4/10/13
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): 3[illegible] lb

Comments: N/C

8.1[1] Performed By: Gilbert Martinez [signature] 149355 4/10/13
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: B. Forrison [signature] 235635 4/22/13
Supervisor or designee (print) Signature Z# Date

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

Drum ID#: 93442

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 #: 501011
Lot #: 0233413
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 #: 66cpvc1.525pvc
Serial #: 1-6376
Date of Manufacture: 11-12

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 #: LM-554
Date of Manufacture: 12-12

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	040694	M&TE ID #:	038369
Cal Expiration Date:	4-26-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	10-80
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: Brandon Chael Signature: [signature] Z#: 204742

5. Weigh Drum Assembly

RECORD weight information

Tare wtight (lbs): 76.2
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: Brandon Chael Operator Sign: [signature] Z#: 204742 Date: 3-3-13

Verifier Print: Gilbert Mk Verifier Sign: [signature] Z#: 149735 Date: 4/10/13

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

DRUM ID#: 93442

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 #: 038575

Cal expiration date: 9.11.13

Range/ Value (ft-lbs): 10 - 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:

NA 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): 219.8

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 4/10/13

Verifier Print/Sign: Steven Martinez Date: 4-10-13

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WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: 91019 Container Type: POC Gross Weight (lbs): 350

[illegible]ner Seal #: None Filter Prefix: None Filter Serial #: EL-379; EL-461

[illegible]X Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR

TWSR Comments: PARENT #S851506 WTS-12STD-866

Total PE-Ci Activity: 2.11E+00 Equivalent Combustible PE-Ci: 7.92E-01 AM-241 PE-Ci: 1.71E-01

Total Fissile Gram Equivalents: 23.3 Total Surface Dose Rate (mrem/hr): 1

EPA Code(s): D008 D007 D009 WR 10/4/12

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 [redacted] 1.0 volume of nitrate salts

Performed By: Susan Ramsey (Production Control (Print)) Signature: Susan B. Ramsey Z Number: 100681 Date: 9/11/12

WDP Engineering

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

[illegible]rocessing Determination: ✓ Accept Reject

[illegible]DP Engineering Comments: Nitrate Salts – POC

Net Wt: 40 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: 10/4/12

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 proper PPE when processing waste. Utilize heavy gloves & tools to handle 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 Perez (TRU Remediation Operations (Print)) Signature: [illegible] Z Number: 221452 Date: 10-11-12

Old Z# 249 750 10/11/12

IHS REVIEW RS 206362 10.9.12

Noncertified TRU Waste Drum Item Information

DrumID: 019305

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Mass Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	O148199NW1		9.410	NITRATE SALTS		7.73	52	6/14	G468	
2	O148199NE1		27.730	NITRATE SALTS		18.04	52	6/14	G468	
3	DS202NE1		[illegible]	NITRATE SALTS		8.09	52	6/14	G468	
4	LR200NE1		[redacted]	NITRATE SALTS		14.3	52	6/14	G468	
5	MX201NW1		19.700	NITRATE SALTS		13.29	52	6/14	G468	
6	GX149203		26.820	NITRATE SALTS		19.98	52	6/14	G468	
7	DS204041		19.550	NITRATE SALTS		10.67	52	6/14	G468	
8	DS204NW1		17.270	NITRATE SALTS		7.	52	6/14	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 219.3

Material Type	SNM (grams)	Items Net Wt (kg)
52	99.1	160.41
Totals	99.1	160.41

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])	91019					
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])	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: ~~NDAE~~ 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 : 91019.D
Acq On : 3 Oct 2012 3:30 pm
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 15:38:04 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	2147263	206.00 ppm	0.00
15) Chlorobenzene-d5	5.936	117	1945607	179.50 ppm	0.00

Target Compounds	Qvalue

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

Vocgas.m Wed Oct 03 15:38:16 2012

4-10-13
0600 Assuming WCRRF operations center - Cleland
0611 Starting outside rounds.
0615 Pre job being conducted by SOS.
0621 Starting inside rounds.
0622 Item #3 is unsat, FSR in place ok to proceed.
0636 Outside rounds complete.
0641 Item #1 is OOS, POD in place okay to proceed.
0649 Inside rounds complete.
0726 Rounds have been signed off by SOS.
0828 late entry at 0710 Item #13 is unsat, SOS, SOM, CSE notified
0829 late entry at 0735 operator notifying operations center that puddle is getting bigger form 4-10-13 SOS and SOM notified, SOM indicates ok to proceed
0843 Mode change TA50-69 and WCRRF yard now in operations
0850 Bagging on 3802599.
0900 Bag on complete.
1009 Bagging off 3802599 and 2 POCs, Bagging on 91019.
1033 Starting movement into 50-69.
1046 Movement into 50-69 complete.
1053 Bag off is complete.
1129 RCT notifying operations center that the roof is now leaking water on CABE, SOM has been notified
1137 Starting movement out of 50-69.
1153 movement complete out of 50-69
1341 Bagging off 91019, Bagging on 3802765
1410 Bag on complete and Bag off.
1519 Bagging off 3802765, Bagging on 3814899
1527 Starting outside rounds.
1531 Item #3 is unsat, FSR in place ok to proceed.
1536 Starting movement into 50-69.
1546 Bag on, Bag off complete.
1547 Outside rounds complete.
1554 movement complete into 50-69.
1555 Starting inside rounds
1600 Item #1 is unsat, POD in place ok to proceed.
continued on next page - Cleland

Continued from previous page - CVelande

1643 Bagging off 3814899 with 2 daughters

1645 Rounds signed off by SOS.

1715 Bag off complete

1743 Starting movement out of 50-69.

1758 Completed movement out of 50-69.

1759 Mode Change performed TA50-69 and WCRRF now in warm standby.

4-10-13 1830 End of day WCRRF operations center secure - CVelande

RPA
JJ

no further entries this page

0600 Assumed WCRR SOM position. R
0615 Attended pre job brief conducted by SOS. Discussed today's incoming shipment w/ High PEC drum (520 PEC.) - will set stationary fire watch when processing. RPI discussed Glove Box Safety Meeting items including new "Quick Glove Change System" that may be adaptable to the WCG.
0640 Called into morning FOD meeting. Stressed WCRR and DUS.
0700 Called into daily TA-54 SOM meeting.
0732 Completed Mode Change: WCRR Yard / Bldg 50-69 from Warm/Warm to Operations/Operations
0753 Completed 1st Bag on.
1035 Roofers and planner @ WCRR to scope roof repair. CSE on site as well.
1100 Attended weekly team meeting conducted by PM. Stressed WCRR and DUS work for today.
1330 Transport vehicle being unloaded - Drum S82466 w/ 520 PEC will be moved to transportainer vice inside 50-69. Waiting for input from CCP for splitting of drum contents prior to processing.
1600 Discussed options of roof repair w/ CSE and work planner based on previous job scope. 2 options presented - 1) Quick fix of patching where suspect leak is occurring w/ minimal cost / down time but also lower chance of fixing problem. 2) Placing a membrane material over ≈ 1/2 the roof area which involves a design change from CSE w/ increase cost and down time but better chance that leak is fixed and for longer term.
1650 Discussed roof repair options w/ Project Manager and decision is to patch repair the roof. Informed the CSE of decision.
1705 Confirmed w/ DUS SOS that 2 drums were vented today. One had a high install - re-vented and sampled successfully. DUS will have drum movements on Saturday for vented/unvented drums.
1758 Completed Mode Change: WCRR Yard / Bldg 50-69 from Operations / Operations to Warm / Warm.
1809 Sent daily production report to distribution.
1830 Secured SOM position. R

LJ
4-17-13

No further entries this page

R

SIGNATURE DATE 4/11 20 13
READ AND UNDERSTOOD DATE 20

4/11/13 WCRR SOS Log Book

0600 Assuming SOS position. CM

0615 Starting Pre-Job, discussed leak in the roof, practicing with a quick-change glove system on a mock up, as well as making sure to keep up alara.

0642 Completed Pre-Job.

0711 Signed off on the rounds.

0732 Mode change complete, WCRR yard and 50-69 are now in Operations.

0750 Movement into 50-69 complete.

0752 Bagged on first drum.

0836 Movement out of 50-69 complete.

0924 Bagging off 1 daughter and 1 POC, will continuing processing.

1035 Roofers entering WCRR yard to scope roof.

1109 Operator notifying operations center that RCT's will be changing CAM filters.

1115 Roofers exiting WCRR yard.

1117 ~~CF~~ CM 4-11-13 CAM filters have been replaced, CAM's back to running in normal range.

1141 Bag off/On complete.

1433 Bagging off 1 daughter and 1 POC, continuing to process.

1553 Shipment into WCRRF complete.

1633 Movement into 50-69 complete.

1724 Bagged off final drum.

1747 Signed off on the rounds.

1750 Movement out of 50-69 complete

1758 Mode change complete, WCRR yard and 50-69 in Warm Standby.

1810 Securing SOS position. CM

RMM

No Further Entries on this Page

S851506

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0086
Examination Date:	7/18/2013
Waste Container ID:	93442
Video/Audio Recorded Media Number:	LA-HERTR-13-0086 A&B
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.: 100.0 kg Tare Wt.: 33.4 kg Net Wt.: 66.6 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: 93442

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Metal hardware, metal lid

AM:

OM:

OI:

C: Fiberboard material

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):	15.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	12.0
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	33.6
Soils (S):	
Total WMP Weight:	66.6

CCP Radiography Data Sheet

Waste Container ID: 93442

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		7/18/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	93442	Count Sequence Number:	23275
Operator:	D3PW2DK1\operator		
Assay Start:	7/22/2013 11:48:22 AM		
Description 1:	1LANDA1813		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Debris S5000		
Container Type:	55 gallon drum		
Weight:	Net: 66.6 kg	Net:	66.6 kg
Container:	Volume: 208.0 l	Full:	85.0 %
Density:	0.380 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: 23275
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 14
Item ID: 93442

Batch Number: 1LANDA1813
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 7/22/2013

Net Weight	66600.0 g		
Pu mass	3.49E+000	+-	8.28E-001 g
TRU Alpha Activity	1.35E+000	+-	5.79E-001 Ci
TRU Activity Concentration	2.03E+004	+-	8.69E+003 nCi/g
Pu-239 Equivalent Activity	1.36E+000	+-	5.79E-001 Ci
Pu-239 FGE	3.29E+000	+-	7.77E-001 g
Decay heat	4.45E-002	+-	1.93E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.56E-002	1.83E-005	2.45E-006	1.62E-006
PU238	3.19E-004	5.53E-003	1.31E-003	3.43E-005
PU239	3.27E+000	2.06E-001	4.89E-002	1.28E-003
PU240	2.09E-001	4.81E-002	1.14E-002	2.99E-004
AM241	3.14E-001	1.09E+000	5.76E-001	2.35E-002
PU241	4.06E-003	4.22E-001	1.00E-001	2.62E-003
PU242	6.98E-004	2.77E-006	6.58E-007	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	3.04E-007
U233	<LLD	<LLD	0.00E+000	2.26E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	6.36E-007
U238	<LLD	<LLD	0.00E+000	7.82E-006
AM243	3.84E-004	7.76E-005	1.04E-005	3.01E-006

Errors quoted at 1.000 sigma

Operator: _____ Date: 7-24-13

ITR: _____ Date: 7-30-13

Automated Independent Technical Review

Count Sequence Number: 23275
Batch Number: 1LANDA1813
Counter ID: MCS HENC #1
Container ID: 93442
Waste Matrix Code: Debris S5000
Count Type:
Sequence Type:
Assay Date: 7/22/2013

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.
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: 7-23-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **93442**

BDR Number: **LA13FG2087**

Sampling Date: **7/24/2013**

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	54.45	
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\130724C\
Data File : 93442.D
Acq On : 24 Jul 2013 1:07 pm (#1); 24-Jul-13, 13:07:02 (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 24 13:15:36 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	3.496	96	4052418	205.75 ppmv	-0.02
15) Chlorobenzene-d5	5.842	117	3291203	177.50 ppmv	-0.02
Target Compounds					Qvalue
4) Methanol	0.834	31	17631	54.45 ppmv	100

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

S851682

S851682

Container 746952

File Options Reports Help

S851682

746952	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

S851682

S851682
- LA00000068357 – EMPTY
- LA00000068373
- LA00000068372
- LA00000068343

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
24.99	%			

Working Copy 9.11.13 GE
Date: ~~9-10-13~~ 9.11.13 GE

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S851682

6.2[4] Date Processed: 9-11-13

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: 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: Brandon Chavez / [signature] 1204742 / 9-11-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: S851682

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 463.6 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) 463.6 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:

EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: 5851682

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68372	68373		
10.1[4]	Daughter Drum Filter No.	KL-435	KL-493	N	
10.1[4]	Daughter Drum Bag Filter No.	L-6686	L-6684	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	Bop			
	Model No.	6cpvc1.525pvc			
	Serial No.	L-4857			
	Date of Manufacture	1-13		N	
10.2[5]	POC ID No	68343			
10.2[7][B]/10.2[6]	POC Item Description	Nitrate Salts		A	
10.2[13]	POC Assembly closed per Manufacturer's instructions. (Initial and Z#)	BC 204742			
10.2[14]	POC Assembly Gross Weight (lb)	358.8			
10.2[15]	POC Rad. Survey Results (mrem/hr)	1000			
10.3[3][A]	Approx. Containerized Liquid Vol./Units	N A	N A		
10.3[5][A]	Free Liquid Volume/Units	5 gal		A	
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead	Lead		
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	N	
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	100%	50%		
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.: S851682

Comments: Hex armor gloves, nitrate salts, Liquid, kitty litter,

11.1[1] Performed By: Brandon Chaez / [signature] 1241721 9-11-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: G mk / [signature] 1449075 / 9/16/17 0700
SOS or designee (print) Signature Z # Date/Time

ATTACHMENT 2
Page 1 of 1

Working Copy
Date: 8/27/13 HS

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501323
Lot No.: 0238025
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.: JL 1881
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: BRIAN GALLEGOS / Bri Gallegos / 267129 8-27-13
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: BRIAN GALLEGOS / Bri Gallegos / 267129 8-27-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Gilbert Martinez / [signature] / 149285 / 9/16/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 5
Page 1 of 1

Working Copy
Date: 9/11/13 HS

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68357

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: Brandon Chavez I [signature] [illegible] 9-11-13
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): 172.4 lb

Comments: N/C

8.1[1] Performed By: Brandon Chavez I [signature] [illegible] 9-11-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: G Mt I [signature] 149235 I 9/16/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 9-16-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68372

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 02410999
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC 1.5-2 SPNC
Serial No.: L-66686
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: Frederico [illegible] [illegible] 122[illegible] 9-10-13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NUCON
Model No.: 019DS
Serial No.: KL-435
Manufacture Date: 11-11

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.: 68372

Comments: N/C

5.[35] Performed By: Frederick Ashlock / [signature] / 1228826 / 9-10-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: G Mk / [signature] / 149235 / 9/16/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

Working Copy
Date: 9-11-13

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68372

6.[9] 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

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Branden Clouser / [signature] 204742 9/11/13
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.: 68372

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 272.2 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: Brandon Chavez / B 204742 9/11/13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] 149231 9/16/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 9-10-13 w

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68373

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.: 6CAC 1.5-2 SAC
Serial No.: L-6684
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: [illegible] [illegible] 122[illegible] 9-10-13
Operator (print) Signature Z# Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: ~~[illegible]~~ 019DS
Serial No.: KL-493
Manufacture Date: 11/11

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.: 68373

Comments: N/C

5.[35] Performed By: Frederick Peter / [signature] 122[illegible] 9-10-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: G [illegible] / [signature] 149235 9/16/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

Working Copy
Date: 9-11-13 w

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68373

6.[9] 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

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Brandon Chavez / [signature] [illegible] 9-11-13
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.: 68373

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 350.8 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 Chavez / [signature] / 120742 / 9/11/13
Operator (print) / Signature / Z # / Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] / 149035 / 9/16/13
Supervisor or designee (print) / Signature / Z # / Date

UET
Working Copy
Date: ~~9-10-13~~ 9-11-13 GE
9-11-13 DE

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 5851682

6.3[15] ($) 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): 463.6

6.3[19] ($) Prepared parent 55-gal drum weighs < 624 lb: (SR 4.5.1) ☑ SAT ☐ UNSAT

Comments: N/C

8.1[1] Performed By: Brandon Chavez / [signature] 1209142 / 9-11-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: G Mtz / [signature] 149235 / 9/6/13
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] M9235 / 9/6/13 / 0656
SOS/SOM or designee (print) Signature Z # Date Time

1947
SP72

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S851682 Container Type: 85-GAL Gross Weight (lbs): 482
Inner Seal #: 019315 Filter Prefix: LAVC Filter Serial #: 00681; 02499
RTR Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST 12
Total PE-Ci Activity: 1.70E+01 Equivalent Combustible PE-Ci: 6.39E+00 AM-241 PE-Ci: 1.43E+00
Total Fissile Gram Equivalents: 184.6 Total Surface Dose Rate (mrem/hr): 2
EPA Code(s): D007; D008; D009
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 7/9/2007 Comment: Liquids, Impenetrable Obj Liquid Location: 30
Certified RTR Comment: None

Prohibited Items: ☑ Sealed > 4 Liters ☒ Liquid ☒ Pressurized Container ☑ Impenetrable Item ☒ Other
2 WC 1/18/13
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 (Production Control (Print)) / Signature / 100681 (Z Number) / 12/20/12 (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.
Net Wt: 422# Generator info shows 6 drums of nitrate salts; weights range from 7-83#. No RTR BDR. Nitrate salts are typically packaged in plastic bags; undocumented liquids &/or debris may be present. RTR PS shows prohibited liquids & impenetrable object(s). No chemicals identified, applicable waste codes are for chromium, lead & mercury. Nitrate salts require repack w/ admixture

Performed By: Valerie Rhodes (WDP Engineering (Print)) / Valerie Rhodes (Signature) / 112609 (Z Number) / 1/18/13 (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 hexamicron gloves during processing.
Processing Determination: ☒ Accept ☐ Reject
TRU Remediation Operations Comments: USE Proper PPE And Kitty Litter Ratio.

Performed By: Gilbert Martinez (TRU Remediation Operations (Print)) / Signature / 149255 (Z Number) / 1/11/13 (Date)

HG Recovery Jolly Annulled CSP, may contain Hg Pb + Cr
1-29-13

Noncertified TRU Waste Drum Item Information

DrumID: 019315

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	DS213NW1		31.130	NITRATE SALTS		19.17	52	6/14	G468	
2	DS213NEI		37.380	NITRATE SALTS		36.97	52	6/14	G468	
3	OX152216NE		30.960	NITRATE SALTS		60.02	52	6/14	G468	
4	RR219URNW1		3.410	NITRATE SALTS		2.34	52	6/14	G468	
5	LR214NW1		22.730	NITRATE SALTS		37.51	52	6/14	G468	
7	OX153218NE		27.270	NITRATE SALTS		19.56	53	6/14	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 218.5

Material Type	SNM (grams)	Items Net Wt (kg)
52	156.01	125.61
53	19.56	27.27
Totals	175.57	152.88

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 7/9/13

Container No. (5.[1])	S851682					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-gal overpacked in 85-gal drum					
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])	36.08 ppm	ppm	ppm	ppm	ppm	ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	1144.67 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: Erik Loechell (CCP (Print)) 234183 (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 G. Ramsey (Signature) 100681 (Z #) 7/10/13 (Date)

12

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130709c\
Data File : S851682.D
Acq On : 9 Jul 2013 12:51 pm (#1); 09-Jul-13, 12:50:49 (#2)
Operator : NW
Sample :
Misc : 55 GAL DRUM THROUGH UNOBSTRUCTED 72 FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 09 13:00:02 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	3.500	96	4580092	205.75	ppmv	-0.02
15) Chlorobenzene-d5	5.842	117	3661699	177.50	ppmv	-0.02
Target Compounds						Qvalue
1) Hydrogen	1.607	GC1	8607m	1144.67	ppmv	
4) Methanol	0.838	31	13204	36.08	ppmv	100

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

vocgas.m Tue Jul 09 13:00:14 2013

9-11-13 9-11-13

0610 ~~0600~~ 9-11-13 HS Assuming WCRRF OCO position - CVCleveland

0610 ~~0600~~ ASSUMING WCRRF OCO POSITION IN TRAINING HSMITH

0615 PRE-JOB CONDUCTED BY SOS

0635 PRE-JOB CONCLUDED

0655 OPERATORS ENTERING FACILITY

0750 MODE CHANGE TO WARM WCRRF AND TA50-69

0755 TECHNICIANS ENTER TA50-69 TO WORK ON PCM AND HFM, BOTH BACK IN SERVICE,

0830 TECHNICIANS EXIT BUILDING WORK COMPLETE

0832 MODE INCREASE TO OPERATIONS FOR WCRRF YARD AND TA50-69

0833 BAGGING OFF, BAGGING ON S851682

0908 STARTING MONTHLY VALVE ALIGNMENT

0915 BAG OFF COMPLETE

0927 PERMISSION GRANTED TO LOWER ACCESS GATE FOR SHIPMENT OUT

1027 SHIPMENT COMPLETE, VEHICLE ACCESS GATE RESTORED.

1027 NOTIFIED BY RCT SUPERVISOR, RPO WILL BE EXECUTED DUE TO EVENT ON PREVIOUS SHIFT.

1150 BAG OFF ONE DAUGHTER AND ONE POC AND CONTINUE THE PROCESS

1220 BAG ON BAG OFF COMPLETE

1230 OPERATORS EXIT BUILDING FOR LUNCH

1354 OPERATORS ENTER BUILDING TA50-69 TO CONTINUE PROCESSING.

1537 BEGIN OUTSIDE ROUNDS

1538 STARTING INSIDE ROUNDS

1550 ITEM #19 IS UNSAT, FSR IN PLACE, OKAY TO PROCEED PER CSE DOCUMENTATION

1551 ITEM #63 IS OOS, POD IN PLACE OKAY TO PROCEED PER CSE DOCUMENTATION

1609 COMPLETED INSIDE AND OUTSIDE ROUNDS

1625 STARTING TO DENEST 1 9-11-13 HS DRUMS

1642 DENESTING COMPLETE AND BAGGING ON S852513

1645 OUTSIDE ROUNDS SIGNED OFF BY SOS

CONTINUED ON NEXT PAGE —HSMITH

9-11-13 CONTINUED FROM PREVIOUS PAGE HSMITH

1718 BAG OFF COMPLETE

1726 NOTIFIED BY OPERATORS, WHILE BAGGING OFF PARENT DRUM, HOLE DISCOVERED IN BAG, IMMEDIATELY TAPEDOVER HOLE PERSONNEL RECIEVED WHOLE BODY FRISK RESULTS WERE NDA. NO DIRECT CONTAMINATION ~~DECTED~~ 9-11-13 HS DETECTED AND SMEARS ARE BEING COUNTED. PARENT IMMEDIATELY OVER PACKED.

1732 9/11/13 HS INSIDE ROUNDS REVIEWED BY SOS

1743 BEGINNING MOVE OUT OF TA50-69 TO TA50-194/75

1744 9/11/13 HS OPERATIONS NOTIFIED BY RCT'S ALL SMEARS ON DRUMS AND AREA ARE NDA.

1815 BEING RELIEVED BY OCO TERRI COLEMAN HSMITH--

HS 9-11-13 CVCleveland.

No further entries this page.

DAYSHIFT WCRR - SOM 9-11-13

0610 Reviewed shift turnover checklist and assumed the SOM position [signature]

0614 Reviewed and approved the dayshift watchbill.

0641 Completed attending the pre-job brief conducted by the SES (Gilbert) The safety message discussed was lifting techniques and if an unsafe condition is noted, stop and notify the supervisor and Operations Center. Transfers are scheduled today. The SOS provided a facility status with drums. The RP1 supervisor indicated all surveys come back NDA. The plastic on the floor used for de-nesting was misted, rolled up and thrown away. The parent drum currently needs weighing. Drum movements were discussed.

0705 Could not get thru on AM phone call to SOM - AREA - G

0726 Late entry for 0655 Operations entering 50-69 facility to

0730 Discussed with PAT the priorities to transfer out drums, then perform a transfer in to restock Parent drums.

0745 The PCM2 techs arrived and obtained a brief (RWP) to enter 50/69. As a result we requested operations to prep and obtain supplies prior to initiating bag cut/bag off of Parent Drum.

0750 Mode change: 50/69 and Yard Transition from Operations/Operations to WARM WARM.

0825 The PCM techs required the PCM-2 - it required a circuit board replacement and the footprobe replacement.

0832 Mode Change: 50/69 and Yard transition from WARM/WARM to Operations/Operations.

0920 Discussed with WMC the need to get all LLW inventoried into WCATS. Notification was made to WMC and OM was notified.

0923 Late entry for 0915, Operations completed bag off and Bag on of Parent Drum 5851682

0927 Operations completed transfer of 20 drums onto the Transfer Vehicle.

1040 WO# 00454468-01 - 50/69 - T3R (m) Valve Alignment Inspection 9.24 was completed and the status board updated. All valves were noted SAT. There was mud in one valve. Also the valve box and cover required repair. A request was made to Utilities and phone call follow up was conducted. Also proper labeling required. Notification was made to the CSE.

1150 Inside operators report bagging off 1 daughter and 1 PBC and will continue to process.

(Continued on next page)

DAYSHIFT SOM 106 (cont) 9-11-13

1230 Completed daily update tele conference call with OM, PM, SOM on ES. Discussed WCATS and transfer out updates, also discussed Annual Drum Inspection

1415 Approved WO# 463186-01 to replace the WFI cylinders on the WWI Bial. RWP brief provide by RCT.

1457 Discussed with the OM and RP-1 the use of the TA-50-69-102-WCRR, facial wipes - Operations will obtain ES/IH approval signature and RP-1 approval signature on the form and brief operators with signature roster to implement.

1520 SOM exited WCRR to attend interview at TA-46 for B90 implementation

1630 SOM returns to WCRR [signature]

1654 Due to torque wrenches - 1 out of calibration, Operator AID 50-10-01 R25 was removed and new operator AID Revision 26 was posted.

1655 Late entry for 1627hrs - RP-1 indicates an RPO will be written for prior shift incident with operator / walk across area of contamination.

1718 Operators complete Bag off of 5851682 - which had generated 2 daughters and 1 PBC. Parent drum 5852513 was bagged on.

1730 Production Inventory - completed closure of drums in WCATS, noting the new torque wrench information was entered into the WCATS and is working appropriately.
The delay in time in updating the status board is noted by WCATS technician that PAT is required to sign for the drums.

1807 Outside operations completed movement from 50/69 to the transportainer 4 drums were moved out. Currently two parent drums are in the facility ready to work.

1810 Completed review of turnover checklist with the Nightshift SOM.

1815 Secured the dayshift SOM position [signature]

No further Entries this Page

9/11/13 WCRR SOS LOG BOOK

0600 Assuming SOS Position [signature]

0615 Conducted shift brief went over contamination Issues with operators also talking safe lifting techniques.

0635 Shift brief Conducted

0655 Operator entering Facility.

0750 Mode change Complete to warm

0751 Technicians Entering 50-69 To work on PCM And HFM

0830 Techs Exiting facility both back operational.

0832 Mode change WCRRF In operation.

0833 Bagging off lot 5851682

0905 Starting monthly valve Alignment

0915 Bag off Complete.

0927 Permission Granted to lower Access Gates starting Shipment out.

1027 Shipment Complete Vehicle Access Gate Restored. Notified by Pet Initiating BPO due to Event on Prior shift.

1150 Bagging off one Daughter And one POC And Continuing.

1220 Bag off lot Complete

1230 Operators Exiting For Lunch

354 Operators Entering to continue Processing.

1537 starting Rounds.

1675 Starting Denesting

1642 Denesting complete bagging on 5852513

1212 Bag off lot complete

1226 Notified by operators while bagging off parent bag was cut on bolt tape was placed and taken care off Immediately UDH smears were taken and need to be counted

1732 Reviewed Inside And outside rounds

1743 moved out 4 drums From 50-69

1744 All smears NDA.

1815 Relieved by Clayton Mullins [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-RTR2-13-0111
Examination Date:	9/17/2013
Waste Container ID:	68343
Video/Audio Recorded Media Number:	LA-RTR2-13-0111 A&B
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:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 163.0 kg Tare Wt.: 145.1 kg Net Wt.: 17.9 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:	70 %

CCP Radiography Data Sheet

Waste Container ID: 68343

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM:

OI:

C:

R:

XPM: Plastic bag

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):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	15.9
Soils (S):	
Total WMP Weight:	17.9

CCP Radiography Data Sheet

Waste Container ID: 68343

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 liner lid and liner therefore liner is vented.

RTR Operator:

Thad Hasselstrom	Thad Hasselstrom	9/17/2013
Print Name	Signature	Date

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

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

Item ID:            68343              Count Sequence Number:  23609
Operator:           D3PW2DK1\operator
Assay Start:        9/19/2013  12:44:25 PM
Description 1:      1LANDA1844
Description 2:      POC - GW = 163.0 kg
Location:           LANL TA-54
Comment:            AK-6
Matrix Type:        Homo Sol. S3000
Container Type:     55 gallon drum
Weight:             Net:        17.9   kg        Net:    17.9 kg
Container:          Volume:    208.0   l        Full:    95.0 %
Density:                         0.685 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:	23609	Batch Number:	1LANDA1844
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:	68343	Analysis Date:	9/19/2013

Net Weight	17900.0 g		
Pu mass	3.27E+001	+-	4.81E+000 g
TRU Alpha Activity	4.08E+000	+-	1.07E+000 Ci
TRU Activity Concentration	2.28E+005	+-	5.95E+004 nCi/g
Pu-239 Equivalent Activity	4.24E+000	+-	1.07E+000 Ci
Pu-239 FGE	3.01E+001	+-	4.39E+000 g
Decay heat	1.31E-001	+-	3.52E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	5.13E-002	3.61E-005	6.64E-006	2.35E-006
PU238	7.45E-003	1.27E-001	1.87E-002	5.96E-005
PU239	2.99E+001	1.85E+000	2.72E-001	8.65E-004
PU240	2.71E+000	6.15E-001	9.04E-002	2.87E-004
AM241	4.34E-001	1.49E+000	1.03E+000	1.07E-001
PU241	8.55E-002	8.81E+000	1.30E+000	4.12E-003
PU242	3.37E-002	1.33E-004	1.96E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	4.00E-007
U233	<LLD	<LLD	0.00E+000	5.77E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.75E-006
U238	<LLD	<LLD	0.00E+000	1.89E-005
AM243	2.36E-003	4.72E-004	8.73E-005	7.81E-006

Errors quoted at 1.000 sigma

Operator: [signature] Date: 9-24-13

ITR: [signature] Date: 9-24-13

Automated Independent Technical Review

Count Sequence Number: 23609 Batch Number: 1LANDA1844
Counter ID: MCS HENC #1
Container ID: 68343
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 9/19/2013

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 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 and 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: Bart B. Marah Date: 9/23/13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68343**

BDR Number: **LA13FG2115**

Sampling Date: **11/13/2013**

9851682

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	225.56	
74-82-8	Methane	142.14	U
67-56-1	Methanol	335.56	
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
624-91-9	METHYL NITRITE	61.54
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
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\131113c\
Data File : 68343.D
Acq On : 13 Nov 2013 2:09 pm (#1); 13-Nov-13, 14:08:28 (#2)
Operator : NW
Sample :
Misc : POC THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 13 14:17:09 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	4633048	205.75 ppmv	0.07
15) Chlorobenzene-d5	5.884	117	3581013	177.50 ppmv	0.02
Target Compounds					Qvalue
1) Hydrogen	1.609	GC1	1696m	225.56 ppmv	
4) Methanol	0.883	31	124224m	335.56 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-RTR2-13-0111
Examination Date:	9/17/2013
Waste Container ID:	68372
Video/Audio Recorded Media Number:	LA-RTR2-13-0111 A&B
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:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 132.5 kg Tare Wt.: 33.4 kg Net Wt.: 99.1 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:	65 %

CCP Radiography Data Sheet

Waste Container ID: 68372

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Hand tool

AM:

OM:

OI:

C:

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):	0.2
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	5.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	93.9
Soils (S):	
Total WMP Weight:	99.1

CCP Radiography Data Sheet

Waste Container ID: 68372

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:

Thad Hasselstrom	Thad Hasselstrom	9/17/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68372	Count Sequence Number:	23616
Operator:	D3PW2DK1\operator		
Assay Start:	9/20/2013 8:49:42 AM		
Description 1:	1LANDA1845		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 99.1 kg	Net:	99.1 kg
Container:	Volume: 208.0 l	Full:	65.0 %
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

006
CS 6/12/14

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 23616
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 68372

Batch Number: 1LANDA1845
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 9/20/2013

Net Weight	99100.0 g		
Pu mass	1.05E+002	+-	1.79E+001 g
TRU Alpha Activity	1.44E+001	+-	1.55E+000 Ci
TRU Activity Concentration	1.45E+005	+-	1.56E+004 nCi/g
Pu-239 Equivalent Activity	1.47E+001	+-	1.55E+000 Ci
Pu-239 FGE	9.90E+001	+-	1.67E+001 g
Decay heat	4.63E-001	+-	5.00E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	2.14E-001	1.51E-004	2.86E-005	6.27E-006
PU238	1.16E-002	1.98E-001	3.36E-002	3.86E-005
PU239	9.85E+001	6.11E+000	1.04E+000	1.19E-003
PU240	6.60E+000	1.50E+000	2.55E-001	2.93E-004
AM241	1.92E+000	6.60E+000	1.12E+000	1.29E-003
PU241	1.28E-001	1.32E+001	2.24E+000	2.57E-003
PU242	2.64E-002	1.04E-004	1.77E-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	1.54E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	4.48E-006
U238	<LLD	<LLD	0.00E+000	3.19E-005
AM243	1.14E-002	2.28E-003	4.38E-004	2.17E-005

Errors quoted at 1.000 sigma

Operator: [signature] Date: 6-5-14

ITR: Jim Barton Date: 6/9/14

007
CS 6/12/14

Automated Independent Technical Review

Count Sequence Number: 23616
Batch Number: 1LANDA1845
Counter ID: MCS HENC #1
Container ID: 68372
Waste Matrix Code: Homo Sol. S3000
Count Type:
Sequence Type:
Assay Date: 9/20/2013

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-52,53.
Section 5 - Gamma Analysis Analysis Status: No errors. Spectrum Validity Check engine has suggested data review.	Ok After EA review, spectrum valid.

008
CS 6/12/14

Comments	Disposition
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified. Am241 from direct gamma reported.

Expert Review by: Bart B. Moran Date: 6/3/14

008A
CS 6/12/14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68372**

BDR Number: **LA13FG2102**

Sampling Date: **9/25/2013**

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	79.83	
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\130925C\
Data File : 68372.D
Acq On : 25 Sep 2013 1:41 pm (#1); 25-Sep-13, 13:40:20 (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 25 13:49:53 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	4680154	205.75 ppmv	0.06
15) Chlorobenzene-d5	5.881	117	3570715	177.50 ppmv	0.02
Target Compounds					Qvalue
4) Methanol	0.886	31	29853m	79.83 ppmv	

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

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5851682

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-HERTR-13-0102
Examination Date:	9/19/2013
Waste Container ID:	68373
Video/Audio Recorded Media Number:	LA-HERTR-13-0102 A&B
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:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 159.5 kg Tare Wt.: 33.4 kg Net Wt.: 126.1 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:	65 %

CCP Radiography Data Sheet

Waste Container ID: 68373

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal

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):	0.1
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	8.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	114.0
Soils (S):	
Total WMP Weight:	126.1

CCP Radiography Data Sheet

Waste Container ID: 68373

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		9/19/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68373	Count Sequence Number:	23619
Operator:	D3PW2DK1\operator		
Assay Start:	9/20/2013 10:58:49 AM		
Description 1:	1LANDA1845		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 126.0 kg	Net:	126.0 kg
Container:	Volume: 208.0 l	Full:	65.0 %
Density:	0.930 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:	23619	Batch Number:	1LANDA1845
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:	68373	Analysis Date:	9/20/2013

Net Weight	126000.0 g		
Pu mass	1.55E+002	+- 2.25E+001	g
TRU Alpha Activity	1.56E+001	+- 2.68E+000	Ci
TRU Activity Concentration	1.24E+005	+- 2.13E+004	nCi/g
Pu-239 Equivalent Activity	1.60E+001	+- 2.68E+000	Ci
Pu-239 FGE	1.46E+002	+- 2.10E+001	g
Decay heat	4.97E-001	+- 8.77E-002	W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	1.20E-001	8.48E-005	1.86E-005	4.40E-006
PU238	1.42E-002	2.43E-001	3.52E-002	3.22E-005
PU239	1.45E+002	9.01E+000	1.30E+000	1.20E-003
PU240	9.74E+000	2.21E+000	3.20E-001	2.93E-004
AM241	1.22E+000	4.17E+000	2.32E+000	1.01E-001
PU241	1.88E-001	1.94E+001	2.81E+000	2.57E-003
PU242	3.11E-002	1.23E-004	1.78E-005	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	7.83E-007
U233	<LLD	<LLD	0.00E+000	1.08E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.85E-006
U238	<LLD	<LLD	0.00E+000	2.81E-005
AM243	5.09E-003	1.02E-003	2.25E-004	1.38E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 9.24.13

ITR: Sri Barton Date: 9/24/13

Automated Independent Technical Review

Count Sequence Number: 23619 Batch Number: 1LANDA1845
Counter ID: MCS HENC #1
Container ID: 68373
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 9/20/2013

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	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.
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: 9-23-13

Waste Container ID: **68373**

BDR Number: **LA13FG2102**

Sampling Date: **9/25/2013**

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\130925C\
Data File : 68373.D
Acq On : 25 Sep 2013 1:52 pm (#1); 25-Sep-13, 13:51:55 (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 25 14:00:14 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	3.591	96	4733408	205.75 ppmv	0.07
15) Chlorobenzene-d5	5.891	117	3638225	177.50 ppmv	0.03

Target Compounds	Qvalue

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

S851739

S851739

Container 747246

File Options Reports Help

S851739

747246	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

S851739

- S851739
  - LA00000068453
  - LA00000068450
  - LA00000068471 – EMPTY

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
0.01	%			

Working Copy
Date: 9-24-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 5851739

6.2[4] Date Processed: 9-24-13

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-N-N

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
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 / B. Gallegos / 267129 9-24-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 5851739

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 389 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 120 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 509 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.: 9851739

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	68453	68450	N/A	
10.1[4]	Daughter Drum Filter No.	LH-267	LH-257		
10.1[4]	Daughter Drum Bag Filter No.	L-6751	L-6752		
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	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)			N/A	
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	3 GALLONS	1 LITER		
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHIELDING	LEAD SHIELDING		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		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	90%	40%		
10.5[3]/10.6[2]	Description Waste Added During Processing	KITTY LITTER	KITTY LITTER		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 5851739

Comments: ROOM TRASH, PLASTICS, KITTY LITTER, NITRATE SALTS, LEAD SHIELDING

11.1[1] Performed By: BRIAN GALLEGOS / [signature] / 1267129 / 9-24-13
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: G [signature] / [signature] / MD35 / 9/25/13 0745
SOS or designee (print) Signature Z # Date/Time

9-24-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:
Purchase Order No.: 501012
Lot No.: 0233945
Manufacture Date: 2012

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:

PREPPED AT TA-54

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: _____

8.1[1] Performed By: BRIAN GALLEGOS / [signature] / 2601129 9-24-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: G Mk / [signature] / 149835, 9-25-13
Supervisor or designee (print) Signature Z # Date

Date: 9-24-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68471

7.[23] Overpack drum closure ring torque wrench information:
M&TE No.: 038370
Cal. Expiration Date: 8-02-14
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: Brian Gallegos / [signature] / 1267129 9-24-13
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): 169.8 lb

Comments: N/c

8.1[1] Performed By: Brian Gallegos / [signature] / 1267129 9-24-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez / [signature] / 149235 9/25/13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 9-18-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68450

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240999
Manufacture Date: '13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC1.52SPVC
Serial No.: L6752
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: JOE QUINTANA (Operator (print)) Joe Q (Signature) 239487 (Z#) 9/18/13 (Date)

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019 DS
Serial No.: LM257
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.: 68450

Comments: N/C

5.[35] Performed By: JOE QUINTARA (Operator (print)) [signature] (Signature) 239987 (Z #) 9/18/13 (Date)

7.1[4] Reviewed By: Gilbert Martin (Supervisor or designee (print)) [signature] (Signature) 149251 (Z #) 9/25/13 (Date)

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68450

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038370
Cal. Expiration Date: 8-02-14
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: Brian Gallegos / B. Gallegos / 1267129 / 9-24-13
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.: 68450

6.[26] Scale File ID number: 019665

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 240.4 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 / [signature] / 267129 9-24-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martin / [signature] / 149235 9.25.13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 9-18-13

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68453

5.[3] Drum information:
Purchase Order No.: 501578
Lot No.: 0240999
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6cpvc1.S2S.pvc
Serial No.: L-6751
Manufacture Date: 01/13/13

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: Brandon Chavez / [signature] / [illegible] 9-18-13
Operator (print) Signature Z# Date

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 0190S
Serial No.: LM-267
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.: 68453

Comments: N/C

5.[35] Performed By: Brandon Chavez / [signature] / 1204742 / 9-18-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: G Mk / [signature] / 1149275 / 9/25/17
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 68453

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038370
Cal. Expiration Date: 8-02-14
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: BRIAN GALLEGOS / [signature] / 267129 9-24-13
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.: 68453

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 372.0 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] / 1267129 9-24-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: G Mh / [signature] / 1469357 9/25/13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 3
Page 1 of 1

9-24-13a

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 585739

6.3[15] ($) 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): 389.0

6.3[19] ($) Prepared parent 55-gal drum weighs < 624 lb: (SR 4.5.1) ☑ SAT ☐ UNSAT

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / Bri Hallegos / 267129 / 9-24-13
Waste Handling Technician (print) / Signature / Z # / Date

8.1[7] Reviewed By: G Mt / [signature] / 149235 / 9.25.13
Supervisor or designee (print) / Signature / Z # / Date

8.1[8][B] Acceptance criteria satisfied: ☑ YES ☐ NO

8.1[8][D] Approved by: G Mt / [signature] / 149359 / 9/25/13 / 0740
SOS/SOM or designee (print) / Signature / Z # / Date / Time

1047
SP72

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S851739 Container Type: 85-GAL Gross Weight (lbs): 399
Inner Seal #: 019316 Filter Prefix: LAVC Filter Serial #: 00692; 01677
AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST 12
Total PE-Ci Activity: 1.14E+01 Equivalent Combustible PE-Ci: 4.28E+00 AM-241 PE-Ci: 9.73E-01
Total Fissile Gram Equivalents: 122.6 Total Surface Dose Rate (mrem/hr): 2
EPA Code(s): [redacted]D009
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 6/27/2007 Comment: Impenetrable Obj,
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: 339#. Generator info shows 10 items of nitrate salts, with weights ranging from 7-40#. No RTR BDR available for review. RTR PS shows impenetrable item(s). Nitrate salts usually packaged in plastic bags; other debris + undocumented liquids often present. Applicable waste codes are lead, chromium, + mercury. Repack w/ admixture is required.

Performed By: Valerie Rhodes / Valerie Rhodes / 112609 / 1/7/13
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 Heavyweight 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 SHUT [signature] 272995 2-11-13

IHS REVIEW: AB 206362 11.27.12 NOTES: D007 = Chromium
D008 = Lead

Noncertified TRU Waste Drum Item Information

DrumID: 019316

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	LR220NE1		18.180	NITRATE SALTS		11.81	53	6/14	G468	
2	LR220NE1		20.230	NITRATE SALTS		8.19	53	6/14	G468	
3	OX154221NW		16.230	NITRATE SALTS		26.59	52	6/14	G468	
4	OX155223NW		11.820	NITRATE SALTS		18.39	52	6/14	G468	
5	RR222VRNW1		3.410	NITRATE SALTS		2.64	52	6/14	G468	
6	RR222VRNE1		6.640	NITRATE SALTS		11.92	52	6/14	G468	
7	LR215NW1A		11.820	NITRATE SALTS	4.61	[redacted]	52	6/14	G468	
8	OX156224NE		11.140	NITRATE SALTS		25.13	52	6/14	G468	
9	OX157229NE		12.050	NITRATE SALTS		18.52	52	6/14	G468	
10	RR228VRNW1		3.180	NITRATE SALTS		2.95	52	6/14	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 181.1

Material Type	SNM (grams)	Items Net Wt (kg)
52	108.75	76.29
53	20.	38.41
Totals	128.75	114.70

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: 1/19/11

Container No. (5.[1])	S851739					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55-gal overpacked in 85-gal					
Filtered Vent Type (5.[1])	7,7					
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])	752.40 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 / 238866
CCP (Print) Z#

Reviewed By: Erik Lockhell / 234183
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 S. RAMSEY / [signature] / [illegible] / 11/27/12
Waste Handling Operator (print) Signature Z# Date

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\110119c\
Data File : S851739.D
Acq On : 19 Jan 2011 4:03 pm (#1); 19 Jan 2011 4:02 pm (#2)
Operator : EL
Sample :
InstName : Unit 8
Misc : 55 GAL LFL DRUM FROM 85 GAL OVERPACK (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 19 16:10:50 2011
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	4217866	209.00 ppm	0.00
15) Chlorobenzene-d5	5.933	117	3510208	184.00 ppm	0.00
Target Compounds					Qvalue
1) Hydrogen	5.359	GC1	190015	750.40 ppm	100

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

Vocgas.m Wed Jan 19 16:10:55 2011

9-24-13 - Continued from previous page - Clelands

1150 Bag on, bag off complete.

1204 SOS conducting briefing on wearing appropriate PPE when performing job duties.

1220 briefing to ES personnel is concluded

1238 Operator #14 has returned from OCmed with restrictions can not enter Hq 9-24-13 Rad areas and will have to return to OCmed in a week citing EP-WCRR-RM-EOP-0309.

1400 Starting to offset 2 drums then will be bagging on 9851739.

1416 Lowering vehicle access gates to start unloading of transport vehicle

1450 Questing and bag on is complete.

1611 Bagging off 1 daughter, Bagging on 1 daughter and continuing to process.

1625 Being relieved by OCO - Howard Smith - Clelands

1626 ASSUMING OCO POSITION AT WCRRF HSMITH

1635 STARTING INSIDE ROUNDS

1647 STARTING OUTSIDE ROUNDS

1659 ITEM #19 OUTSIDE ROUNDS UNSAT, OKAY TO PROCEED PER CSE DOCUMENTATION

1700 ITEM #63 INSIDE ROUNDS OOS, OKAY TO PROCEED, PER CSE DOCUMENTATION

1705 OUTSIDE ROUNDS COMPLETED

1706 VEHICLE ACCESS GATES RESTORED, SHIPMENT INTO TA50-194/75 IS COMPLETE

1706 COMPLETE INSIDE ROUNDS

1710 OUTSIDE ROUNDS REVIEWED BY SOS AND SOM

1718 BAGGING OFF 1 DAUGHTER, BAGGING ON 9841314

1726 INSIDE ROUNDS REVIEWED BY SOS AND SOM

1750 BAG OFF COMPLETE

9/24/13 1800 RELIEVED BY OCO TERRI COLEMAN - HSMITH

RLA

NO FURTHER ENTRIES ON THIS PAGE

9-24-13 Day shift

0601 Reviewed the shift turnover checklist and assumed the SOM Position [illegible]

0645 Completed attending the pre-job brief conducted by the SOS (Gilbert). The safety message was be prepared for emergencies. Also when picking up loads, use legs and two man rule for specific lifts. Roles and Responsibilities were assigned. A transfer in of 18 drums and transfer out of 12 drums were noted as scheduled. The Fume hood was noted to be alarmed on Nightshift. An IOD was conducted based on AIRFLOW readings. The CSE and OM were in discussion, Nightshift Operators indicated the Fume hood alarmed upon exiting and the glovebox is in a safe configuration (LID on drum). Alarm status will need to be verified.

0708 Completed morning status POD update with AREA 6 - SOM.

0740 Completed discussion with OM, RP-1, ES-PM, regarding the alarm on the Fume Hood, Currently there is no ALARM condition, RP-1 will place a CAMM in front of the fume hood as precautionary - Operators can enter and resume work. The CSE will arrive at WCRRF verify damper position and will reset controller. Procedure driven work is released.

0815 CSE arrives to enter 50/69 and verify damper and set points.

0920 CSE exits and verifies damper open - per Valve alignment and set points are noted to alarm when No FLOW ∅ exists. Neg. pressure is maintained in the B-Box. RCT Terry Healy supported CSE.

0955 Initiated Review of Timely Order Logbook -

1052 P&T notified the SOM that Drum 5-853492 is being dropped from the transfer in, due to the drum ring noting to be 1/4" crack.

1100 Notification is made to the Operations Center that an operator inside 50/69 Rm 102 cut his finger - RP-1/RCTs responding.

1102 OCD enters EP-WCRR- RM-EDP-0309-R3 -Injured Person at WCRR-

1104 OCD notifies IH/and the ES/Management.

1105 SOM notifies the OM, noting operator "cut his left hand thumb approximately 3/4 inch on inside (print area) there was no blood. OCC med was notified of person to be in route. The operator was wearing nitrile gloves-

1116 Operator is escorted to OCC MED, and the RP-1 supervisor reports the HAND is NDA, smears on the bandaging are NDA, and the operator exited through the PCM-2 - OK - No detection

9-24-13 DAYSHIFT.

continued 1116 of any contamination. Notification / updates were provided to the OM. The OM is notifying the FOD, Project Manager, and DOE.

1121 Operations inside completed the bag off of the parent Drum 5821203 which generated 2 daughters.

1204 The SOS briefs the operators on the proper use of PPE

1220 The briefs are concluded by the SOS

1238 The operator returns from OCC Med. noting at that all counts were NDA. The operator will be restricted from entering contamination and Hi Rad Areas for 1 week. The EOP-0309-R3 was exited by the OCO.

1253 SOS/SOM/ESH discussed putting appropriate hazard controls into an ILOD which allows Energy Solutions personnel to adjust the 85 gallon drum grabber with concurrence from the maintenance manager. The SOS will brief operators and document the briefing tomorrow.

1330 Operators enter the area to continue processing

1400 Inside Operators initiate bag offs and denesting, and bag on of Parent Drum ~~5831~~ 5851739 9-24-13

1450 Operations completed bag-offs and bags on of Parent successfully

1630 Completed observing Operators and RCTs remove drums from the Transfer Vehicle and stage for transfer to the transportainer. Appropriate PPE was worn and complied. Operators performed inspection of drums utilizing the procedure. One drum was noted as 20 mrem at contact. All drums over 5 mrem were being flagged with chandeliers.

1631 Late Entry for 1611 inside Operations report Bag off of 1 daughter and Bag On another

1706 The transfer to the transportainer was noted completed.

1718 Inside Operators report bag off of a daughter and Parent Drum 5851739 which generated 2 Daughters, and bag on of Parent Drum 5841314

1805 Conducted shift turnover with Nightshift SOM

1812 Relieved of SOM position John Guadagnoli

No further Entries this page

9/25/13 WCRR SOS LOG BOOK

0600 Assuming SOS Position [illegible]

0615 Conducted shift brief Discussed current drum on box also Talked on pause going on right now do to fume hood Alarming have Contacted CSE he will be Coming up to Check Status.

0645 Concluded shift brief.

0801 Notified by SOM that Fume hood not Alarming Per CSE ok to Continue Processing. CE will enter 5069 to reset Alarm Panel

0802 Resuming operations. Per SOM And CSE.

0849 Starting shipment out To Area G.

0913 CSE completed work on fume hood

0957 Shipment out complete.

1100 Notified by Inside Personal operato #14 has cut his left hand (Thumb) while getting some banding to prep denesting Drums. SOM notified RCT Performing Surveys.

1102 Entering EP-WCRR-RM-EOP-0309 ES EH notified Oc Med has been notified

1109 ES OM notified.

1113 ES OM notified to pause work And brief to Leather Gloves Must be worn at all times while handeling Anything In back Area.

1116 RCT. And I Transporting individual to oc Med.

1120 RCTs notified All surveys NDA

1121 Operators bagging off and Putting on drum Port And will Exit to get briefed to Leather Gloves use.

1150 Gm 9-25-13 ~~bag~~ bag bag on/off complete

1204 Conducted briefing on wearing Leather Gloves during all Activities beside Paper work.

1220 briefing Concluded. with ES personal.

1238 Operator #14 returned From Oc Med. with restriction's can not enter Into Hot Job Exclusion will have to go back In 1 week For revelvation. Exiting EP-WCRR-RM-EOP-0309

1400 denesting 2 drum's and bagging on S851 M39

1416 Started Shipment From G to WCRRF

1450 Denesting And bag on Complete.

1611 bagging off 1 daughter bag in Another And Continuing

Continued on Next Page

9.24.13 Continued From previous Page [illegible]
1635 Started rounds.
1706 Shipment In to 50-69 From G Complete.
1718 Bagging off /on 5841314
1720 Reviewed Inside And outside Rounds.
1750 Bag on /off complete.
1805 Operators exiting 50-69.
1810 Relieved by Clayton Mullins [illegible]
HG

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-RTR2-13-0115
Examination Date:	9/26/2013
Waste Container ID:	68450
Video/Audio Recorded Media Number:	LA-RTR2-13-0115 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.: 107.5 kg Tare Wt.: 33.4 kg Net Wt.: 74.1 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: 68450

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C: Leather gloves

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):	0.3
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	63.8
Soils (S):	
Total WMP Weight:	74.1

CCP Radiography Data Sheet

Waste Container ID: 68450

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: The scan of this drum was performed by in-training operator Eddie Rios under the supervision of qualified operator Michael Simmons.

RTR Operator:

M. Simmons/ E. Rios		9/26/2013
Print Name	Signature	Date

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

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

Item ID:            68450              Count Sequence Number:  23687
Operator:           D3PW2DK1\operator
Assay Start:        10/3/2013   2:25:10 PM
Description 1:      1LANDA1851
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:        74.1   kg        Net:    74.1 kg
Container:          Volume:    208.0   l        Full:    55.0 %
Density:                         0.650 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:	23687	Batch Number:	1LANDA1851
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:	68450	Analysis Date:	10/3/2013

Net Weight	74100.0 g		
Pu mass	5.96E+001	+- 1.17E+001	g
TRU Alpha Activity	1.08E+001	+- 3.53E+000	Ci
TRU Activity Concentration	1.46E+005	+- 4.76E+004	nCi/g
Pu-239 Equivalent Activity	1.10E+001	+- 3.53E+000	Ci
Pu-239 FGE	5.60E+001	+- 1.17E+001	g
Decay heat	3.51E-001	+- 1.17E-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	8.89E-007
U233	<LLD	<LLD	0.00E+000	1.07E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.72E-006
NP237	1.45E-001	1.02E-004	1.81E-005	4.05E-006
PU238	7.12E-003	1.22E-001	3.07E-002	1.25E-003
U238	<LLD	<LLD	0.00E+000	2.13E-005
PU239	5.57E+001	3.45E+000	7.23E-001	3.54E-002
PU240	3.80E+000	8.62E-001	2.18E-001	8.83E-003
AM241	1.86E+000	6.37E+000	3.45E+000	9.49E-002
PU241	7.74E-002	7.97E+000	2.01E+000	8.17E-002
PU242	1.66E-002	6.55E-005	1.65E-005	0.00E+000
AM243	8.34E-003	1.67E-003	2.99E-004	1.37E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 10/8/13

ITR: _____ Date: 10.9.13

Automated Independent Technical Review

Count Sequence Number: 23687 Batch Number: 1LANDA1851
Counter ID: MCS HENC #1
Container ID: 68450
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/3/2013

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 is less than n-sigma * the correction factor error.	Not data affecting, gamma results applied.
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 taken from Quantitative Gamma data.	
Results comparison test failed.	
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 and MT-53.

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: Bart B. Marad Date: 10/8/13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68450**

BDR Number: **LA13FG2106**

Sampling Date: **10/24/2013**

S851739

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	256.28	
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\131024c\
Data File : 68450.D
Acq On : 24 Oct 2013 12:09 pm (#1); 24-Oct-13, 12:08:36 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 24 12:17:15 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	3.532	96	5891383	205.75	ppmv	0.01
15) Chlorobenzene-d5	5.848	117	4333832	177.50	ppmv	-0.01
Target Compounds						Qvalue
1) Hydrogen	1.628	GC1	1927m	256.28	ppmv	

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

5851739

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0115
Examination Date:	9/26/2013
Waste Container ID:	68453
Video/Audio Recorded Media Number:	LA-RTR2-13-0115 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.: 169.0 kg Tare Wt.: 33.4 kg Net Wt.: 135.6 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:	90 %

CCP Radiography Data Sheet

Waste Container ID: 68453

Section 3: Container Inventory and Comments (Detailed descriptions)	
IM:	
AM:	
OM:	
OI:	
C:	
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):	
Rubber (R):	
Plastics (waste materials) (XPM):	6.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	129.6
Soils (S):	
Total WMP Weight:	135.6

CCP Radiography Data Sheet

Waste Container ID: 68453

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: The scan of this drum was performed by in-training operator Eddie Rios under the supervision of qualified operator Michael Simmons.

RTR Operator:

M. Simmons/ E. Rios		9/26/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68453	Count Sequence Number:	23677
Operator:	D3PW2DK1\operator		
Assay Start:	10/2/2013 3:22:34 PM		
Description 1:	1LANDA1850		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
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:	90.0 %
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: 23677
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 68453

Batch Number: 1LANDA1850
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 10/2/2013

Net Weight	136000.0 g		
Pu mass	9.81E+001	+-	2.09E+001 g
TRU Alpha Activity	1.63E+001	+-	2.43E+000 Ci
TRU Activity Concentration	1.20E+005	+-	1.78E+004 nCi/g
Pu-239 Equivalent Activity	1.65E+001	+-	2.43E+000 Ci
Pu-239 FGE	9.12E+001	+-	2.09E+001 g
Decay heat	5.27E-001	+-	7.91E-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	1.08E-006
U233	<LLD	<LLD	0.00E+000	1.39E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	3.80E-006
NP237	2.56E-001	1.81E-004	3.47E-005	2.06E-005
PU238	2.01E-002	3.44E-001	1.57E-001	4.70E-003
U238	<LLD	<LLD	0.00E+000	2.70E-005
PU239	9.08E+001	5.63E+000	1.29E+000	7.69E-002
PU240	7.15E+000	1.62E+000	3.81E-001	2.22E-002
AM241	2.54E+000	8.72E+000	2.01E+000	1.19E-001
PU241	1.07E-001	1.10E+001	2.55E+000	1.50E-001
PU242	1.00E-001	3.96E-004	1.22E-004	0.00E+000
CM243	3.57E-005	1.75E-003	3.35E-004	1.91E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 10/3/13

ITR: _____ Date: 10-3-13

Automated Independent Technical Review

Count Sequence Number: 23677 Batch Number: 1LANDA1850
Counter ID: MCS HENC #1
Container ID: 68453
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/2/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
NCC Pu mass was above calibration range. FGE is greater than the upper limit of 200.00 The Standard NCC Pu effective mass exceeds the Upper Calibration Limit. No roots found within the limits while determining the Standard NCC Pu Mass, Chose largest positive root. Ones Rate Analysis complete with warnings. - Error calculating the Ones Rate Pu-240 Effective MDA.	Outside the calibration range of the neutron measurement. Curium 244 peaks identified in drum, but less than MDA. Neutron results rejected. Gamma results applied. 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.

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: 10-3-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68453**

BDR Number: **LA13FG12106**

Sampling Date: **10/22/2013**

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	0.47	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\131022c\
Data File : 68453.D
Acq On : 22 Oct 2013 3:47 pm (#1); 22 Oct 2013 3:46 pm (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 22 15:55:44 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	7301404	207.75 ppmv	0.00
15) Chlorobenzene-d5	6.639	117	5311218	178.75 ppmv	0.00

Target Compounds	Qvalue

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

S851752

S851752

Container Profile 747223

File Options Reports Help

S851752

747223	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

S851752

- S851752
  - LA00000068407
  - LA00000068406 – Empty

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weight Unit
0.01	%			

ATTACHMENT 1
Page 1 of 4

9/19/13 HSa

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S851752

6.2[4] Date Processed: 9-19-13

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) N/A
(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: Federico Rebolek / [signature] / 122856 / 9 19 13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: S851752

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 3866 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 120 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 5066 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:

EWMO-FOD (print) Signature Z # Date

ATTACHMENT 1
Page 3 of 4

4.1[6][B] Parent Waste Container No.: S851752

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	608407			
10.1[4]	Daughter Drum Filter No.	LM-254		N/A	
10.1[4]	Daughter Drum Bag Filter No.	L-11528			
10.1[4]	Daughter Drum Purchase Order No.	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	
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	N/A			
10.3[5][A]	Free Liquid Volume/Units	2 gallons			
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead		N/A	
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		N/A	
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	100%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Plastic Sealo-out Bag Nor Absorbers Kitty Litter	N/A		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: S851752

Comments: Plastic, 1- Poly liner lid, plastic Kitty litter, Nitrate Salts, 2-gallons PH=4 liquid Neutralized

11.1[1] Performed By: Brandon Chavez
Waste Handling Tech (print) Signature
Z# 204712 Date 9-19-13

11.1[8] Reviewed By: Gilbert Martinez
SOS or designee (print) Signature
Z# 145235 Date/Time 9.20.13 0730

Working Copy
Date: 9-19-13

ATTACHMENT 2
Page 1 of 1

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501912
Lot No.: 0233945
Manufacture Date: 2012

5.[8] Overpack filtered vent and 2-in. bung torque wrench information:

	Filtered Vent	2-in. Bung
M&TE No.:	N/A	N/A
Cal. Expiration Date:		
Tolerance:		

Overpack filtered vent information:

Manufacturer: NucCi
Model No.: 2013 ~~01905~~ 019 DS
Serial No.: EK - 1127
Manufacture Date: 5/10

5.[9] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☐ Yes ☐ No N/A

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)]: N/A in-lb

5. [18] 2-in. bung plug torque value: N/A ft-lb

Comments: Not Used at WCRRF

8.1[1] Performed By: Frederick Rehbock / [signature] 122861 9-19-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Gilbert Martinez / [signature] 149275 9-20-13
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 9-19-13

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 68406

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: Brandon Chavez / [signature] 1047421 9-19-13
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): 172.2 lb

Comments: N/C

8.1[1] Performed By: Brandon Chavez / [signature] 1047421 9-19-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Gilbert Martinez / [signature] 149235 9-20-13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Date: 9-17-13

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 68407

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 1.5-2SPVC
Serial No.: L-11528
Manufacture Date: 06/13

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] 191332 9/19/13
Operator (print) Signature Z # Date

5.[23] Filtered vent information:
Manufacturer: NOCFIL
Model No.: 019DS
Serial No.: LM-254
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.: 68407

Comments: N/C

5.[35] Performed By: Michael Montoya [signature] 191352 Apr 2 13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez [signature] 149238 9.20.13
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

Working C.
Date: 9-19-13

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 608407

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038370
Cal. Expiration Date: 8-2-14
Range in ft-lb: 10-80
Tolerance: [illegible]

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Frederico [illegible] / [signature] / 1228[illegible] / 9-19-13
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	N
Range in ft-lb:		
Tolerance:	A	A

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 / / /
Operator (print) / Signature / Z # / Date

6.[17][C] 2 in. bung plug torque value: A _____ 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.: 68407

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 4554 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] 1049421 9-19-13
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Gilbert Martinez / [signature] 1492351 9-20-13
Supervisor or designee (print) Signature Z # Date

1947 SP72

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S851752 Container Type: 55-GAL Gross Weight (lbs): 406
Inner Seal #: 019304 Filter Prefix: LAVC Filter Serial #: 04031
Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST 12
Total PE-Ci Activity: 1.21E+01 Equivalent Combustible PE-Ci: 4.55E+00 AM-241 PE-Ci: 1.02E+00
Total Fissile Gram Equivalents: 130.9 Total Surface Dose Rate (mrem/hr): 6
EPA Code(s): D007; D008; D009
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 4/27/2007 Comment: Impenetrable Obj.
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 (Production Control (Print)) / Signature / 100681 (Z Number) / 12/20/12 (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
Net Wt: 346# Generator info shows 8 items of nitrate salts; weights range from 15-56#. No RTR BDR. Nitrate salts are typically packaged in plastic bags; undocumented liquids &/or debris may be present. RTR DS shows impenetrable object(s). No chemicals identified; applicable waste codes are for chromium, lead, & mercury. Nitrate salts require repack w/ admixture

Performed By: Valerie Rhodes (WDP Engineering (Print)) / Signature / 162609 (Z Number) / 1/18/13 (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 Mix Ratio

Performed By: G Martinez (TRU Remediation Operations (Print)) / Signature / 149255 (Z Number) / 6/19/13 (Date)
Jose Jerez 221452 6/22/13

HS Review Jeremy Lowland CSP, may contain Pb, Hg + Cr
1-29-13

Noncertified TRU Waste Drum Item Information

DrumID: 019304

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	LR230NW1		15.450	NITRATE SALTS		13.24	52	6/14	G468	
2	OX158231NE		25.460	NITRATE SALTS		44.88	52	6/14	G468	
3	LR232NW1		12.050	NITRATE SALTS		16.54	52	6/14	G468	
4	OX159234NE		20.680	NITRATE SALTS		42.94	52	6/14	G468	
5	LR236NE1		16.590	NITRATE SALTS		6.51	53	6/14	G468	
6	DSL237NW1		6.820	NITRATE SALTS		3.1	52	6/14	G468	
7	DSL237NE1		9.090	NITRATE SALTS		1.81	52	6/14	G468	
8	LR235NW1		17.730	NITRATE SALTS		10.5	53	6/14	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 184.3

Material Type	SNM (grams)	Items Net Wt (kg)
52	122.51	89.55
53	17.01	34.32
Totals	139.52	123.87

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])	585175					
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])	1325.66 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:

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)), [signature] (Signature), 100681 (Z #), 5/20/13 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130521c\
Data File : S851752.D
Acq On : 21 May 2013 4:41 pm (#1); 21-May-13, 16:40:21 (#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 16:48:50 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	3999654	201.25	ppmv	-0.02
15) Chlorobenzene-d5	5.887	117	3461019	177.00	ppmv	-0.01
Target Compounds						Qvalue
1) Hydrogen	1.606	GC1	9422m	1325.66	ppmv	

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

vocgas.m Tue May 21 16:48:59 2013

9-19-13
0600 Assuming WCRRF occ position - Orlando
0601 Stack monitoring personnel arriving for monitoring.
0605 Pre job briefing being performed by SOS
0637 Pre job concluded
0810 Bagging off 1 daughter, bagging on 1 daughter.
0818 Permission granted to transit ~~the~~ 9-19-13 vehicle access gate for movement out to area G
0837 Bag on, bag off is complete
0946 Bagging off 1 daughter and 1 PCC, Bagging on 9851752.
0947 Vehicle access gates have been restored movement out of WCRRF is complete.
1040 mode change performed TASC-69 and WCRRF yard now in warm standby.
1041 Late entry bag on, bag off is complete at 1038 -CJ
1045 maintenance entering SC-69 to perform work on pump
1158 work is complete on pump.
1200 mode change performed TASC-67 and WCRRF yard now back in operation
1324 Bagging off, bagging on ~~9844 delete O~~ 9844113 ~~5844 delete O.~~ 9-19-13 5846 delete.
1352 Bag on, bag off is complete.
1438 Starting movement into SC 67
1439 movement into SC 69 is complete
1441 Starting movement out of SC-69
1456 Starting inside rounds
1520 item #43 to OCS, PID in place okay to proceed per OSE documentation
1524 inside rounds have been completed.
1530 Starting outside rounds.
1530 Bagging off 1 daughter, Bagging on 1 daughter continuing to process.
1540 item #19 is urgent, FSR in place okay to proceed.
1543 Bag on, bag off complete
1544 outside rounds complete.
1650 inside and outside rounds assigned to SOS
1656 Bagging off 1 daughter, 1 PCC, bagging on 9845104

9-19-13 DAYSHIFT

0615 Reviewed the turnover checklist and assumed the day shift SOM position John Gerdagnli

0634 Completed attending the pre-job brief conducted by the SOS (Gilbert) The Safety topic was - do not take short cuts - The SOS provided an update on status of the drum bagged on. RPI requested coordination to get the PCM-2 repaired. Coordination after the first drum may be effective. There is one transfer scheduled out. Rainwater was noted in the ARCTIC, operators are to be cautious for slip hazards in 50/69. Current shift orders in affect - Manual Drum Movements WCRR-SH-13-003-R2, Precautions to Prevent Bag Tears WCRR-SH-13-005 R0. A level B walk thru was conducted and compliments were recieved from the quality group. Next week DOE may visit.

0710 Completed the daily AREA G

0712 late entry for 0653 - Operators enter 50/69 facility and initiate processing

0837 Inside Operations complete bag off of 1 daughter drum.

0929 Completed performing a spot check with the transfer from the transportainer to the transfer vehicle. Drums being moved were called out to Production Inventory. Production Inventory takes note - per task order of the drums transfering out.

0946 Inside operations initiate bag offs

1020 PCM2 techs arrive and obtain brief (RWP) to support repair of PCM2 under IWD-RP-2-RIC-21 REV #2, they will enter to correct PCM2 after bag offs are completed

1038 Inside Operations report bag off and bag on of Parent 5851752.

1040 Mode Change: 50/69 and Yard transition from Operations/Operations to WARM/WARM

1058 The PCM2 was repaired, Per techs dust is/could be shorting out the board.

1100 Mode Change: 50/69 and Yard transition from WARM/WARM to Operations/Operations

1215 Completed attending the daily moon status meeting with the OM, PM, SOMs and the weekly project status meeting.

1226 Supported production Control, Susan Ramsey in obtaining proper procedure and attachment, to identify single layer of confinement to resolve an issue for six drums will not be sent back to WCRR.

1325 Inside Operations report initiating bag off of daughter drum and bag on of Parent drum 5846660

1352 Inside Operations reported bag off of Parent 5851752 of 1 daughter and bag on of the Parent 5846660 was completed.

1427 The craft planner and carpenter arrived at WCRRF to scope the door leakage at the transportainer. Gasket material will require ordering

(Continued on next page)

9/19/13 WCRR SOS LOG Book

0600 Assuming SOS Position [illegible]

0615 Conducted shift brief Discussed status of facility, Current drum on Box And to not take shortcuts. Also disscussed the USE OF Hex armors.

0637 Concluded shift brief

0810 Bagging off 1 daughter bagging on Another

0815 shipment out started

0837 Bag on/off Complete

0946 Bagging on 5851752 And bagging off

0947 shipment Complete

1040 Mode Change Complete WCRRF In warm Lete entry bag on bag off complete @ 1028 [illegible]

1045 Maintenance entering 50-69 to work on PCM

1058 Work on PCM Complete.

1100 mode change Complete WCRRF In operations.

1324 Bagging on/off 5846660

1352 Bag on/off complete

1458 Starting move In to 50-69

1439 Move in Complete.

1441 starting Move out of 50-69

1456 Started Rounds

1530 Bagging off 1 daughter bagging on Another

1543 bag on/off Complete

1650 ~~bag o~~ Reviewed Inside and outside Rounds

1656 Bag off daughter And Pox Bagging on 5845104

1733 Bag on/off complete.

1810 Relieved by Jose Jerez [illegible]

no Further Entries on this Page

S851752

CCP Radiography Data Sheet

Section 1: General Information	
[X] RTR Examination	[ ] RTR Replicate Scan [ ] RTR Independent Observation
Site ID:	LANL
Batch Number:	LA-RTR2-13-0114
Examination Date:	9/25/2013
Waste Container ID:	68407
Video/Audio Recorded Media Number:	LA-RTR2-13-0114 A&B
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:	LA226
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 204.5 kg Tare Wt.: 33.4 kg Net Wt.: 171.1 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:	90 %

CCP Radiography Data Sheet

Waste Container ID: 68407

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C: Leather gloves

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):	10.0
Other Inorganic Materials (OI)	
Cellulosics (C):	2.0
Rubber (R):	
Plastics (waste materials) (XPM):	5.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	154.1
Soils (S):	
Total WMP Weight:	171.1

CCP Radiography Data Sheet

Waste Container ID: 68407

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		9/25/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	68407	Count Sequence Number:	16588
Operator:	DCLTD231\Operator		
Assay Start:	10/2/2013 2:54:51 PM		
Description 1:	2LANDA1229		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 171.0 kg	Net:	171.0 kg
Container:	Volume: 208.0 l	Full:	90.0 %
Density:	0.910 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:	16588	Batch Number:	2LANDA1229
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 15	Software Version:	NDA 2000 V.4.0
Item ID:	68407	Analysis Date:	10/2/2013

Net Weight	171000.0 g		
Pu mass	1.31E+002	+- 2.92E+001	g
TRU Alpha Activity	2.80E+001	+- 1.03E+001	Ci
TRU Activity Concentration	1.64E+005	+- 6.03E+004	nCi/g
Pu-239 Equivalent Activity	2.83E+001	+- 1.03E+001	Ci
Pu-239 FGE	1.23E+002	+- 2.91E+001	g
Decay heat	9.11E-001	+- 3.42E-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	3.29E-006
U233	<LLD	<LLD	0.00E+000	8.60E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	2.53E-005
NP237	4.70E-001	3.31E-004	7.18E-005	2.05E-005
PU238	1.44E-002	2.46E-001	6.79E-002	1.12E-002
U238	<LLD	<LLD	0.00E+000	8.73E-005
PU239	1.23E+002	7.60E+000	1.80E+000	3.45E-001
PU240	8.24E+000	1.87E+000	5.16E-001	8.49E-002
AM241	5.32E+000	1.83E+001	1.01E+001	6.92E-001
PU241	1.66E-001	1.71E+001	4.73E+000	7.77E-001
PU242	3.41E-002	1.35E-004	3.72E-005	0.00E+000
AM243	1.35E-001	2.69E-002	5.84E-003	1.64E-004

Errors quoted at 1.000 sigma

Operator: _____ Date: 10.8.13

ITR: _____ Date: 10-4-13

Automated Independent Technical Review

Count Sequence Number: 16588 Batch Number: 2LANDA1229
Counter ID: HENC #2
Container ID: 68407
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 10/2/2013

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
NCC Pu mass was above calibration range.	Multiplication in drum. Neutron results rejected. Gamma results applied.
FGE is greater than the upper limit of 200.00	
The Standard NCC Pu effective mass exceeds the Upper Calibration Limit.	
No roots found within the limits while determining the Standard NCC Pu Mass, Chose largest positive root.	
Ones Rate Analysis complete with warnings.	
- Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.

Comments	Disposition
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Analysis Status: Override enabled; data marked not available but were used. 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-52,53.
Section 5 - Gamma Analysis Analysis Status: No errors.	Ok
MCA Deadtime greater than the upper limit of 50.0%.	MCA deadtime due to elevated concentration of Am241.
Ratio of Pu-239 414 to 129 keV line activities is above the limit of 2.50	Self absorption correction used. Results consistent with AK.
Spectrum Validity Check engine has suggested data review.	No spectral distortion observed. Gamma results valid.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified.

Expert Review by: Sheri Chambers Date: 10-3-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **68407**

BDR Number: **LA13FG2106**

Sampling Date: **10/24/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	599.93	
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\131024c\
Data File : 68407.D
Acq On : 24 Oct 2013 1:49 pm (#1); 24-Oct-13, 13:48:41 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 24 13:57:10 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	5454659	205.75	ppmv	0.05
15) Chlorobenzene-d5	5.871	117	4235994	177.50	ppmv	0.00
Target Compounds						Qvalue
1) Hydrogen	1.625	GC1	4511m	599.93	ppmv	

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

S851764

S851764

Container Pr 747225

File Options Reports Help

S851764

747225	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

S851764

- S851764
  - LA00000068759
    - LA00000069221 - EMPTY
    - LA00000069083
      - LASB50098
    - LA00000069099
      - LASB50432
  - W798315 EMPTY

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
0.001	%			

Working Copy
Date: 1-12-14

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 68759

6.2[4] Date Processed: 1-12-14

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 / [signature] / 267129 1-12-14
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 68759

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 397.2 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) 397.0 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.: 68759

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	69083	69099	N	
10.1[4]	Daughter Drum Filter No.	JL-872	JL-845	A	
10.1[4]	Daughter Drum Bag Filter No.	L-10061	L-10083		
10.1[4]	Daughter Drum Purchase Order No.	501892	501892		
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	4 GALLONS	3 GALLONS		
10.3[7][A]	Opaque/Non-penetrable Item Description:	LEAD SHIELDING	LEAD SHIELDING		A
10.3[9][A]	PCB-contaminated Waste Description	N A	N A	N	
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 (%)	100%	70%		
10.5[3]/10.6[2]	Description Waste Added During Processing	KITTY LITTER, BAG OUT STUBS	BAG OUT STUBS, KITTY LITTER		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 68759

Comments: ROOM TRASH, PLASTICS, NITRATE SALTS, KITTY LITTER, LEAD SHIELDING

11.1[1] Performed By: BRIAN GALLEGOS / [signature] 267129 1-12-14
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Darrel L. Blakin / [signature] 1218069 1-21-14 1509
SOS or designee (print) Signature Z # Date/Time

ATTACHMENT 2
Page 1 of 1

Working Copy
Date: 1-12-14

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:
Purchase Order No.: 501563
Lot No.: 0238366
Manufacture Date: 2013

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:

DRUM PREPARED AT TA-54

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: _____

8.1[1] Performed By: BRIAN GALLEGOS / Bri Gallegos / 126729 1-12-14
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Darrel L. Blain / Darrel L. Blain / 218069 1-21-14
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 1-12-14

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69221

7.[23] Overpack drum closure ring torque wrench information:

M&TE No.: 038370
Cal. Expiration Date: 8-02-14
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 / [signature] / 267129 / 1-12-14
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: 10-14-14

7.[34][D] 85-gal overpack drum gross weight (lb): 170.2 lb

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / [signature] / 267129 / 1-12-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Darrel L. Blain Dxo Blain 1-21-14 / [signature] / 218069 / 1-21-14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 4/ 1/2/14 HS

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69083

5.[3] Drum information:
Purchase Order No.: 501892
Lot No.: 024419
Manufacture Date: 5-13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC 1.5-25PVC
Serial No.: L10061
Manufacture Date: 5/13

5.[19] Filtered vent and 2 in. bung torque wrench information:

	Filtered Vent	2 in. Bung
M&TE No.:	101310	038245
Cal. Expiration Date:	11.12.14	08/05/2014
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: BRIAN GALLEGOS (Operator (print)) / [signature] (Signature) 212073 (Z #) 01/02/2014 (Date)

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019 DS
Serial No.: JL-872
Manufacture Date: 10/11

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.: 69083

Comments: N/C

5.[35] Performed By: RUSSELL SHUMAKER / BRIAN GALLEGUS / 212073 / 01/02/2014
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Darrel L. Blake / 218069 / 1-21-14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

Working Copy
Date: 1/2/14 HS

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69083

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038370
Cal. Expiration Date: 8-02-14
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: Brian Gallegos / Bri Hosing / 207129 1-12-14
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: / / /
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.: 69083

6.[26] Scale File ID number: 0190165

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 431.2 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 / 1-12-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Darrel L. Blain / [signature] / 216069 / 1-21-14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 1
Page 1 of 2

Working Copy
Date: 1/5/14 HS

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69099

5.[3] Drum information:
Purchase Order No.: 501892
Lot No.: 0244449
Manufacture Date: 2013

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC
Serial No.: L-10083
Manufacture Date: 05/13

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	16-50 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) | 1187006 (Z #) | 01/05/14 (Date)

5.[23] Filtered vent information:
Manufacturer: NUCFIL
Model No.: 019DS
Serial No.: JL-845
Manufacture Date: 10/11

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.: 69099

Comments: N/C

5.[35] Performed By: BRIAN GALLEGOS / [signature] / 2671279 / 1-12-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Darrel L. Blain / [signature] / 12180691 / 1-21-14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69099

6.[9] Drum closure ring torque wrench information:

M&TE No.: 038370
Cal. Expiration Date: 8-02-14
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: BRIAN GALLEGOS / [signature] / 2607129 / 1-12-14
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: / / /
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.: 69099

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 235.4 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 / [signature] / 267129 1-12-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Darrel L. Blain / [signature] / 218069 11-21-14
Supervisor or designee (print) Signature Z # Date

UET Working Copy

1/11-14 cv

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 68759

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): 397.2

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 / [signature] / 267129 / 1-11-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Darrel L. Blain / [signature] / 218069 / 1-21-14
Supervisor or designee (print) Signature Z # Date

8.1[8][B] Acceptance criteria satisfied: ☑ YES ☐ NO

8.1[8][D] Approved by: Darrel L. Blain / [signature] / 218069 / 1-21-14 / 1511
SOS/SOM or designee (print) Signature Z # Date Time

Salvage Drum SP72 1945 72

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control New drum used @ 412 Prep. New id given in WAS. B Amyllo 12/2/13

Container ID: S851764 168759 Container Type: 85-GAL Gross Weight (lbs): 419

Inner Seal #: 019374 Filter Prefix: LAVC Filter Serial #: 01382; 02177

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

TWSR Comments: LEACHED SOLIDS MST 12 #12189

Total PE-Ci Activity: 9.65E+00 Equivalent Combustible PE-Ci: 3.62E+00 AM-241 PE-Ci: 8.25E-01

Total Fissile Gram Equivalents: 103.5 Total Surface Dose Rate (mrem/hr): 2

EPA Code(s): None

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: 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: R. W. Jones — Production Control (Print) — Signature — 117434 Z Number — 1.10.12 Date

SUSAN S. RAMSEY — Signature — 100681 Z Number — 10/31/12 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

Net Wt. 359lb Generator info states waste consists of 10 items (likely in plastic bags) of nitrate salts. Item weight range from 18lb to 55lb. Waste packed into 55 gal drum. Nitrate salts may have ~~uncontained~~ free liquids. 5/2/12

May require RWP for >1000 and <10000 mrem/hr @ 30 cm

Performed By: Valerie Rhodes — WDP Engineering (Print) — Valerie Rhodes — Signature — 112609 — Z Number — 5/2/12 — Date

TRU Remediation Operations

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

Other Specific Safety Concerns: USE Proper PPE

Processing Determination: ☒ Accept ☐ Reject

TRU Remediation Operations Comments:

Performed By: Gilbert Martinez — TRU Remediation Operations (Print) — Signature — 149235 — Z Number — 12/6/12 — Date

HHS Review John Amaldonado CSP, May contain Pb, Hg Cr. 11/5/12

Noncertified TRU Waste Drum Item Information

DrumID: 019374

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	OX160238NE		24.990	NITRATE SALTS		17.3	52	6/14	G468	
2	OX160238NW		10.910	NITRATE SALTS		12.09	52	6/14	G468	
3	LR240NW1		8.640	NITRATE SALTS		3.29	53	6/14	G468	
4	OX161241NW		19.550	NITRATE SALTS		27.77	52	6/14	G468	
5	LR239NE1		8.410	NITRATE SALTS		4.02	53	6/14	G468	
6	LR244NE1		10.230	NITRATE SALTS		7.68	52	6/14	G468	
7	LR245NW1		13.860	NITRATE SALTS		6.7	53	6/14	G468	
8	LR245NE1		12.500	NITRATE SALTS		3.84	53	6/14	G468	
9	OX162243NW		13.180	NITRATE SALTS		22.88	52	6/14	G468	
10	MX247NE1		8.180	NITRATE SALTS		4.89	52	6/14	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 190.

Material Type	SNM (grams)	Items Net Wt (kg)
52	92.61	87.04
53	17.85	43.41
Totals	110.46	130.45

SP13
72
HR
6.10.12

ATTACHMENT I
Page 1 of 1

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

5.[1] Sample Date: 1/19/12

Container No. (5.[1])	589D878	5822802	5881549	5851764	5823159	56106
Filtered Vent Type (5.[1])	13	13	13	13	13	19DS
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	Ø ppm	Ø ppm	Ø ppm	Ø ppm	Ø ppm
Hydrogen Reading (< 64,000 ppm) (5.[5])	Ø ppm	Ø ppm	Ø ppm	Ø ppm	Ø ppm	Ø ppm
Methane Reading (< 16,000 ppm) (5.[5])	Ø ppm	Ø ppm	Ø ppm	Ø ppm	Ø ppm	Ø ppm

5.[7] Certified CCP Technician:

Performed By: Gabe Romero (CCP (Print)) 1236973 (Z #)

Reviewed By: Sara Aragon (CCP (Print)) 1237975 (Z #)

Comments: N/C

6.1[2][A] (S) WCRRF waste container satisfies the following criteria: ☑ SAT ☐ UNSAT

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

6.1[2][B]/ 6.1[3] Performed By: Alicia Herrera (Waste Handling Operator (print)) [signature] (Signature) 198450 (Z #) 1/23/12 (Date)

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\120119c\
Data File : S851764.D
Acq On : 19 Jan 2012 3:28 pm (#1); 19-Jan-12, 15:28:13 (#2)
Operator : SA
Sample :
Misc : 85 GAL LFL SAMPLED FROM UNDER DRUM LID 13 FIL (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 19 15:37:03 2012
Quant Method : C:\msdchem\1\METHODS\vocgas.m
Quant Title : Flammable Gas Analysis
QLast Update : Tue Oct 18 13:58:45 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	3.722	96	4641098	209.00 ppmv	0.09
15) Chlorobenzene-d5	6.022	117	3800437	185.50 ppmv	0.07

Target Compounds	Qvalue

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

vocgas.m Thu Jan 19 15:37:10 2012

2nd

Cole

11-14
0553 Joining WCRFF Operations center - Cleland
0415 Pre job being conducted by SOS.
0420 Starting inside rounds
0427 Starting outside rounds
0449 Outside rounds complete
0450 Item 43 OOS, POD in place okay to proceed per CSE documentation
0453 Inside rounds complete.
0708 Rounds signed off by SOS
0709 Mode change to operations inside TA50-69 and WCRFF yard.
0748 Bagging on 48759
0758 Bag on complete
0830 Bagging off 1 daughter, bagging on another
0855 Bag on, Bag off complete
0932 Starting to denest 4 drums, bagging off then will bag on 48816
1042 Denesting is complete bagging on 48816 and bagging off 48759
1138 Operators notified Ops center that small forklift is leaking oil. SOM directed operator to move forklift out of yard and SOM has initiated Caution tag. FSR will be submitted
1140 Bagging off 1 daughter, bagging on 1 daughter
1150 Submitted FSR # 114309 for small forklift leak.
1201 Bag on, bag off complete
1350 Bagging off, bagging on 48760
1411 Bag on, bag off complete
1448 Starting inside rounds
1455 Starting movement out of 50-69
1509 movement out of 50-69 complete.
1521 Item 67 is OOS. POD in place okay to proceed per CSE documentation.
1525 Starting movement into 50-69.
1536 inside rounds complete.
-continued on next page-Cleland

11/12/14 WCRR SOM.

0600 Assumed the WCRR SOM position.

0630 Completed attending the pre job brief conducted by SOS G. Martinez. ES IH safety topic was pay attention to pinch points - last work day of week so finish safely. Discussed work plan for today - have one drum ready to put on box and 4 for denesting/prepping. Operators discussed having enough Kitty litter staged in WCG in case another SP 72 drum contains large amounts of liquid similar to third drum process yesterday.

0709 Completed Mode Change: WCRR Yard/Bldg 50-69 from Warm/Warm to Operations/Operations

0758 Completed bag on of parent # 68759

0855 Completed bag off of 1 daughter, Continuing to process.

1042 Operators reported denesting of 4 drums completed. All bag offs for parent # 68759 are complete (2 daughters total) and bagged on drum # 68816.

1140 Operators reported hydraulic leak on mast of small Toyota Forklift. Forklift moved to admin yard next to Bldg 50-54, and caution tagged "Do Not use". FSR submitted # 116309.

1207 Completed bag off of 1 daughter, continuing to process

1411 Completed all bag offs for parent # 68816 (2 daughters total), bagged on drum # 68760.

1445 SOS ~~informed~~ 11/12/14 reported that SED's package for drum # 5861 could not be found. Holding off moving drum into 50-69 until package is located or reproduced from Sol. Package Manager.

1545 During MOV walkdown of WCRR Yard identified gage lines to PDI-009 are seperated from gage. Gage reading is not a credited reading for operation of the Ventilation System and is not on daily roundsheets. Notified OM.

1555 Notified Engineering On Call L. Moore regarding PDI-009 gage lines. He will notify CSE C. Pilcher and start work package to troubleshoot/repair. Recommended closing isolation valves if possible to isolate openings from main duct work. Will investigate if location of valves will allow. Directing RP-1 to perform survey even though gage lines are downstream of HEPA filters.

Cont. next page →

PROJECT NAME WCRR SCS LTG Bldg NOTEBOOK NO.

1/12/14

0600 Assuming Position [illegible]
0615 Conducting Shift brief
0620 Starting Rounds
0630 Concluded shift brief
0708 Reviewed Inside and outside Rounds
0709 Made Change Complete WCRRF In operations.
0748 Bagging on 68756
0758 Bag on Complete
0830 Bagging off 1 daughter Bagging on another
0855 Bag on/off Complete
0933 starting to denest 4 drums bagging off/on 68816
1042 Denesting and bag on/off complete
1138 Operators notified small Forklift leaking oil at yard Moved out of yard Caution Tag was applied FSR will be submitted.
1140 Bagging off 1 daughter bagging on Another
1207 Bag on/off Complete.
1351 Bagging off/on 68760
1411 Bag on/off Complete
1440 Starting Rounds
1455 starting move out of 50-69
1504 Move out Complete
1525 Movement Into 50-69 started.
1549 Movement In Complete
1660 Bagging off/on 68815
1628 Bag on/off Complete
1805 Starting bag off of final drum.
1833 bag off Complete.
1835 Mode Change Complete WCRRF In warm
1/12/14 1845 End of Day SECURING SCS Position [illegible]

no Further entries on this page

Best Available Copy

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-RTR2-14-0007
Examination Date:	1/17/2014
Waste Container ID:	69083
Video/Audio Recorded Media Number:	LA-RTR2-14-0007 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.: 195.5 kg Tare Wt.: 33.4 kg Net Wt.: 162.1 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: 69083

Section 3: Container Inventory and Comments (Detailed descriptions)

IM:

AM:

OM: Scrap lead

OI:

C:

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):	12.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	8.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	142.1
Soils (S):	
Total WMP Weight:	162.1

CCP Radiography Data Sheet

Waste Container ID: 69083

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		1/17/2014
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69083	Count Sequence Number:	24147
Operator:	D3PW2DK1\operator		
Assay Start:	1/18/2014 10:01:54 AM		
Description 1:	1LANDA1893		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 162.0 kg	Net:	162.0 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.820 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

DS 1.23.14
~~13~~
12

Radioassay Data Sheet

Engine Version: MMRes. Cmb. V1.2

Count Sequence Number: 24147
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 15
Item ID: 69083

Batch Number: 1LANDA1893
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 1/18/2014

Net Weight	162000.0 g		
Pu mass	6.13E+001	+-	1.61E+001 g
TRU Alpha Activity	1.04E+001	+-	1.58E+000 Ci
TRU Activity Concentration	6.42E+004	+-	9.76E+003 nCi/g
Pu-239 Equivalent Activity	1.05E+001	+-	1.58E+000 Ci
Pu-239 FGE	5.76E+001	+-	1.61E+001 g
Decay heat	3.37E-001	+-	5.12E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
SR90	1.79E-008	2.48E-006	1.26E-006	0.00E+000
CS137	2.85E-008	2.48E-006	1.26E-006	9.61E-007
U233	<LLD	<LLD	0.00E+000	1.38E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	4.00E-006
NP237	1.57E-001	1.11E-004	2.26E-005	5.16E-006
PU238	7.27E-003	1.24E-001	3.91E-002	2.19E-003
U238	<LLD	<LLD	0.00E+000	2.23E-005
PU239	5.73E+001	3.55E+000	9.97E-001	6.24E-002
PU240	3.92E+000	8.89E-001	2.79E-001	1.56E-002
AM241	1.70E+000	5.83E+000	1.19E+000	1.40E-001
PU241	7.87E-002	8.11E+000	2.55E+000	1.43E-001
PU242	1.72E-002	6.79E-005	2.13E-005	0.00E+000
AM243	1.68E-002	3.37E-003	6.92E-004	1.87E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1-22-14

ITR: _____ Date: 1-23-14

DS 1-23-14
~~14~~
13

Automated Independent Technical Review

Count Sequence Number: 24147 Batch Number: 1LANDA1893
Counter ID: MCS HENC #1
Container ID: 69083
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/18/2014

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-52,53.
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: 1-21-14

DS 1.23.14
~~15~~
14

5851764

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69083**

BDR Number: **LA14FG12014**

Sampling Date: **1/29/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	518.79	
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	0.17	U
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	0.93	U
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\140129C\
Data File : 69083.D
Acq On : 29 Jan 2014 3:41 pm (#1); 29 Jan 2014 3:40 pm (#2)
Operator : DE
Sample :
Misc : 55 GALLON ~~THROUGH FILTER~~ DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1 1-30-14

Quant Time: Jan 29 15:49:19 2014
Quant Method : C:\msdchem\1\METHODS\VOCGAS.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Tue Dec 03 09:52:38 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
3) Fluorobenzene	4.067	96	8991940	207.75 ppmv	0.00
15) Chlorobenzene-d5	6.639	117	7056274	178.75 ppmv	0.00
Target Compounds					Qvalue
1) Hydrogen	1.920	GC1	147984	518.79 ppmv	100
4) Methanol	0.831	31	1719	3.62 ppmv	100

(#) = 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-RTR2-14-0007
Examination Date:	1/17/2014
Waste Container ID:	69099
Video/Audio Recorded Media Number:	LA-RTR2-14-0007 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.: 107.0 kg Tare Wt.: 33.4 kg Net Wt.: 73.6 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:	40 %

CCP Radiography Data Sheet

Waste Container ID: 69099

Section 3: Container Inventory and Comments (Detailed descriptions)
IM:
AM:
OM:
OI:
C:
R:
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):	
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	71.6
Soils (S):	
Total WMP Weight:	73.6

CCP Radiography Data Sheet

Waste Container ID: 69099

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		1/17/2014
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	69099	Count Sequence Number:	24206
Operator:	D3PW2DK1\operator		
Assay Start:	1/25/2014 3:15:39 PM		
Description 1:	1LANDA1898		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 73.6 kg	Net:	73.6 kg
Container:	Volume: 208.0 l	Full:	40.0 %
Density:	0.890 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:	24206	Batch Number:	1LANDA1898
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:	69099	Analysis Date:	1/25/2014

Net Weight	73600.0 g			
Pu mass	7.00E+001	+-	2.64E+001	g
TRU Alpha Activity	1.41E+001	+-	6.42E+000	Ci
TRU Activity Concentration	1.92E+005	+-	8.73E+004	nCi/g
Pu-239 Equivalent Activity	1.43E+001	+-	6.42E+000	Ci
Pu-239 FGE	6.57E+001	+-	2.63E+001	g
Decay heat	4.58E-001	+-	2.13E-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	1.19E-006
U233	<LLD	<LLD	0.00E+000	1.60E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	4.34E-006
NP237	1.56E-001	1.10E-004	2.36E-005	5.75E-006
PU238	8.30E-003	1.42E-001	5.99E-002	1.87E-003
U238	<LLD	<LLD	0.00E+000	2.17E-005
PU239	6.54E+001	4.05E+000	1.63E+000	5.35E-002
PU240	4.48E+000	1.02E+000	4.34E-001	1.34E-002
AM241	2.59E+000	8.89E+000	6.20E+000	2.82E-001
PU241	9.14E-002	9.41E+000	4.02E+000	1.24E-001
PU242	1.40E-002	5.54E-005	2.36E-005	0.00E+000
AM243	2.10E-002	4.20E-003	9.05E-004	2.11E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 1.29.14

ITR: _____ Date: 1-29-14

Automated Independent Technical Review

Count Sequence Number: 24206 Batch Number: 1LANDA1898
Counter ID: MCS HENC #1
Container ID: 69099
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/25/2014

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; Gamma data specified as input.	Results taken from quantitative gamma data.
Results taken 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-52,53.
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 Chamberlin Date: 1-29-14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69099**

BDR Number: **LA14FG2010**

Sampling Date: **1/29/2014**

S851764

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	118.23	
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\140129C\
Data File : 69099.D
Acq On : 29 Jan 2014 12:00 pm (#1); 29-Jan-14, 11:59:41 (#2)
Operator : RJ
Sample :
Misc : 55 Gallon drum through filter. (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 29 12:07:54 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	3.571	96	3648565	205.75	ppmv	0.05
15) Chlorobenzene-d5	5.877	117	2825398	177.50	ppmv	0.02
Target Compounds						Qvalue
1) Hydrogen	1.621	GC1	889	118.23	ppmv	100

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

20

S851772

S851772

Container Pr 768593

File Options Reports Help

S851772

768593	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

S851772

- S851772
  - LA00000068760
    - LA00000069223 ~EMPTY
    - LA00000069208
      - LASB50069
    - W798314

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
0.001	%			

Working Copy
Date: 1-12-14

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: 68760

6.2[4] Date Processed: 1-12-14

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: Brandon Chavez / [signature] 129742 / 1-12-14
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: 68760

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 440.2 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) 523.2 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. Initials Z# Date

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.: 68760

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	69208			
10.1[4]	Daughter Drum Filter No.	L-12765			
10.1[4]	Daughter Drum Bag Filter No.	JL-806			
10.1[4]	Daughter Drum Purchase Order No.	501892			
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)				
10.3[3][A]	Approx. Containerized Liquid Vol./Units				
10.3[5][A]	Free Liquid Volume/Units	5 gal			
10.3[7][A]	Opaque/Non-penetrable Item Description:	Lead			
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[10]	Daughter Drum % Full (%)	100%			
10.5[3]/10.6[2]	Description Waste Added During Processing	Plastic Kitty litter			

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 68760

Comments: Lead, Nitrate Salts, Plastic, Kitty Litter, Liquid

11.1[1] Performed By: Brandon Chance / [signature] 1204742 11-12-14
Waste Handling Tech (print) Signature Z # Date

11.1[8] Reviewed By: Darrel L. Blain / [signature] 1218069 11-21-14 1456
SOS or designee (print) Signature Z # Date/Time

Working Copy
Date: 1-12-14

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
Manufacture Date: 13

5.[8] Overpack filtered vent and 2-in. bung torque wrench information:

	Filtered Vent	2-in. Bung
M&TE No.:		
Cal. Expiration Date:	N/A	N/A
Tolerance:		

Overpack filtered vent information:

Manufacturer:
Model No.:
Serial No.: N/A
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: N/A / /
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: prepared at TA-54

8.1[1] Performed By: Brandon Chaez / 1201742 / 1-12-14
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: Darrell L. Blain / 1218029 / 1-21-14
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 1-12-14

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[17] Overpack Drum Unique Identifier No.: 69223

7.[23] Overpack drum closure ring torque wrench information:

M&TE No.: 038370
Cal. Expiration Date: 8-3-14
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: Brandon Chacz / [signature] 204702 / 1-12-14
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: 10-14-14

7.[34][D] 85-gal overpack drum gross weight (lb): 170.2 lb

Comments: N/A

8.1[1] Performed By: Brandon Chacz / [signature] 204702 / 1-12-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Darrel L. Blain / [signature] 218069 / 1-21-14
Supervisor or designee (print) Signature Z # Date

UET Working Copy
Date: 1-11-14 cw

ATTACHMENT 1
Page 1 of 2

WCRRF DRUM PREPARATION DATA SHEET

5.[34][E] Drum ID No.: 69208

5.[3] Drum information:
Purchase Order No.: 501892
Lot No.: 024449
Manufacture Date: 13

5.[17] Drum Liner Bag/Filter Assembly:
Manufacturer: BOP
Model No.: 6CPVC1.5-2SPVC
Serial No.: L-12765
Manufacture Date: 7/13

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: Brian Cordova (Operator (print)) [signature] (Signature) 283549 (Z #) 1/11/14 (Date)

5.[23] Filtered vent information:
Manufacturer: NLCFil
Model No.: 019DS
Serial No.: JL-806
Manufacture Date: 10/11

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.: 69208

Comments: n/c

5.[35] Performed By: Brian Condon / [signature] 287544 1/11/14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Darrel L. Blain / [signature] 218069 1-21-14
Supervisor or designee (print) Signature Z # Date

ATTACHMENT 2
Page 1 of 2

WCRRF DRUM CLOSURE DATA SHEET

6.[3] Drum ID No.: 69208

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%on ±6%on

6.[10] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ YES ☐ NO

Performed By: Brandon Chavez / [signature] 1204742 / 12-12-14
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.:	N/A	N/A
Cal. Expiration Date:	N/A	N/A
Range:	N/A in-lb	N/A ft-lb
Tolerance (+/-):	N/A	N/A

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: _____ 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.: 69208

6.[26] Scale File ID number: 019065

6.[27] Scale is within the calibration frequency. ☑ SAT ☐ UNSAT

6.[28] Drum gross weight: 507.2 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: Brandon Chavez / [signature] 1209702 / 1-12-14
Operator (print) Signature Z # Date

7.1[4] Reviewed By: Darrel L. Blain / [signature] 1218069 / 1-21-14
Supervisor or designee (print) Signature Z # Date

Working Copy
Date: 1-12-14

ATTACHMENT 3
Page 1 of 1

WCRRF PARENT 55-GAL DRUM PREPARATION DATA SHEET

6.3[21] Prepared Parent 55-Gal Drum Number: 68760

6.3[15] ($) 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): 440.2

6.3[19] ($) Prepared parent 55-gal drum weighs < 624 lb: (SR 4.5.1) ☑ SAT ☐ UNSAT

Comments: N/C

8.1[1] Performed By: BRIAN GALLEGOS / Brian Gallegos / 267129 1-12-14
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: Darrel L. Blain / Darrel L. Blain / 218069 1-21-14
Supervisor or designee (print) Signature Z # Date

8.1[8][B] Acceptance criteria satisfied: ☑ YES ☐ NO

8.1[8][D] Approved by: Darrel L. Blain / Darrel L. Blain / 218069 / 1-21-14 / 1457
SOS/SOM or designee (print) Signature Z # Date Time

Salvage Drum SP 72

WDP TRU Waste Container Management Operations

UET

Document No: EP-DIV-AP-0107
Attachment: 1
Revision: 1
Effective Date: 12/22/2009

ATTACHMENT 1

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control New drum used 842 Prep. New id given in WCATS. B. Smyth 12/2/13

Container ID: S851772/68760 Container Type: 85-GAL Gross Weight (lbs): 537
Inner Seal #: 019394 Filter Prefix: LAVC Filter Serial #: 01887
AK Waste Stream: LA-MHD01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST 12 #12007
Total PE-Ci Activity: 1.31E+01 Equivalent Combustible PE-Ci: 4.97E+00 AM-241 PE-Ci: No data
Total Fissile Gram Equivalents: 146.7 Total Surface Dose Rate (mrem/hr): 2
EPA Code(s): None
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 2/13/2007 Comment: Impenetrable Obj, 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 10/31/12 ☐ 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: R. W. Jones / 117434 / 9.1.10
Production Control (Print) SUSAN S. RAMSEY Signature Z Number 100681 Date 10/31/12

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: RTR pre-screen indicates impenetrable object, liner not punctured. Waste description is leached solids in form of nitrate salts. Log sheet has 10 items, heaviest is [illegible] lbs. Net weight of 10 items is 343 lbs. May require RWP based on rad levels >2,000 mrem/hr @ 30-cm.

Performed By: michael Garcia / 1099143 / 9/9/10
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: USE PROPER PPE
Processing Determination: ☑ Accept ☑ Reject 12/6/13
TRU Remediation Operations Comments: Do not push or press on waste with hands. Use heavy duty gloves during processing.

Performed By: / 176905 / 9.20.10
TRU Remediation Operations (Print) Signature Z Number Date
Jose Jorez 221452 12/6/13

IHS Review Jeffrey Arnallwood CSP, may contain Pb, Cr, Hg 11/5/12

Noncertified TRU Waste Drum Item Information

DrumID: 019394

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	RR242URNE1		3.240	NITRATE SALTS		22.97	52	6/14	G468	
2	MX248NW1		8.180	NITRATE SALTS		8.09	52	6/14	G468	
3	OX164249NE		20.680	NITRATE SALTS		31.41	52	6/14	G468	
4	OX165251NW		21.910	NITRATE SALTS		28.61	52	6/14	G468	
5	OX163246NE		27.490	NITRATE SALTS		14.28	52	6/14	G468	
6	LR250NE1		13.180	NITRATE SALTS		8.56	52	6/14	G468	
7	LR250NW1		20.000	NITRATE SALTS		11.29	52	6/14	G468	
8	OX16525INE		16.140	NITRATE SALTS		16.53	52	6/14	G468	
9	LR252NE1		8.180	NITRATE SALTS		2.87	51	6/14	G468	
10	LR252NW1		16.820	NITRATE SALTS		10.9	51	6/14	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 215.

Material Type	SNM (grams)	Items Net Wt (kg)
51	13.77	25.00
52	141.74	130.82
Totals	155.51	155.82

ATTACHMENT 1
Page 1 of 2

HYDROGEN/VOC SAMPLING USING GAS CHROMATOGRAPHY DATA SHEET

7.[1] Sample Date: 9/20/10

7.[7] Certified CCP Technician:

CCP (Print)	Signature	Z #	Date
Erik Loechell	Erik Loechell	234163	9-22-10

Container No. (7.[1]):	S851772	S873042	S824620
Container Type (SWB, 110/85/55-gal) (7.[1]):	55gal.	55gal.	55gal.
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			
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			
1-Butanol			
Methanol			
Methyl ethyl ketone			
Methyl isobutyl ketone			
Total CCP VOC value (ppm) (7.[11]):	0	0	0

ATTACHMENT 1
Page 2 of 2

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

	Container Number (7.[1]):	S851772	S873002	S824620
	Hydrogen Reading (ppm) (7.[10]):	1,279.50 ppm	2,879.74 ppm	0 ppm
	Methane Reading (ppm) (7.[10]):	0 ppm	0 ppm	0 ppm
	Total VOC Reading (ppm) (7.[11]):	0 ppm	0 ppm	0 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: 55 gal. drums inside 85 gal. overpacks.

11.1[1] Performed By: Valerie Martinez [signature] 239758 9/20/10
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]/ 11.1[8] Reviewed By: Kenny Romero [signature] 117861 9.21.10
Waste Handling Supervisor (print) Signature Z # Date

InstName : Unit-2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\100920c\
Data File : [redacted]51772.D
Acq On : 20 Sep 2010 10:02 am (#1); 20-Sep-10, 10:01:28 (#2)
Operator : EL
Sample :
Misc : 55 GAL LFL DRUM INSIDE 85 GAL OVERPACK (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 20 10:10:09 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	3.625	96	3361599	207.75	ppmv	-0.02
15) Chlorobenzene-d5	5.955	117	2012074	180.75	ppmv	-0.02
Target Compounds						Qvalue
1) Hydrogen	1.637	GC1	9806	1279.56	ppmv	100

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

vocgas.m Mon Sep 20 10:10:26 2010

12-14
0553 Logging WCPEF Operations center - Cleland
0615 Pre job being conducted by SOS.
0620 Starting inside rounds
0627 Starting outside rounds
0649 Outside rounds complete
0650 Item #3 OCS, POD in place okay to proceed per CSE documentation
0653 Inside rounds complete.
0708 Rounds signed off by SOS
0709 Made change to operations inside TA50-69 and WCPEF yard.
0748 Bagging on 48759
0758 Bag on complete
0830 Bagging off 1 daughter, bagging on another
0855 Bag on, Bag off complete
0933 Starting to decrest 4 drums, bagging off then will bag on 48816
1042 Derusting is complete bagging on 48816 and bagging off 48759
1138 Operations notified Ops center that small forklift is leaking oil. SDM directed operator to move forklift out of yard and SDM has initiated caution tag. FSR will be submitted
1140 Bagging off 1 daughter, bagging on 1 daughter.
1150 Submitted FSR # 116309 for small forklift leak.
1207 Bag on, Bag off complete
1350 Bagging off, bagging on 48760
1411 Bag on, Bag off complete
1418 Starting inside rounds
1455 Starting movement out of 50-69
1509 movement out of 50-69 complete.
1521 Item #3 is OCS, POD in place okay to proceed per CSE documentation.
1525 Starting movement into 50-69.
1530 inside rounds complete.
- Continued on next page - Cleland

1-12-14

1540 Starting outside rounds.
1543 movement into 5069 complete.
1553 Outside rounds complete.
1600 Bagging off, bagging on 68815
HM 1628 Bag on, bag off complete
1805 Bagging off & daughtered and will be installing port cover.
1806 ICD in gauge ~~PB9-14~~ PDI-009 is not a credited gauge for confinement ventilation operation valves VSV-172 and VSV 175 are closed isolating the open lines from main duct work. Confinement ventilation is determined to be operable. per SOM and OM.
1832 Bag off complete.
1835 mode change to warm, TASD-69 and WCRRF yard
1-12-14 1900 End of day WCRRF operations Center secure. Cowlitz

20 further entries this page

13

11/12/14 WCRR SOM.

0600 Assumed the WCRR SOM position.

0630 Completed attending the pre job brief conducted by SOS G. Martinez. ES IH safety topic was pay attention to pinch points - last work day of week so finish safely. Discussed work plan for today - have one drum ready to put on box and 4 for denesting/prepping. Operators discussed having enough Kitty litter staged in WCC in case another SP 72 drum contains large amounts of liquid similar to third drum processed yesterday.

0709 Completed Mode Change: WCRR Yard/Bldg 50-69 from Warm/Warm to Operations/Operations

0758 Completed bag on of parent # 68759

0855 Completed bag off of 1 daughter, Continuing to process.

1042 Operators reported denesting of 4 drums completed. All bag offs for parent # 68759 are complete (2 daughters total) and bagged on drum # 68816.

1140 Operators reported hydraulic leak on mast of small Toyota Forklift. Forklift moved to admin yard next to Bldg 50-54, and caution tagged "Do Not use". FSR submitted # 116309.

1207 Completed bag off of 1 daughter, continuing to process

1411 Completed all bag offs for parent # 68816 (2 daughters total), bagged on drum # 68760.

1445 SOS ~~[illegible]~~ 11/12/14 reported that SED's package for drum # 5861980 could not be found. Holding off moving drum into 50-69 until package is located or reproduced from Sel. Package Manager.

1545 During MOV walkdown of WCRR yard identified gage lines to PDI-009 are separated from gage. Gage reading is not a credited reading for operation of the Ventilation System and is not on daily roundsheets. Notified OM.

1555 Notified Engineering On Call L. Moore regarding PDI-009 gage lines. He will notify CSE C. Pilcher and start work package to troubleshoot/repair. Recommended closing isolation valves if possible to isolate openings from main duct work. Will investigate if location of valves will allow. Directing RP-1 to perform survey even though gage lines are downstream of HEPA filters.

Cont. next page →

1/12/14 WCRR SOM continued.

1652 Survey of gage lines for PDI-009 are MDA. Values 1/12/14
VS-V-172 and 175 are closed. ~~POD - Prompt~~ Immediate
Operability Determination completed that Confinement Vent. Sys
is operable. Gage lines from main duct work are isolated
and PDI-009 is not a predicted gage for system operation.
OM concurs.

1700 Late Entry @ 1628 Completed all bag offs for parent #68760
(1 daughter total), bagged on 68815. MA

1805 Bagging off 2 daughters

1810 Verified 50-69 thermostat is reset to 77°F.

1832 All bag offs completed for parent # 68815 (2 daughters
total). Port Cover in place.

1835 Completed Mode Change: WCRR Yard / Bldgs 50-69
from Operations / Operations to Warm / Warm

1840 SOS reported that operators performed a sweep up of the
WCG. Did not have time for a thorough wipe down and
glove inspection.

1900 Secured WCRR SOM.

No further entries this page
MA

PROJECT NAME WCRR SOS LOG BOOK NOTEBOOK NO.

1-12-12

0705 Reviewed SOS Turnover And Assuming Position [illegible]
0715 Waiting to see what path forward is before briefing
0831 Pre brief conducted Reviewed MSDS sheet for RIP Chemicals. RWP And Precautionary Measures of Operations In 50-69 In case ventilation goes Down
0910 Brief conducted
0947 Shutting Down ventilation so ~~maintenance~~ elect can replace bypass to UPS
0950 Shut down Complete
1012 UPS Restored to original state
1033 STARTed up Ventilation
1045 Reviewed Inside And outside Rounds.
1200 Per CSE ok to do rounds And mark out On TE-001 TE-002 On VCC-001 And a print out
1300 Exited Ventilation CCO's
1325 Exited Fire Supression CCO's
1340 Mode Change Complete Yard And 50-69 operational
1355 Operators Going In to ~~filter~~ Contain bag old Drum And reveset
1530 Met with Juliewed on parot beak And Combustible Issue Item Going Inside
1611 Reviewed Inside And outside Rounds
1615 Mode Change Complete WCRR Yard In warm TA 50-69 In Cold.
1630 End of shift Securing SOS Position [illegible]

GW 2/10/12

No further entries on this Page

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-14-0006
Examination Date:	1/16/2014
Waste Container ID:	69208
Video/Audio Recorded Media Number:	LA-HERTR-14-0006 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:	LA212
Waste Matrix Code:	S3110
Waste Stream I.D.:	LA-MIN02-V.001
Waste Container Weights:	Gross Wt.: 229.5 kg Tare Wt.: 33.4 kg Net Wt.: 196.1 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: 69208

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal

AM:

OM: Scrap lead

OI:

C:

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):	2.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	8.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	2.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	184.1
Soils (S):	
Total WMP Weight:	196.1

CCP Radiography Data Sheet

Waste Container ID: 69208

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	1/16/2014
Print Name	Signature	Date

5851772

NDA 2000 Assay Report

Item Information

Item ID:	69208	Count Sequence Number:	24137
Operator:	D3PW2DK1\operator		
Assay Start:	1/17/2014 11:19:32 AM		
Description 1:	1LANDA1892		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 196.0 kg	Net:	196.0 kg
Container:	Volume: 208.0 l	Full:	95.0 %
Density:	0.990 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:	24137	Batch Number:	1LANDA1892
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:	69208	Analysis Date:	1/17/2014

Net Weight	196000.0 g			
Pu mass	1.67E+002	+-	4.18E+001	g
TRU Alpha Activity	3.83E+001	+-	1.49E+001	Ci
TRU Activity Concentration	1.95E+005	+-	7.58E+004	nCi/g
Pu-239 Equivalent Activity	3.86E+001	+-	1.49E+001	Ci
Pu-239 FGE	1.58E+002	+-	4.17E+001	g
Decay heat	1.25E+000	+-	4.93E-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	4.35E-006
U233	<LLD	<LLD	0.00E+000	5.61E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.58E-005
NP237	3.97E-001	2.80E-004	6.43E-005	2.38E-005
PU238	1.52E-002	2.60E-001	7.82E-002	6.60E-003
U238	<LLD	<LLD	0.00E+000	8.65E-005
PU239	1.57E+002	9.72E+000	2.58E+000	2.47E-001
PU240	9.56E+000	2.17E+000	6.53E-001	5.51E-002
AM241	7.62E+000	2.61E+001	1.46E+001	6.08E-001
PU241	1.80E-001	1.85E+001	5.58E+000	4.71E-001
PU242	3.34E-002	1.32E-004	3.97E-005	0.00E+000
AM243	9.02E-002	1.80E-002	4.13E-003	1.09E-004

Errors quoted at 1.000 sigma

Operator: _____ Date: 1.21.14

ITR: _____ Date: 1/22/14

Automated Independent Technical Review

Count Sequence Number: 24137 Batch Number: 1LANDA1892
Counter ID: MCS HENC #1
Container ID: 69208
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 1/17/2014

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
NCC Pu mass was above calibration range.	Multiplication in drum. Neutron results rejected. Gamma results applied.
FGE is greater than the upper limit of 200.00	
The Standard NCC Pu effective mass exceeds the Upper Calibration Limit.	
No roots found within the limits while determining the Standard NCC Pu Mass, Chose largest positive root.	
Ones Rate Analysis complete with warnings.	
- Error calculating the Ones Rate Pu-240 Effective MDA.	Not data affecting.

Comments	Disposition
Section 3 - Data Combiner Analysis Override enabled; Gamma data specified as input. Analysis Status: Override enabled; data marked not available but were used. 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-52,51.
Section 5 - Gamma Analysis Analysis Status: No errors. MCA Deadtime greater than the upper limit of 50.0%. Spectrum Validity Check engine has suggested data review.	Ok MCA deadtime = 72.78%. No spectral distortion observed. After EA review, spectrum valid.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified. Pu239 FGE >200g with 2*TMU but <325g.

Expert Review by: Shari Chamberlin Date: 1-20-14

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **69208**

BDR Number: **LA14FG2015**

Sampling Date: **2/5/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	378.63	
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\140205c\
Data File : 69208.D
Acq On : 5 Feb 2014 12:21 pm (#1); 05-Feb-14, 12:21:03 (#2)
Operator : NW
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 05 12:30:17 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	3.588	96	3415460	205.75	ppmv	0.07
15) Chlorobenzene-d5	5.884	117	2668525	177.50	ppmv	0.02
Target Compounds						Qvalue
1) Hydrogen	1.605	GC1	2847m	378.63	ppmv	

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

S851852

S851852

Container P 770077

File Options Reports Help

S851852

770077	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

S851852

S851852
- 94070 - EMPTY
- 94069 WIPP
- 94068 - LANL

Task History

Transfer Details

Transfer Amount	Transfer Unit	Item	Measured Weight	Measured Weig...
49.99947775	%			

7-25-13

ATTACHMENT 1
Page 1 of 4

WCRRF WCG WASTE PROCESSING DATA SHEET

4.1[6][B] Parent Waste Container No.: S951852

6.2[4] Date Processed: 7-25-13

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: 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: 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:
(> 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:
EM 7-25-13 ☒ 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] / 125794 / 7-25-13
Waste Handling Tech (print) Signature Z # Date

ATTACHMENT 1
Page 2 of 4

4.1[6][B] Parent Waste Container No.: S851852

5.[18] Prepared Parent Drum Weight (lb) including items secured to drum top, as applicable: 395.4 lb

6.2[5][A] Parent Drum Lead Blanket Weight (lb): 120 lb

6.2[5][B]/ 6.2[6] Total Parent Drum Weight (lb) 515 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.: 5891852

Daughter Drums					
10.1[4]/10.2[4]	Daughter Drum No.	94068	94069	N	
10.1[4]	Daughter Drum Filter No.	KL-629	KL-499	A	
10.1[4]	Daughter Drum Bag Filter No.	L-6920	L-6850		
10.1[4]	Daughter Drum Purchase Order No.	501103	501103		
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	3 GALLONS	1 LITTER		
10.3[7][A]	Opaque/Non-penetrable Item Description:	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		
10.3[13]/10.4[10]/ 10.5[4]/10.6[10]	Daughter Drum % Full (%)	90%	30%		
10.5[3]/10.6[2]	Description Waste Added During Processing	BAG OUT STUBS, KITTY LITTER	BAG OUT STUBS, KITTY LITTER		

ATTACHMENT 1
Page 4 of 4

4.1[6][B] Parent Waste Container No.: 5851852

Comments: ROOM TRASH, PLASTICS, SALTS, KITTY LITTER, LEAD SHIELDING

11.1[1] Performed By: BRIAN GALLEGOS / [signature] 149129 / 7-25-13
Waste Handling Tech (print) Signature Z # Date

11.1[7] Reviewed By: GMB / [signature] 149235 / 8/5/13 11:14
SOS or designee (print) Signature Z # Date/Time

ATTACHMENT 2
Page 1 of 1

07/16/13 BG

WCRRF OVERPACK DRUM ASSEMBLY PREPARATION DATA SHEET

5.[3] Overpack drum information:

Purchase Order No.: 501323
Lot No.: 0238025
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.: JL-18216
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: BRIAN GALLEGOS / B. Gallegos / 267129 7-16-13
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: BRIAN GALLEGOS / B. Gallegos / 267129 7-16-13
Waste Handling Technician (print) Signature Z # Date

8.1[6] Reviewed By: GMK / [signature] / 149235 8/5/13
Supervisor or designee (print) Signature Z # Date

7-25-13 AE

ATTACHMENT 5
Page 1 of 1

WCRRF OVERPACK DRUM CLOSURE DATA SHEET

7.[18] Overpack Drum Unique Identifier No.: 94070

7.[24] Overpack drum closure ring torque wrench information:

M&TE No.: 038373
Cal. Expiration Date: 9-11-13
Range in ft-lb: 10-80
Tolerance: ±3% cw ±6% ccw

7.[25] Torque wrench listed above is within the acceptable ranges as displayed on the calibration certificate. ☑ Yes ☐ No

Performed By: Brian Gallegos / [signature] / 2671259 7-25-13
Waste Handling Technician (print) Signature Z # Date

7.[27] Overpack drum closure ring torque value: 60 ft-lb

7.[30] Threaded lug of the drum closure ring is not touching the jam nut and the locking ring lugs are not touching. ☑ SAT ☐ UNSAT

7.[35][B] Platform scale serial number: 019065
Platform scale calibration expiration date: 10-14-14

7.[35][D] 85-gal overpack drum gross weight (lb): 181.6 lb

Comments: N/C

8.1[1] Performed By: Brian Gallegos / [signature] / 2671259 7-25-13
Waste Handling Technician (print) Signature Z # Date

8.1[7] Reviewed By: [signature] / [signature] / 149235 8/5/13
Supervisor or designee (print) Signature Z # Date

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

Drum ID#: 94068

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 #: 501153
Lot #: 0838726
Date of Manufacture: 17

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 #: 6PC1.25PC
Serial #: L-6926
Date of Manufacture: 1-13

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 #: KL-609
Date of Manufacture: 11-11

RECORD torque wrench information:

Filter torque wrench:		Jam Nut / Bung torque wrench:	
M&TE ID #:	100216	M&TE ID #:	038369
Cal Expiration Date:	12-18-13	Cal Expiration Date:	12-18-13
Range (ft-lbs or in-lbs):	40-200	Range (ft-lbs or in-lbs):	10-80
Tolerance:	±4.8Nm ±6%	Tolerance:	±3.8Nm ±6.40Nm

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

- [x] Yes
- [ ] No

Print Name: Brandon Chavez Signature: [signature] Z#: 204712

5. Weigh Drum Assembly

RECORD weight information

Tare wight (lbs) 76.3
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: Brandon Chavez Operator Sign: [signature] Z#: 204712 Date: 7-15-13

Verifier Print: Brian Gallegos Verifier Sign: [signature] Z#: 2467129 Date: 7-25-13

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

DRUM ID#: 94065

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 #: 038373

Cal expiration date: 9-11-2013

Range/ Value (ft-lbs): 10 - 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): 397.6

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 7-25-13

Verifier Print/Sign: [illegible] Date: 7-25-13

Date: 07/16/13

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

Drum ID#: 94069

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 #: 501103
- Lot #: 0234766
- Date of Manufacture: 3612

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 #: 60X-1.5-1.5PVC
- Serial #: 1-6850
- Date of Manufacture: 1-13

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: N.C.S.I
- Model #: 019DS
- Serial #: SL-499
- Date of Manufacture: 11-11

RECORD torque wrench information:

Filter torque wrench:
- M&TE ID #: 100216
- Cal Expiration Date: 12-18-13
- Range (ft-lbs or in-lbs): 10-200
- Tolerance: ±4% ± 6% (

Jam Nut / Bung torque wrench:
- M&TE ID #: 038369
- Cal Expiration Date: 12-18-12
- Range (ft-lbs or in-lbs): 0-80
- Tolerance: ±3% ± 6% (

Torque wrenches listed above are within the acceptable ranges as displayed on the calibration certificate.
[x] Yes [ ] No
Print Name: Justin Lopez Signature: [signature] ZI#: 266436

5. Weigh Drum Assembly
RECORD weight information
- Tare wight (lbs) 75.8
- File ID #: 019045

[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: Justin Lopez Operator Sign: [signature] ZI#: 266436 Date: 7-16-13
Verifier Print: Brian Gallegos Verifier Sign: [signature] ZI#: 207129 Date: 7-25-13

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

DRUM ID#: 94069

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 #: 039373

Cal expiration date: 9-11-13

Range/ Value (ft-lbs): 10-80

— 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): 185.6

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: [signature] Date 7-25-13

Verifier Print/Sign: [signature] Date: 7-25-13

WDP WASTE REMEDIATION SAFETY EVALUATION DATA SHEET

Production Control

Container ID: S851852 Container Type: 55-GAL Gross Weight (lbs): 410
Inner Seal #: 019321 Filter Prefix: LAVC Filter Serial #: 01224
AK Waste Stream: LA-CIN01.001 Certified RTR BDR: No BDR
TWSR Comments: LEACHED SOLIDS MST 12
Total PE-Ci Activity: 1.52E+01 Equivalent Combustible PE-Ci: 5.70E+00 AM-241 PE-Ci: 1.23E+00
Total Fissile Gram Equivalents: 167.8 Total Surface Dose Rate (mrem/hr): 3
EPA Code(s): D008 D007 D009 WL 12/11/12
NCR RTR/NDA Comment: None
RTR Pre-Screen Date: 9/19/2012 Comment: 5 GAL from 24" to 32" unvented liner
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: None Production Control Comments: Apply kitty litter/zeolite mixture. WL 11/28/12

Performed By: Julie Gallegos (Production Control (Print)) Julie Gallegos (Signature) 176905 (Z Number) 10/18/12 (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
Net Wt: 350# Generator info shows 8 items of nitrate salts; weights range from 7-73#. No RTR BDR available for review. Nitrate salts are typically packaged in plastic bags to contain undecanted liquids. RTR PS shows presence of liquids + unvented liner. Nitrate salts require repack w/ admixture. No chemicals identified; nitrate salts carry waste codes for chromium, lead, + mercury.

Performed By: Valerie Rhodes (WDP Engineering (Print)) Valerie Rhodes (Signature) 112609 (Z Number) 12/12/12 (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 Proven PDE and kitty litter ratio

Performed By: [illegible] (TRU Remediation Operations (Print)) [illegible] (Signature) 149035 (Z Number) 6/20/13 (Date)
Jose Jaez (Signature) 221452 7/2/13

IHS REVIEW: RB 206362 12.17.12

Noncertified TRU Waste Drum Item Information

DrumID: 019321

Item No	ItemID	Process Status	Net Wt (kg)	Matrix	Meas Code	SNM (g)	MT	Auth (Pg/Ln)		Comments
1	BR253VRNE1		6.360	NITRATE SALTS		1.26	52	6/14	G468	
2	DSL256NW1		33.180	NITRATE SALTS		69.62	52	6/14	G468	
3	DSL256NE1		15.000	NITRATE SALTS		8.07	52	6/14	G468	
4	DIST255NE1		3.410	NITRATE SALTS		6.89	52	6/14	G468	
5	OX167257NE		28.860	NITRATE SALTS		23.96	52	6/14	G468	
6	LR261NW1		13.410	NITRATE SALTS		13.4	52	6/14	G468	
7	OX168260NW		8.640	NITRATE SALTS		18.38	52	6/14	G468	
8	LR259NE1		14.090	NITRATE SALTS		36.69	52	6/14	G468	

Noncertified Waste Drum Material Summary

Gross Wt (kg): 186.1

Material Type	SNM (grams)	Items Net Wt (kg)
52	178.27	122.95
Totals	178.27	122.95

ATTACHMENT 1
Page 1 of 1

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

5.[1] Sample Date: Feb 13 2013

Container No. (5.[1])	S851852					
Container type sampled (e.g., 55-gal, 85-gal, 110-gal, or SWB) (5.[1])	55 gal					
Filtered Vent Type (5.[1])	12					
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	2 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: Gabe Romero (CCP (Print)) 236973 (Z#)

Reviewed By: Rick Jagielski (CCP (Print)) 266088 (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: Julie Gallegos (Waste Handling Operator (print)) Julie Gallegos (Signature) 176905 (Z#) 2-13-13 (Date)

Quantitation Report (QT Reviewed)

InstName : FGA Unit 12

Data Path : C:\msdchem\1\DATA\130213I\
Data File : S851852.D
Acq On : 13 Feb 2013 3:10 pm (#1); 13 Feb 2013 3:08 pm (#2)
Operator : GR
Sample :
Misc : 55 GAL DRUM THROUGH UNOBSTRUCTED NUCFIL-072 (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 13 15:14:17 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Wed Feb 13 14:42:56 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Target Compounds	Qvalue

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

H2-CH4.M Wed Feb 13 15:14:38 2013 UNIT12

7-24-13

1803 Assuming WCRRF Operations Center. Jessing
1815 Prejob being conducted by SOS.
1830 Prejob has been concluded.
1910 Operators headed into 50-69 to prep area for Hepa filter changes.
2004 Starting Hepa filter changes.
2025 Filter changes have been completed.
2027 Operators have notified that a bolt has broken off of Hepa filter cover so now there is 2 bolts missing rather than 1.
2220 Second prejob conducted with the full crew. Before heading in.
2245 Concluded second prejob.
2307 Mode changed perfomed TA-50-69 and WCRRF Yard in Operat
0020 Bagging on drum # S832554.
0032 Bag on Completed.
0045 Operators out for lunch.
0153 Operators headed back into 50-69
0331 Bagging off 1 daughter bagging on S833356
0358 Bag off/on Complet, notified by operator of elevated Cam in room 102.
0416 Starting outside rounds.
0430 GE 7.25.13 Item #3 UNSAT, FSR IA place ok to proceed.
0431 ~~0400~~ LATE ENTRY @ 0406 Cam went back to normal reading
0442 Completed outside rounds.
0523 Bagging off 1 daughter bagging on S851852.
0544 Bag off/on Complete.
0545 Starting inside rounds.
0600 Item #63 OOS, POD in place, OK to proceed.
0602 Completed inside rounds.
MA 0605 Performing shift turnover with OCO Clarissa Velarde, Gerald Ell

No further entries this page

1251 Assuming WCRR operations center-Orlando
0810 Pre job being ~~conducted~~ CW 7-25-13 performed by SOS
0817 Rounds have been signed off by SOS
0834 Permission granted to lower vehicle access gates for loading of ~~this~~ CW 7-25-13 transport vehicle. Operators inside are continuing to process S851852
0816 Transportainers doors have been closed and latched
0829 Vehicle access gates have been restored, movement to transportainers is complete.
0836 CCP has completed the tours and has exited facility.
0843 Bagging off 1 daughter, bagging on 1 daughter
0848 Starting movement into 50-69.
0900 movement into 50-69 complete.
0901 Bag off is complete
0946 Starting movement out of 50-69
1004 movement out of 50-69 is complete.
1018 Bagging off S851852, bagging on S833923
1056 bag in bag out complete.
1230 Operators exiting 50-69 for lunch.
1326 Operators continuing to process.
1415 Bagging off 1 daughter and POC, bagging on S834182
1441 Starting outside rounds.
1444 Item #3 is unsat, FSR in place ok to proceed.
1450 bag off, bag on complete.
1457 Completed outside rounds.
1516 Starting inside rounds.
1526 Item #63 is OOS, POD in place okay to proceed
1535 Inside rounds complete.
1553 Starting movement ~~out~~ CW 7-25-13 out of 50-69
1622 movement is complete out 50-69
1642 Rounds have been signed off by SOS.
1652 Bagging off 1 daughter 2 pocs, bagging on S835372
1716 Bag on, bag off is complete.
1812 Rick running shift + turnover with CCO Gerald Espinoza
no further entries

Operator

reading

Gerald Espinoza

PROJECT NAME 7/24/13 Night Shift NOTEBOOK NO.

1803 Reviewed Shift Turnover Check list and assumed WCRR SOM position.

1810 SOS notified the 4 Operators that are scheduled for Atomics training @ TA-46. None were aware of it.

1815 SOS conducting a pre job brief w/ crew left behind from training. Discussed changing out WCG HEPA Filter and verifying operator aid postings. Safety topic from IH related to the skin rash an operator had from respirator wear on day shift and other possible causes besides changing respirator type/materials.

2025 Operators completed WCG HEPA filter installation. They reported that WCG vacuum changed from -0.86 to -0.89 in WC and lower filter was flush w/ housing.

2220 Operators returned from Atomics training and SOS conducting pre job brief prior to going into operations. Briefed crew to 2 new procedure changes for FSS Monthly Valve Alignment and Ventilation S/U Procedure. Shift Order WCRR-SH-13-003 R.2 Manual Drum Movements in effect.

2307 Approved and posted Operations Watch bill - Completed Mode Change. WCRR Yard / Bldg 50-69 from Warm/Warm to Operations/Operations.

7/25/13 0032 Completed Bag on of drum # 5832554.

0045 Operators breaking for lunch.

0153 Resuming operations.

0358 Completed all bag offs of parent 5832554 (1 daughter) and bag on of 5833354. RP-1 notified there is an elevated CAM in Rm 102

0406 CAM reading returned to normal.

0415 Directed Operator PIC to replace operator aid # 50-11-07 R.1 w/ R2 to update Quarterly Combustible Loading information ~~on~~ 7/25/13 inside 50-69. Quarterly Operator Aid Posting Review is complete.

0544 Completed bag off of parent 5833354 w/ 1 daughter and bag on of 5851852.

0609 Secured Night Shift SOM. Turned over to J. Guandagnoli.

No further entries this page

SIGNATURE DATE 7/25 20 13

READ AND UNDERSTOOD DATE 20

7-25-13 ~~Day~~ Day Shift

0609 Received, Reviewed, Shift Turnover Checklist and assumed WCRR SOM Position. John Guadagni

0610 Reviewed, approved and posted the day shift watch bill.

0638 Completed attending the project brief conducted by the SOS (Lulbert). The safety topic was clean respirators with ~~[illegible]~~ same page 7-25-13 swipes. There is one scheduled transfer out, we anticipate CBFD to visit 50/69, Operations will secure two condensers, two procedures were reviewed and the scheduled maintenance for Friday was reviewed to give the escorts an idea of what is scheduled.

0769 Call into TA-54 SOM - STATES daily activities.

0820 Operations transfer 16 drums to the transfer vehicle safe and compliant. 16 drums total were transfered.

0826 CBFD personnel (4 were briefed by RCT in RWP) and escorted to 50/69 to view the WCG - CCP - escorted the team.

0838 CBFD exits and leaves the WCRR facility - no impact to operations

0843 Inside Operations conducted a bag off of 1 Daughter from Parent 5851852

0900 Inside PIC notifies the Ops Center that bag-off is completed, and continue processing

1015 Completed attending back in Meeting TA-54.

1018 Inside Operations completed Bag off of another daughter (Parent 5851852 generated 2 daughters) Parent 5833923 was bagged on.

1030 ATTENDED Weekly Project team meeting, reviewed and obtained project info.

1133 Provided daily WCRF update to PM and OM

1415 Inside Operations completed bagging off 1 daughter and 1 ~~Parent from~~ POC 7-25-13 generated from Parent drum 5833923. Also Parent drum 5824468 was bagged on.

1553 Starting movement out of 50-69

1559 The Quarterly Operation AID / Posting LOGBOOK was signed off after removal of one AID, Complete verification was conducted the prior night noting compliance with all other AIDs and Postings.

1622 Drum movement out of 50-69 noted complete -

1715 Completed shift turnover checklist.

1720 Secured the Day Shift SOM position John Guadagni

No further Entries this Page
JG

7/24/13 WCRR SOS Log Book

1801 Assuming SOS position. CA

1815 Starting Pre-Job, half the crew has training, the half remaining on site will change HEPA filter and perform quarterly check of operator aids.

1830 Pre-Job complete.

2004 Starting HEPA filter change.

2025 HEPA filter change complete.

2027 Operators have notified that a second bolt has broken of the filter cover of the outlet port closest to the Introduction box of the WCG.

2220 Starting second Pre-Job with full crew

2245 Completed second Pre-Job.

2307 Mode change complete, WCRRF yard and 50-69 are now in Operations.

0020 Bagging on 5832554.

0032 Bag on complete.

0331 Bagging off 1 daughter, bagging on 5833356.

0358 Bag off/on complete.

0521 Bagging off 1 daughter, bagging on 5851852.

0544 Bag off/on complete.

0555 Stack sampling being performed.

0601 Stack sampling completed.

0617 Signed off on the rounds.

0618 Turning over SOS position to Gilbert Martinez. CA

No Further Entries on this Page

7/25/19 WCRR SOS LOGBOOK

0600 Assuming SOS Position

0615 Conducted shift brief wentover EP-WCRR-RS-DOP-0201 Rev and EP-WCRR-FP-DOP-0303 R.5 Also to stay Hydrated and take breaks as necessary

0640 Concluded shift brief

0700 Continuing operations on drum 5851852

0734 starting shipment out

0823 shipment out complete

0848 Bagging off 1 daughter Bagging on another

0901 Bag off complete

1018 Bagging off 5851852 Bagging on 1823523

1056 Bag-on, off Complete

1230 Operator Leaving to lunch

1326 operator's Continuing operations

1415 Bagging off 1 daughter and PO2 Bagging on 5824168

1441 Starting Outside Rounds

1642 Signed off Inside and outside Rounds

1722 Bagging off 1 daughter 2 Pocs Bagging on 5835372

1810 Bag off/on Complete

1815 Turning over SOS Position to clayton mullins

Initials 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-HERTR-13-0090
Examination Date:	8/5/2013
Waste Container ID:	94068
Video/Audio Recorded Media Number:	LA-HERTR-13-0090 A&B
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:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 180.5 kg Tare Wt.: 33.4 kg Net Wt.: 147.1 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: 94068

Section 3: Container Inventory and Comments (Detailed descriptions)

IM: Scrap metal

AM:

OM: Scrap lead

OI:

C:

R:

XPM: Plastic bags, plastic 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):	2.0
Aluminum-based Metals / Alloys (AM):	
Other Metals (OM):	10.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	131.1
Soils (S):	
Total WMP Weight:	147.1

CCP Radiography Data Sheet

Waste Container ID: 94068

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		8/5/2013
Print Name	Signature	Date

S851852

NDA 2000 Assay Report

Item Information

Item ID:	94068	Count Sequence Number:	16318
Operator:	DCLTD231\Operator		
Assay Start:	8/6/2013 11:03:58 AM		
Description 1:	2LANDA1206		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gal Drum		
Weight:	Net: 147.0 kg	Net:	147.0 kg
Container:	Volume: 208.0 l	Full:	80.0 %
Density:	0.880 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:	16318	Batch Number:	2LANDA1206
Assay Instrument:	HENC #2	Location:	LANL TA-54
Analysis Method:	CCP-TP-063 v 14	Software Version:	NDA 2000 V.4.0
Item ID:	94068	Analysis Date:	8/6/2013

Net Weight	147000.0 g		
Pu mass	1.84E+002	+-	5.54E+001 g
TRU Alpha Activity	2.83E+001	+-	1.09E+001 Ci
TRU Activity Concentration	1.92E+005	+-	7.42E+004 nCi/g
Pu-239 Equivalent Activity	2.87E+001	+-	1.09E+001 Ci
Pu-239 FGE	1.73E+002	+-	5.53E+001 g
Decay heat	9.13E-001	+-	3.60E-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	1.86E-006
U233	<LLD	<LLD	0.00E+000	2.79E-002
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	8.59E-006
NP237	3.97E-001	2.80E-004	5.93E-005	6.04E-006
PU238	1.68E-002	2.87E-001	1.01E-001	2.67E-003
U238	<LLD	<LLD	0.00E+000	3.80E-005
PU239	1.72E+002	1.07E+001	3.43E+000	9.93E-002
PU240	1.10E+001	2.50E+000	8.77E-001	2.32E-002
AM241	4.32E+000	1.48E+001	1.03E+001	4.01E-001
PU241	2.13E-001	2.20E+001	7.70E+000	2.04E-001
PU242	3.67E-002	1.45E-004	5.09E-005	0.00E+000
AM243	2.03E-002	4.06E-003	8.61E-004	3.91E-005

Errors quoted at 1.000 sigma

Operator: _____ Date: 8-8-13

ITR: _____ Date: 8-8-13

Automated Independent Technical Review

Count Sequence Number: 16318 Batch Number: 2LANDA1206
Counter ID: HENC #2
Container ID: 94068
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 8/6/2013

Comments	Disposition
Section 1 - Add-A-Source Analysis No Add-a-Source warnings.	Ok
Section 2 - Passive Neutron Analysis Analysis Status: No errors.	Ok
FGE is greater than the upper limit of 200.00	Multiplication in drum. Neutron results rejected. Gamma results applied.
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. Analysis Status: Override enabled; data marked not available but were used. 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.

Comments	Disposition
Section 5 - Gamma Analysis	
Analysis Status: No errors.	Ok
MCA Deadtime greater than the upper limit of 50.0%.	No spectral distortion observed. Spectrum valid.
Miscellaneous	No additional nuclides contributing to 95% of the radiological hazard identified. Pu239 FGE >200g with 2*TMU but <325g.

Expert Review by: Sheri Chambers Date: 8-7-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **94068**

BDR Number: **LA14FG12026**

Sampling Date: **2/25/2014**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	611.69	
74-82-8	Methane	6.56	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	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\140225C\
Data File : 94068.D
Acq On : 25 Feb 2014 12:55 pm (#1); 25 Feb 2014 12:53 pm (#2)
Operator : RJ
Sample :
Misc : 55 Gal. drum through filter, NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 25 12:59:09 2014
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.917	GC1	174484m	611.69	ppmv	

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

32

2-25-14 gm
30

585185 2

CCP Radiography Data Sheet

Section 1: General Information

[X] RTR Examination [ ] RTR Replicate Scan [ ] RTR Independent Observation	
Site ID:	LANL
Batch Number:	LA-RTR2-13-0096
Examination Date:	7/30/2013
Waste Container ID:	94069
Video/Audio Recorded Media Number:	LA-RTR2-13-0096 A&B
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
RUCON Code:	LA226
Waste Matrix Code:	S3150
Waste Stream I.D.:	LA-CIN01.001
Waste Container Weights:	Gross Wt.: 84.5 kg Tare Wt.: 33.4 kg Net Wt.: 51.1 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:	35 %

CCP Radiography Data Sheet

Waste Container ID: 94069

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):	8.0
Other Inorganic Materials (OI)	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (XPM):	4.0
Organic Matrix (OR):	
Inorganic Matrix (IN):	39.1
Soils (S):	
Total WMP Weight:	51.1

CCP Radiography Data Sheet

Waste Container ID: 94069

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		7/30/2013
Print Name	Signature	Date

NDA 2000 Assay Report

Item Information

Item ID:	94069	Count Sequence Number:	23339
Operator:	D3PW2DK1\operator		
Assay Start:	7/31/2013 11:55:10 AM		
Description 1:	1LANDA1819		
Description 2:	N/A		
Location:	LANL TA-54		
Comment:	AK-6		
Matrix Type:	Homo Sol. S3000		
Container Type:	55 gallon drum		
Weight:	Net: 51.1 kg	Net:	51.1 kg
Container:	Volume: 208.0 l	Full:	35.0 %
Density:	0.700 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: 23339
Assay Instrument: MCS HENC #1
Analysis Method: CCP-TP-063 v 14
Item ID: 94069

Batch Number: 1LANDA1819
Location: LANL TA-54
Software Version: NDA 2000 V.4.0
Analysis Date: 7/31/2013

Net Weight	51100.0 g		
Pu mass	7.49E+001	+-	1.10E+001 g
TRU Alpha Activity	7.94E+000	+-	1.48E+000 Ci
TRU Activity Concentration	1.55E+005	+-	2.89E+004 nCi/g
Pu-239 Equivalent Activity	8.10E+000	+-	1.48E+000 Ci
Pu-239 FGE	7.06E+001	+-	1.03E+001 g
Decay heat	2.53E-001	+-	4.85E-002 W

Nuclide	Mass g	Activity Ci	Activity Uncert. Ci	MDA Ci
NP237	6.29E-002	4.43E-005	8.23E-006	2.82E-006
PU238	6.86E-003	1.17E-001	1.72E-002	3.35E-005
PU239	7.03E+001	4.36E+000	6.38E-001	1.25E-003
PU240	4.50E+000	1.02E+000	1.49E-001	2.92E-004
AM241	7.10E-001	2.44E+000	1.32E+000	6.85E-002
PU241	8.71E-002	8.97E+000	1.31E+000	2.56E-003
PU242	1.50E-002	5.93E-005	8.67E-006	0.00E+000
SR90	<LLD	<LLD	0.00E+000	0.00E+000
CS137	<LLD	<LLD	0.00E+000	5.55E-007
U233	<LLD	<LLD	0.00E+000	7.14E-003
U234	<LLD	<LLD	0.00E+000	0.00E+000
U235	0.00E+000	0.00E+000	0.00E+000	1.90E-006
U238	<LLD	<LLD	0.00E+000	1.35E-005
AM243	3.26E-003	6.53E-004	1.22E-004	9.04E-006

Errors quoted at 1.000 sigma

Operator: [signature] Date: 8-2-13

ITR: [signature] Date: 8/5/13

Automated Independent Technical Review

Count Sequence Number: 23339 Batch Number: 1LANDA1819
Counter ID: MCS HENC #1
Container ID: 94069
Waste Matrix Code: Homo Sol. S3000 Count Type:
Sequence Type: Assay Date: 7/31/2013

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	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.
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: 8-1-13

Attachment 4 – Flammable Gas Analysis Form

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

Waste Container ID: **94069**

BDR Number: **LA13FG12070**

Sampling Date: **8/1/2013**

CAS NUMBER	COMPOUND	Measured ppmv	Reporting Flag
1333-74-0	Hydrogen	193.24	
74-82-8	Methane	9.63	U
67-56-1	Methanol	N/A	U
60-29-7	Ethyl Ether	N/A	U
75-35-4	1,1-Dichloroethylene	N/A	U
67-64-1	Acetone	N/A	U
75-34-3	1,1-Dichloroethane	N/A	U
156-59-2	cis-1,2-Dichloroethene	N/A	U
78-93-3	Methyl ethyl ketone	N/A	U
110-82-7	Cyclohexane	N/A	U
71-43-2	Benzene	N/A	U
107-06-2	1,2-Dichloroethane	N/A	U
71-36-3	1-Butanol	N/A	U
108-10-1	Methyl isobutyl ketone	N/A	U
108-88-3	Toluene	N/A	U
108-90-7	Chlorobenzene	N/A	U
100-41-4	Ethylbenzene	N/A	U
108-38-3/106-42-3	m- and p-Xylene	N/A	U
95-47-6	o-Xylene	N/A	U
108-67-8	1,3,5-Trimethylbenzene	N/A	U
95-63-6	1,2,4-Trimethylbenzene	N/A	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\130801c\
Data File : 94069.D
Acq On : 1 Aug 2013 1:52 pm (#1); 1 Aug 2013 1:50 pm (#2)
Operator : SA
Sample :
Misc : 55 GALLON DRUM THROUGH FILTER-NucFil-019DS (Sig #1); (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 01 14:25:56 2013
Quant Method : C:\msdchem\1\METHODS\H2-CH4.M
Quant Title : Flammable Gas Analysis for Transportation Only
QLast Update : Thu May 23 08:37:45 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Target Compounds						Qvalue
1) Hydrogen	1.903	GC1	55122m	193.24	ppmv	

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

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